OLTD 508 - Assignment 2

Socials 10 Mobile Tech Lesson Plan

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Past Activity/Lesson

Curricular Area: Social Studies   **Grade**: 10

Resources Required:

- *Horizons* Textbook Unit 1 (chapters on Geography of Canada & early colonization, i.e. resource extraction)
- Methods for representing learning - traditional (pen & paper) or digital (video, audio, graphic, etc) - student choice in how to represent learning
- BC Learning Network Moodle course material *Socials Studies 10 Unit 1 - Uncovering Colonial British Columbia*

Learning Outcomes (from BC Curriculum 10-12 drafts - early implementation by choice)

- Use Social Studies inquiry processes and skills to ask questions; gather, interpret, and analyze ideas; and communicate findings and decisions
- Assess how prevailing conditions and the actions of individuals or groups influence events, decisions, or developments (cause and consequence)
- Content area: Human-environment interaction

Task: In small groups or individually, represent your understanding of the Critical Question: *In what ways does the environment affect human settlement patterns and interactions, and how do we humans, in turn, have an effect on the environment around us? Analyze and describe human-environment interactions as presented in Unit 1 of the Horizons text.*

Description:

This task is designed as an end-of-unit presentation of learning, in which my students create a learning summary in the format they choose - typically a graphic organizer with a reflection, or sometimes a presentation, an essay, or a speech. My summative assessments tend to be reflections and discussions of the learning outcomes, rather than a defined product, as I like to allow for personalization. Not all of my students studying Socials 10 will choose this task. Some might select a unit test (which is in the form of three paragraph prompts on Moodle), and others might choose a different key concept from the unit to explore in depth.

Length: Undefined - course is self-paced, so students allow as much time as needed to show varying levels of depth. Some students might spend 80 minutes (one class block) completing this task while others might spend up to a week (five blocks).

Updated Lesson using Mobile Devices

Curricular Area: Social Studies   **Grade**: 10

Resources Required:

- One mobile device with camera and location tagging capabilities per student/pair

- My Maps by Google Maps (function of Google Maps App for iOs & Android or as part of the web application) https://www.google.ca/maps/

- Signed consent for (a) Google products and (b) walking field trip

- EXTENSION: Cardboard Camera App (Free for iOs & Android) or similar panoramic/360 photo app (https://play.google.com/store/apps/details?id=com.google.vr.cyclops&hl=en)
- EXTENSION: Google Cardboard (https://vr.google.com/cardboard/)

Learning Outcomes (from BC Curriculum 10-12 drafts, 2016)

- Use Social Studies inquiry processes and skills to ask questions; gather, interpret, and analyze ideas; and communicate findings and decisions

- Assess how prevailing conditions and the actions of individuals or groups influence events, decisions, or developments (cause and consequence)

- Content area: Human-environment interaction

Activity

- *Students will work individually to document and tag photos of human-environment interactions in their local environment using a shared My Maps link (e.g. https://drive.google.com/open?id=1rxZsJ8uV9u3CDtHDEpCrLfKQRGskca7B&usp=sharing) and the cameras on either their smartphones or class ipads.*

- *Following the collection and curation of the data, students will analyze the shared map to identify patterns, rank interactions from most-to-least influential, and communicate their findings and decisions regarding the degree to which humans have impacted the local environment and the degree to which the local environment impacted patterns of settlement and use in the local environment.*

- *Collection will take place over several weeks, or even an entire semester/course if possible, to allow for seasonal changes and discussion/formative assessment as the learning takes place. Ideally students will add additional "layers" of interactions (by category) to the map as the learning deepens (for example, it may progress from animal interactions/plant interactions/land interactions to something more complex, such as economic influences, social influences, etc.)*

Task: *In what ways does the environment affect human settlement patterns and interactions, and how do we humans, in turn, have an effect on the environment around us?*

Using photo evidence and location tagging on My Maps, locate examples of human-environment interaction. This can be interactions with geological features, flora, fauna, or whatever you feel you can justify, using the information covered in the Moodle coursework and other sources as necessary.

