



THE UNIVERSITY OF BRITISH COLUMBIA

Vancouver Campus

Master of Educational Technology

Unit Plan: Addressing Real-World Issues Through Making

CURRICULUM AREA: ADST/SOCIAL STUDIES (Cross-Curricular)

GRADE: 9-12

Strands: Civics, Social Justice, Design

Teacher(s): Jasmine Atwal, Ka-Yee Chu, Michelle Desgroseilliers, Mike Forsyth, Tiffany Ku, Stephen Wellsby, & Vera Xiong

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Lesson Overview

Lesson 1: Identify Social Justice [Mike] - In this lesson students will explore the meaning of social justice to them as individual, small groups and as a whole class and create a definition of the concept. Students will also be introduced to the unit making challenge, which will be supported in subsequent lessons as they work through the Libratory Design process to tackle a real-world social justice issue.

Lesson 2: Notice the Context: Identity, Power, Privilege and Oppression [Jasmine] - In this lesson students will reflect on their identity, tackle the concepts of power, privilege and oppression and create their own identity iceberg. The main focus of this lesson is to think about how our identities are shaped and how that might influence the way we perceive others. Through a mini-maker challenge students will create a 3-D identity iceberg, share and collaborate on how biases and prejudices can shape the way we see ourselves, the world, people and their experiences.

Lesson 3: Empathize with the Users [Michelle] - in this lesson, students will learn about the difficulty of empathizing with groups of people, and practice techniques to overcome this. Solving challenges that affect other people requires designers to be able to see these users as distinct people who have different wants, needs and motivations. Without deliberate actions, we tend to end up designing what we think people *should* want, and not what they actually need or want. This lesson introduces professional design practices used to do this including: user personas, empathy maps and user journeys. These practices use characterization and narrative

techniques to learn a critical skill: empathy for other people as an integral part of problem-solving.

Lesson 4: Define & Ideate [Vera] - In this lesson, students will leverage generative artificial intelligence technology like ChatGPT and DALL-E2 to explore possibilities for addressing social justice issues. The challenge of this lesson is to create a culturally inclusive public art installation that promotes social justice and challenges stereotypes. Students are introduced and encouraged to use design thinking to solve real world social justice problems. They are called to utilize the power of art to create positive change, challenge perceptions, and celebrate diverse cultures.

Lesson 5: Prototype [Tiffany]

In this lesson, students will use all the work they have done thus far to design with their target user/ issue in mind. They will draw on their preliminary research on the issue , acknowledge their biases, and empathize with their target audience to envision and start prototyping their product. Students will build a list of critical questions to guide their prototyping process, and this process will be documented via a prototype log. The prototype log will account for each iteration, and a short explanation as to why they have made that iteration. The goal at the end of the prototyping process is that they will have achieved the best version of their product.

Lesson 6: Test (Try) [Ka-Yee]

In this lesson, students will consider their own biases and privilege with an activity of doing basic tasks with handicaps such as wearing oven mitts, blindfolds, etc. Students will use various perspectives in reflecting on how biases may exist in testing, and will continue to enhance their product by designing an appropriate way to test that their products can fully meet the target audience's needs.

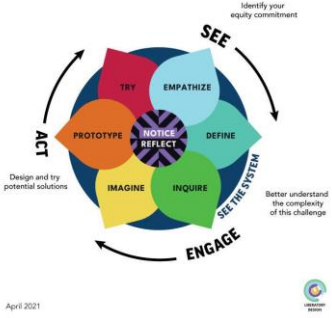
Lesson 7: Reflect [Stephen] - In this lesson, students will reflect on their journey through the liberatory design cycle. They will discuss the importance of each step of this cycle and their contributions to improving the wellbeing of individuals, communities and the environment. They will complete this unit with a learning or process journal or alternative means for sharing their product and processes.

