LEARNING THROUGH PLAY

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Introduction

In the recent review of preschool education, “play” came into the pedagogical limelight. Sandra Davie (2003) of the Straits Times reported in an article “Preschool Plan Puts Play on Top”:

Kindergarten classes are about to get more noisy, and teachers will stop standing at the front issuing orders and dishing out worksheets. Children will be encouraged to ask questions and talk to their classmates. And they will not have to turn in practice-perfect handwriting or neatly coloured drawings. A new programme, developed by the Education Ministry, with help from experts here and in Britain, moves away from what currently happens in many PAP Community Foundation (PCF) kindergartens. All pre-schoolers will soon be taught through play, activity, discovery and experiment - methods already in use at many private kindergartens here. (Davie S., 2003)

Why did the Ministry of Education put “play” on top of the reform agenda?

Pre-school teachers say the new programme may produce children who do not write or colour as neatly as the typical PCF product. But it is likely to turn out more confident children, eager to learn and able to communicate easily with teachers and classmates alike. (Davie S., 2003)

This change was based on the latest research on how children learn:

(The latest research) was tested over the last two years when 1,336 children in 32 PCF kindergartens were divided into two groups, with one group trying out the new curriculum while the other stayed with the old. At the end of the second year, youngsters under the “play” approach were a lot better at problem-solving, which includes matching and pairing items and is important for mastering mathematics. They also had better social skills, were more likely to discuss an activity and share knowledge with classmates, and more likely to speak up and ask questions. They also sharpened their ability to speak English. (Davie S., 2003)

Play is therefore a serious matter that educators have to consider in school programme and pedagogy. The Singapore education system has been famous for its results in mathematics and literacy. However, the curriculum that emphasise heavily on cognitive development relies mainly on drilling and repetitions. With the emphasis on developing student creativity, schools in Singapore should “think out of the box” to use play as a means to learn. This is a challenge to the current mindset among school leaders and teachers that sees play as something that takes place after school hours or during recess time. Curriculum time is about
“study”. Play has no place in the classroom. School leaders and teachers need to see what enormous contributions play can make towards the learning and thinking ability of students, not just at the preschool level but also at primary school level and beyond. This will make learning much more meaningful and pleasurable for students.

When Confucius spoke about learning, he asked, “Is it not a joy?” But when we observe the average student in our classroom, is learning not a task? Is learning not a chore? Learning should be a joyful venture and schools should be a place full of joyful learning. Play as a pedagogical approach will go a long way to help achieve that. If it has been recognised that play can lead to higher levels of learning among preschool children, it is time to plead the case for play in primary and secondary schools.

**Play**

Play is a dynamic and constructive behaviour. It is an essential and integral part of all children’s healthy growth, development, and learning across all ages, domains, and cultures. It is a key facilitator for learning and development and reflects the social and cultural contexts in which children live (Fromberg, 1998, 2002).

When children play, they are engaged in a special activity with features that set it apart from other behaviours. Such features include interest, active engagement, conjuring of new ideas, experimentation with possibilities, activities in the physical world and relationships with their peers. In their play, children generate rules for conduct, establish roles and plots, and engage in complex negotiations. They make longer utterances and use more varied vocabulary than when they are not playing (Rubin, Fein & Vandenber, 1983). Play offers children the opportunities for discovery learning and expression of creativity in a manner that is pleasurable to them.

Play is therefore not a trivial, frivolous or purposeless behaviour (Frost et al., 2001; Shore, 1997). In fact play is a serious behaviour that has a powerful influence on learning. Findings from the recent brain research and learning highlight the importance of play (Jensen, 1999, 2000; Shore, 1997). Active brains make permanent neurological connections critical to learning whereas inactive brains do not. When children play, their brains are actively engaged. Research on the brain demonstrates that play is a scaffold for development, a vehicle for increasing neural structures, and a means by which all children practice skills they will need in later life.

Play is the children's unique way of learning about their world. Play also allows children to learn about themselves and how they fit into their world, building on familiar knowledge and deepening their understanding through the recurring cycle of learning that is essential to what all children can understand and do (Erikson, 1963; Fromberg, 1998, 2002; Frost et al., 2001; Johnson et al., 1999; Piaget, 1962). Play is important to children of all age groups.

At the preschool level, children play with other children, talk about common activities, and borrow and lend toys. They have no explicit goals, nor do they make an effort to establish rules (Parten, 1932; Piaget, 1962). But when they build and create with objects, take on imagined roles, and use props to replace an original object, they re-enact events and change details to match their concepts of the world. Through such play, preschool children develop
and refine motor skills. They also develop and use basic academic skills such as counting, reading, and writing, while experiencing the joy of playing.

