The place of play in twenty-first century classrooms

Evidence and approaches

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> *Academically regimented classrooms frequently engender withdrawal, rebellion, and emotional meltdowns that place children on a tragic path of educational failure at a very young age*

Do our current ways of teaching our young children actually foster the development of effective skills and dispositions for twenty-first century living? A number of authors, (Pink, 2005; Golinkoff & Sharp 2009), have commented that solutions to the issues associated with the rapid development of knowledge in the twenty-first century, issues and problems involved in environmental sustainability and issues of national security, will require answers from individuals who have the ability to communicate, collaborate, think critically, be creative and innovative, confidently approach challenges and have content knowledge (Golinkoff & Sharp, 2009, p. 6). They identify these skills as being the ones that our 3 to 6-year-olds will need to acquire during their education, in order to be successful in their adult lives. Children of the twenty-first century need to go beyond the basic skills, they need to develop skills and dispositions that will enable them to become learners throughout their entire life (Hirsh-Pasek, Golinkoff, Berk & Singer, 2009, p. 15). As teachers of 3 to 6-year-olds we need to ask ourselves, "What pedagogical approaches should I employ that will enable the children in my classroom to acquire the knowledge and skills for success in the twenty-first century?" To answer this question this article explores current thinking and research.

Believe it or not, the best way teachers can foster the development of skills for twenty-first century success, is through play-based curriculums! Through a preschool day that offers both free and guided play (Golinkoff & Sharp 2009, p. 12). Through a curriculum that provides "extensive opportunities for children to direct their own learning in a well resourced, well facilitated environment" (Lawrence, 2009, p. 6). A curriculum that uses teachable moments to develop academic skills during symbolic play, construction play, games with rules, open ended research and the "exploration of natural materials" (Targowska, 2008, p. 25).

Why a play-based curriculum?

Exemplary practice supports the strategy of a play-based curriculum due to accumulated research findings, reinforcing that:

- children willingly work at a level beyond their current developmental level in their zone of proximal development during play, considered to be at a level not usually seen in their non-play activities (Hirsh-Pasek, Golinkoff, Berk & Singer, 2009, p. 14.);
- play is intrinsically motivating (Targowska, 2008);
- "academically regimented classrooms, with their repetitive, boring tasks, that exceed the attention spans and patience of 3 to 5-year-olds, frequently engender withdrawal, rebellion, and emotional meltdowns that place children on a tragic path of educational failure at a very young age" (Hirsh-Pasek, Golinkoff, Berk & Singer, 2009, p. 11);
- children often become anxious and stressed as a result of over management (Elkind, 2001), raising cortisol levels and inhibiting their ability to learn (Sims, 2008);
- children assimilate and accommodate information in a hands-on concrete manner during play, thus strengthening and developing their cognitive competence through "countless opportunities for sustained attention,… symbolic representation, memory development and hypothesis testing" (Hirsh-Pasek, Golinkoff, Berk & Singer, 2009, p. 36.);
- imagination and social interaction decline when adults direct all of the learning experiences (Hirsh-Pasek, et al. 2009, p. 26);
- there is an increased opportunity for children to develop self-regulation, social competence, oral language skills, number, time and spatial under-standing, sensory and aesthetic appreciation during play (Honing, 2007, p. 72; Targowska, 2008, p. 24; Hirsh-Pasek, et al. 2009, p. 18.);
- play develops in children dispositions to learn such as "enthusiasm, curiosity, commitment,

persistence, confidence, cooperation, and reflexivity" (Arthur, 2010, p. 4);
- children develop learning processes such as "problem solving, inquiry, experimentation… researching and investigating" (Arthur, 2010, p. 6) during play;
- focus is on the process rather than on the product during play;
- there is inherent value in stimulating children's ability to wonder together and imagine, to engage in trial and error behaviours, without judgement (Golinkoff & Sharp, 2009);
- in the busyness of twenty-first century family life, children have few opportunities to practise play skills. They are 'managed' from dawn to dusk, own toys that inhibit creativity in play scripts, spend at least two to four hours per day in passive TV, DVD viewing, play computer games that are low in creativity and have pre-determined outcomes, and have limited access to multi-age play partners—"as a result many of the play skills that children were able to learn in the past by observing and imitating their older playmates now have to be modelled and taught by teachers" (Fleer, 2010, p113–114).

