Curriculum Critique: Grade Six Science

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 The grade six science curriculum is very important as it includes subjects and skills that students will need throughout their education and lives. Many people have a say and contribute to the making of the Saskatchewan curriculum. Regarding to the grade six science outline Professionals, former Science Reference Committee Members, First Nations Elders and teachers, university faculty members other educators and reviewers are all people who have helped create the curriculum (Saskatchewan curriculum, 2009). “Science is a Required Area of Study in Saskatchewan’s Core Curriculum. The provincial requirement for Grade 6 Science is 150 minutes of instruction per week” (Saskatchewan curriculum, 2009). A grade six science teacher aims to help all students gain scientific literacy. To do so there are four main goals stated in the curriculum, Understand the nature of science and STSE interrelationships, Construct Scientific Knowledge, develop scientific and technological skills and Develop attitudes that support scientific habits of mind (2009). Within these four topics, there are connections to core curriculum, euro-Canadian and indigenous heritages as well as cross-curricular connections, the curriculum also states that the research is up to date with technology and resources to provide students with all they need to know. Although all of these topics are named in the curriculum it seems as though the importance of them seems to vary.

# Values and Teaching Methods

The overall aim for science classes in schools is for K – 12 is to enable all Saskatchewan students to develop scientific literacy (Saskatchewan curriculum, 2009). The outcomes and indicators are what guide the learning process. Some of the outcomes include life science, physical science and earth and space science (Saskatchewan curriculum, 2009). The indicators are used to narrower down and get deeper into the teaching of the outcomes, there are many indicators and teachers are free to make alternations if needed. “All science outcomes and indicators emphasize one or more foundations of scientific literacy” (Saskatchewan curriculum, 2009). Grade six science also correlates with cross-curricular competencies “The Cross-curricular Competencies are four interrelated areas containing understandings, values, skills, and processes... These competencies reflect the Common Essential Learnings and are intended to be addressed in each area of study at each grade level.” (Saskatchewan curriculum, 2009). Throughout the curriculum, we see approaches of both process and praxis more than the product approach. This is shown in the outcomes and indicators of the curriculum as they promote questioning and inquiry-based activity, for example, “Propose questions for inquiry that arise from personal investigations of characteristics and behaviours of animals.” (Saskatchewan curriculum, 2009). As well as “Show interest and curiosity in learning about organisms’ adaptations to different environments by journaling, participating in a nature walk, or sharing science-related information about adaptations (gathered from print or video resources or personal experience) with classmates” (Saskatchewan curriculum, 2009). An inquiry is a more recent strategy being used in the classroom and it is encouraging teachers and students to explore more about what they are teaching or learning.

 Technology and Treaty Education1

Although the curriculum does make mention of the importance of both technology and treaty education it is not backed up throughout the curriculum document as well as it could be. The grade six science curriculum has not been updated since 2009 (Saskatchewan curriculum, 2009). “Technology-based resources are essential for instruction in the science classroom. Technology is intended to extend our capabilities and, therefore, is one part of the teaching toolkit. Individual, small group, or class reflection and discussions are required to connect the work with technology to the conceptual development, understandings, and activities of the students” (Saskatchewan curriculum, 2009). In order to keep up with technology and use it in the classroom the criteria students are learning should also continually be updated so that kids have a good understanding and can relate things from the classroom to real-life situations, this is becoming a bigger issue because of how much technology has grown and is now used. As for treaty education, the curriculum mainly keeps its focuses on euro-Canadian rather than indigenous heritages when implementing them into the outcomes and indicators. This is not to say that it is completely ignored, there are some indicators such as “Analyze how First Nations and Métis art and storytelling highlight movement and/or behaviour of living things and reflect a worldview that values all living thing” (Saskatchewan curriculum, 2009). There is also some representation within the resource section of the grade six curriculum by stating which of the textbooks that are recommended involve mention of indigenous heritage, but there are few of them. Overall it is clear to see that the curriculum refers more to Euro-Canadian culture and way of living. The indigenous community is a very big part of Saskatchewan and there are many ways that treaty education can be implemented into everyday classrooms.

### Treaty ed implementations.

Teachers do have control over how they go about implementing and choosing indicators and it is not mentioned in any of the outcomes in the grade six science curriculum that indigenous values need be mentioned however there are ways in which the government is working towards treaty education. “Inspiring Success: First Nations and Métis PreK-12 Education Policy Framework: First Nations and Métis PreK-12 Education Policy Framework was originally developed with participation from First Nations and Métis organizations, Elders and Traditional Knowledge Keepers, post-secondary and provincial Prekindergarten to Grade 12 (PreK-12) education stakeholders. The vision of Inspiring Success is a provincial PreK-12 education system that foundationally places Indigenous knowledge systems, cultures and languages within the structures, policies and curricula to ensure an equitable and inclusive system that benefits all learners” (Priority Action Team. 2019). For those teachers who feel uncomfortable with teaching treaty education or are unsure how to go about it to make sure they are respectful there are resources to help and to make them feel more confident when teaching. “The Kindergarten to Grade 9 Treaty Education Learning Resource is designed for teachers to assist them in integrating the Treaty content and perspective with Saskatchewan’s curricula and is based on the inquiry method of teaching.  It provides information about Treaties, First Nations people and the history of what is now known as Saskatchewan” (Treaty Learning Resources). These are just a few ways in which our curriculum is growing and taking strides in the right direction when it comes to treaty education.

#### Conclusion.

 Throughout this critique, it is shown that the Saskatchewan curriculum is outdated and tends to focus on Euro-Canadian influences. However, the Saskatchewan curriculum has been developed and improved to create better education and environment for students. In the grade six science curriculum, there is a focus to create better learners and give kids the information and skills they need to move forward. It is important that educators must be aware of implementing praxis and progress styled learning giving students’ opportunities for inquiry-based learning so that they have a say in how they learn. This curriculum is set to create scientifically illiterate students and to continue to do so the curriculum should continue to work on improvements in any way they can.

References

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