

962-P1-512

Connie M Campbell* (campbcm@millsaps.edu), Box 150086, Millsaps College, Jackson, MS 39210. *Helping Students to Read, Understand, and Construct Mathematical Proofs*. Preliminary report.

Similar to many other institutions of higher learning, Millsaps College has a course specifically designed to help students make the transition from algorithmic thinking to the more abstract and creative thinking which is required in advanced mathematics. A major focus of this course is constructing mathematical proofs. The author was recently a part of a research project which attempted to assess the effectiveness of this course and found, among other things, that while students may understand what they need to demonstrate in a mathematical proof, they often write something very different - mistakenly thinking that they have clearly communicated their thoughts. In an attempt to address this issue, the author designed a unit in which the students worked in groups to read and critique proofs. This unit was introduced before the students began constructing proofs independently. The author will present the unit, as well as some of the results of the original study which led to this project. Also, she will discuss how the addition of this component impacted the class and the students' abilities to communicate their ideas more clearly. (Received September 15, 2000)