Even a cursory perusal of these points helps focus our thinking and legitimises the use of play as a peda-gogical approach in preschool and infant classrooms.

Approaches to curriculum that support play-based learning and development

There are a number of curriculum approaches that undergird successful play-based curriculums. A number are briefly reviewed here; however for more information on each, refer to the references. As you trial them in your own teaching keep in mind that using these approaches successfully takes both time and practice.

A) Plan-do-review

Preschool environments that attractively display and offer for self selection, a wide variety of hands on experiences across all domains, and timetable extended time for children's investigation, support well, opportunities for the plan-do-review strategy of the High / Scope approach (Epstein, 2007); the play plans of Bodrova & Leong (2001); and the progettazione (planning, design) of Reggio Emilia. These strategies support children's planning and imagining by asking them to think about the following questions before they begin their play. What will you do in this play space? What materials will you need and what roles will you take on? How many people will play in this space? What do we already know? What do we need to find out? How can we do this? How can we find out?

Children are then given the time and opportunity to interact and investigate in the play space. This is the doing phase. "Because they are carrying out plans they have made for themselves, preschoolers approach play as a way to accomplish something important to them" (Epstein, 2007, p. 19). Their motivation sustains their effort and scaffolds persistence and problem-solving.

Both during and at the end of the play, it is appropriate for an adult to scaffold the children's reflection and to extend and deepen the play by joining it or asking some of these review questions. How did that happen? Is there another way to do this? Why did that happen? What else do you need? What did you discover? These types of questions help children to build and deepen knowledge, to communicate, think critically, problem solve, be creative, recall procedures and collaborate together, thus scaffolding the skills of confident, articulate and competent learners. This teaching strategy is at the heart of the concept of intentional teaching as defined in the *Early Years Learning Framework for Australia* (EYLF, Council of Australian Governments, 2009). Embedded within the plan-do-review approach is another teaching strategy called sustained shared thinking.

B) Sustained shared thinking

This approach to teaching has been defined as: "two or more individuals working together in an intellectual way to solve a problem, clarify a concept, evaluate an activity, and extend a narrative. Both parties must contribute to the thinking and it must develop and extend the understanding" (Siraj-Blatchford, et al. 2004, cited in Clarke, 2009, p.7).

Children will only enter into this type of thinking when they feel respect and support for their ideas from the adults and peers in their class, knowing it is okay to make mistakes. Teachers must then give children the time, to "become engrossed, work in-depth, to plan and reflect" (Clarke, 2010, p. 22, p.46), time to complete their chosen play projects and opportunities to express their ideas. Learning participants need to model thinking behaviours and the language of thinking—enquiring, reasoning, predicting, evaluating, problem solving and creativity (Clarke, 2010, p. 10, 42). It is also vital that children are given opportunity to develop a sense of ownership of the play project because ownership fosters intrinsic motivation and the dispositions to learn.

The educators of Reggio Emilia add another layer to the process of sustained shared thinking that they call the "100 languages" (Rinaldi & Moss, 2004). This teaching approach encourages children to investigate the topic in another mode, for example clay, drawing, ICT technologies, collage, drama,

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or painting; thus extending, deepening and often reframing the investigation. For example a child may create a complex block construction during their play. A teacher using the '100 languages' approach would talk to the child commenting on the construction techniques, ask questions, perhaps take a photo of it and suggest that the child might dictate and record a story about their construction; or suggest as an alternative that the child use drawing materials to record their construction. All of these strategies help to progressively extend and deepen the investigation, resulting in sustained shared thinking, ongoing or reframed future constructions and learning that combines to affirm the child's thinking and creativity.