At the primary level, children play games with their peers (e.g. jump rope; board, card, and computer games) that enhance their coordination and physical prowess, refine their social skills, build concepts such as cooperation and competition, and enable them to demonstrate to themselves and to others their skills, talents, and abilities (Goleman, 1995; McCune & Zanes, 2001). They can even explore and create their own games. Through such games, children practice their growing understanding of numbers, letters and words.

In later childhood and adolescence, play becomes more structured as the children’s orderly thinking and initial socialisation manifest themselves through games with rules, sports clubs and uniformed groups. Through role taking and play in such organisations, they better understand how they fit into the significance and structure of their social, political, and economic systems (Hughes, 1999; Manning, 2002).

To best understand the relationship of play to learning and development, teachers must be knowledgeable about why and how play enhances all children's learning and development. Only then can teachers argue convincingly and make appropriate decisions about providing adequate opportunities and time for all children to play (Fromberg, 1998, 2002; Frost et al., 2001; Johnson et al., 1999; Wolery & McWilliams, 1998).

Play is not wasted time but rather time spent building new knowledge from previous experiences (Piaget, 1962). Children will “master their experiences through continual play, which is actually the most intensive and fruitful learning in their whole life cycle” (Frank, 1968, p. 435). Given the appropriate materials, learning environment, feedback, and challenges, schools can capitalise on the power of play to enhance the learning of their students.

Two Case Studies

This article now describes two case studies of how schools can use play to enhance the learning of their students. The first case study is that of the experience of Kuo Chuan Presbyterian Primary School in its “Learning Play Zone” project and the second is that of the experience of Huamin Primary School in its “Are You Game Enough?” project.

The “Learning Play Zone” at Kuo Chuan Presbyterian Primary School

The “Learning Play Zone” was an innovation project undertaken by Mdm Sharon Ng at Kuo Chuan Presbyterian Primary School as part of her course work for the Leaders in Education Programme (LEP) at the Singapore National Institute of Education from March to September 2002 (The LEP prepares a specially selected group of vice principals and Ministry of Education officers for school leadership, emphasising on knowledge creation and innovation). The aim of the “Learning Play Zone” project was to promote a passion for self-directed learning in the students through play.

The Primary 3E class (class size 40) was selected to participate in the pilot project and a survey was conducted to get a sense of their attitudes towards learning and playing. During the school vacation in June 2002, learning resources and game sets were purchased and the
classroom redecorated to create a more conducive learning environment. In particular, the space behind the classroom was converted to a “play zone”. The project rationale, method and expected impact were presented to the teachers involved during the staff meeting in June 2002. The teachers were convinced to try to change the students’ learning style from a teacher-dependent one to self-initiating, self-modifying and self-directing one, a style possessed by lifelong learners. Mdm Ng trained the teachers involved how to use the games and activities to promote independent and interdependent learning.

The form teacher of Primary 3E selected the last period on Fridays for all the students to learn through playing individually or in groups at the Play Zone. Students also had free access to the Zone after they had completed their schoolwork. For most of the activities, the students were expected to learn to use the materials through reading given instructions or from their friends. They also took turns to maintain the cleanliness of the Zone and ensure that learning materials were packed properly after use.

After each session, students were required to reflect on their experiences in their journals. At the end of the 6-week implementation period, the same survey was conducted to gauge the effectiveness of the project in changing students’ perceptions towards learning.

Through the surveys and the responses in the learning journals, the school came to the following conclusions:

- The students liked “play”.
- After implementing the project, the students liked learning more.
- Students found schooling more fun after the implementation of the project.
- Students realised that besides the teacher, they could learn by themselves or from other sources.

A sample of what the students wrote in their journals:

- I learnt that Joy is kind. When I came late and did not have a chance to play that game, Joy let me give it a try. I feel alive while playing the game.
- I am happy because I have learnt something new.
- I like this game a lot because it needs you to think a little more. I haven’t learnt to play Chinese Chess yet. I would want to know who knows how to play it.
- I learnt that it is not easy to win. I would like to practise and win. I would be happy even though I did not win. It is exciting because you get to win sometimes.
- I like this game because you must think carefully or it is harder when you make mistakes.
- I learnt to be more fair.
- We should cooperate and give our best ideas to get the jeep out.
- I play “Mind Your Steps” with Alvin and we became friends.
- I learnt that in this game, I have to be very clever and patient.
- I learnt that Zephon is good in electrical things and Amanda is very helpful. She taught me how to play this game.

