



EXPERIENCE COLORBLINDNESS VR & DISCUSSION ACTIVITY

OVERVIEW

Students will go through the “eXperience Colorblindness” VR app. Using the material covered by the experience and any other supplemental materials or information covered in the class, students will engage in discussions.

MATERIALS

- Oculus Rift or Rift S
- Oculus Touch controllers

CREDITS

www.cultofpedagogy.com/speaking-listening-techniques/

www.grinnell-k12.org

SYNOPSIS

The eXperience: Colorblindness VR experience takes students on a deeper dive into the causes and types of colorblindness. It aims to educate and erase common misconceptions through interactive activities. These activities include daily tasks using filters to simulate what it is like to have the different types of colorblindness. These activities include sorting fruit and painting. The application finishes by giving them a colorblind test with results to see if they have any deficiencies.

Upon completion of the activities, use one of the two suggested discussion formats described on the next page. This is meant to engage students in thoughtful conversation about the VR experience and colorblindness. You will find sample questions on the third page to get the conversation started.

TIMELINE

This activity is designed to take be completed in three-45 minute sessions.



DISCUSSION FORMAT SUGGESTIONS

Gallery Walk

a.k.a. Chat Stations

Basic Structure: Stations or posters are set up around the classroom, on the walls or on tables. Small groups of students travel from station to station together, performing some kind of task or responding to a prompt, either of which will result in a conversation.

Variations: Some Gallery Walks stay true to the term gallery, where groups of students create informative posters, then act as tour guides or docents, giving other students a short presentation about their poster and conducting a Q&A about it. In Starr Sackstein’s high school classroom, her stations consisted of video tutorials created by the students themselves. Before I knew the term Gallery Walk, I shared a strategy similar to it called Chat Stations, where the teacher prepares discussion prompts or content-related tasks and sets them up around the room for students to visit in small groups.

Socratic Seminar

a.k.a. Socratic Circles

Basic Structure: Students prepare by reading a text or group of texts and writing some higher-order discussion questions about the text. On seminar day, students sit in a circle and an introductory, open-ended question is posed by the teacher or student discussion leader. From there, students continue the conversation, prompting one another to support their claims with textual evidence. There is no particular order to how students speak, but they are encouraged to respectfully share the floor with others. Discussion is meant to happen naturally and students do not need to raise their hands to speak. This overview of Socratic Seminar from the website *Facing History and Ourselves* provides a list of appropriate questions, plus more information about how to prepare for a seminar.

Variations: If students are beginners, the teacher may write the discussion questions, or the question creation can be a joint effort. For larger classes, teachers may need to set up seminars in more of a fishbowl-like arrangement, dividing students into one inner circle that will participate in the discussion, and one outer circle that silently observes, takes notes, and may eventually trade places with those in the inner circle, sometimes all at once, and sometimes by “tapping in” as the urge strikes them.



DISCUSSION QUESTIONS

- What were the 3 main types of colorblindness? Which one do you think is the worst variation of colorblindness?
- What makes the ability to see the world in a new way important? (Empathy)
- What would one task be that would be harder for people that are colorblind than people that aren't?
- What would you try and come up with to help the colorblind people navigate daily tasks?

STANDARDS

Biology:

Heredity

- An altered gene may be passed on to every cell that develops from it. The resulting features may help, harm, or have little or no effect on the offspring's success in its environment.
- Gene mutations can be passed on to offspring.
- Mendel's laws of inheritance.
- Employ the Punnett Square to determine results of monohybrid and dihybrid crosses to determine genotype and phenotype.