Additional Lessons: Further Iterations of the Prototype/Test

Culminating Task Description: Presentation of individual group products with a individual Learning Journal/Reflection submitted

Overview

| Expectations <i>Overall expectations (Link to list of specific expectations addressed)</i> | “Big Idea” <i>This will be the overriding theme, question, focus for the teaching and learning inquiry.</i> | Learning Goal(s) <i>(Can be overall; might change throughout inquiry)</i> |
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| <ul style="list-style-type: none"> • Makerspace challenges that are inclusive for all abilities and learners. • Mindful of various perspectives and practicing empathy throughout the design process • Reflective of EDIDA framework • Incorporating the Liberatory Design Process (Notice, Reflect, Define, Empathize, Ideate, Prototype, Test) | <p>Social justice (EDIDA) frameworks along with design learning through making can be used to address real-world social, ethical, and sustainability issues.</p> <p>Examples could include: Social Issues (<i>Creating advocacy campaigns and voice for social issues like Black Lives Matter Movements, Police Brutality, Systemic Racism, Residential Schools, Racial Profiling, Equality in Gender Rights etc</i>) Ethical Issues: (<i>Privacy and Surveillance, Cyberbullying, Animal Testing, Cultural Appropriation, Gun Control, Death Penalty, Social Media influences etc</i>) Sustainability: (<i>Climate justice/injustice, Climate Change, Pipelines, Renewable Energy, Sustainable City Planning, Water Scarcity, Deforestation, Food Waste etc</i>)</p> | <p>Learners will:</p> <ol style="list-style-type: none"> 1. Understand and utilize inquiry based learning. 2. Incorporate liberatory design thinking. 3. Research, learn, reflect, empathize with, and advocate on social justice issues 4. Use iterative design to provide a solution on social justice issues and take action on real-world problems. |

| Assessment For Diagnostic Assessment <i>(At the start of the cycle/unit)</i> | Assessment As <i>The overall teaching should prepare students to complete this task.</i> | Assessment Of Culminating Assessment Task <i>(At the end of the cycle/unit)</i> |
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| <p>KWFLSD chart/ class discussion to identify what students already know about the issue(s) being addressed.</p> <p>Discussions on: What is the issue/problem that exists?</p> <p>Think-pair-share about what issues or problems are important to create voice/advocacy for?</p> <p>Using the answers from the think-pair-share above, students in small groups will research one of the issues each and share out using a jigsaw activity, Identifying what solutions/strategies are being directed to their group's chosen issue.</p> | <p>Liberatory Design for Equity Process:</p>  <p>This process will be assessed through ongoing maker challenges and provocations at every stage/lesson of the unit. For example in lesson 2, students will need to explore their own identity and how that plays a role in how they perceive the needs of others. Observations, anecdotal notes will be made by the teacher throughout these lessons.</p> <p>Throughout these lessons students will have one on one conversations with their teacher as well as conferences between teacher and groups so that they can be provided feedback on their level of understanding of the liberatory design cycle.</p> <p>Students will be working on their process journal (or alternative) throughout so they can be provided feedback on their work at every stage of this unit. Multiple classes require the creation of questions regarding the design cycle or about their process and those can also be assessed and have feedback provided to students.</p> | <ul style="list-style-type: none"> ● Multimodal product and final outcome through journal, presentation and showcase of final maker challenge. ● Multimodal Debrief/Reflection <ul style="list-style-type: none"> ○ (process journal, podcast, visual, video, digital storytelling, written, oral, audio etc) ● Sharing and presenting their reflection and product to the classroom and/or local community. |

