When Learning and Teaching Styles Conflict

Dr. Moses Tefe

Abstract -

This study synthesizes existing knowledge about learning and teaching styles, and presents it in a way that may be helpful to some of my fellow engineering professors. Learning in a structured education system occurs in steps. At least 4 steps or dimensions can be identified, through which the student receives and process information from the instructor. When instructional material is presented, the student selects which materials to process and ignore the rest. What is accepted and what is ignored by a student may depend on that student’s learning style, and also on the form in which the material was presented or the teaching style of the instructor.

Research has shown that students have different learning preferences or styles, depending on the way they take in and process information. These learning styles occur in pairs at each of the 4 dimensions of learning, such that a student who prefers one style derives little when instructed the other way. This means greater learning is achieved when teaching styles match learning styles than when there is a mismatch. Nevertheless, there are skills associated with each of the learning styles. So for a student to mature and function as an effective professional, it is important to be trained in the use of their less preferred learning styles as well.

It is concluded that an optimal teaching style is the one that is balanced in such a way that students are sometimes instructed in line with their preferred learning styles, so that they are motivated to learn effectively, but sometimes, also in the less preferred manner so that they are compelled to stretch in the other direction also for the associated benefits. This style of instruction also helps to reach out to all students across the divide, and make the learning of engineering a more exciting experience.

Keywords: Learning styles; Teaching styles; Learning preferences; Effective teaching.

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1 Assistant Professor, Department of Civil and Environmental Engineering, Norwich University, mtefe@norwic.edu