VALIDATION OF THE SOLVING PROBLEMS SCALE WITH TEACHERS

Abstract

Rapid advancements in technology, global competitiveness, and an increasing demand for 21st-century skills, such as problem-solving, underscore the pivotal role teachers play to prepare our youth for an era of exponential change. Those at the forefront of education are challenged to equip students with skills and strategies necessary to think critically, communicate effectively, and solve problems for which there are no known solutions. However, as many school districts transition the focus to 21st-century skills for all students, teachers find themselves in a conundrum between meeting the expectations to transmit 21st-century skills to all students while being held accountable for student performance on 20th-century standardized tests that measure minimal standards. Since teachers are charged with embedding these 21st-century skills within the present curricula, teachers should be provided with opportunities to assess their current level of understanding in 21st-century skills, such as solving problems, to determine the need, if any, for professional development. The purpose of this study is to better understand the intention of teachers to solve problems within the context of learning as measured by a self-assessment instrument. The quantitative instrument validated in this study is a subscale of the Inventory of Learner Resourcefulness (ILR), which was developed and validated by Carr (1999). Referred to as the Solving Problems Scale (SPS), this instrument consists of three factors (planning, evaluating alternative, and anticipating consequences) and has the potential to stand alone to measure an adult’s intention to solve problems within the context of learning. The survey was administered online via SurveyMonkey® to current classroom teachers employed in a large metropolitan school
district in Virginia. Face and content validity were ascertained to ensure that results were logical and meaningful. Principal component factor analysis (PCA) was performed to assess the strength of relationship between the items of the SPS. Results of this study indicate that a valid and reliable instrument can be constructed using items from the SPS. Information obtained from this research will contribute to a deeper understanding of the intentions of adults to solve problems within the context of learning.

*Keywords*: 21st-century skills, problem-solving, and Solving Problems Scale