

General Biography

From my experience working as post-primary school mathematics teacher and mathematics education researcher, I would like to engage with mathematics teachers to research effective mathematics teaching practices. This may incorporate using ICT to support student learning in mathematics or supporting teachers' learning in mathematics. With regard to supporting students' learning in mathematics, I am interested in co-operative engineering (Sensevy & Bloor, 2019). Co-operative engineering is underpinned by the principle that in order to improve an educational process, teachers and researchers are viewed as equally able to propose adequate ways of acting or conceptualising practice. In this sense, teachers and researchers work collaboratively on an equal footing, to develop, test and review mathematics teaching practices. To support teachers' learning in mathematics, I am interested in assisting teachers to enhance their mathematics conceptual knowledge for teaching (MCKT) (Li et al., 2021). MCKT involves teachers having knowledge and skills directly associated with a specific content topic; being able to connect and justify the main points of a content topic, and to place it in wider contexts; and knowing and being able to use various representations for teaching the content topic and being able to teach the relations between them. The impact of a teacher developing their MCKT is explored in relation to their self-understanding of being a mathematics teacher - that is, how does the teacher see themselves as a mathematics teacher and has this altered because of MCKT development.