Play-based Learning (Land-Based play and inquiry)

Vikrant Katoch, Jessica Ludwig, Madeline Osgarby, and RJ Randhawa

University of Victoria

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Professor Behnoosh Khoramrooz

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Introduction

Play-based learning mainly means to learn while at play. Learning is not essential for an activity to be considered play but is fundamental for play-based learning. To be true play-based learning, the child's play must consist of five elements. The play must be self-chosen, unstructured, and make-believe, the play focuses is process-oriented and does not have the desired outcome, and lastly must be enjoyable (Vogel, M. 2020).

Play-based learning can be of two types -

1. Free-play: Students choose what they want to do without any guidance provided.
2. Guided-play: Teachers deliver some level of guidance and involvement

In a classroom environment, it can be difficult to meet all five elements of Play-based learning (DeLuca, Pyle, Valiquette, LaPointe-McEwan, 2020), due to, but not limited to, curricular requirements, students' needs, and access to resources. The play is unstructured, focuses on students learning throughout the process, with no desired outcome, and is enjoyable for the students playing. An example of an activity that encompasses play-based elements that educators can use is, including manipulatives in math. Using manipulatives in math provides students the opportunity to focus on the process of how they can solve a math equation, provide students with free unstructured trial and error practice, and can make math more engaging and fun for students.

Play-based learning can help in the development of various attributes in the child. Children develop socially and emotionally through play as they imagine the world from a different perspective, understand the differences between themselves and others, learn how to

interact with others, and more. The benefits of play-based learning include cognitive development, physical development, and social-emotional development of the child.

Incorporating play-based learning into the classroom provides students a chance to develop their cognitive, emotional, social, physical, and creative skills (DeLuca, C. et al. 2020) while connecting to the environment around them. Through the use of play, students are able to build skills that they can then apply to both academic (Bubikova-Moan, J., Næss Hjetland, H., & Wollscheid, S. 2019) and social aspects of their life in the future.

Overview of the resource

This learning resource will provide children with the opportunity to explore, inquire and interact in natural environments. By providing an environment with materials and opportunities that interest the child we can engage them in the mechanism of play-based learning. In this learning resource, students will be rotating through learning centers/zones. Each area or zone will focus on a different topic and activity that will support outdoor play and inquiry. At each station, there will be a camera to take pictures of a child performing the task and record the final output. Then those pictures can be later uploaded to a password-protected private WordPress site as a form of feedback for teachers, parents, and children. Parents can access the WordPress site with the password provided to get active feedback from their children.

Description and rationale for the learning theory upon which your resource will be based

The learning theory our resource is based on is constructivism. A constructivist learning design requires student participation in real-world contexts and making meaning out of individual experiences and interactions (Khoramrooz, 2022). The resource that we have made models constructivism as our students are learning through hands-on play from the environment around them. Students will be investigating the local plant species that are native to their

communities, making manipulatives out of objects in their outdoor play spaces, problem solving to choreograph a dance routine, and reading a story about the territory and making art with their hands. According to Chapter 11 of *Foundations of Learning and Instructional Design Technology* "As one moves along the behaviourist-cognitivist-constructivist continuum, the focus of instruction shifts from teaching to learning, from the passive transfer of facts and routines to the active application of ideas to problems" (Ertmer and Newby, 13). In our learning design each of the learning experiences are designed by teachers, however, the hands-on activities require learning from the "real-world". Learning is investigation-based and self-guided by students rather than direct instruction from educators. We chose to design our resource in the constructivist learning theory as constructivism promotes student agency and helps in the development of higher order thinking skills (Bloom's Taxonomy) such as critical thinking, analyzing, evaluation, and creating.

A description and rationale for the learning design you chose

The learning design we chose is inquiry. The inquiry method is designed to trigger curiosities and engage with a child's desire to make sense out of the world around them. In play-based learning, specifically one with a nature focus, our students are exploring their local communities and investigating the space around them. We designed our resource with the inquiry method in mind because we wanted to create a resource that was meaningful and engaging for students who are just entering the schooling system. Through student-centered learning approaches like that of the inquiry method, students are more motivated to learn because it becomes more authentic to them. Through student voice and choice, they are exploring their own questions and learning about what is distinctly important to them. This increases the likelihood of positivity engagement the content and can stimulate a want to further their learning beyond

the classroom. Ultimately, the inquiry approach is beneficial because it supports life-long learners.

A description of your learning context

Our resource is designed for primary students, specifically those in the Kindergarten to grade 1. At this age most student learning comes from observation and investigation into the world around them. We designed a learning resource that would cater to a student's needs at this time in the academic and social-emotional development.

