Learning the Value of Serious Play

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Teachers are those who use themselves as bridges,
Over which they invite their students to cross;
Then having facilitated their crossing, joyfully collapse,
Encouraging them to create bridges of their own.
—Nikos Kazantzakis

Play is an exceptionally important part of the young child's life, and the value of play in the educational process cannot be underrated.
—Weininger, 1978, 127

Questions

“Young children have the right to learn through play.” (B.C. Ministry of Education, 2000, 33). There is countless documented research indicating that play has value at pre-school and primary levels. However, research on play at the lower intermediate grades is significantly sparse. Where and why has play seemingly disappeared at the lower intermediate levels?

How, I ask, might play be defined? How important is play in the school system? If play does have value for students in intermediate grades, how might it be assessed (given that accountability to the curriculum is paramount for the B. C. Ministry of Education, school
administration, and parents)? Do boys play differently than girls? Do boys react differently than girls under tense situations during play? What exactly is its value? What value does play have at the lower intermediate level? These were some of the questions I had which led me to my research topic, “The Value of Serious Play.”

**Serious Play is…**


For the purpose of my study, my definition of serious play involves students being intrinsically motivated to use educational manipulatives, at an intermediate grade level, where there is a focus and uninterrupted time, thereby allowing students the opportunity to learn. Learning could be in one or more of the following realms: academic (curriculum), social, physical and/or emotional. The value of play is not as easily measurable as students’ achievement in mathematics or other curriculum subjects. Yet there is no denying that play is instrumental in creating a “well-rounded” individual. It enables a child to explore and experiment while building up relations with the world (Dewey, 1916).

The value of play in the educational setting cannot be underrated. The developmental stages of play and their interdependence on learning prove how integral play and play at school are. (Weininger, 1979). My question is: Where is play in the curriculum? And what happens if I introduce time for serious play into my Grade Four classroom?

**The Players**

My research on the value of serious play explores Grade Four student interactions with educational mathematical manipulatives. The class consisted of 28 students (16 female, 12 male), 20 of whom were English as a Second Language learners and multi-ethnic (Chinese, Vietnamese, Punjabi, Polish and Canadian). The classroom is part of an open area where there are three other classes: one Grade Three class, one Grade Three/Four class, and one special-needs class (ages 6-12). The school is located in South-East Vancouver, and is not considered inner city.

**Rules of the Game**

The twenty-eight Grade Four students participating in my study were allowed to choose from any of the fifty games or manipulatives that I made available. Data was collected by using exit slips, interviews, and observations. Exit slips required each participant to complete four short answer questions related to the activity they had just completed. I interviewed three participants after each session, using a questionnaire sheet consisting of four questions, and I did anecdotal observations during all nine sessions. The sessions were one hour each, three days per week, for three weeks. All the manipulatives (mathematical educational materials) were stored on a wheeled shelf cart.

Initially, I began my research by photocopying all pertinent data sheets including a grid sheet which I thought would help in my observations. The grid was on an 11x17 sheet with all the students’ names at the top corner of each square. Each square was 5cm x 5cm and each sheet had a series of symbols running vertically along the left side. There was a legend corresponding to the symbols:
I had nine of these photocopied grids for each of the nine sessions. I quickly realized that my observation sheet was too cumbersome. All the participants’ names were listed alphabetically, but it took too long for me to navigate through the grid. I abandoned the grid and opted for anecdotal real-time observations and field notetaking. I felt there was more “flow” to capturing the data with this approach compared to the grid.

All sessions of serious play were one hour long, including the set-up and clean up, answering of exit slips, and conducting the interviews. The only rule stated at the beginning of the research project was, “You can’t tell someone they can’t play.” After all nine sessions, I analyzed the data.

Serious Play at Work…a curricular interruption

After our first session of play time with the manipulatives, I felt I needed to establish a curriculum connection to the activities.

“If I am devoting this much time (nine hours)” I said to myself, “I had better appease the curriculum.”

My goal was to encourage my students to make connections between the curriculum and the activities that they were doing during play time. So, before the second session began, I shared an IRP (Integrated Resource Package) overview of all the learning outcomes (LO) in math for Grade Four with my students. (The IRP is a Ministry of Education document in British Columbia that sets out all curriculum criteria per subject and grade level). I went over some of the unfamiliar language with the class.