As the play investigation unfolds teachers can continue to intentionally show interest, clarify ideas, ask open ended questions, provide materials, and record in depth observations forming documentation, in an attempt to make the children's thinking and learning visible to both adults and children. Emergent curriculum strategies, extended projects and plan-do-review sessions, 'thinking hat' strategies, jottings and learning stories, all scaffold opportunities for sustained shared thinking. The power of sustained shared thinking lies in its ability to foster in children the dispositions and processes to learn that are so vital to success in twenty-first century life.

C) Problem solving
Problem solving is a process that occurs naturally in play and daily life. It is also a skill that teachers can incorporate intentionally into their curriculum to foster in young children the dispositions to learn,. They do this by using play as a mediating tool to extend children's thinking (White, 2008, p. 26) through problem posing and solving during sustained shared thinking.

Being aware of the processes of problem solving helps teachers to make the most of the potential of teachable moments to scaffold children's metacognition. Interactions can promote progressively focusing, widening or deepening ways of thinking (Fabian & Dunlop, cited in Moyles, 2005, p. 229). Skilful open-ended questioning, wondering and intentional modelling lie at the heart of this pedagogy and when used help children identify the problem, discover what is already known about the issue and scaffold a suggested hypothesis for forming a solution to the problem:
- What do you want to happen?
- What will happen if?
- What could you do first / next / then / after?
- How could we?
- What do you think?
- Can we find another way?

> *Teachers can intentionally incorporate problem solving into their curriculum using play as a mediating tool to extend children's thinking*

- I wonder if....? (Martin, 2009, p. 16).

When teachers place familiar objects in different places, remove a piece of essential equipment, ask open-ended questions during storytime, seek children's solutions to the day to day problems of the preschool and use problem cards, they allow children the time and opportunity to develop this important life skill. This teaching approach is one way to harness the potential of the environment as the third teacher.

D) Environment as the third teacher
The environment has the potential to become the third teacher when:
- Teachers provision it in such a way that children are empowered to locate use and return materials independently, without close adult direction;
- Diverse items are stored in matching containers in specialist areas, so enabling children to focus on the contents and support making choices;
- Children are given the time and opportunity to interact with the materials without step by step teacher direction, (Walker, 2007);
- Materials are positioned in smaller well defined spaces, to scaffold concentration, independence and more in depth investigation;
- Materials are presented aesthetically to invite interaction with the materials, fostering a child's curiosity, engagement and innovation;
- Materials are offered as both individual and shared experiences;
- Materials used in ongoing projects are able to be left in place rather than packed away at the end of a session (Curtis & Carter, 2008; Epstein, 2007; Walker, 2007).

The potential of the environment to act as a teacher is further enhanced when teachers provide materials and opportunities for children to record and keep track of their learning, such as clipboards, and digital cameras. This scaffolds children's revisiting and celebration of learning and social construction of knowledge. The discussions that emerge from the resources also enrich opportunities for communication and critical thinking. In this type of environment children become confident and capable learners.

Once the environment has been provisioned in this way it is vital that teachers maximise its potential for learning by remaining available for discussion, showing interest in children's play, being enthusiastic about their play, modelling research strategies to solve the unknown and bringing their imagination to the play scenario (Lubawy, 2010, p. 15). In short we need to remain 'hands on' rather than involve ourselves in housekeeping, record keeping and socialising with co-workers and parents.

E) Dramatic play

When children engage in dramatic play they act out roles, interact with and negotiate with peers, and plan play scenarios. As they do this, they use more complicated grammatical and pragmatic forms of language than is usual for them in normal conversations, because they are modelling the behaviour of significant others. At the same time they become more skilled in inhibiting their impulses, and negotiating plots and roles, thus strengthening their self-regulation skills in combination with language skills.

This type of play also develops children's thinking, imagination and the social skills of communication, cooperation and perspective taking. It scaffolds sustained shared attention, memory, reflection and the understanding of emotions (Copple & Bredekamp, 2009, p. 132). During dramatic play, sandpit play, water play, clay and play dough play, and construction play, children encounter many opportunities to learn about spatial relationships and quantity, pattern, shape and numeracy. Astute teachers will take the opportunities presented in these types of play to notice and record the children's meaning making and to engage in sustained shared thinking with them; thus catching and making the most of a teachable moment in the child's zone of proximal development.