| Summary (DESCRIPTION) Conceptual Development 200-300 words | Equity, Diversity, Inclusion, Decolonization, Anti-racism (EDIDA) <i>How the unit is situated in EDIDA</i> | Rationale <i>Why it matters to student, why it matters to community, why it matters to world, how it connects to STEAM, EDIDA, TPACK/SAMR</i> |
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| <p>This unit was designed to empower students with maker and design skills to create a solution on a social justice issue through inquiry (e.g. using makersmakingchange.com to find a person with a physical impairment which limits daily functions or creating an advocacy campaign and associated materials for spreading awareness around 2SLGBTQIA+ issues). Students will incorporate liberatory design thinking to take action on real-world problems. Throughout this unit, students will research, learn, reflect, empathize with, and advocate on social justice issues of their choice.</p> | <ul style="list-style-type: none"> • Social justice framework using the SJPACK model and Learning for Justice • Advocacy for equity, diversity and inclusion through the NAIS article. • Decolonization frameworks by including multiple narratives and encouraging shared stories and collaboration through the First Peoples Principles of Learning • Understanding identity, privilege, power and the impacts of oppression from the Wheel of Privilege and Power and the Anti-Oppression Power and Privilege Wheel. • Encourage students to elevate and honour the voices and perspectives of marginalized social and intersectional identities (APA EDI Framework, p. 7). • Incorporating BCIT's Anti-Racism Framework throughout the lessons. • Reflecting on our own biases and how that impacts our views and values on issues/challenges. • Design based learning to address real world problems. | <p>Equipping the next generation with a strong sense of social responsibility, strong ethics, and sustainability mindset.</p> <p>Through making and designing, learning is iterative and engaging. Students learn through experiential learning experiences.</p> <p>The principles of EDIDA, ADST, Liberatory Design for Equity Process are embedded throughout this unit of learning.</p> |

Instructional Strategies & Approaches:

| Accommodations (For all students) | Field Study/Trips, Experiential Learning outside the classroom | Inquiry Design-Based Thinking STEAM | Collaborative/Instructional Strategies |
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| <ul style="list-style-type: none"> - Audio - Visuals - Printable instructions - Additional time - Low tech - high tech - Please see Brock University Inclusion Guide or ELL Modifications for further accommodations or modifications. | <ul style="list-style-type: none"> - Interviews with affected parties, field trips to communities - Environmental issues virtual field trips at the nature conservancy - Human rights virtual field trips at equitas - Canadian Civil Liberties Association - Human Rights Campaign - Youth for United Nations Universal Declaration of Human Rights | <p>The overarching project will utilize the liberatory design cycle, which moves beyond the inquiry design cycle to include our positionality and the context within which we are using our maker mentality.</p> <p>The lessons are structured in such a way that each lesson represents one aspect of this design cycle and so it is embedded in a large-scale way, but also emphasized throughout individual lessons.</p> | <ul style="list-style-type: none"> • KWLFS chart • Round robin • Think Pair Share • One minute papers • 3-2-1 countdown • Post-its • SWOT analysis • Entry/ Exit • Graffiti wall • Classroom poll • 1-1 check-in meetings/ conferences • Classroom discussion and consistent reflection opportunities • Reflection/Design Journaling |

| Tech-Enabled Learning | Professional Resources | Subject Specific Concepts | Connection to Current Events & Issues | Parent Communication |
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| <p>Leveraging digital learning tools and platforms, design tools. Which includes but not limited to ChatGPT, Canvas, Adobe, PhotoShop, and more.</p> | <p>https://www.hrw.org/</p> <p>https://www.unesco.org/en/climate-change/education</p> <p>https://www.gettingsmart.com/2018/03/22/7-real-world-projects-that-allow-students-to-tackle-big-problems/</p> <p>https://www.un.org/en/global-issues</p> <p>https://tc2.ca/en/creative-collaborative-critical-thinking/resources/cc-critical-challenges/</p> | <p>Demonstrate their product to potential users, providing a rationale for the selected solution, modifications, and procedures, using appropriate terminology (BC ADST 9 curriculum, 2018). Critically evaluate the success of their product, and explain how their design ideas contribute to the individual, family, community, and/or environment (BC ADST 9 curriculum, 2018).</p> | <p>Current real-world issues are the topics being addressed by this cross-curricular unit. (e.g. Forest fires, 2SLGBTQIA+ issues related to human rights, the barriers to accessibility experienced by those with physical or mental impairments, etc.)</p> | <p>-Emails and communication platforms (ex: TEAMS, blogs, or Zoom)</p> <p>- Discussion with community and parents to showcase final maker challenges and provocations throughout the unit.</p> |