



Proceedings of the Informing Science + Information Technology Education Conference

An Official Publication
of the Informing Science Institute
InformingScience.org

InformingScience.org/Publications

Online July 6-7, 2022

USING TEACH BACK TUTORIALS TO OVERCOME PANDEMIC LEARNING GAPS

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ABSTRACT

Aim/Purpose	The purpose of this paper is to address the issue of gaps in students' knowledge at the time they enter a comprehensive Information Systems capstone course. This problem of knowledge gaps was exacerbated by the forced remote learning and isolation caused by the COVID-19 pandemic. The aim was to find a technique that would identify and fill those gaps. Ideally, the method would also reinforce the students' interpersonal soft skills.
Background	Many universities have a capstone course where students may apply their knowledge from the curriculum to a project, and they are evaluated on their retention of knowledge from the core classes. Over the past two years, students have experienced course interruptions and modifications due to the pandemic, resulting in learning gaps on topics covered in the core courses. Depending on the project's scope and curriculum, this may prevent students from conversing on many essential concepts during the capstone course. By requiring students to create "Teach Back" tutorials on materials from their core courses, faculty may ensure that the key concepts are discussed multiple times within the curriculum.
Methodology	We present a case study to identify key concepts and compare cohort results before and after implementation.
Contribution	A process for identifying potential knowledge gaps is identified, and a method to repeatedly expose students to concepts is introduced.
Findings	There were improvements to the overall capstone scores after the tutorial implementation. While many factors influence changes in scores across cohorts,

The full paper was previously published as the following and is being presented at this conference:

Sherman, S., Larson, B., Bohler, J., & Smith, E. F. (2022). Using teach back tutorials to overcome pandemic learning gaps. *Issues in Informing Science and Information Technology*, 19, 135-148.
<https://doi.org/10.28945/4967>

Abstract published in *Proceedings of InSITE 2022: Informing Science and Information Technology Education Conference*, July 6-7 [online], Article 16. Informing Science Institute. <https://doi.org/10.28945/4963>

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	the initial findings are promising, supporting the concept that teaching back helps to close knowledge gaps.
Recommendations for Practitioners	Faculty should collaborate to identify knowledge areas that need to be reinforced later in their students' academic careers. Teaching back essential concepts that may not be prioritized in implementing a capstone project ensures a repeated exposure to the identified concepts.
Recommendations for Researchers	There needs to be a priority to teach students to be lifelong learners and to teach the skills needed to share their knowledge with future coworkers. There needs to be more research into a pedagogy that builds these essential soft skills within our curriculum. Finally, research into alumni feedback on course topics and pedagogy is needed.
Impact on Society	Introducing pedagogy that improves both knowledge and soft skills, this research looks to build individuals who will learn independently and be able to communicate with and improve others.
Future Research	There needs to be additional research to study the changes in technical knowledge before and after Teach Back, the consequences of elective sequencing, the consideration of elective versus required courses, and the use of Teach Back to capture student knowledge gained from completing diverse electives prior to the capstone course.
Keywords	knowledge gaps, pandemic, Teach Back, capstone, soft skills, interpersonal skills, curriculum, engagement, tutorials

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