

# Design Brief

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## Problem/Need

There is a dire need to reduce the cost of education in the United States to make it more accessible for everyone. Income inequality and poor socioeconomic status of a child's family shouldn't burden a student. Everyone should have the opportunity to get a free or low-cost, high-quality education. Outreach programs for Title 1 schools are an option helping to bring exciting and meaningful educational experiences to low-income schools from educational institutions within the community. With this project, I hope to shed light on one example solution which utilizes electronic technologies to access educational curriculum outside of a traditional classroom.

## Learning Objectives

After the presentation, viewers will be able to

- Identify one possible solution for helping low-income schools access field trips
- Implement strategies for inclusivity in education via outreach programs to schools

## Learning Activities

The individual or group of individuals who view this presentation will be prompted by questions throughout the presentation to provoke thoughtful discussion. The key learning activity is independent learning through reflection on the presentation.

## Tools/Media/Resources

The tools I used were Adobe Spark to construct the presentation visuals, and Garageband for the audio. TechSmith Capture was used to gather a screen capture of scrolling through the website. I began with a script and an outline and recorded my talk in Garageband, then uploaded the audio to Adobe Spark as "music." After that, I chose the layout of the video and ordered the slides accordingly. I wanted to keep the video under 7 minutes because I have learned through readings like Heath & Heath *Making Your Presentation Stick* (2008), that people lose interest close to 10 minutes. I used the Auraria online research tool to search for my scholarly articles to include data as evidence.

## Assessment

Although the presentation is for informational purposes only, At the end I will ask viewers to leave feedback in order to assess what was gained from watching it. I will post my content in an online forum that allows for commenting like [Vimeo](#), that way I can share it more broadly and collect more data.

## Reflection/Evaluation

Through the Equity Statement project I have been able to utilize what I've learned regarding equity in eLearning. In eLearning, the public good is utilitarian and it is about finding out the most important ways technology can be used to help the *most* people. It is about inclusivity and the wide distribution of educational materials so that more people are able to access them. The simplest way in my mind to describe the importance of diversity in eLearning is that good innovation starts with lots of input from lots of different minds with competing ideas. Some of these systematic inequalities are built into our capitalist system and are working as intended, to make the wealthy more wealthy. Unfortunately as educators/ designers of eLearning we have to pay extra close attention to what can aggravate inequalities in education. I hope to do this through informal education projects such as this one.

## Transcript

According to the The NMC Horizon Report: 2018 Higher Education Edition, "Advancing digital equity is a quintessential social justice issue that impacts both developing nations and underrepresented groups throughout the world." There is a dire need to reduce the cost of education in the United States to make it more accessible for everyone. Income inequality and poor socioeconomic status of a child's family shouldn't burden a student. Everyone should have the opportunity to get a free or low-cost, high-quality education. Outreach programs for Title 1 schools are an option helping to bring exciting and meaningful educational experiences to low-income schools from educational institutions within the community. With this project, I hope to shed light on one example solution which utilizes electronic technologies to access educational curriculum outside of a traditional classroom.

A program I was involved in several years ago is called StarLab. I brought this blow-up planetarium dome all over Colorado to low-income schools, museum events, and family fun days. It provides a way for Title-1 low-income schools to experience all the technology and magic a planetarium lesson brings without the costly bus rental fees that can end up being hundreds of dollars. Schools are more likely to approve a teacher's request for a field trip if there are no bus rental fees so our job was to bring the planetarium to these awesome schools so everyone can participate.

StarLab offers help to those community institutions seeking to purchase their products by providing assistance with gathering the funding necessary to begin the program. StarLab says "we believe an educational experience that excites and engages students should never be out of reach. That's why we offer complimentary grant funding services to schools and organizations that need supplemental financial assistance... Once you've qualified for the grant program, our expert staff members will research available grants that match your funding needs. We'll even write the grant proposal on your behalf so all you need to do is submit it. And it's all free!"

Once an educational institution can acquire a fun, portable education system such as StarLab it isn't too hard to find graduate student volunteers to run outreach excursions for local schools. At CU South Denver I had the privilege of participating in many Family Fun Day events. With

"Star Lab" I was able to experiment with live-rendering planetarium technologies, and bring programs to schools all over Colorado.

A large aspect of making science more accessible for people of all socioeconomic statuses is lowering the cost of science education. With Star Lab, I was able to bring our classes to students of Title 1 low-income school status so they didn't have to pay for the costly bus rental fees.

The technology inside the dome is Digital Sky 2, and we used an Alienware laptop and a Panasonic projector with a fisheye lens to create the experience. The dome itself is held up by a constant stream of air provided by a large fan. Students are able to crawl through the tunnel and find themselves transported to another galaxy. Our team from Fiske Planetarium setup a booth with a science experiments and an inflatable planetarium dome in which students of all ages could explore the universe!

According to the article *The impact of a museum travelling exhibition on middle school teachers and students from rural, low-income homes* by Badger & Harker, "Researchers have investigated the impact of museum visits on disadvantaged children and examined the transmission of cultural capital in the homes of middle-class, working-class and poor families... Parents in middle-class homes often cultivate their children's talents, opinions and skills through music or sports tuition which would be prohibitively expensive for poorer families. Children from lower-class homes often experience school as alienating and are not as academically successful as middle-class children." (Badger & Harker 2016).

I hope brief presentation this has given you an idea about how to incorporate this kind of portable e-Learning in your own lessons. Do you know of other portable museum exhibits that help to reduce the cost of school field trips? Please share in the comment section. Thanks!

## Resources

Badger, J., & Harker, R. J. (2016). The impact of a museum travelling exhibition on middle school teachers and students from rural, low-income homes. *International Review of Education*, 62(3), 355-374. doi:10.1007/s11159-016-9566-5 <https://doi-org.aurarialibrary.idm.oclc.org/10.1007/s11159-016-9566-5>

Becker, S., Brown, M., Dahlstrom, E., & Pomerantz, J. (2018). The NMC Horizon Report: 2018 Higher Education Edition. EDUCAUSE, 30-31. Retrieved October 27, 2018, from <https://www.educause.edu/horizonreport>.

Heath, C., & Heath, D. (2008). Made to Stick: Why Some Ideas Survive and Others Die. *Making Your Presentation Stick*, 1-3. doi:10.15695/hmltc.v33i2.3307

"Making Your Presentation Stick" is an article written by Chip Heath and Dan Heath, the authors of the book *Made to Stick: Why Some Ideas Survive and Others Die*, published by Random House in January 2007.