## **Evidence on Student Online Learning Outcomes in Higher Education During the COVID-19 Pandemic**

Chin-Yen Alice Liu, College of Business, Texas A&M University – San Antonio, One University Way, San Antonio, TX 78224, 210-784-2331, chin-yen.liu@tamusa.edu

## **ABSTRACT**

The COVID-19 pandemic has elicited a variety of stresses and responses around the world, especially in education. The whole school system from elementary to tertiary level have been forced to switch to a virtual learning environment regardless the readiness of abilities to teach (i.e. educators), to learn (i.e. students), and to provide the technology (i.e. IT supports) in an educational institution. The lack of well-development and preparedness have interrupted millions of students' learning opportunities. Meanwhile, cheating in the online exams have become so rampant since students had just been provided an opportunity (that was not previously available to them) to breach academic integrity. Quantitative data was collected to compare students' online learning outcomes via their quiz/exam grades from one quantitative course section offered during the pre-pandemic (i.e 2018 & 2019) and post-pandemic (i.e. 2020 & 2021) as well as "Student Rating of Instruction Survey" which was assessed students' opinions and feedback on the quality of instruction in the class. This paper also applied systems thinking to demonstrate an online learning experience and a contingency planning to better prepare and respond to this coronavirus crisis due to the lack of their social interactions with their peers, recreational options, and outdoor activities during this national emergency virus pandemic. The ultimate impact to our next generation and what to next are discussed in this paper.