



2015-2016 NOII Case Study

School: Hazelton Secondary School

District: #82Coast Mountains

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Focus for this year: Will intergenerational, holistic, experiential challenges increase engagement, questioning, creativity, collaboration, communication and self-reflection in our students?

Scanning: During the scanning process, the most monumental observation we made was that most of our junior students (grades 8 and 9) cannot fully answer all of the four key questions. They are disengaged from their learning and are struggling to connect to adults or senior students in our school. We focused on moving our professional learning forward while creating a space for our students to gain skills, play, collaborate, work on a challenge knowing the end expectation, all while gaining or becoming a potential mentor.

Focus: We merged one grade 8 class (sometimes two) and one grade 12 class of students every double block (at least once a week for 45 minutes) to take part in mixed team challenges. The students were given a challenge or problem that they had to solve. The problem was designed to get the students questioning, creatively and critically thinking, collaborating and working as a team, communicating, completing a design cycle (similar to an inquiry cycle), and completing a post challenge self-reflection. The key areas of focus for adults were core competencies and Constructionist/STEAM theory. The focus for students was that they would find engagement and connectedness through the intergenerational exploration of holistic challenges.

Hunch: When we opened up the possibilities for expanding their engagement and connectedness by having them work collaboratively with adults and students of a different grade we hoped to develop their communication skills. By presenting a challenge or problem and asking them to solve it we gave them the power to explore, and to inquire, create, collaborate and build relationships with other students. We expected that a natural form of mentorship would occur as students connected with each other and shared and recognized strengths in each other.

We tracked this by collecting data through students' design cycles and self-reflection forms and student and teacher anecdotal evidence about student questioning, curiosity, and engagement. We hoped that students would be excited to celebrate their success and would include their peers, families and community in their enthusiasm.

New professional learning: Professionally, we engaged in serious conversations around core competencies and Constructionist/ STEAM theories. We talked about the design cycle and self-reflection as a form of assessment. We looked at a few self-regulation strategies. We used many STEAM packages from the website, teacherspayteachers.com, and the Makerday package. We used a design cycle worksheet, a 3,2,1 exit strategy for reflection.

Taking action:

- In September, a team of colleagues committed to working on this year's NOII question and we set a plan of what would work for us within our schedule.
- Two of us went to the local dollar store and purchased approximately \$600.00 in assorted supplies for the various challenges (we have lots left) and downloaded STEAM packages from *teacherspayteachers.com*.
- We decided on the concrete sheets and strategies we would use to accompany each activity to help kids deepen their learning.
- We made a schedule and emailed back and forth each week with a plan of what we would do and who would bring the supplies.
- After a few challenges we struggled with finding time within our schedule to collaborate to revamp the worksheets. We were unable to get the time needed to revamp the sheets to meet our needs within one semester of time.
- We presented to the NOII Northwest regional working group and simulated a challenge with them that helped us to reflect on the impact of our learning as adults.
- We further simulated the same challenge to all Upper Skeena Teachers at the first Curriculum Implementation Day, as an example of core competencies, further stretching our professional learning.

Checking: In the school library, we merged three classes to total approximately 50-60 students for at least 13 challenges over one semester of time. We provided a concrete structure and a variety of consumable supplies.

Collaboration, Communication and Mentorship - In looking at the anecdotal evidence and completed forms, we made a large difference in the impressions that grade 12s and grade 8s had on one another. We gave the time and space to create lasting relationships as evidenced in the hallways, even the semester after the experiment. By structuring the collaboration in such a way that all people in the group had a role, it removed power dynamics and we believe that collaboration was more equitable as evidenced by comments such as "I can't believe how creative grade 8's minds are, I wasn't expecting that and I learned that I need to listen to others more." The relationships built between grade 8's and other participating teachers, not normally in contact with these students, were impacted as well. The semester after the challenges, grade 8's still felt comfortable to engage in conversations with a senior teacher. We noticed that the grade 8's were far more proficient at working in assigned groups after the challenges; this had been a struggle before those challenges. We also noticed that as the students got more comfortable with the process, they felt safe to take a risk and work with students outside of their comfort zone.

Engagement - We piqued the curiosity of students, staff and parents. Students commented both verbally and written about looking forward to the next double block and asking "what are we going to do next?" From teachers and staff in the building, we were frequently getting questions like "what are you doing in there?" or we would turn around and see a small audience of staff and or parents watching us work with the large group. Most times we would find an impromptu "job" for them to whisk them up in the enthusiasm of the students and have them actively participate. We were each contacted or visited by parents to positively comment or question about the work we were doing. We heard phrases such as: "He loves his double blocks now", "she brought her creation home to show us", "He says he is having so much fun", "what you are doing is incredible, thank you". We noticed a marked difference in the attendance of grade 8's throughout the challenge time frame.

Questioning, Thinking and Reflecting – We know our own thinking and reflecting were stretched and we also believe that the students' were as well. Because of the structure of the challenge reflection piece we found that the grade 8's were far more proficient at using that same 3,2,1 structure in other areas and subjects.

We:

- Provided a concrete structure to help students understand the cycle of their learning so they could confidently answer three of the four NOII questions
- Provided intergenerational groupings to inspire mentorship and role modeling
- Provided space and time for play, prototyping, and design thinking
- Expected collaboration, communication, questioning and creativity

We know we made a difference in our students – was it enough? Is it ever? We are satisfied with what we achieved, although there is always room for improvement and a direction to go next year.

Next:

Our next plan is to take this school-wide as a program. One team member has three blocks of library next year and another has four classes of grade 8's. We intend to create a monthly or weekly schedule where during one block of time, teachers throughout the school can sign up and bring their students to the library for a "Challenge". We will have space for two classes at a time, blending a junior class with a senior class.

We will also:

- Self-regulation, engagement, and design theory in a variety of ways. More work with staff to build confidence and competence.
- Continue collecting and storing a bank of challenges and consumable supplies – requesting a pocket of money from the school leadership team to run this program.
- Continue working with teachers in the Upper Skeena area to collaborate and maybe schedule elementary classes into a challenge each month.
- Host a professional learning day as requested by the staff.
- Keep abreast of new pedagogy around the core competencies and First Peoples Principles of Learning to keep our professional learning fresh.
- Continue to engage in formative assessment and the Spiral of Inquiry.

Reflections:

- We needed time to revamp our worksheets to really get deeper with the students' thinking.
- We needed more support from our formal leaders in providing time to collaborate.
- It was so amazing to have the opportunity to grow with my colleague.
- How much did we stretch" the older kids?
- We needed to provide more time for some of the activities; it felt almost frenzied some days.
- This structure was so awesome in providing all teachers and Education Assistants' a clear role and everyone stepped up and did their role well.
- We felt that we needed to revamp the reflection piece and provide more time in our individual classes.

Advice:

- Find someone to work with, it makes this process so much richer.
- Find a pocket of money somewhere to purchase supplies.
- Don't be quiet about what you are doing. For quite a while we were quiet about the impact we were having and we were not loudly sharing our success.
- Collaboration is vital – it makes the process that much richer and more meaningful.

Connection to Principles of Learning:

This project connected to many of the Principles of Learning in both the “First Peoples Principles of Learning” (FNESC) and “The Nature of Learning” (OECD).

Specifically:

- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).
 - Learning involves recognizing the consequences of one's actions.
 - Learning involves generational roles and responsibilities.
 - Learning involves patience and time.
 - Learning requires exploration of one's identity.
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- Learners at the center
 - the social nature of learning
 - Recognizing individual differences
 - Stretching all students
 - Assessment for Learning
 - Building horizontal connections