I wanted my students to make a connection with the math manipulatives and the IRP learning outcomes. For example, one Learning Outcome (LO) is to compare and construct pyramids and prisms. I told my students that if they chose this particular learning outcome as a goal, they would then work with the manipulatives with this concept or information in mind.

In other words, I anticipated that my students would find the concept in their math textbook, read and interpret the information, discuss it with their peers, and experiment with the manipulatives. After each session I would check the number of boxes from the LO sheet I had given them to indicate which learning outcome(s) they perceived they had connected their activity to. In this new scenario, I would document how often I intervened with the participants. For example, I might ask a student, “Can you tell me where in the textbook it mentions prisms and come back and show me?”

My reflections after session two revealed that this approach was not the way I had originally envisioned serious play—it was becoming too structured! However, I continued this structured approach for the next session. And then, before session four began, I did a 180 degrees turn. I realized that I had made this serious play too structured in order to accommodate the curriculum. Upon this realization, I returned to my original design of free time by allowing students to use the manipulatives with no concern for the IRP learning outcomes. On the fifth session, we continued free time with no direct referencing to curriculum connections.
My observations of this session showed that a number of groups built shapes that resembled people and structures, such as homes, buildings, towers. Other groups (boys) constructed spaceships and robots. I recorded in my reflection diary a thought about the possibility of a term’s work, possibly a year’s work, devoted to designing a city and everything to do with it, from infrastructure to politics, economics, sciences, socials which would encompass all curriculum as outlined by the IRPs and engage all participants.

It was also at this half-way point that I looked at the terms “serious play” and “structured play” and their oxymoronic meanings. My dilemma was that I was caught between chaos in the classroom (allowing complete free time) and structured time (no freedom of play). I realized the free time had to be structured and within that structure, I had to allow free time (i.e. freedom). The students (and I) had to learn the rules, expectations, boundaries, and social etiquette of how the free time would be played.

**A Curveball...the researcher engages in manipulative play**

On the sixth and seventh sessions, I began removing some of the manipulatives until only games that involved reading instructions or directions were left. Up until this point I had documented what manipulatives and games were being used, and by whom. Without exception, all boys except one preferred cubes, lego, gogooplex, links, stix—basically anything that could be used to construct a structure. All the girls, except three, predominately used card games, board games, or other games that involved social interaction and cooperation.

At this point I formulated a new set of rules for the games. I wanted to see the reaction of the boys if all the building materials were removed. As I predicted, the boys were not pleased and they “revolted” in subtle ways. Some participants “shut down” and protested by not contributing at all. Others showed their disapproval by attitude or glares. Some boys, however, did make a switch to the board games but when they had to read the instructions or directions, they put the games away and began to doodle. Their exit slips provided further evidence of their displeasure. The girls, on the other hand, took this unexpected deprivation of materials in stride, possibly because their materials were not affected and hence, they were not affected.

Within this same session, I decided to further press another hypothesis. What would happen if I took all the games away except one? Who would be affected more, the boys or the girls? As this process of manipulating the materials accelerated, the boys continued their rapid descent into displeasure, while the girls easily accommodated to the change and initiated social interactive play. For example, slap-hand chant games (probably learned from the playground) were played by the girls. When the boys noticed this, some of them began to play “rock, paper, scissors” and other social games.

As I manipulated the accessibility of the manipulatives and games to the point of having no materials available, it became apparent to me, based on my sense of the atmosphere in the classroom, that a chaotic, anarchic, rebellious, angry mood was in the process of materializing. I heard statements such as “this sucks,” and “this is stupid” from the boys. Also the body language of the boys showed their discontent through crossed-arms and cross brows. I also saw a competitive environment beginning to emerge:

“We got here first!”
“Can we play?”
“No!”
“There’s too many people!”

My manipulations resulted in a measured calculation:

**No games = no fun = no learning = discontent = conflict = tension.**

I intervened and quickly replaced the games to prevent a “riot.” When all the games were restocked I immediately observed smiles, laughing, giggling and I noticed how much quieter the room had become. Therefore, I came to this simple observation:

**A lot of games = fun = learning = contentment = harmony.**

The unsettledness of the classroom, (when there were no games), and the calmness of the classroom (when there were games), was largely influenced by the behaviour of the male participants.

