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ABSTRACT

In a traditional, post-secondary science class, the instructor presents definitions and information and demonstrates examples on their use during lectures. Students are then expected to work individually or in teams outside of class time by completing assignments, labs or projects. The intent of these out-of-class activities is for students to apply materials presented in class to deepen the learning. A flipped class reverses this. Students learn definitions and study examples independently before coming to class and actively engage with the material in the classroom, usually in teams. Thus, when students are applying the material, the instructor can provide guidance and support deeper learning activities [1,2,5].

As students engage in the learning process, the instructor interacts with student teams and can assess the level of comprehension within each team. This assessment is informal which means that feedback and guidance provided by the instructor can be delivered in a form that is perceived as non-judgmental of student performance. As such, this form of assessment provides tremendous opportunity to further deepen student learning.

This round-table discussion will explore the various ways that informal formative feedback can be incorporated into each participant's class. We'll explore how this may be done in various class organization styles or how a class delivery may have to change to accommodate this type of assessment and feedback.

The course is a core component to the formation of Computer Scientists, yet both formal and informal student reports indicate that students perceives the subject as being both extremely difficult and of little value, and students often repeat the course

multiple times before they are able to earn a passing grade. This leads student to focus on passing the course rather than deep learning and they do not apply the concepts to further Computer Science courses or problems encountered during their careers.

BIBLIOGRAPHY

- [1] M. Cavanagh. Students' experiences of active engagement through cooperative learning activities in lectures. *Active Learning in Higher Education*, 12(1):23-33, 2011.
- [2] D. F. Halpern and M. D. Hakel. Applying the science of learning to the university and beyond: Teaching for long-term retention and transfer. *Change*, 35(4):36{41, 2003.
- [3] M.T. Huber, P. Hutchings, R. Gale, R. Miller, and M. Breen. Leading initiatives for integrative learning. *Liberal Education*, Spring 2007.
- [4] L. K. Michaelsen, A. Bauman Knight, L. D. Fink. *Team-based Learning: A Transformative Use of Small Groups*. Praeger Publishers, 2002.
- [5] M. Prince. Does Active Learning Work? A Review of the Research. *Journal of Engineering Education*, July 2004.