1106-N1-841   **Robert E Buck*** (`robert.buck@sru.edu`), Department of Mathematics, Slippery Rock
University, Slippery Rock, PA 16057. *Experiments in Conjecturing.*

Our department requires students to take a seminar on a topic not covered in standard mathematics courses. I chose to discuss Continued Fractions since it sounded like something the students would find interesting and I knew little about the topic.

At the first meeting, I gave the basic definitions and did a few examples. After each session, there was a three part assignment. Part 1 consisted of different types of computational problems. Part 2 was always the same: Make at least one conjecture based on the computations from Part 1. Part 3 asked them to prove or disprove at least one of the previous conjectures.

During the class discussion, students were expected to argue for their conjectures (as opposed to proving them). At the start, conjectures tended to be sweeping ("All . . ."). Students needed help with the idea of hypotheses. Sometimes this was done during the class discussion, or someone would give a counterexample that narrowed the scope of a conjecture. By the end of the term they got the idea of stating conditions.

The students spent a lot of time discussing the material, both in and out of class. I feel that the seminar was a successful experiment in giving the students a taste for creating mathematics on their own. (Received September 07, 2014)