



## 2014-2015 AESN Case Study

**School:** James Kennedy Elementary    **District:** #35 Langley

**Area of Focus:** Student Level

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**Scanning:** We were inspired by the Inquiry and Innovation – ins-PI-re Project. The ten Aboriginal students explored, investigated and created during their student-led inquiry using the Raspberry Pi (a credit card sized computer) and Scratch (a child friendly coding language); promoting STEM (Science, Technology, Engineering and Math) principles and the UDL (Universal Design for Learning) philosophy. We noticed as a team that the students enjoyed being an innovator instead of a customer. That the students left the experience with passion and interest in being innovators especially with the computer programming with the integration of First People’s Principles of Learning. We had an elder from the Kwantlen First Nation to be a part of our project to inspire young Aboriginal men and women. These selected young people were consumers of video games and now they know how to invent by integrating their knowledge and communicating an accurate portrayal of *‘generational roles and responsibilities’*.

**Focus:** Students participated in both individual and group inquiries as part of ‘The ins-PI-re Project’. Our students had and have a deep desire for communicating their culture with modern technology. All the students that were selected have an interest in ‘gaming’ as a consumer. Questions we focused on were: How can inspire students with becoming a innovation and not just a customer of technology? How can we integrate the Aboriginal principles in a kid-friendly manner? As a team, how can we create a project and teach a successful project effectively to a group of intermediate students. It was useful last year that successfully led an ins-PI-re project with another group of students (at another school) and documented this exciting journey at [www.mrspimentel.wordpress.com](http://www.mrspimentel.wordpress.com), and was able to continue that documentation with our ins-PI-re Project this year.

**Hunch:** There were some obstacles we had during this project, mainly with funding and to be able to cover the cost of the TTOC for the project to be completed. With the support of the school as well as the Aboriginal Services of the district, the project was successfully completed. The students we worked with showed interest towards creativity, gaming and technology. We believed that they would thoroughly enjoy the experience of being innovators and we were correct. We enjoyed and saw success by focusing on this learning experience as being *‘holistic, reflexive, reflective, experiential, and relational’*.

**New Professional Learning:** The new professional learning was vast and intense for us as well as the students. By leading the students through an investigative learning process with the Raspberry Pi we discovered how *'Learning involves patience and time'*. By giving the students framework and skills delve into the Pi, we discovered that doing 'code' and creating games facilitated an understanding that *'Learning is embedded in memory, history, and story.'* Truly this project has instilled in us passion and excitement for teaching students how to code and to be an innovator instead of a consumer.

**Taking Action:** We took on increased immersion for both our Aboriginal students and our general population in First Nations history/culture. We had more one-on-one interaction with our Aboriginal students to check-in points and weekly breakfasts and experiential leadership activities. We attempted to use strengths-based strategies so that our communications were not solely based on something the student had done wrong. We tried to celebrate our students and their strengths and abilities, not only through more Aboriginal content but also through everyday behaviors at school. We certainly got very positive feedback from students and for some we did see a clear increase in positive interactions, academic standing, and active citizenship.

At the end of the ins-Pi-re Project, we plan to present the work collaboratively with the students taking the lead to show our local Aboriginal community including a Kwantlen Elder, the 'projects' (e.g. Games) they have created that incorporate *'indigenous knowledge'*. We want to involve the Aboriginal community throughout the process by conducting interviews and having discussions to be able to accurately display *'generational roles and responsibilities'* in our student's creations.

**Checking:** Our goal was to look at academic progress throughout the year along with behavioral incidents and see if our efforts had made an impact. We were hoping to meet with both students and family to see how they felt and also set a baseline for the following year so that an action plan was in place well before September. For some students we did see clear examples of resilience when struggling in classes as well as some students that saw a marked improvement in attendance. For some of our students, success was measured by the realization that perhaps a different atmosphere (such as a learning center) was required. This path rather than disengaging from school completely was still seen as a measure of success and we attributed to the constant contact and communication with the student through various methods.

We believe that the children involved in this inquiry will delve into a wonderful learning space where students will have an *'exploration of one's identity'*. Students have discussed with us their enthusiasm towards gaming and spending 'hours' playing games. We believe that giving each child an opportunity to be creators and not just customers will change their future and increase the Aboriginal presence in 'gaming'.

**Reflections/Advice:** We've learned that it is quite a task to take on and that it is very much a multi-year initiative. We hope to continue with what we did this year but go for a more in-depth approach that centers on resilience as well as increased and more personalized attempts when it comes to maintaining academic standing. By promoting our Aboriginal family and its benefits, we hope that our students will feel more connected to themselves, their culture and their school and that none of these facets are holding them up in any way. Students did indeed appreciate all the effort, and even when you think you aren't taking steps forward, continue what you are doing. We found that when students made it through a particularly tough situation, they were ready and willing to take on a more active role and very much became part of the solution. While they were our *center of focus*, their input and leadership made them part of the team finding these solutions as well. Getting to that level of ownership is a goal well worth pursuing.