Learning Theories Supported Using Clicker Technology

Theory	Potential Benefits	Researcher
Immediate Feedback	It is suggested that active involvement in the discovery process in addition to immediate feedback promotes retention and the correction of initially inaccurate response strategies.	Epstein: Immediate Feedback Assessment Technique promotes learning and corrects inaccurate first responses
Engagement	Depict students' psychological investment in learning also increasingly used to describe meaningful student involvement throughout the learning environment	Prensky: Digital Natives, Digital Immigrants
Spacing Effect	Refers to the fact that learners easily remember or learn items when they are studied a few times over a long period of time.	Greene: Spacing effects in memory: Evidence for a two-process account
Peer Instruction	The learners are asked a question and formulate their own answers; they then discuss their answers in groups attempting to reach consensus on the correct answer. This process forces the students to think through the arguments being developed, and enables them (as well as the instructor) to assess their understanding of the concepts even before they leave the classroom.	Mazur: Peer Instruction: Ten Years of Experience and Results
Agile Teaching	The ability for the instructor to quickly adapt and change course pace and possibly structure to suit the needs and abilities of the learner.	Bruff: Teaching with classroom response systems: Creating active learning environments
Motivation	There are four steps for promoting and sustaining motivation in the learning process: Attention, Relevance, Confidence, Satisfaction (ARCS). A learners' attention has to be aroused and sustained, there must be relevance of what is being learned, confidence built and a correlation between effort and results.	Keller: Use of the ARCS Motivation Model in Courseware Design
Assessment FOR Learning	Assessments OF learning check to see if the learners have met required objectives versus Assessments FOR learning which are designed to check if the learner is making progress toward meeting objectives during the learning process. One is for accountability, while the other is used to support learning.	Stiggins: Putting testing in perspective: It's for learning
Positive Reinforcement	Promotes the rapid questioning model and the positive reinforcement of correct responses. Closely monitor learner's responses and expectation of learning mastery	Reid: Practicing effective instruction: The Exemplary Center for Reading Instruction approach
Game Based Learning	GBL uses competitive exercises, either pitting the students against each other or getting them to challenge themselves in order to motivate them to learn better.	Dede: Immersive Interfaces for Engagement and Learning
Active Learning	Involvement of learners directly and actively in the learning process itself. This means that instead of simply receiving information verbally and visually, students are receiving and participating and doing.	Bonwell and Eison: Active learning: Creating excitement in the classroom
Learning Styles	Learning styles are not concerned with "what" learners learn, rather "how" they prefer to learn to include audio, kinesthetic and visual learning preferences.	Keefe: Learning Style Theory and Practice
Socratic Questioning	The instructor poses questions that are more meaningful than those a novice of a given topic might develop on his or her own. The teacher creates and sustains an intellectually stimulating classroom environment and acknowledges the value of the learner in that environment.	Hake Socratic pedagogy in the introductory physics lab