The feedback from the students suggested that they have learnt a lot from the games that could not be found in the text books. Determination, perseverance, responsibility and patience were some values that they internalised from playing independently and together.
with their friends. In addition, social skills, self-discipline and thinking skills were also reinforced. Friendships among different races were also developed through playing together. Before the introduction of the project, there was a perception that play was done during recess and physical education lessons. Work was done during the other core subject periods. The project has affected the way the teachers thought about playing, teaching and learning. After implementing the “Learning Play Zone” project, teachers in the Mathematics Department intended to set up a “Math is Fun” learning centre to facilitate the development of thinking skills. To expand the vocabulary of the students, the teachers in the English Department intended to hold Boggle and Scrabble competitions at school and cluster level in Term 4. A Primary Five teacher who was not involved in the project designed her own “play period” and shared with the other teacher that the students in her class were more disciplined and motivated to complete their schoolwork.

“Are You Game Enough?” at Huamin Primary School

At Huamin Primary School, a weekly Games Day on every Wednesday provided the quality time and a conducive environment for all students to enhance their social and cognitive skills, as well as imagination and creativity through playing. This Games Day was part of an innovation project “Are You Game Enough?” undertaken by Mdm Lim Lan Chin at Huamin Primary School as part of her course work for the Leaders in Education Programme (LEP) at the Singapore National Institute of Education from March to September 2002.

During a Games Day, the students could play fun traditional games or stimulating board games between 12.00pm to 2.00pm while the teachers were at their Contact Time (12.30pm-1.30pm). Twenty Primary 4 and Primary 5 students volunteered to serve as Game Masters, supervised by a few teacher partners. These Game Masters took turns to manage the borrowing and returning of games at the Game Centre. Interested students borrowed the games and played anywhere in the foyer or canteen till they needed to go for other school programmes. The Operations Manager and a parent volunteer also helped to monitor the students during Games Day. The Game Masters and teacher partners met weekly to reflect on how they could better manage the Game Centre, using an action-learning paradigm.

The feedback through interviews from the students and teachers about the Games Day were encouraging. The Games Masters learnt that discipline and hard work were very important ingredients to ensure the success of the Games Day. They took pride in their endeavours and supported one another in the operations.

The students were happy and very supportive of the Games Day and there were many suggestions for more games variety and higher frequency of Games Day. Through the games, the students experienced a good psychological balance of work and play and they built stronger camaraderie with their friends. They were self-directed and spirited. They were able to affirm adults that they could be trusted to do something responsibly with minimal supervision. There were no records of fights, misbehaviours or unpunctuality for all the other school programmes. They were able to work and play harmoniously despite a deliberate lack of structure. Challenging games stretched their thinking and they established their own positive social norms in their systems that were acceptable for one to stay and play as a team.
The principal and staff were very happy with the outcomes of the project and saw playing as a platform for character education where students could develop subtle people skills. The principal has allocated additional resources to the project in response to the strong request by the students to increase the game inventory. The HOD/EL had in fact liaised with local game inventors to develop capacities in the Primary 6 students to create their own games. Such a programme would be an exciting milestone for the school’s maiden journey to patent its very own game, tapping on the rich resources of the school’s English Learning Centre - Bizkids@huamin.com, which could help to nurture and support creative ideas to fruition. The school has begun to explore how interactive learning through games could be integrated into other school programmes, such as Racial Harmony Day and International Friendship Day, more intensively and coherently.

Positive feedback from the parents was another endorsement of school’s effort to nurture their children. They were happy their children could learn in a relaxed and enjoyable manner. They liked the idea of teamwork being weaved into the playing of games. The parents gave feedback that they hoped to see more of such Games Day as they hoped more students would be able to reap the benefit of this novel way of learning beyond the textbook.

**Conclusion**

In both case studies, the school has discovered that play can be a platform for student learning. This has pedagogical significance:

- Play allows students to learn in a spirited manner. Teachers should explore how games could be used to either bring out certain points in a lesson more vividly or bring about learning beyond the classroom.
- There needs to be a mindset shift in educators to break away from the notion that lessons must involve textbooks and worksheets. Only then can the pedagogical potential of play be unleashed.
- Increase the level of respect accorded to currently undervalued activities such as recess, physical education and the arts. These activities are enjoyable or can be made enjoyable and can have a great impact on a student’s overall development and learning.

If students enjoy playing and can learn through the process, then play can be creatively used both in lessons proper to bring about a higher level of interest and learning among students and in any other informal learning setting. Quoting again from Frank as a conclusion, children will “master their experiences through continual play, which is actually the most intensive and fruitful learning in their whole life cycle” (Frank, 1968, p. 435).
References