Extension: Create a virtual tour (using cardboard camera or similar application) of one of your recorded human-environment interactions. Students may choose to describe/tour the location of the *most impactful* site as part of their evidence of learning. Debate the most impactful site designation with other groups, and determine together which site on our map gets the ultimate title of "most influenced."

Evidence of Learning (Summative Reflection): Students may want to use some (or all) of these questions to structure their responses.

- Communicate the findings from our shared map. How would you characterize the human-environment interactions? How would you describe the map and the data on it to someone who has never seen the map before? What background information will you need to include so they have a full understanding?

- What patterns can you identify in the data we have collected? Hypothesize possible reasons for these patterns.

- What interactions were surprising? Which did you expect to see?

- Which interactions/relationships do you think have had the *greatest* impact on our region (both human and/or physical geography). Justify.

- If we were going to continue to collect data for another year, what would you change about the map? What questions would you ask to refine our task?

- Do the actions of individuals or groups impact the interactions/developments/conditions of our map? Can we say the inverse is true (conditions affect individuals/groups)? Explain.
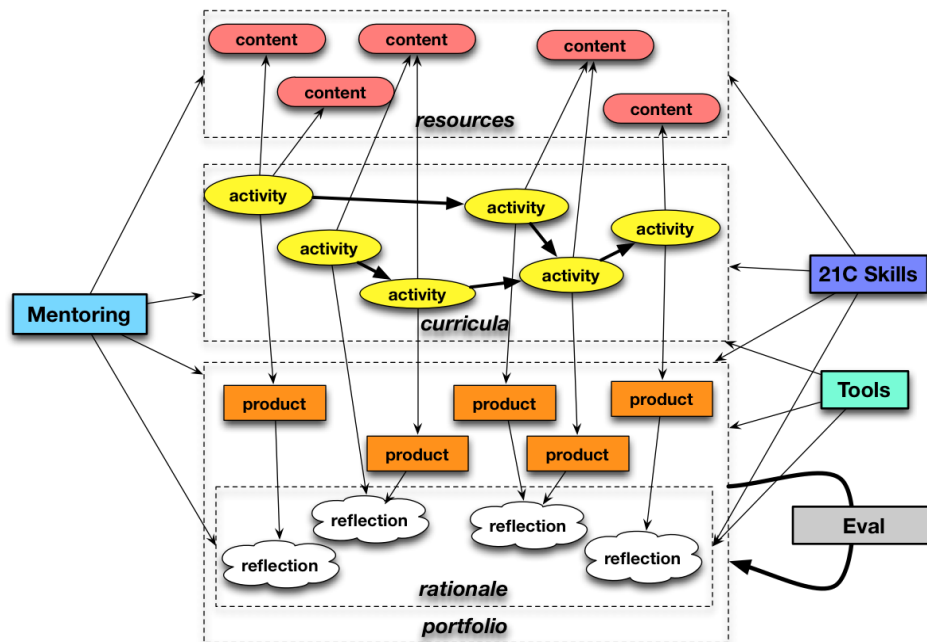
Quinn's 4Cs in Action

Image (Quinn, 2012)

1. **Content** - Students will have been participating in what Quinn (2013) refers to as "formal learning "about the historical interactions between people and their environment (familiar to them from SS9 and colonial Canada) and the economic/resource background for immigration patterns in Canada historically. They have access to the BC Learning Network course material, the *Horizons* textbook (as a remnant resource, not as assigned reading), the library, and other online sources. The My Maps task gives them the opportunity to use their mobile devices to *create* their own content, to access the content that has been created (and commented upon) by their classmates, and to contribute to the class learning community. Since they are essentially creating a field log of exemplars for analysis in this task, the content has mostly been accessed already as part of prior learning, though of course they can access it again using their phones should they need a reminder.

