

Teachers and Students experiences with the learning - study approach to teaching and learning the completing square method of solving quadratic equations
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Past researches have shown that student's performances in solutions of quadratic equations has been weak and raises questions about the pedagogical approaches adopted by teachers. The purpose of this paper is to report on teachers and students experiences of the application of the Learning Study (LS) approach to the teaching and learning of completing the square method to the solution of quadratic equations. The study follows a qualitative and interpretive research approach with data collected through simple open-ended questions, classroom observations, video replays and reflection sessions after lessons. The findings reveal teachers appreciation of the application of Learning Study approach, saying it helped them to observe the difficulties students experience in using completing square method to solve quadratic equations and the shortcomings in their lesson preparation. In addition, they noted the importance of reflection in that it helped them improve the second lesson. Students said that the approach helped them learn critical feature in using completing square method to solve quadratic equation. In addition, they confessed that they would use completing the square method to solve quadratic equations, since they understood the method well.

Keywords: Learning Study; variation theory; reflection; teamwork.