BINGO – A Versatile Game for Playful Learning

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Play and games appear to be in opposition to the serious work of teaching and learning within classrooms. They are associated with fun, happiness, joy and laughter all of which seem to have limited or no place within classrooms. Yet, play is deeply connected with learning. According to Dr. Stuart Brown, a pioneer in research on play, humour, games and fantasy are more than just fun. Plenty of play in childhood makes for happy, smart adults -- and keeping it up can make us smarter at any age.

The term *playful learning* was used formally in research by Resnick (1999) and the idea has been developed further since then. Learning can be supported by free play or guided play. Children everywhere, when left to themselves, naturally engage in free play. They explore their surroundings based on their own curiosity and in the company of peers. Such explorations help children discover who they are, what they like or dislike and how the world works. Free play also has the potential to develop both children's cognitive skills and their social skills (Fisher et al., 2010). However, when we have specific learning goals we cannot leave things to chance in the hope that children will naturally encounter appropriate experiences and information during free play.

Guided play is intermediate between free play and direct instruction where teachers structure the play environment to support the learning goal. For example, if the goal is to help children understand numbers, then they can be provided with blocks or beads in various colours and the teacher could go around asking children to say how many beads of a certain colour are there and so on. During guided play if the teacher takes too much control then "it becomes co-opted play, or in some cases the more didactic pedagogical approach of 'direct instruction'." (Hassinger-Das et al, 2016) In my experience, teachers easily slip into the control mode during guided play and this becomes counter-productive. In order to support learning, both free play and guided play should provide space for children's agency and autonomy. Adult involvement should be limited to minimal scaffolding. Vygotsky (1933/1978) has shown how pretend play allows children to develop self-regulation and flexibility since children voluntarily abide by self-imposed constraints during such play.

Play involves fun and voluntary involvement of children and learning is fostered because children are active, engaged and socially-interactive and focusing on material that capitalises on their interests and is meaningful to them (Chi, 2009; Hirsh-Pasek et al., 2015, quoted in Hassinger-Das et al., 2016). Play is child-led and when adults take control over the 'fun' activities, they become like chocolate-coated medicine that children are forced to take. In such a situation, the bright eyes of children lose their sparkle and they either become passive or rebellious and neither play nor learning happens effectively.

Hassinger-Das et al (2016) have argued that games involve fun and a sense of curiosity in active, engaging, meaningful and socially interactive contexts and that they belong alongside free play and guided play to form a trio of playful learning experiences. We all have childhood memories of playing games like hide and seek, *lagori* or *langdi-tang* as children. Unlike other forms of play, games involve players in competing according to rules for the purposes of achieving a predetermined outcome within the game's system. Even if the outcome of a game is the same each time, the route to achieve the outcome may change.

Games may be based on choice or chance or a combination of both. Tic-tac-toe, for example, involves only choice and not chance; on the other hand, snakes-and-ladders involves only chance and no choice. More advanced games involve both choice and chance. While playing games, children experience intrinsic motivation and interactivity. If the game has an appropriate balance between difficulty and children's skill levels it presents a challenge that is similar to scaffolding by teachers or other adults. Overall, games feature play elements

like fun and a sense of curiosity to keep children engaged.

The way in which games incorporate rules and procedures is compatible with playful learning. During games children's action and chance impact the outcomes and when adults play with children they can provide some scaffolding to help children understand the rules of the game. Unlike in the case of direct instruction, the child retains control and agency during game playing. 'For example, in board games, there is often excitement associated with spinning the spinner because of the unpredictability of the situation. In this context, the adult has as little control as the child.' (Hassinger-Das et al., 2016, p 197. Games that specifically incorporate academic content or skill- building would obviously provide opportunities for playful learning. Researchers focusing on digital games have already created a term for games designed for learning – 'serious games'.

With the goal of making learning more playful let me introduce a game that is simple but versatile in the way it can be adapted for different content – Bingo. Some of you may be familiar with the party version of this game called *Housie* or *Tambola*. One person calls out random numbers while participants have record sheets in front of them with a selection of fifteen numbers. The person to win a game is the first person to have all of their numbers called. They call out *Bingo* and win the game. Three different adaptations of the game for use in the classroom are presented below:

1. **Picture Bingo:** This can be used with young children learning a new language. Decide on a list of 25 words for objects/animals/fruits/ birds that you want children to be familiar with. Write each name on an index card. This step is not required if flashcards are already available. For each child prepare a sheet with 3 X 3 grid of 9 squares. Each square should have a picture of any one object from the list. The order of the pictures in each sheet should be different. In order to play the game give each child a sheet and some stones or seeds that can be placed on the picture. Instruct the children to place a stone on the picture if the matching word is called out Shuffle the 20 cards and call out the words one by one. The first child to have stones on all the pictures calls out *Bingo*. You may continue reading out all the cards and thus allow all children to complete. Alternately, you may take back the sheets and shuffle them before distributing them to the children again. Shuffle the set of 25 cards and begin the game again. Two or three children can cooperatively work with a single sheet if the class is large and you don't have time to prepare sheets for each child.
2. **Shapes and solids Bingo:** Write 20 (or more) clues/definitions for different shapes and solid figures on index cards. For example: **Square** - A figure with four equal sides and four right angles; **Sphere**: A solid shaped like a ball etc. Prepare 3X3 grids on hand-out sheets and ask children to fill one name from the list of shapes and solids in each space on the grid. Read out the clues one by one from the index cards and ask students to tick the matching shape on their hand-outs. The process of reading out the definitions, and the students trying to find matches continues until one student correctly ticks all nine words. Check the winner by rereading the definitions/clues used. This step not only keeps everyone honest but also serves as reinforcement and provides an opportunity for students to ask questions.
3. **Periodic Table Bingo:** For this you will need 4X5 grids with names or symbols of elements printed in each square. Each grid should have a different order of elements. Decide beforehand what is the winning combination – for example all elements in the middle row, or all four elements in the corners. You may choose to give your students a periodic table as reference. Each student should also have coloured pieces of paper or plastic discs. Begin by reading clues about the element and allow students about five to ten seconds to mark the appropriate element on their card. Students should listen to the clue, determine if that element is on the card and place a coin, piece of paper, or disc on the indicated symbol. The winner should shout Bingo when he/she has marked the correct pattern of elements on the Bingo card. For younger students you may choose to call out the atomic number of the element and allow the students to reference the periodic table. The more often you play this game the more familiar your students will become with the periodic table of elements.

I hope that many of you will try out some variation of Bingo in your classrooms and get creative with

your adaptations. You will discover like I did, how popular this game is. The internet has plenty of resources for variations on the game and I even found one that had been used for a sociology class (Coco, A, et al., 2001) In my work with teachers I have often taught some version of the game and many a time teachers have reported back with delight about using it in their classrooms! That is an indication that games and fun can and be part of serious teaching. Research also supports the idea that playful learning is often effective.

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Indira is with the School of Education, Azim Premji University. With many years of experience teaching children, post-graduates and teachers, she is convinced that playfulness is essential for learning. While researching for this article she felt vindicated on finding many research papers about playful learning, games and serious games. She hopes that everyone can be lucky enough to find some fun in their lives. She may be contacted at indira@apu.edu.in