

# Teacher Action Research in a Remote Northern Canadian Community

# Binah Chah

# Sunnya Khan

# Shelley Stagg Peterson

Many teachers are interested in research-supported practice, yet they find that much educational research, conducted with little to no teacher input, lacks relevance to their classroom teaching (Efron & Ravid, 2013). In action research, however, teachers actively *do* research in their own classrooms. Guided by the question ‘How can I improve my practice?’, teacher-researchers collaboratively identify a specific question/issue, create a teaching plan, gather data to assess outcomes, and analyze the data to further inform their practice. They may then implement a modified or new instructional approach, all the while gathering, analyzing, and reflecting on any new data in a spiral process (Castle, 2021).

In this paper, using the example of research carried out by teachers at a northern Canadian school as part of the Northern Oral Language and Writing through Play (NOW Play) Project, we argue that collaborative action research is a valuable form of professional development.

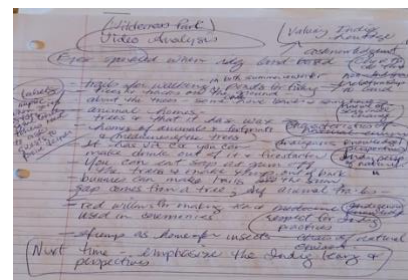
## Collaborative Action Research in Aspen School

The action research took place in a small town in northern Alberta. At the Aspen School (school and staff names are pseudonyms), about 35% of the students are First Nations or Métis. Three non-Indigenous teachers—Sandra (Grade 1), Kari (Grade 3), and Katrina (Grade 7)—met Shelley and Nicola from NOW Play to develop research questions about their students' learning of Indigenous cultural knowledge, and (for the

(Grade 7 class) questions about the ways science curriculum concepts dovetailed with Indigenous knowledge. Elder Dave and Knowledge Keeper Bev guided teachers and their students on a walk through the bush, sharing teachings related to the plants, trees, animal tracks and other features of the bush, and how humans are a part of this natural world. The teachers and Indigenous Education Program Coordinator, Hannah, honoured traditional protocol throughout their research, including during the filming of the bush experience.

## Gathering and Analyzing Evidence of Learning

After their on-the-land experience, the teachers encouraged students to make sense of their experiences through talking and writing. Sandra and Kari video-recorded conversations with students, while Katrina's students wrote journal entries, blog entries, or poetry. The teachers and Hannah analyzed the collected data with Shelley and Nicola. They identified themes by circling phrases reflecting teachings shared by Elder Dave and Knowledge Keeper Bev, as well as science curriculum concepts and skills (see Figure 1).



**Figure 1:**  
Process for  
analyzing  
notes from  
assembly  
video: one  
researcher's  
example.

### ***Students' Demonstration of their Learning***

The teachers, Hannah, Shelley, and Nicola individually, then collaboratively, analyzed what was revealed about students' Indigenous knowledge and science understandings:

- 1) Students showed careful observation skills (a science curriculum skill expectation) when Elder Dave and Knowledge Keeper Bev guided them to be observant in the bush. (Example from student writing: "The forest was silent as most animals were hibernating or hiding.")
- 2) Students showed an understanding of Indigenous spiritual values and protocols to carry out respectful relationships with the natural world. This corresponded with the science curriculum expectation that students "investigate [...] relationships between humans and their environments," including the impacts of human need and action (Alberta Education, 2014, p. 11). (Examples: "The tobacco was an honor to the forest"; "Elder Dave placed tobacco down to thank the Creator and all the land and animals for letting us walk this path and for any damage we may have caused.")
- 3) Students demonstrated understanding of Indigenous survival knowledge, aligning with the above curricular objective. (Examples: "Knowledge Keeper Bev said that for cold hands they could use the cattail fluff to stick in their mitts and it would be much warmer in the winter"; "Red willows are used for making tea and are medicine used in ceremonies.")

### ***Teachers' Reflections on Learning***

Sandra, Kari, and Katrina recognized their analyses of student talk and writing as *holistic* assessment practices arising from students' engagement in learning experiences rather than a formal test removed from the learning experience. As one teacher said, "I have gained assessment tools that help me to see aspects of student learning that I hadn't noticed before."

In addition, Elder Dave and Knowledge Keeper Bev's interactions with students inspired the teachers. They observed how engaged students were with the stories that Elder Dave and Knowledge Keeper Bev told to contextualize their teachings about the land. As such, the teachers planned to incorporate more storytelling in their classroom science teaching. They also reflected on how they could apply Elder Dave's approach of differentiating responses to students with diverse knowledges and skills.

### **Conclusion**

The collaborative action research experience at Aspen School contributed to dynamic, situated, and meaningful professional learning opportunities for teachers. Through systematic and personalized research in their own practice, Sandra, Kari, and Katrina created new understandings about good teaching and expanded their understanding of the varying ways students demonstrate their learning. They reflected *in action*, while learning Indigenous cultural knowledge alongside their students (Forster & Eperjesi, 2021). They also reflected *on action*, in the collaborative data analysis conversations. Hence, the teachers positioned themselves as reflective research practitioners and empowered "generators of knowledge" (Efron & Ravid, 2013, p. 7).

### **Author Biographies**

Binah Chah is a graduate student in the Department of Curriculum, Teaching and Learning at the Ontario Institute of Studies in Education.

Sunnaya Khan, PhD, is a former postdoctoral research fellow with the NOW Play Partnership Project.

Shelley Stagg Peterson is a professor in the Department of Curriculum, Teaching and Learning and Project Director of the NOW Play project.

## References

- Alberta Education. (2003/2014). *Science grades 7-9*. Edmonton: Author.  
[https://education.alberta.ca/media/3069389/pos\\_science\\_7\\_9.pdf](https://education.alberta.ca/media/3069389/pos_science_7_9.pdf)
- Castle, K. (2021). *Early childhood teacher research: from questions to results* (2nd ed.). Routledge, Taylor & Francis Group.
- Efron, S. E., & Ravid, R. (2013). *Action research in education: A practical guide*. The Guilford Press.
- Forster, C., & Eperjesi, R. (2021). *Action research for student teachers* (2nd ed.). SAGE Publications.