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Szilvia Kadas

SUNY Cortland, szilvia.kadas@cortland.edu

Eric M. Edlund

SUNY Cortland, eric.edlund@cortland.edu

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Cover Page Footnote

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A multidisciplinary collaboration between graphic design and physics classes responding to COVID-19

Szilvia Kadas^a and Eric M. Edlund^b

^a Art and Art History Department, SUNY Cortland, Cortland, NY, USA;

^b Physics Department, SUNY Cortland, Cortland, NY, USA;

Contact: Szilvia Kadas szilvia.kadas@cortland.edu and Eric Edlund eric.edlund@cortland.edu

Abstract

Students from graphic design and physics classes at SUNY Cortland collaborated during the spring semester of 2020 on a multidisciplinary project related to the COVID-19 pandemic. In these collaborations, the students' individual contributions were part of a larger project that required a diverse skill set, through which students learned how different skills can complement their own disciplines. The graphic design and physics instructors applied a project-based learning philosophy applying the Common Problem Pedagogy (CPP) framework to construct student-teams composed of both disciplines. This project explored how coordinated social actions can allow the public to exercise control in uncertain times. Students created mathematical models related to the spread of the disease and the economic consequences of quarantine and then communicated the results in scientific reports, which were interpreted and presented as infographics and illustrative visual design posters for public outreach. To share the students' work with the larger community the instructors concluded this project with a virtual public exhibition hosted by the SUNY Cortland Dowd Gallery.

Section 1: Introduction

This paper describes a joint effort of two SUNY Cortland faculty in spring 2020 that was conducted under the Common Problem Pedagogy (CPP) project. The CPP methodology seeks to stimulate creative thinking through ill-defined projects that require multidisciplinary skill sets and collaborative problem-solving, wherein students improve their ability to work as part of a team, develop experience with organizing ideas, develop an appreciation for nuance, see the existence of multiple possible solutions, and increase self-awareness of strengths and weaknesses (Mattingly & Broyles, 2017; Liszka et al., 2022).