2-4 learning outcomes

1. *How Does Play-Based Learning Help Children?*

   - An opportunity for children to explore, inquire, interact and problem solve in their environments (DeLuca, Pyle, Valiquette, LaPointe-McEwan, 2020; Edwards, 2017). They are able to further develop their cognitive, emotional, social, physical and creative skills (DeLuca, Pyle, Valiquette, LaPointe-McEwan, 2020). For example, self-awareness, language skills, cognitive processes, and self-regulation.

   - Children are provided opportunities and experiences to connect what they already know with new knowledge that is presented to them in their environment (Edwards, 2017).

2. *How Do We Support Children Through Play-Based Learning?*

   - For example, a variety of different spaces where there is sensory time, building area, play areas and so forth.

   - As educators we understand the importance of child-led and adult-guided activities.

3. *How Can We Use Play-Based Learning with Land-Based Learning to Promote Exploration of a Child's Outdoor Surroundings?*

- When provided with land-based opportunities, children are able to explore the natural world and create meaning which is unique to them. They are able to engage and interact with their peers and environments in meaningful ways (Card & Burke, 2021).

Brief commentary about each topic and activity-

Here is the list of different topics and activities with different subject focus that will be part of this learning resource-

1. Frog Girl Read Aloud and Puppet Art Craft
    - **Subject Focus**: Indigenous Education/Art/English Language Arts.
    - **Materials**: Frog Girl by Paul Owen Lewis, paper plates, popsicle sticks, black and red pencil crayons, iPad.
    - **Procedure:**
        - Students will listen to a teacher-led read-aloud of Frog Girl by Paul Owen Lewis.
        - After reading students will think-pair-share with a partner and discuss a connection they can make to the story, or what their favourite part was.
        - Students will share with the class (teacher takes a few raised hands to share).
        - Students will receive a colouring page of a frog in traditional Coast Salish art style, they will colour it black, red, and white.
        - After colouring they will cut out the frog, glue it onto a paper plate folded in half, and glue a popsicle stick on the back creating a puppet.
        - Students will take pictures on the class iPads of their puppets to be uploaded to the class WordPress site in the outdoor inquiry page.

0. Indigenous Plant Exploration and Inquiry
    - **Subject Focus:** Science.

- **Materials:** Plant field guide, pencils, pencil crayons, iPad.
- **Procedure:**
    - Teachers will lead students on a walk through the local forest area.
    - While walking teachers will stop at pre-selected local Indigenous plants and discuss key features such as name, shape, function, fun facts.
    - Students will pick 3-4 of the local Indigenous plants they find to draw and colour in their field guides.
    - Students will take pictures on the class iPads of the plants they find and of their field guides to be uploaded to the class WordPress site in the outdoor play inquiry page.

0. Counting and Creating Patterns Using Manipulatives in Nature

- **Subject Focus:** Math.
- **Materials:** Found manipulatives in nature (sticks, rocks, pinecones, dead leaves), iPad.
- **Procedure:**
    - Students will explore the outdoor area collecting sticks, rocks, pinecones, dead leaves (anything that occurs in nature and is safe to play with).
    - In partners they will create patterns using their found manipulatives.
    - They will count how many manipulatives they collected and arranged.
    - They may experiment with different patterns.
    - Students will take pictures on the class iPads of their patterns to be uploaded to the class WordPress site in the outdoor play inquiry page.

0. Dance

- **Subject Focus:** Physical Education.

- **Materials:** Song (Walking on Sunshine), dancing space, iPad.
- **Procedure:**
    - Students will learn choreography to the selected song.
    - Students will have the opportunity to choreograph their own sections of the selected song.
    - Educators will take pictures and videos on the class iPads of the students dancing to be uploaded to the class WordPress site in the outdoor play inquiry page.

One interactive activity for each learning outcome/topic based on a resource aligned with that topic (blog post, video, article, etc.)

Although the Learning Outcomes and Activities are separated in boxes, many of the activities can fit into multiple of the learning outcomes.

Learning Outcome	Activity
Students are able to explore, problem solve, and interact in the environment around them with their peers.	**Indigenous Plant Exploration and Inquiry** Educators will lead students on a mini forest walk showing students different plants Indigenous to the area. Afterwards students will take their learnings and use it to find Indigenous plants on their own. They will draw, color and *upload their findings to the class WordPress site.*
Students are able to participate and create engaging activities using play-based elements.	**Counting and Creating Patterns Using Manipulatives in Nature** Students will work together to find objects in nature to use as manipulatives. Using the manipulatives, they chose students will create patterns. Students will take *pictures of their patterns that will be posted on the class WordPress site.*
Students are able to create meaning to the natural world around them.	**Frog Girl Read Aloud and Puppet Art Craft** Students will read an Indigenous story and work with peers to find connections that they have to the story. Afterwards students will participate in art craft related to the story and *share their work on the class WordPress site.*
Students are able to grow their social and emotional	**Dance**

skills and how they interact with their peers in a positive manner.	Students will learn choreography to the song “Walking on Sunshine.” Students will then have the opportunity to create their own choreography to sections of the song and to teach other students. Educators will take video of students throughout the activity and *upload the dancing to the class WordPress site.*

An overview of your assessment plan.

