Chapter 12
Global Kitchen Project:
Promoting Healthy Eating Habits and Developing 21st Century Skills among Children through a Flipped Classroom Model

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ABSTRACT

The Global Kitchen project promotes health education and 21st century skills using educational technologies among 2nd and 3rd grade elementary classrooms, offers creative strategies for developing culturally and linguistically responsive Universal Design for Learning (UDL) curriculum while integrating global education and media literacy skills into the curriculum with limited resources, and describes participants' reactions, discoveries, and experiences with new media. Situated within the context of teaching and learning, this Participatory Action Research (PAR) project aims to advance scientific knowledge of transdisciplinary project-based curriculum revolving around global nutrition education as a means to promote healthy eating habits among young children in low-income schools while developing media literacy skills and global competencies and offering the tools to teach children ages 8-10 years about nutrition in a meaningful, integrated way as well as outlining the impact of flipped classroom projects.

INTRODUCTION

Asked "What is in your lunch box?" a 2nd grader showed, *a bag of chips and a bottle of soda*. When we conducted a participatory action research study called the *Global Kitchen Project* with 2nd and 3rd graders, we were surprised to find out most of them could not identify more than a few fruits and vegetables or do not eat a balanced diet regularly. The list of meal choices they listed was limited to a few items such as chicken nuggets, pizza and fries. On further note, this same was true among the college students. Most college students had difficulty identifying different food choices, the difference between protein and dairy and some of the students could not even make sense of the nutrition facts label. For a young person preparing oneself for a globally connected world while living in a media saturated culture enthralled by the latest technologies, studying to secure a future career, and staying healthy and active – shopping and cooking healthy meals might be not be the central concern. In the face of such challenges, nutrition education in elementary schools has tremendous potential to awaken a self-reflective awareness of nutrition. We intended that students would come away from our modules having gained an awareness of global food choices; more importantly, that they would gain new insights into the workings of their own food choices and would develop an understanding that would serve their growth as individuals long after the intervention had dimmed.

This chapter focuses on three main goals: (1) promoting a culturally and linguistically responsive curriculum while developing global competencies and media literacy skills among children through mobile technologies (e.g. ipads, flip cameras); (2) describing their reactions, discoveries, and experiences using mobile technologies; and (3) showcasing their multilingual multicultural multimedia projects.

The study used three theoretical frameworks; global education, health education and flipped classroom pedagogy. It focuses on an experiential and exploratory look at making global connections through the lens of media literacy education using mobile technologies.

This intervention study assessed the extent to which teachers created flipped nutrition education, content and methods used to present nutrition information to their students, and factors that support teacher-led nutrition instruction. It was conducted in four classrooms in two elementary schools, investigating over seventy-eight 2nd and 3rd grade students. In addition to state standards, common core standards, ISTE's NETS for student standards, we explored Partnership for 21st Century Skills (P21, 2013), Asia Society global competency frameworks[1], Universal Design for Learning (UDL) Model[2] and "Pedagogy of Plenty."

In this study, we addressed a public health issue among young children in the nation by offering the "global tools" (e.g., media literacy, multiple perspective) for teachers to better educate these children about the importance of practicing healthy eating behaviors. This transdisciplinary action research project intends to transform the way we integrate global competencies in the 21st century while conducting research on project-based learning activities focusing on nutrition. Thus, this research is important because it focuses on children in their early ages by documenting their experiences, reactions, discoveries, and experiences with flipped classroom interactions during the transdisciplinary activities, and intends to capture the role of 21st century skills in education, but also examines the health aspects of children in a global education context by collaborating with people around the world using social networking tools (e.g. Skype) and how the quality of such interactions promotes elementary children's education.

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