2. **Compute** - My Maps is the primary application that students will be using to compute, which is to say, having interactions with and providing/receiving information from. Mobile devices (smartphones and tablets) will be used to capture images and layer them onto the shared map. This will allow students to

visually comprehend the different human-environment interactions in their own community, and to visually recognize patterns. The shared computing power allows students to amass more data more quickly than would be possible without the mobile technology, and the "intimate" nature of the mobile device, which Quinn (2013) describes as being one that you take with you everywhere because it's in your pocket, means that students will be able to continue to create content fluidly as part of their lives outside of class time as well.

3. **Communicate** - The shared nature of the map allows students to quickly communicate with each other and the teacher. I love the built in ability for the teacher to add layers of depth, simply by tagging his or her own "interaction" photo. The My Map application allows for commenting, sharing, adding/editing content and a host of other communications that occur in real time, making the learning highly contextual in terms of time as well as location.

4. **Capture** - The fundamental purpose of this task is to capture data, using photos, adding notes, adding location, and contributing to the shared data of the group.
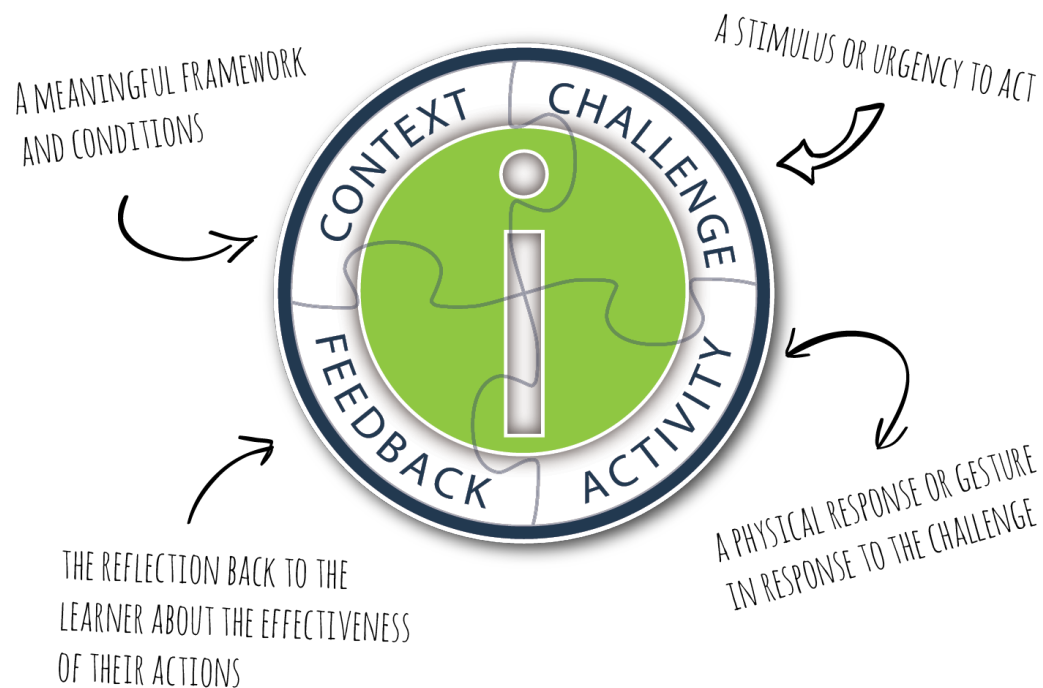

A MEANINGFUL FRAMEWORK AND CONDITIONS

A STIMULUS OR URGENCY TO ACT

THE REFLECTION BACK TO THE LEARNER ABOUT THE EFFECTIVENESS OF THEIR ACTIONS

A PHYSICAL RESPONSE OR GESTURE IN RESPONSE TO THE CHALLENGE

CONTEXT • CHALLENGE • ACTIVITY • FEEDBACK

Image (Allen, 2018)

Verification

Steps to check for student understanding

1. Tech support. First outing completed as a group with demonstration of how to tag a photo on My Map. Each student to add a photo to a location on the map before the end of the session.

