

1116-VR-480 **Alexander J Hahn*** (hahn@nd.edu), Department of Mathematics, University of Notre Dame,
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The mathematical community has given the concepts "flipped classroom" and "project based learning" much attention. Indeed, such strategies have much to recommend them. They commonly include learning aids such as mini videos designed to get the students up to speed for their in-class activities. However, the textbook does not appear to play a significant role. This seems unfortunate. Does it not have to be one of the primary aims of a university education to get students to be able to extract the essence of sophisticated written materials and to present what they have analyzed articulately and confidently in front of an audience?

In the spirit and context of the flipped class room, I have recently been experimenting with the following approach. Small working groups of students (who as a rule come with calculus experiences from high school) are handed complete segments of applied topics of basic calculus and are asked by "reverse engineering" to reach an understanding of the relevant underlying facts and preliminaries. They do this under the guidance and with the assistance of the instructor. After they have gotten up to speed, they present the matter at the board. Succinctly put, this is the "flipped class room" based on meaningful texts. (Received September 03, 2015)