I categorized the collected data from the exit slips, interview sheets and observations into the following:

1. The boys predominately played with manipulatives that involved constructing: cubes, stix, gogooplex, connect, etc. When the materials were removed in session six, the boys became angry and unsettled. They were not as readily able as the girls to adapt to what they perceived as an “unfair” change in the situation.

2. The girls predominately played social interactive card and board games. The girls were not as dependent upon the materials in order to “play,” adjusting to the new situation with a minimum of expressed displeasure or complaint.

**Outside of the Ballpark**

I began this research to explore the value of serious play. By the very definition of the word “explore,” I realized I wasn’t sure where my research would lead me. Curiosity caused me to tamper with the availability of the manipulatives and games which in turn brought me to the following unexpected discoveries.

The students rated each session on a scale from 1-5. If they really enjoyed a play session they rated it high (5). If they didn’t enjoy a session they rated it low (1). Although the average score for the males and females were almost identical (female 4.01; male 3.99), there were significantly greater degrees of change in the scores between individual sessions.

The following chart shows how much change (%) the genders had in their rating of each session; that is, how much they liked or disliked the session. The chart indicates that the males had significantly greater changes in their scores from one session to the next than the girls did.

<table>
<thead>
<tr>
<th>% change From Session:</th>
<th>Session</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td>+45%</td>
<td>+43%</td>
<td>-53%</td>
<td>+48%</td>
<td>-27%</td>
<td>54%</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td>-49%</td>
<td>+29%</td>
<td>+26%</td>
<td>-34%</td>
<td>-26%</td>
<td>+10%</td>
</tr>
</tbody>
</table>

Starting on the sixth session, when I began removing the manipulatives that the boys had been using, the boys’ response, based on the rating scale I had devised (how they perceived the session), was the most extreme drop (53%) of any session. As was evident from their
score, they showed a significant disapproval of the session. On the seventh session, I left the remaining boys’ materials intact and removed some of the girls’ materials. As is evident in the table above, the girls showed displeasure in their score with a decrease of 34% for session seven.

Why were the girls able to accommodate to the change while the boys became stuck in what I perceived to be a “fight or flight” mode (Taylor, 2000)? My interpretation of this is that the boys were unable to “switch off” their discontent (a stressor). When the construction materials were eliminated (cubes, blocks, lego, gogoplex) the boys were not able to move along; they did not adapt to the new situation easily, but instead complained or sulked in response. The girls on the other hand, seemed to be able to accommodate easily to the change when their materials were removed. They were able to adjust and simply began social games that didn’t require manipulatives.

A new term, “tend-and-befriend,” characterizes female responses to stress differently from the reactions of male that are characterized as “fight-or-flight.” (Taylor et. al., 2000). “The “tend-and-befriend” behaviour involves females’ nurturance, under stressful circumstances, and the exhibition of behaviors that protect them from harm (i.e. tending), and befriending —namely, creating and joining social groups for the exchange of resources and protection. The “tend-and-befriend” pattern of behaviour likely is maintained not only by sex-linked, neuroendocrine responses to stress but also by social and cultural roles as well (Taylor et. al., 2000, 411-29).

This “tend and befriend” response was evident in the females in my research when they were exposed to a stressor-tense situation (removal of key materials). I observed this “tend and befriend” response from the girls and the “fight or flight” response from the boys during my observations of the “tense situation” during Session Six for the boys and Session Seven for the girls.

If there were quality educational manipulatives made available for “play” at the lower intermediate grade level, would there be an increase in the emotional, physical, social, and generally, overall, well-being of individual students? What learning occurred? The following comments are some of the responses of my students when asked what they learned after playing with manipulatives during “play time.”

“I learned …

—how to make instructions
—how to make stuff
—new words
—inventing
—how to use my imagination
—shapes, volume
—constructing
—how to be fair
—sharing, helping, creating, fun.”

Is there value in these students’ responses? Absolutely, there is value. Many of these responses are viable learning outcomes from a prescribed curriculum-perspective. As educators we are mandated by curriculum, however, we are not bound to it. Nor should we allow ourselves nor our students to be overwhelmed by perceived curricular demands.

It is actually preferable to cover somewhat less material, investing the time thereby freed to foster the transfer of that material, than to cover somewhat more and leave it context-bound. After all, who needs context-bound knowledge that shows itself only within the confines of a particular class period, a final essay, a term’s final exam? In the long haul, there is no point to such instruction (Perkins, 1986, 5).

