

# Learning Theories

Supported by Turning Technologies Response Solutions

Theory	Overview	Researchers
Active Learning	Involvement of learners directly and actively in the learning process itself. This means that instead of simply receiving information, students receive, participate and do.	Bonwell & Eison. Active learning: Creating excitement in the classroom
Agile Teaching	The ability for the instructor to quickly adapt and change course pace, as well as alter course structure to suit the needs and abilities of the learner.	Bruff. Teaching with classroom response systems: Creating active learning environments
Assessment For Learning	Assessments of learning checks 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
Engagement	Depict learner's psychological investment in learning. It is also used to describe meaningful student involvement throughout the learning environment.	Prensky. Digital Natives, Digital Immigrants
Game Based Learning	Game based learning uses competitive exercises, either pitting the learners against each other or encouraging them to challenge themselves in order to motivate better learning.	Dede. Immersive Interfaces for Engagement and Learning
Immediate Feedback	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
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
Motivation	Attention, Relevance, Confidence, and Satisfaction (ARCS) – four steps for promoting and sustaining motivation in the learning process. For a learners' attention 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
Peer Instruction	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 learners 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
Positive Reinforcement	Promotes the rapid questioning model and the positive reinforcement of correct responses. Closely monitor learners' responses and expectation of learning mastery.	Reid. Practicing effective instruction: The Exemplary Center for Reading Instruction approach
Socratic Questioning	Pose questions that are more meaningful than those a novice of a given topic might develop on his or her own. Create and sustain intellectually stimulating learning environments and acknowledge the value of the learner in that environment.	Hake. Socratic pedagogy in the introductory physics lab
Spacing Effect	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

# Learning Theories & TurningPoint Applications

<p><b>Active Learning</b></p> <ul style="list-style-type: none"> <li>✓“Need Help” answer</li> <li>✓On-the-fly Questions</li> <li>✓Custom Questions</li> </ul>	<p>Add an answer option of “unsure” so learners will not guess and notify the instructor that help is needed. Use the on-the-fly or custom questions for learners to pose questions for the entire group to respond. ResponseCard NXT or ResponseWare users can utilize feedback features to notify the instructor of questions and comments.</p>
<p><b>Agile Teaching</b></p> <ul style="list-style-type: none"> <li>✓On-the-fly Questions</li> <li>✓Conditional Branching</li> <li>✓Moment-to-moment Slides</li> </ul>	<p>On-the-fly questions can be polled enabling flexible questioning. Build conditional branching slides that will automatically move to specific slides based on the learners’ responses. Check for understanding using the moment-to-moment slide available within PowerPoint polling having the learner self-evaluate their comprehension level.</p>
<p><b>Assessment For Learning</b></p> <ul style="list-style-type: none"> <li>✓Live Charts</li> <li>✓Anonymous Polling</li> <li>✓Show Results</li> <li>✓Comparative Feature</li> </ul>	<p>Learners can change their answer from 1 to 10 based on their comprehension level during instruction. Allow them to respond without the stress of grading. Uncheck “Show Results” when there is potential for a large percentage of incorrect responses during a pre-test that may lead to discouragement. Provide pre- and post-questions within one session and display the change using the comparative feature.</p>
<p><b>Engagement</b></p> <ul style="list-style-type: none"> <li>✓Fastest Responder</li> <li>✓Priority Ranking</li> </ul>	<p>Conduct a warm-up by having 2-3 questions related to previous materials in combination with fastest responder slides. Involve learners in their learning process. Priority ranking questions allows learners to identify several topics they are interested in learning more about.</p>
<p><b>Game Based Learning</b></p> <ul style="list-style-type: none"> <li>✓ Team Slides</li> <li>✓Speed Scoring</li> <li>✓ Team Scoring</li> <li>✓Fastest Responder</li> <li>✓ Leader Boards</li> <li>✓Reports</li> </ul>	<p>TurningPoint allows for the use of multiple gaming slides. Simultaneously have learners competing individually and as teams. Show the leader boards frequently, and encourage ongoing competition by posting the team scoring reports weekly.</p>
<p><b>Immediate Feedback</b></p> <ul style="list-style-type: none"> <li>✓Correct Answer Indicator</li> <li>✓Individual Reports</li> <li>✓Participant/Live Results Monitor</li> </ul>	<p>By providing a chart and correct answer indicator, learners and instructors are provided with immediate results and awareness of the correct answer. To view learner specific responses, use a split/dual screen to view the participant monitor only on the instructor’s laptop. Provide learners with the “Results by Participant” report as a study guide.</p>
<p><b>Learning Styles</b></p> <ul style="list-style-type: none"> <li>✓Demographics</li> <li>✓Data Slicing</li> <li>✓Insert Images</li> <li>✓Answer Now</li> <li>✓Chart Colors</li> <li>✓Insert Video/Audio</li> </ul>	<p>Use demographic slides to identify individual learning styles and compare student performance on different questions. Utilize images for visual learners and include video/audio files to appeal to additional learning styles. Set the chart settings to correct and incorrect to visually show a green/red chart. Use a Prompt to visually remind learners to response to a PowerPoint slide.</p>
<p><b>Motivation</b></p> <ul style="list-style-type: none"> <li>✓Countdown Timer</li> <li>✓Response Grids</li> <li>✓Leader Boards</li> <li>✓Gaming Slides</li> <li>✓Point Values</li> </ul>	<p>Use a countdown timer to motivate learners to answer quickly and display response grids to motivate participation. Leader boards spaced throughout a session will encourage competition. Positive and negative point values can be used to encourage motivation based on total points.</p>
<p><b>Peer Instruction</b></p> <ul style="list-style-type: none"> <li>✓ Repoll</li> <li>✓Comparative Feature</li> </ul>	<p>Ask the question initially without discussion and then after discussion ask the same question once again. Copy the question to show a comparative relationship between the first polling and second polling.</p>
<p><b>Positive Reinforcement</b></p> <ul style="list-style-type: none"> <li>✓Correct Answer Indicator</li> <li>✓Point Values</li> <li>✓Fastest Responders</li> <li>✓Leader Boards</li> </ul>	<p>Use a correct answer indicator, and display fastest responders or leader boards to reinforce correct answer choices. Use all positive point values for both correct and incorrect answers. Incorrect choices can be set at a lower value.</p>
<p><b>Socratic Questioning</b></p> <ul style="list-style-type: none"> <li>✓Custom Standards List</li> <li>✓Conditional Branching</li> <li>✓Continue Prior Session</li> </ul>	<p>A custom standards list allows for reporting based on the difficulty level of questions. Build on the learners growing expertise by adding questions within a lecture with increasing difficulty. Use conditional branching to advance through material that has been mastered, and monitor progress with the Continue Prior Session feature.</p>
<p><b>Spacing Effect</b></p> <ul style="list-style-type: none"> <li>✓Continue Prior Session</li> <li>✓Essay Slide</li> </ul>	<p>Continue prior session can be used to collect data from various questions spaced between class periods. Provide learners with “think time” by inserting an essay answer question that can be responded to with ResponseWare and ResponseCard NXT clicker.</p>

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