

1125-E5-2770 **Risto Atanasov*** (ratanasov@email.wcu.edu). *WeBWorK, Reading Quizzes, and Proof Portfolio in Linear Algebra Course*. Preliminary report.

In the Fall semester of 2015 I used a modification of the flipped classroom learning technique in my Linear Algebra course. The students had to complete a reading assignment before each class. In these assignments students read selected topics from the textbook, completed WeBWorK assignments focusing on the computational part of the readings, took short in-class quizzes assessing the understanding of the concepts covered on these assignments, and worked on more complex suggested problems that were discussed in class. To develop and demonstrate students' mathematical writing abilities, students completed a proof portfolio. Each week I assigned two to four proof-oriented problems from the textbook as portfolio problems. Since writing mathematics requires practice and feedback, the students submitted each portfolio proof for one critique, made corrections, and resubmitted the proofs again. At the end of this presentation I will talk about the effectiveness of the teaching approach described above compared to more traditional approaches that I used when I taught the class in previous years. (Received September 20, 2016)