

# ADE Medical Education Research Proposal

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## 1. Title

“Passive versus active student learning: Comparing the effectiveness of three teaching formats for learning and long term retention of lecture material by medical students.”

## 2. Abstract

The large lecture format, in which one lecturer addresses a large group of passively listening students, is the most commonly used format in the first year of University of Virginia School of Medicine (UVA SOM) first year curriculum. In the past year the installation of an Audience Response System (ARS) in the Jordan Hall amphitheaters has enabled a greater degree of active student participation in large lectures by permitting students to interact with the lecturer *via* wireless remote clickers. Both of these teaching formats are paced by the lecturer, who controls the speed at which information is presented. In contrast, web-based tutorials not only promote active student participation in learning (the student hits keys to advance the tutorial), but also permit the student to pace the delivery of information according to individual preference. Here I propose a study measuring the effectiveness of each of these three teaching formats (lecture without ARS, lecture with ARS, and web-based tutorial) in promoting long term retention of lecture material by first year medical students. My hypothesis is that the teaching formats in which students actively participate (lecture with ARS and web-based tutorial) will prove to be significantly more effective at promoting learning and long term retention of course content than the traditional lecture format in which students are passive listeners.