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Online Think–Pair–Share in a Third-Age Information and Communication Technology Course

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Abstract : Problem: Senior citizens have been facing a challenging reality as a result of strict public health measures designed to protect people from the COVID-19 outbreak. These include the risk of social isolation due to the inability of the elderly to integrate with technology. Never before have information and communication technology (ICT) skills become essential for their everyday life. Although third-age ICT education and lifelong learning are widely supported by universities and governments, there is a lack of literature on which teaching strategy/methodology to adopt in an entirely online ICT course aimed at third-age learners. This contribution aims to present an application of the Think-Pair-Share (TPS) learning method in an ICT third-age virtual classroom with an intergenerational approach to conducting online group labs and review activities. This collaborative strategy can help increase student engagement, promote active learning and online social interaction. Research Question: Is collaborative learning applicable and effective, in terms of student engagement and learning outcomes, for an entirely online third-age ICT introductory course? Methods: In the TPS strategy, a problem is posed by the teacher, students have time to think about it individually, and then they work in pairs (or small groups) to solve the problem and share their ideas with the entire class. We performed four experiments in the ICT course of the University of the Third Age of Genova (University of Genova, Italy) on the Microsoft Teams platform. The study cohort consisted of 26 students over the age of 45. Data were collected through online questionnaires. Two have been proposed, one at the end of the first activity and another at the end of the course. They consisted of five and three close-ended questions, respectively. The answers were on a Likert scale (from 1 to 4) except two questions (which asked the number of correct answers given individually and in groups) and the field for free comments/suggestions. Results: Results show that groups perform better than individual students (with scores greater than one order of magnitude) and that most students found it helpful to work in groups and interact with their peers. Insights: From these early results, it appears that TPS is applicable to an online third-age ICT classroom and useful for promoting discussion and active learning. Despite this, our experimentation has a number of limitations. First of all, the results highlight the need for more data to be able to perform a statistical analysis in order to determine the effectiveness of this methodology in terms of student engagement and learning outcomes as a future direction.

Keywords : collaborative learning, information technology education, lifelong learning, older adult education, think-pair-share
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