


Chapter 6

Finding Success in Adapting Repeated Microteaching Rehearsals (RMTR) for an Online Science Methods Course

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ABSTRACT

In February/March 2020, postsecondary educators worldwide were required to suddenly shift from face-to-face to online instruction due to the COVID-19 pandemic. For teacher educators, this meant reimagining how to enact core pedagogical strategies, such as teaching rehearsals for online instruction. This chapter shares my experiences of integrating repeated microteaching rehearsals (RMTR) into my elementary science methods courses before the COVID-19 pandemic to disastrous results. Then, adapting RMTR for an online learning environment due to the rapid shift from face-to-face to online learning during the pandemic and its successful integration as an online practice teaching strategy. This chapter also shares how RMTR was and continues to be implemented in my post-pandemic science methods course and the lessons learned along the way.

DOI: 10.4018/978-1-6684-5939-3.ch006

INTRODUCTION

In February and March 2020, K-12 and postsecondary institutions became the epicenters of rapidly expanding curricular and service disruptions as local and state government leaders took dramatic steps to “flatten the curve” and reduce the number of new COVID-19 cases. The COVID-19 pandemic was a pedagogical reckoning in education due to the dramatic shift from face-to-face to online learning (Allaire & Killham, 2022, 2023; Hartlep et al., 2021). This shift was accomplished with varying degrees of preparedness and technological competency.

Besides finding ways to “do science” virtually, science teacher educators searched for ways to address core instructional pedagogy – such as teaching rehearsals (practice teaching) – in online learning environments. This chapter shares my experience adapting repeated microteaching rehearsals (RMTR) for an online undergraduate elementary science methods course. This course is part of the teacher preparation program for elementary teacher candidates (ETC) enrolled the University of Houston-Downtown - a four-year federally-recognized Hispanic/Minority-serving institution – during the COVID-19 pandemic. Furthermore, this chapter also explores online RMTR’s successful integration as an online teaching rehearsal strategy in my post-pandemic course and the lessons learned along the way.

THE UNIVERSITY, COURSE, AND STUDENTS

The University of Houston-Downtown (UHD) is a four-year federally designated Minority and Hispanic-serving institution located in an urban metropolitan area of the southern United States. Many undergraduates at UHD are the first in their families to attend college, come from a lower socioeconomic status, work full-time, and balance family, professional, and academic lives while attending college. Approximately 54% (7,106) of all undergraduates self-identify as Hispanic, and over 56% of Hispanic undergraduates are female, with an average undergraduate age of 26.5 years. Hispanic females are also the student demographic with the highest graduation rate (23%). Within UHD’s teacher preparation program, 92% of undergraduates were/are female, with 73% self-identifying as Hispanic/Latinx and an average age of 28.51 years (Data USA, 2022; University, 2022). ETCs participating in RMTR mirror the overall university demographics. The majority of the ETCs participating in this study self-identified as female (94.6%) and Hispanic/Latinx (78.7%), with Spanish being their first/home language (60.2%).

Elementary Science Methods (ESM) is a required one-semester course taken by undergraduate ETCs in the third semester of their teacher preparation program, the semester before student teaching. ESM engages teacher candidates through their

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