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**The Hummingbird Approach:  
A Case Study of Guided Discovery Learning for Children in Nature**

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**Strengths**

This is a timely study, as many outdoor programs are being designed and school districts are using nature as the classroom in programs of choice for families. The growing body of research around the importance of nature on our health and well-being combined with our society's growing screen time, support the importance of nature-based programming.

British Columbia's redesigned curriculum with its, "know-do-understand" model, its foundation in First Peoples' Principles of Learning, and its emphasis on the power of inquiry in allowing children to uncover and discover learning, is exemplified in this facilitation method. At the heart of the redesigned curriculum are the core, curricular and content competencies. Wild Craft Play stands as an example of the principles, values, beliefs and methodology of strong practice.

At the basis of the design of this lesson sequence is the "and" conversation. Instead of plotting nature versus gaming, the important elements of environmental education and gamification were integrated. The importance of nature, imagination, while integrating gamification components with the goal of "student engagement" is compelling.

Reading the pages of this learning journey, I felt I could see the author stepping from role play into embracing her identity as a Hummingbird Facilitator. The title sparked my curiosity, I am guessing in the same way the props inspired the learners. Throughout the pages, I was waiting to see the identity and the way of being of the Hummingbird take shape.

**Weaknesses**

For the purposes of the study, a group of eight 8-10-year old's is a small number of children. Many programs and classrooms have two to three times that many students per adult. In looking to transferring the findings of this journey to other program leaders

or educators, the reality of large group sizes or class sizes may serve as a deterrent to believing in the strong facilitative approach described here.

A seven-lesson cycle for a unit of study is reasonable and time is of the essence when embarking on a research cycle for a thesis however, in the realm of nature-based learning, immersion over time is critical.

### **Overall Quality**

Designing a research methodology and data gathering technique to capture and make visible this nature-based curriculum, with attention paid to the setting, the stage, the props, the story and all done with children is a complex task. Finding tools to establish the analysis of the practitioner, the process, and the engagement is important work. As we embark in educational settings on the process of learning and the “being of the learner”, having tools to support that work are helpful. Learning how to observe and how to identify what is taking place and coordinating that with time and engagement could provide practitioners with a valuable self-assessment tool kit.

This was a creative and multi-faceted approach which was made visible and replicable by the work of the researcher. As educators in the province are moving to a competency-based curriculum, our assessment practices are transforming. This example gave me thought as to how to observe and codify areas of the curriculum that have remained more tacit in nature.

### **Contextualization of Knowledge Fields**

Grounding the Hummingbird Method in Dewey and [Discovery Learning] work has strong connections to the learner-centered approach. At the center of each of these approaches is the image of the child as innately curious, with a desire to learn, and the ability to have a sense of agency in their world. I would recommend extending that repertoire to the Reggio-Inspired work that is being done in many pre-schools and early childhood programs. So many of the aspects of the design of Wild Craft Play fits with the Reggio-Inspired philosophy, [yet focuses on an older age range].

In designing the framework for facilitation and engagement, content strands, strategies, and conceptual frameworks were pulled from various models. Exploring the relationship between facilitation and student engagement gave powerful opportunities for analysis and reflection. Using indicators of engagement versus indicators of awareness, was a strong choice because the indicators of engagement were observable behaviors that can be identified and named. The example of the child who was seemingly disengaged but was all the while pondering his actions may have been interpreted very differently through the indicators of awareness.

Making the connection to parenting is compelling. Children are coming to school having been mostly very protected. In comparison, our childhoods were spent artfully free to discover, create, and learn the hard way. Describing the subtitles of the Hummingbird Effect acts as a positive image of parenting that can be further used to encourage parents, group leaders and educators to find a different guiding image.

Including day four, the “didactic” day, as a comparative to the “hummingbird” days was to be applauded. As group leaders, educators, and parents, the mindset to grow and learn from those days when we did not get the results we hoped or when we are not at our level best is critical. Contextualizing this piece as a tool of transformation would add strength to this section. The ability to embrace day four in the data, name it, reflect on it, and make a difference to it, gave the work an authenticity.

The age range being 8-10 years makes sense for the design of the study. It also makes perfect sense when considering the types of quests, narratives, and content of the days. So much of this facilitation method lends itself to early childhood education, it would be wonderful to further explore how to broaden the access points for inclusivity.

### **Research Methodology**

A video-ethnography approach was used to collect and collate data within an action-based research study. In referencing Walliman’s work on action-based research, concepts were explored and the language used was described. The literature review was developed to contextualize the knowledge into pedagogy and parenting. Data collection methods were described both in how they were devised and revised to make the most meaning. Ethical and honest research practices were followed. The action research method is best suited to the environmental classroom, and the ethnographic approach of the subject making meaning of their own behaviors suits this context.

The video-ethnography approach was well-chosen. This allowed for the researcher to be part of the lived experience and a natural part of the setting. Analysis, interpretation, and theming were part of another phase. This way the researcher could fully participate in one role at a time with focus.

The video-ethnographic tool could be used when the researcher takes the work into the field to be shared. Participants could become immersed in the shared experience and later go into analysis and articulation of the facilitated approach aided by the recorded lesson.

Including two other researchers to provide notable research themes increased validity.

### **Research Findings**

The results based on child engagement responses demonstrated descriptive components to the Facilitated Environment. The themes of the Facilitative Environment were positive presence, facilitative approach, props, and nature connection. Defining the facilitative approach as allowing experience, focused listening, reflective questioning, providing information and facts, and dramatic storytelling is a key aspect of this study. That facilitative approach, as the other components of the Facilitated Environment, are widely applicable to many settings. The facilitative approach is the transformational piece moving toward a learner-centric curriculum and the Hummingbird Approach.

The model of data collection can serve as an example for self-assessment for leaders and educators as the third point to ponder when thinking about effectiveness and design.

Exploring the relationship between facilitation in relation to student engagement is powerful in that it can give a new lens for gaining feedback while in the experience, for example, "The Scout helper was my barometer of boredom." (p.70) Understanding the indicators of engagement allows the leader or teacher to read the audience and adjust at the time.

### **Implications**

As an educator of young children, I want them to have this type of experience. As a mother and a grandmother, I want my children and grandchildren to have this type of experience. I know children who would grow exponentially if they could be immersed in such a nature-centered, imaginative world.

This type of design would serve to inspire children to explore their personal identity, their character, and their ethic. With nature as their third teacher, challenge inspires agency.

By creating such a strong metaphor for your form and style, the challenge becomes as you try to share your approach with other educators, how do you support them in defining their own identity of facilitation so that they engage with integrity. As your day 4 demonstrated, when you stepped out of who you are and your widely-held beliefs, you tried to force learning and your results were a source of learning for you. Without that day as a comparative, your clarity may not have been as strong. Other educators will come to those cross roads in implementation. [There is a] gift of reflection versus self-criticism [when it comes to self assessment].

### **Limitations**

I realize this is a masters' thesis and the time limit of seven weeks is reasonable for this type of study. I would encourage this to be an ongoing inquiry so that it lives and breathes in the school system or an ongoing program. Many school districts are developing nature-based programs. The true realization of the findings of this study would find their roots in a program that spanned a greater amount of time and immersion into nature.

Understanding how the students regard their natural world, would need to be more clearly defined. It is our hope that we can instill these values but how do we know we are making a difference?