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The Integration of Coding in a Teacher Education Program: Course experiences and the teaching and learning of mathematics

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The Integration of Coding in a Teacher Education Program: Course experiences and the teaching and learning of mathematics

Prior to beginning my PhD at Western University, I taught high school computer science, mathematics and science and was inspired to support K-12 teachers with cultivating the type of thinking I observed in my computer science classes. I have since been an advocate for introducing students and teachers across Canada to the world of coding. My passion for coding and mathematics education and my experience as an instructor in Western's Faculty of Education Undergraduate Program, led me to pursue a PhD. I wish to understand how our future teachers perceive coding in teaching and learning about mathematics. I am focusing on their experiences in a course called Computational Modelling in Mathematics and Science Education, which includes hands-on activities, opportunities to teach their new skills to students in the community, and engagement in reflective and reflexive practice.

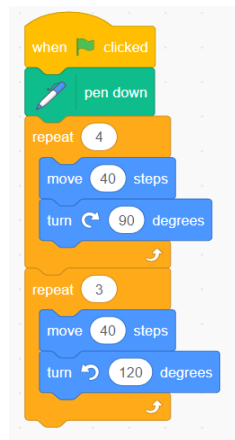
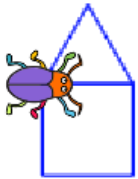


Image description: Preservice teachers explore the work and ideas of a mathematician, learning theorist and educational-technology visionary, Seymour Papert, who developed a children's programming language called Logo in the late 1960s, and apply this to a contemporary learning language called Scratch.