To assess students' learning through different activities that incorporate elements of play-based learning. Students assessment is focused on their development of the B.C Curriculum Core Competency outcomes connected in our learning outcomes for this unit. Students will be assessed using both formative and summative assessment.

- Formative Assessment:
    1. Interviews - Students will complete an interview at the end of this unit. The students will be going over how students feel they improved throughout the unit, something they did well with and something they think they still need help with. Students can respond verbally, and the educator will take notes.
    2. Observations - Educators will observe students play. They will take notes regarding their participation in activities, how they play with their peers, and how students are finding the activities in terms of difficulty level.
- Summative Assessments:
- Learners’ final understanding will be evaluated according to proficiency ratings used by the British Columbia Ministry of Education. This assessment model focuses a growth mindset throughout a student's learning journey. Educators will assess students on their development of the learning goals for this unit using the proficiency scale. Our goal in

this assessment is to find where students are on the proficiency scale for these learning outcomes and plan how to help students continue their development.

Proficiency Scale

Proficiency Rating	Justifications
4 - Extending	The student demonstrates a sophisticated understanding of the concepts and competencies relevant to the expected learning.
3 - Proficient	The student demonstrates a complete understanding of the concepts and competencies relevant to the expected learning.
2 - Developing	The student demonstrates a partial understanding of the concepts and competencies relevant to the expected learning.
1 - Emerging	The student demonstrates an initial understanding of the concepts and competencies relevant to the expected learning.

An overview of your plans to design for inclusion of diverse learners

Autism Spectrum Disorder (ASD)

In order to design inclusion for diverse learners such as those with autism spectrum disorder (ASD), we must be knowledgeable of each child's capacities and limitations. We also must be aware of how ASD shows up in the lives of the children we work with. Each child is different and so are their experiences with ASD. We can begin by aiming to provide a design that is welcoming, inclusive and one that celebrates those with diverse abilities (Drifte, 2013). It would be a design that minimizes or eliminates potential barriers for learners. This would be possible by continual check-ins with the child, and their support circle family to ensure their learning goals are met. The design we have created aims to decrease isolation for children with ASD and promote positive peer relationships (Drifte, 2013; Hu, Lee, Watkins, & Jiang, 2021). There would be a focus on increasing self-control, social skills and behavioural issues because we know that learning in early years is critical for children's development (Hu et al.,

2021). It would be vital for an educational assistant to be present or a behaviour interventionist. There would need to be visuals available for children and zones for them to self-regulate or have opportunities for sensory time.

English Language Learner (ELL)

When planning for learners with diverse abilities such as an English language learner (ELL) we must plan for multiple ways of representation. This means our design provides several choices for how the learner is able to access information and materials. Although the learner is ELL there is universal knowledge with visual guides and kinesthetic options. The auditory options might not be as appropriate or accessible for the learner, but we can try our best to learn a few words in the learners language to meet them where they are at. In addition, we would work towards supporting the learners' prior knowledge and provide the necessary skills for them to succeed. We could incorporate the use of google docs to utilise the speech-to-text feature that is able to translate the transcript to a chosen language. If the child is unable to read, we can use google text to speech applications.

A rationale for your technology choices.

We have chosen to use iPad's for our technology choices because they are simple and quick for all to use. They are small enough that children are able to use them, and accessible for educators to use. We have chosen to use WordPress to upload the pictures as it would be accessible for teachers, parents and children to view. Parents will have the ability to get a glimpse into what their child is doing day-to-day. If a family or child does not have access to a computer or tablet, we can provide one at our centre for viewing during drop-off and pick-up times.

A rationale for peer feedback.

After reviewing and discussing the feedback that we received from our peers the group decided what changes we would make to our learning resource. We are keeping the location of where students are getting into nature outside instead of taking them to a botanical garden. This is because we want students to be outside in their local community and they will also be familiar with the area around them. This is because students will already be familiar with the area due to having done activities prior in this area throughout the school year. We will not be adding exams for the assessment of students' learning. This resource was designed for kindergarteners and they will not be ready to complete exams since they will have such different reading and writing capabilities compared to other classmates and age levels. Lastly, for each activity we would be adding in a video to demonstrate the activity that students will be completing. This is because students can follow along or review the instructions if needed. Students will be able to answer their own questions by watching the videos allowing more time for teachers and parent volunteers to circulate more.

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