Steven M Hetzler* (smhetzler@salisbury.edu), 1101 Camden Ave., Salisbury University, Department of Math and CS, Salisbury, MD 21801. Interviews to Assess Vocabulary and Understanding. Preliminary report.

This paper outlines the objectives, process, and results of using brief interviews as a component of exams in a linear algebra course. The primary objective is to measure students' ability to use vocabulary appropriately in spoken dialogue, their familiarity with fundamental examples of important concepts, and their impromptu deductive reasoning abilities. This is also intended as formative evaluation; it is expected that students will learn some interesting mathematics or develop better reasoning and speaking skills from the experience. In the week following an in-class exam, students meet with the professor in his office for a five to ten minute conversation. There is a short set of questions each student is asked. If necessary, the instructor will vary the script slightly, providing guidance only as needed to keep the conversation moving. For instance, students might be asked to provide an example of a 3-d vector that is not in the span of a set of vectors. Then, the student will be asked to demonstrate that the example meets the intended criterion. Other samples will be provided in the talk, as well as results from using this approach in linear algebra and elementary real analysis. (Received September 22, 2010)