Dramatic play also helps children to understand themselves and their culture, allowing them to feel a sense of wellbeing and agency (Bodrova & Leong, 2003), both of which are foundational for healthy emotional development and the development of resilience in children. The importance of this sense of wellbeing cannot be overemphasised as an important life skill for the twenty-first century, because, "without a strong sense of wellbeing it is difficult to have a sense of 'belonging', to trust others and to feel confident in 'being', and to optimistically engage in experiences that contribute to 'becoming'" (Council of Australian Governments, 2009, p. 30).

The benefits of dramatic play dissipate when children engage in role play of known DVDs, and TV shows, with realistic props. When this occurs, the plot, roles and props are set; imagination and language are restricted. Previewed play scenarios are repeated over and over and limited by the recalled script, rather than used creatively by being invented, modified and extended upon (Bordova & Leong, 2003, p. 11).

F) Projects and emergent curriculum

Three approaches to curriculum that further support play-based learning are projects, emergent curriculum and *progettazione*. All fall within the definition of the Early Years Learning Framework (2009, p. 15) definition of intentional teaching. All three approaches have these beliefs in common:

- Curriculum is child centred and based on the needs, strengths and interests of the child;
- Curriculum is integrated across domains and between home and centre, educating the whole child;
- Curriculum is hands on and sensory as "children learn and construct meaning as they act upon objects in space and time" (McLachlan, Fleer & Edwards, 2010, p. 17);
- Curriculum is negotiated, emergent and play-based;
- Curriculum is strongly grounded in multiple intelligences and the 100 languages of children, co-operative grouping, and Bloom's taxonomy;
- Teachers carefully observe the child in an attempt to know as much as possible about their knowledge, interests and learning styles, so that they can intentionally provision the environment and guide the curriculum to support the child's learning in their zone of proximal development;
- A teacher's role is to support, encourage, reflect, hypothesise, problematise, add content knowledge at teachable moments, and co-construct with the child, as the project unfolds.

All three approaches are also strongly based on a view of the child as a strong and capable learner, who constructs as well as co-constructs knowledge, understanding and meaning while interacting with the provisions, ideas and people within their preschool, family and community. All three approaches consciously develop in children dispositions to learn, and the skills we have already identified as the skills our preschool children will need for success in the twenty-first century.

Each approach has a number of unique elements which predominantly reflect the nature of either the teacher's or child's role in the project, and subtle differences in how knowledge is acquired, as well as beliefs in what knowledge and skills are of most worth. A discussion of each of these is beyond the scope of this article. It is sufficient to say that the efficacy of a play-based curriculum is strengthened when emergent projects are used to support children's meaning making.

Observing, documenting and assessing play-based curriculum

Undergirding play-based curriculum lies the "pedagogy of listening" (Rinaldi, 2001), that is the adult's active participation in careful observation, documentation and assessment. When teachers and parents observe the child at play, listen to their conversations, record their actions and conversations, and use their professional knowledge to reflect on and interpret what they see and hear, they position

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themselves to respond to the child's meaning making by supporting the child's learning and development through co-construction of play-based provisions and experiences. This process, when supported by documentation, makes the child's learning visible to their parents and peers. The pedagogy of listening also requires teachers to be open to change, be willing to suspend judgement, use all of their senses to listen, and to value the unknown (Rinaldi, 2001, p. 81).

There are a number of methods that can be used to observe and record children's play including:
a) anecdotal observations – which focus on recording vignettes of what a child does and how they do it and using the data to interpret the child's development, strengths, needs and interests;
b) running records – are a serial form of anecdotal records, recorded at regular intervals of three to five minutes over a short time period, then reviewed to interpret the attributes of children's play over an extended period;
c) jottings – record short snippets of conversation or actions, and are used by teachers to jog their memory about a child's development or meaning making. Jottings may form the bare bones of a future anecdote or documentation statement, or alternatively provide the evidence for a mark on a checklist of skills;
d) documentation – may incorporate a vignette, digital image or sample of work. Documentation is the process of observing children closely during their engage-ment with experiences and provisions, to record their actions and conversations, and using these records to revisit, reconstruct, analyse and deconstruct the experience for the purpose of gaining information for future pedagogical decisions, as well as for display and consultation with the child's family and peers (Rinaldi, 2004).

