



THE UNIVERSITY OF BRITISH COLUMBIA

Faculty of Education

Master of
Educational
Technology
Program



New Chair Design

Inclusive Makerspace Challenge

Overview of the challenge

Design a chair that can be used for a specific purpose by a specific audience to solve a specific problem.

Materials and Resources Required



No Tech Tools can include (but are not limited to)

- cardboard
- glue
- scissors
- string/yarn/twine
- construction paper
- popsicles
- pompoms
- pipe cleaners
- tape
- recyclable items
- bbq skewers
- tooth pics
- straws
- playdough
- clothes pins



Low Tech Tools can include (but are not limited to)

- Ozobots
- Cublets
- Beebot
- Code-a-pillar
- Sphero
- Tinkercad
- DoInk
- Animation Creator
- Flip-a-Clip
- StopMotion Recording
- Garageband
- iMovie



High-Tech Tools can include (but are not limited to)

- 3-D printer
- Sphero
- Makey Makey
- Dash and Dot
- Ollie



Note: many of the low-tech tools can also be combined with other educational technology tools to redefine the inclusive makerspace challenge using technology in innovative and critical ways.

It is also recommended to explore and discover digital tools and robots to be used in critical and creative ways.

Inclusive Maker Challenge Instructions

Inclusive design thinking tasks promote problem solving, critical thinking, and creativity. This task is a challenge where you are to use the materials provided (or your own materials) to design and build an innovative and accessible chair for students/colleagues/individuals. You might create a multi-sensory chair, a chair that is accessible for individuals with special needs, or a chair that supports the mental and physical health of individuals. The possibilities are endless.

Be prepared to move your ideations to execution through the design of a prototype and then into the testing phase of your prototype.

Use the lesson plan templates (printable [design planning sheet](#) and [Tinkercad Design Thinking Process](#)- Digital Process) to 'make' from the option you chose above.

Critical Questions for Consideration

- a) How did each of the maker levels (no tech, low tech, high tech) challenge your thinking?
- b) Where are you going to go from here with your design?
- c) What are you planning on making and why?
- d) What problem(s) are you solving?
- e) Why is this a problem?

- f) What audience are you making this for?
- g) How might this item benefit this audience?
- h) What barriers do you foresee having?
- i) What is your plan of execution?
- j) How might you showcase this design to a global audience?
- k) What are your next steps?

Background/ Additional Information

Depending on the individual(s) for which this chair is being created, learners may wish to research different types of chairs that have already been made in an effort to redesign and redefine the chair considering perhaps oversights to the original design or inherent biases or assumptions that were made in the original design. Alternatively and/or simultaneously, learners may wish to dig deeper into accessibility features for a particular individual, community, or population, research the needs of this individual, community, or population, or create something innovative that will solve a systemic problem.

Inclusivity Focus

For the design of this innovative chair, the learner must consider all perspectives from an equity, diversity, inclusion, decolonization, anti-racist, and accessibility (EDIDAA) lens to ensure that the chair is designed with the user in mind.

No-Tech, Low-Tech, High-Tech Options

See the materials list for options of no-tech, low-tech, and high-tech options for this challenge. Providing a variety of options for learners to create and design with, creates an inclusive learning environment that honours all entry points (low floors, high ceilings, wide walls).

Extensions

There are endless opportunities for ways to extend the design of an accessible chair for all peoples. To share your own ideas and examples, tweet #UBCMETmakerchallenge.