

Taxonomy of Clicker Questions

Type of Question	Description	Example
Recall Questions:	Requires students to remember relevant facts, concepts or procedures. Typically used more for assessing student learning than engaging students. Can help build student confidence	<i>To which position do your hands return after throwing an offensive punch?</i> A. <i>Guard</i> B. <i>Pyramid</i> C. <i>Resting</i>
Concept Questions:	Ask students to recall the definition but also to understand concepts associated with that definition	<i>What is the equation of the line tangent to the function $f(x) = 9x^0 = [x]$ at the point $(0, 0)$?</i> A. <i>The equation of the tangent line at this point is $y=0$</i> B. <i>There are two tangent lines, with equations $y=-x$ and $y=x$.</i> C. <i>This function has no tangent line at this point</i> D. <i>This function has infinitely many tangent lines at this point</i>
Application Question:	Ask students to apply their knowledge and understanding to particular situations and contexts.	<i>Based on the facts of problem 7 [in the textbook], in the lawsuit by the student against Mountain Law School, a court will likely find in favor of the:</i> A. <i>Student, if the court finds that the terms of the catalogue are complete, definite and certain</i> B. <i>Student, since catalogues are never considered ads, and ads are always offers</i> C. <i>Law school, since catalogues can never include all the necessary terms to be deemed definite and complete offers</i> D. <i>Law school, since the student could not have expected to be taught all the terms included in the catalogue</i>
Critical Thinking Questions	Ask the student to analyze relationships among multiple concepts or make evaluations based on particular criteria.	<i>I loved Ophelia. Forty thousand brothers Could not with all their quantity of love Make up my sum.... Woot weep? Woot fight? Woot fast? Woot tear thyself? Woot drink up easel? Eat a crocodile? I'll do 't Dost thou come here to whine? To outface me with leaping in her grave? Be buried quick with her and so will I.....</i> <i>These lines suggest that:</i> A. <i>Hamlet really loved Ophelia and is so distraught to learn of her death that he proposes to eat a crocodile</i> B. <i>Hamlet thinks that Laertes's grief is mere posturing and mocks it by exaggeration</i> C. <i>Hamlet cares little for Ophelia, but is eager to enter into a rhetorical chest thumping competition with her brother.</i>

Prediction Questions	Requires students to take a position and encourages them to become invested in seeing and understanding the results of a scenario	<p><i>How does the plot of $\sin(2t)$ compare to that of $\sin(t)$?</i></p> <p>A. <i>It oscillates twice as fast</i> B. <i>It oscillates half as fast</i></p>
One Best Answer Questions	Includes decisions that do not need to be right or wrong. Requires students to not only analyze a particular situation or set of issues but also to evaluate possible responses.	<p><i>RR is a 22-year-old Mexican American newly diagnosed with type 1 diabetes. He weighs 68 kg. You need to start him on an insulin regimen. He has no insurance, did not complete high school, and speaks limited English. What is the best insulin regimen to start him on?</i></p> <p>A. <i>Glargine 15 units at bedtime plus sliding-scale lispro with meals</i> B. <i>NPH 30 units twice daily</i> C. <i>Mixed insulin 70/30, 20 units in the morning and 10 units at bedtime</i> D. <i>Glargine 15 units at bedtime and lispro 5 units with meals</i> E. <i>Levemir 15 units twice daily</i></p>
Student Perspective Questions	Provides useful information about students to help tailor learning experiences to the unique makeup of students. Questions types include Demographic, Opinion, Experience	<p><i>Which of the following statements most closely matches what you think?</i></p> <p>A. <i>Humans evolved from other life forms with divine assistance</i> B. <i>Humans evolved from other live forms without divine assistance</i> C. <i>Humans were created directly by a divine being within the past 10,000 years</i></p>
Procedural Questions	Apply knowledge of a procedure or technique to a particular problem or situation	<p><i>What are the stoichiometric coefficients for the following chemical reaction?</i></p> <p><i>___NH₃+___O₂___NO+___H₂O</i></p> <p>A. <i>2, 5, 2, and 3</i> B. <i>3, 6, 3, and 4</i> C. <i>4, 5, 4, and 6</i> D. <i>5, 5, 5, and 6</i></p> <p><i>What comes next in the following equation?</i></p>
Monitoring Questions	Provides instructors with an opportunity to monitor various aspects of the student learning experience beyond comprehension and confidence levels	<p><i>How long did it take to complete the take home quiz?</i></p> <p>A. <i>Less than 1 hour</i> B. <i>2-4 hours</i> C. <i>4-6 hour</i> D. <i>More than 6 hours</i></p>
Confidence Level Questions	Provides instructors with a level of information about their student's learning beyond a simple assessment of their accuracy	<p><i>How confident were you on your last answer?</i></p> <p>A. <i>Very Confident</i> B. <i>Somewhat confident</i> C. <i>Not very confident</i> D. <i>I just guessed</i></p>

Bruff, D. (2009). Teaching with Classroom Response Systems: Creating Active Learning Environments. San Francisco: Jossey-Bass

Hinton, Danielle. "Clickers in the Social Science Classroom." *Academia.edu*. Academia.edu, 2013. Web. 1 Oct 2013. <http://www.academia.edu/4386051/Clickers_in_the_Social_Sciences_Classroom>.