

Trajectories in the Competence Field

During Formative Assessment

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Abstract— The issue of competence assessment in engineering is analyzed in the context of the lack of motivation for learning. The source of this lack of motivation comes from the distribution of high school students. This assignment creates marginalization for a large number of students. Exit from marginalization can be accomplished through additional motivation. This is the responsibility of the competence assessment system. The proposed system is based on Bloom's taxonomy, with the questions being based on Bloom's verbs. It results an adaptive test system where questions are tailored to each individual's level of training. Another condition for generating motivation is to waive the confidentiality of ratings. The main argument is that this confidentiality supports mediocrity. A tonic competition is preferred. The author's experience demonstrates that this kind of competition is possible, especially using the *gamefication*. There is also the graphical image of the evolution of competence assessed, called the trajectory in the competence field. The results may have very close scores, but nevertheless the assessment can separate the full skills from the insufficient competencies without diminishing the motivating nature of the test itself.

Keywords—Bloom's taxonomy, motivation, adaptive assessment

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