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SP - (15862) - MEASURING SCIENTIFIC VARIABLES IN THE PRIMARY SCIENCE CLASSROOM: STUDENTS' CHOICES OF TOOLS

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Short Abstract

It is generally accepted that technology plays an important role in science pedagogy and practice, fostering STEM integration, which is considered critical for later science related study and work. However, with the modern-day associations that children have with the use of technology for entertainment and leisure purposes, the perceptions of the role that technology can play during science experiments are under-researched. This study explores choices that children make in the science classroom when measuring scientific variables; chiefly whether they would choose to use a manual or technological tool to carry out this measurement. 170 upper primary-aged took part in science lessons where this choice was offered, and choices were recorded. A sample of these students were then interviewed and asked to provide justifications for their choices, in order to investigate their rationale and perceptions of the tool and how this linked to their ideas about science and scientists. It was found that 76% of students selected to take measurements using the technological option, and 24% selected the manual instrument (with an approximately even gender representation across the choices). Interestingly, justifications for both options included perceptions of ease and accuracy, but reasons for choosing the technological option were predominantly based around ideas of novelty and 'fun'. Possible classroom implications of this are discussed.