

## **New Humble Community School Open House October 3, 2024**

### **Learning through Agriculture...It Works!**

Dr. Bonnie Stelmach from the Faculty of Education at the University of Alberta and New Humble Community School have partnered to study how the New Humble Community School (NHCS) charter focus on agricultural literacy, experiential learning, and land stewardship enhance K-6 students' learning and life skill development. The study is funded by Alberta Education's Research Partnerships Program (2023 – 2026).

### **What is unique about New Humble Community School's approach to using agriculture?**

NHCS is the only school that engages K-6 students (now K-9) in agriculture through immersive experiences; the Alberta curriculum is facilitated *through* agriculture-based learning activities and lessons. All students will learn "through innovative agricultural and experiential land management education" (New Humble Community School, n.d., p. 1). NHCS families can also expect the values, attitudes, and knowledge that constitute agriculture as their community's way of life will be modelled, and that the role of agriculture in their rural community's history will help students understand their place in the provincial and global agri-sector.

### **What is the research study at New Humble Community School about?**

We are asking a key question: *How does experiential learning through agriculture foster curricular connections and life skills in K-6 students.*

### **How does agriculture lend itself to NHCS students achieving learning outcomes?**

We are learning that agriculture is an excellent way for students to achieve the learning outcomes as outlined in Alberta's *Ministerial Order on Student Learning* (#005/2024).

The *Ministerial Order on Student Learning* (#005/2024) Outcomes for Learning include:

- Communication
- Critical thinking
- Knowledge development
- Health for life
- Character development
- Preparing students for their future
- Community and civic engagement
- Alberta, Canada, and the World

**Communication evidence:** The size of NHCS lends itself to inter-class interaction and collaboration, and taking care of the school farm and garden demands interpersonal communication skills. The students interact positively with each other. When Grade 5 and 6 student researchers were interviewing younger students, for example, we noticed they could adjust their tone and language to accommodate them, and were concerned about ensuring students felt comfortable. Also impressive is that whenever we enter the school, we are met with friendly greetings. Student interviews show us that students are comfortable talking to adults, and have no problem making eye contact with us.

**Critical thinking evidence:** Because agriculture is multi-disciplinary by nature (e.g. you need to know math, science) the kinds of problems that emerge are complex. We have seen how students can be problem-solvers, using the knowledge they are learning in the curriculum. For example, last year a problem was identified with the steers' pen: the way it was positioned, the steers were forced to sit in the open, away from their sheltered straw bed so that they could catch the sun's rays. The Grade 3 class worked together to create proposals to improve the design, and they presented it to the Board at a meeting when Alberta Education staff were in attendance. It was impressive to see the students' creativity, and their confidence in presenting it to adults they had never met.

**Knowledge development:** There is no question that these students are learning about agriculture and land stewardship in conceptually specific ways. They use technical language, not "kid language", so there is not only a depth of learning here, but students are gaining mature understanding that enables them to share their learning in many contexts. For example, one parent shared witnessing their child having a conversation about agriculture with a community member, speaking with detail and confidence. And when it comes to learning Alberta curriculum, students' ability to retain detail (e.g. how long it takes a beaver to build its lodge in Grade 1) has been observed after students learned about beavers and build a replica of a lodge. Hands-on learning helps knowledge stick! In classes we have seen students show intellectual curiosity – developing a love of learning through hands-on activities is a key expectation for Alberta students.

**Health for Life evidence:** Agriculture and land stewardship demand physical exertion, but we also see how it cultivates a sense of community. Feeding animals, cleaning pens, planting a garden, harvesting vegetables, tending to the compost station, collecting the recycling...you can't help but be active and feel like you are part of a unified vision at the same time. There are many jobs in the school that students take on, which gets them out of their desks, but also gives them a chance to participate and make a difference. We learned that they like these jobs because it gives them purpose. There is new research that suggests hands-on learning can contribute to student well-being (Watt et al., 2023/2024). Students also report that they like learning outside—fresh air seems to be a common reason for this!

**Character development evidence:** This outcome has to do with “honesty, integrity...recognizing truth, beauty and goodness...resilience and good judgment...and commitment to the common good” (Government of Alberta, 2024, p. 3). There is evidence that spending time in nature leads to appreciation and respect (Louv, 2019). They also learn how to manage knowing the animals they raise may go to market with the emotional connections they make with them. We have asked, for example, how they feel about naming the chickens and steers knowing they will be butchered, and the students we talked to have a realistic attitude. One said “that’s what being a farm kid is, especially when the animals die. You have livestock, and you have deadstock.” Being able to deal with contradictory and difficult feelings is part of resilience and social-emotional development.

**Preparing Students for their Future evidence:** Students are already developing a strong work ethic and skills for securing employment. For example, students have to apply for jobs, so they undergo the application and interview process. Students can even get fired! Students learn how to be professionals working with colleagues doing chores, they have to learn to work with others they might find challenging, and they learn about the importance of doing a job well or facing the consequences of termination. The fact that these students are given high-stakes jobs where animals and plants rely on them imprints responsibility and duty, and builds their confidence.

**Community and Civic Engagement evidence:** Because agriculture reflects the neighboring community, students see themselves and their community in the curriculum. Whether or not students have direct connections to farming, they understand the historical roots of NHCS, which builds continuity as they see their community change. The way NHCS itself was established, has grown since its inception, but yet maintains the spirit of its beginnings (e.g. the mural on the gym wall) is a direct example of how a community can come together to make positive change. Further, because students are part of the decision making (e.g. what new animals to bring to the barnyard), they already are developing the capacity for civic participation in later life. We have also seen how students learn to share and respect others’ opinions. They don’t judge or condemn others who don’t have deep understanding of where food comes from, for example, or whether people choose to buy their food from markets or the grocery store.

**Alberta, Canada, and the World evidence:** Agriculture is an economic foundation of Alberta, and because of globalization, the ability to raise food and participate in the fiber system is impacted by factors outside of Alberta. When students learn through agriculture, they have a real-life, relevant example of these interconnections. Further, because agriculture and land stewardship are mutually reinforcing, when students learn through agriculture, they are inevitably learning to take care of the land and to understand how Alberta’s natural resource economy is situated vis-à-vis environmental sustainability. Many students reported how important trees are for human survival. We have witnessed students at recess collecting moss to feed insects, an experiment they hoped would work. This is a great example of what Christopher Beeman (2007) called “attentive receptivity” whereby direct interaction with nature inspires another way of being in the world beyond a material one.

### What kind of data are these findings based on?

- Interviews with:
  - K-6 students
  - parents
  - teachers
  - school staff
  - community and agri-sector members
- Observations of learning
- Web-based parent survey

### Is the study finished?

No, data collection is continuing in Fall 2024. The study will formally end in 2026.

### Where can I find out more information about the study?

Please visit our website: <https://www.schoolbasedag.com/>

### References

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### Acknowledgements

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