2. Formative (ongoing) assessment: Peer-peer via commenting on photos (strict behaviour expectations already covered and enforced), teacher feedback on quality of interactions with leading questions and descriptive feedback.

3. Summative assessment: collection of summaries of learning with assessment for depth of understanding and demonstration of the learning outcomes.

Mobile Advantage (My Reflection)

There are a number of distinct differences and advantages to this new mobile task as compared to the traditional method I had been originally using.

The old task was fairly static and removed from the students' real lives - very hypothetical. The mobile task literally roots the lesson in the location the students occupy, making it easier to relate to when and where the students actually are. It reduces the transactional distance, ideally enriching their learning.

Because I teach in a DL program, I have to be creative in the ways that I arrange collaborative learning opportunities. This asynchronous activity allows students to collect data as a group, and to comment and build understanding together, even while being in different places and at different times.

Gerstein (2013) suggests that getting outside and moving around is one powerful way we can combat the sedentary nature of technology use. The new mobile task I've designed gets students outside exploring and paying closer attention to their local environment, rather than staying inside exploring written materials. For kinesthetic learners, the opportunity to move can make for better learning retention, and all learners, in my opinion, benefit from physical activity and fresh air.

Rening (2015) states that one huge benefit to designing mobile learning activities is that they minimize the distance between practice and actual performance. By having the students *create* the data, rather than just consume it, they become active participants in the learning to a greater degree.

Rather than having a "content dump" (Quinn, 2012) at the start of a unit, this mobile task has students collecting their own content, creating their own connections to past learning, and actively working to recognize patterns. This means that the content results from meaningful action.

The ongoing nature of this task encourages growth and ongoing observation. They will receive feedback from their peers and teacher on their contributions to our map, and will make alterations in their future photo posts as a result. Because they have their devices with them at nearly all times, this opens learning up to times other than just during class - increasing the chances that they will transfer their learning from within our walls to their actual lives. Gerstein (2013) describes mobile devices as being like Swiss Army Knives; they give us the tools we need at the times we need them.

Finally, Students will need formal learning less and less as they "transition" from novice to expert on the local environment and how it is both shaped by and shapes human activity. This will increase the amount of informal learning they are doing, by continually returning to the task on a weekly basis, and by having their device with them for making and capturing connections during their personal time. As Quinn (2013) hypothesizes, this will increase the *value* of the learning they complete, as it will be richer and more "sticky." The collaborative nature of the map will allow learners to access coaching from their classmates and their teacher as they continue to collect content.

References

Allen, M. (2018) E-learning design with CCAF. Retrieved from
https://www.alleninteractions.com/elearning-instructional-design-ccaf

British Columbia Ministry of Education. (June 2016) 10-12 draft curriculum. [PDF]
Retrieved from https://curriculum.gov.bc.ca/curriculum/10-12#ss

Gerstein, J. (2013). Taking the learners and technology outdoors. *User Generated Education.* Retrieved from https://usergeneratededucation.wordpress.com /2013/04/18/taking-the-learners-and-technology-outdoors/

Jarrett, N. (2016) Engaging students through google maps. *Edutopia.* Retrieved from
https://www.edutopia.org/discussion/engaging-students-through-google-maps

Quinn, C. (2013). Designing mLearning. [Video file]. Retrieved from
https://vimeo.com/74700378

Quinn, C. (2012). Reimagining learning. [Web Log Post] Retrieved from
https://blog.learnlets.com/2012/03/reimagining-learning/

Rening, L. (2015) E-learning design: CCAF it! [Web Log Post]. Retrieved from
http://info.alleninteractions.com/e-learning-design-ccaf-it