

THE RELATIONSHIP BETWEEN CRITICAL THINKING, COOPERATIVE LEARNING, AND THE VIRTUAL LEARNING ENVIRONMENT AT THE ELEMENTARY LEVEL

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THE PROBLEM

Technological changes in the world are rapidly evolving with no sign of slowing down. Teachers are expected to prepare students for the future, despite the lack of clarity as to what the future looks like (Pavlou, 2020). Virtual learning has become a predominant concern in the United States' educational system at the elementary, secondary, and post-secondary levels. The current pandemic that began at the end of the 2019-2020 academic school year has highlighted gaps in this system and forced educators to reevaluate their practices in relation to the technology-driven society students are growing into. The sudden use of technology as the main platform for learning has proven to be a major challenge for students, parents, teachers, and administration. There are numerous studies that exclusively focus on cooperative activities, critical thinking, and virtual learning as individual entities; however, there is limited research on the triangulation of these concepts, especially at the elementary level.

PURPOSE OF THE STUDY

The purpose of this study was to identify patterns that have impacted teachers' abilities to provide optimal learning conditions for students that infuse virtual learning and cooperative learning strategies to encourage the development of higher-order thinking skills. This study focused primarily on the students and teachers at the elementary level, since there currently is limited research. The research questions are as follows:

- ★ What patterns have impacted teachers' abilities to provide optimal learning conditions for students at the elementary level that infuse cooperative learning activities in the virtual learning environment to encourage the development of critical thinking skills?
- ★ What difficulties do teachers report when they implement cooperative learning activities in the virtual learning environment?
- ★ What effective ways to seamlessly integrate cooperative and technological strategies have teachers reported?

METHODOLOGY

To investigate the relationship between cooperative learning, critical thinking, and virtual learning, a mixed methods approach was deemed most appropriate. Surveys were used to gather quantitative data regarding teachers' perspectives and experiences with implementing cooperative learning activities in the virtual learning environment to foster 21st century skills. A secondary qualitative methodology used was a follow up interview with two participants after completing the initial survey. The interviews allowed participants to build on their survey responses by providing more detail regarding their experience with implementing cooperative learning activities in the virtual learning environment. The surveys and interviews were conducted with K-5 elementary teachers that were selected through convenience sampling (Mertler, 2016). Teachers that met criteria included experienced and first year teachers that held a valid teaching credential and have had experience teaching during the current pandemic.

RESULTS

The data from these methods were organized into 4 themes that included teachers' perspectives, motivation, experiences, and perceived barriers with implementing cooperative learning with virtual students. Initial analysis suggests that teachers agree with the benefits of cooperative learning activities; however, it is suggested that there are mixed perspectives in regard to the challenges with implementation in the virtual environment.


15 OUT OF 15 TEACHERS AGREE THAT CRITICAL THINKING IS A CRUCIAL SKILL FOR STUDENTS TO DEVELOP


15 OUT OF 15 TEACHERS AGREE THAT COOPERATIVE LEARNING STRATEGIES FOSTER CRITICAL THINKING SKILLS


9 OUT OF 15 TEACHERS FEEL THEY NEED MORE TRAINING ON IMPLEMENTING COOPERATIVE LEARNING STRATEGIES WITH VIRTUAL STUDENTS

IMPLICATIONS

The data was interpreted by comparing the findings from the quantitative and qualitative methods. Based on the findings, teachers felt that cooperative learning is an effective strategy that encourages students to develop critical thinking skills. The literature review on this topic emphasized the role of the teachers in creating structured activities in order for social interaction to be effective. The findings from this study support this notion. This research was conducted through the perspectives and experiences of K-5 teachers at the same school site, therefore creating a limitation. Findings could vary from school site to school site. Additionally, the sample size was relatively small.