The aim of observing and recording play is to "foster learning", modify the "learning-teacher relationship" (Rinaldi, 2004, p. 78) and make the child's learning visible. Arthur, Beecher, Death, Dockett and Farmer (2005) call documentation "snapshots of the child's tangible achievements" (p. 220). When teachers and parents use these snapshots to discuss the child's learning and development it "helps them to see things from different perspectives, allowing each…to transcend the limitations of their own points of view" (Curtis & Carter, 2000, p. xiii).

When documentation is shared with the children who are the subjects of the observations, it powerfully affirms each child's ideas and actions. These children sense the adult's celebration of their learning through their interest, respect and enthusiasm. This process allows each child to revisit the experience, often motivating them to further

> **Children sense the adult's celebration of their learning through their interest, respect and enthusiasm**

thought and interaction, thus deepening investigation and understanding of the play-based curriculum.

What does pedagogical documentation look like?

There is no set format for documentation. It is not a product, rather it is a process and because of this, documentations are published in many formats. Some early childhood professionals choose to display documentation in panels of photos and comments and photocopies of children's drawings with accompanying vignettes, or audio tapes. Others place documentation, beside models and constructions or use photo journals, slide shows, videos, podcasts, portfolios or posters. The methods of displaying documentation are multiple and are only limited by time, cost, creativity and technological expertise.

Deciding what to document comes with experience and a clear understanding of why one is recording this moment. Hobba (2006), advises that teachers refrain from documenting *everything* and focus in depth on just a *few* things. You, as a teacher, know your students best. What is it that you want to find out about them? There are many possible provocations for documentation.

Learning how to document authentically is a professional journey that early childhood educators embark on. It takes time, research, training and experience to hone personal observation skills, to notice and record important and useful vignettes of children's meaning making. Other factors that contribute to good documentations are time to reflect, write, revisit and produce documentation, and an atmosphere of support, collaboration and open discussion between professional peers. The reward for children, teachers and families is the strong enabled development of a pedagogy of relationships and listening formed in conjunction with a mutual under-standing of the child's strengths, needs and interest.

The concepts discussed indicate that successful play-based curricula rely on the interactions between, a number of complex pedagogical skills and processes: plan-do-review, sustained shared thinking and problem solving, negotiated and emergent planning, open-ended provisions, carefully considered and aesthetically pleasing environments, and the pedagogy of listening. Early childhood educators of 0 to 6-year-olds need to harness the wisdom and findings of decades of child development research, as well as the findings of the last decade of neuroscience and use them to inform our pedagogical practice. Teachers can and should deliberately and thoughtfully intertwine developmental indicators, learning outcomes from

Tools of pedagogical documentation

- Digital and video cameras—quickly capture and store images of action and samples of work.
- Cassette and digital voice recorders—capture conversations freeing adults to enter the conversation during the action.
- Paper and pencil—record key phrases from conversations manually.
- Samples of work and artistic creations—provide concrete evidence of the child's meaning-making.

What pedagogical documentation is NOT

- Teacher narratives or anecdotal observations, photo and teacher comment and interpretation devoid of the child's voice.
- Pictures or slide shows displayed without comment.
- A page displayed to parents entitled *Today We...*
- Pictures accompanied with a list of development indicators and QIAS principles.

framework and syllabus documents, and observation practices that listen to children and make their thinking visible to interested adults, with play-based emergent and negotiated curriculums. It may well require movement out of personal comfort zones. The value of these processes is in enabling the children in our care, to move beyond basic skills, to become creative thinkers who are both socially adept and academically competent, children who have also acquired skills and dispositions for success in life. The evidence for play-based approaches to curriculum for this age group is considerable and reliable—children learn best through play! TEACH

Learning to document authentically is a professional journey that takes time, research, training and experience

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