## Abstract Submitted for the MAR15 Meeting of The American Physical Society

Lecture capturing assisted teaching and learning experience LI CHEN, MCPHS University — When it comes to learning, a deep understanding of the material and a broadband of knowledge are equally important. However, provided limited amount of semester time, instructors often find themselves struggling to reach both aspects at the same time and are often forced to make a choice between the two. On one hand, we would like to spend much time to train our students, with demonstrations, step by step guidance and practice, to develop strong critical thinking skills and problem-solving skills. On the other hand, we also would like to cover a wide range of content topics to broaden our students' understanding. In this presentation, we propose a working scheme that may assist to achieve these two goals at the same time without sacrificing either one. With the help of recorded and pre-recorded lectures and other class materials, it allows instructors to spend more class time to focus on developing critical thinking skills and problem-solving skills, and to apply and connect principle knowledge with real life phenomena. It also allows our students to digest the material at a pace they are comfortable with by watching the recorded lectures over and over. Students now have something as a backup to refer to when they have random mistakes and/or missing spots on their notes, and hence take more ownership of their learning. Advanced technology have offered flexibility of how/when the content can be delivered, and have been assisting towards better teaching and learning strategies.

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