Author: Aliza Main
Title: Factorization of algebraic expressions: difficulties and errors of secondary 3 Express and Normal Academic students
Institute: Thesis (M.Ed.) National Institute of Education, Nanyang Technological University
Year: 2006
Supervisor: Ng, Swee Fong
Abstract

This study investigates students’ errors of factorization and the difficulties they faced when factoring algebraic expressions. It also looks at recent research dealing with generalized arithmetic, underlying notions of equivalence and structures. A written test was administered to 113 students from the Express and Normal Academic streams. The findings identified difficulties students faced when factoring algebraic and arithmetic expressions. The study discussed the categories of algebraic expressions which the students have difficulty in. The five difficulties encountered by the students were also identified. They are (1) little or no connection made to algebraic rules, (2) under-factorization, (3) not expressing the factors of second degree polynomials as a product of two linear factors, (4) conjuring missing terms and (5) treating algebraic expressions as equations. Implications for the teaching of factorization to make it more meaningful to students are also discussed.