Provincial testing begins at Grade Four, but we cannot become so “curriculum-driven” that we ignore the other aspects that make up a “well-rounded” child: These students’ responses show the emotional and social value of “play time.”

**After the Game**

Does serious play offer curricular opportunities? Glancing back through my reflection journal, I pause at my entry on the last day. The final session was very interactive and very quiet. All the participants were engaged in manipulatives and were working together. They were all constructing structures or had a theme of “living arrangement” whether it was a house, castle, space-station. If more time had been available, (i.e. a larger block of uninterrupted time), I think the participants’ use of the materials could have been subtly directed into constructing a “city,” or Space lab. By allowing my students to play, and by giving them control over their environment, I saw a glimpse of what they may have desired to construct—a “community.”

I wonder, if the participants had been given full reign to engage in “free play” and encouraged to extend philosophical concepts (with direction and facilitation), would a utopian-like community evolve? Would their community have fair laws, be environmentally sound, practice conservation, and respect democracy? All aspects of living could be connected to all curriculum areas—this type of curricular play serious play—would be child-directed, with child-directed criteria.

**The Scoresheet**

Play is not restricted, it is not circumscribed, but it is rather through play that the child works upon his understanding of the world around him. Play encourages the development of the cognitive map.


According to Howard Gardner’s multiple intelligence theory, children learn in many styles: spatially, musically, kinesthetically, interpersonally, intrapersonally, linguistically, mathematically, and naturalistically. Play, at the lower intermediate level can be a tool where many styles of learning could be accomplished. Play has been proven to be essential for many primary children (Grades K-Three).

Yet, when a child enters Grade Four in September, (after being out of “primary level” for a short two month summer vacation), nothing in the curriculum addresses play. I’m proposing
that the jump from primary to intermediate (Grade Four) should take play into consideration.

Play does have value as a pedagogical experience, as evident from the students’ responses to their learning from the play sessions. Play also allows the facilitator/teacher to help individual children deal with the uncertainties in life: how to not “fight or flight” but rather to identify and resolve the feelings or issues or concerns arising from play. My findings also showed that providing a variety of quality, educational manipulatives results in a positive climate and supportive environment where learning occurs.

Relationships for children evolve around play. Grade Four children need a safe and secure arena to play, discover and learn, in any realm—be it physically, emotionally, or academically. Does play at the school level have value? Does it have intrinsic worth?

Well, I, for one, would say play does have value—almost to the point that you cannot put a price or cost to it—it is priceless.

Our goal as educators is to motivate children to learn. A child explores, experiments, and makes sense of the world and his or her place in it through play (Scarfe, 1963). If play is one “domain” to accomplish this learning, why not use it as an important cognitive role in learning?

Reflections of a teacher-researcher a year later

This past year has not allowed me to be in the classroom, due to a herniated disc. However, I have had the opportunity to reflect on my research. Curriculum is dynamic and influenced by political climates. However, children's need to play and interact with others always has been and, always will be a critical part of their learning and socialization. Order and structure is not only required, but necessary, to facilitate learning in the classroom. Yet this needs to be balanced with a “play time” for both primary and intermediate-level children—not just recess and lunch on the playground, but with a commitment to some allotted time in the classroom—where the kids feel safe to explore feelings, thoughts, ideas.

The climate inside the school is usually different from the climate which exists outside on the playground. The opportunity for children to “play” while at school is, for the most part unmonitored, and usually only noticed when someone gets hurt or attention is brought to the activity. Bullying—physical, social, and other ways—is most times, undetected. A structured, monitored environment, where rules are inherent, would allow children to feel safe and play collaboratively. This classroom “play time” may help lower intermediate children work through difficult situations, and instead of reacting negatively (to numerous situations), they would have an established environment where they could be “walked-through” alternate actions.

References:


British Columbia Ministry of Education. (2000). *The primary program: A framework for*
teaching. Victoria: British Columbia Ministry of Education.


UNESCO Courier; May 91, Vol. 44 Issue 5, 29. ISSN: 0041-5278


**About the Author**

I have always tried to keep play (and being playful) in my life. Without humour and play I certainly would not be in a healthy, happy marriage with my wife (Stephanie) and our three sons (Dylan, Ryder and Liam). I am fortunate: to “play” baseball and hockey, and, to bring a spirit of play to the classroom—where rules are sometimes crossed (with consequences)—where “respect” is the code and honour is the goal.