## Taxonomy of Clicker Questions

<table>
<thead>
<tr>
<th>Types of Questions</th>
<th>Explanation</th>
<th>Example</th>
</tr>
</thead>
</table>
| Recall Questions   | Requires students to have memorized facts. | To which position do your hands return after throwing an offensive punch?  
  A. Guard  
  B. Pyramid  
  C. Resting |
| Conceptual        | Requires students not only to recall information, but also to understand the concepts associated  
Understanding Questions | What is the equation of the line tangent to the function $f(x)=x$ at the point (0,0)?  
  A. The equation of the tangent line at this point is $y=0$  
  B. There are two tangent lines, with equations $y=-x$ and $y=x$  
  C. This function has no tangent line at this point.  
  D. This function has infinitely many tangent lines at this point. |
| Application        | Requires students to apply their knowledge and understanding to particular situations and contexts  
Questions | Based on the facts of problem 7, in the lawsuit by the student against Mountain Law School, a court will likely find in favor of the:  
  A. student, if the court finds that the terms of the catalogue are complete  
  B. student, since catalogues are usually considered ads, and ads are always offers  
  C. law school, since catalogues can never include all the necessary terms to be deemed definite and complete offers.  
  D. law school, since the student could not have expected to be taught all the terms included in the catalogue. |
| Procedural         | Requires students to apply knowledge of a procedure or technique to a particular problem or situation  
Questions | What are the stoichiometric coefficients for the following chemical reaction?  
\[\_\_\text{NH}_3 + \_\_\text{O}_2 \rightarrow \_\_\text{NO} + \_\_\text{H}_2\text{O}\]  
  A. 2, 5, 2, and 3  
  B. 3, 6, 3, and 4  
  C. 4, 5, 4, and 6  
  D. 5, 5, 5, and 6 |
| One-best-answer    | Requires students not only to analyze a particular situation or set of issues but also to evaluate possible responses  
Questions | 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?  
  A. Glargine 15 units at bedtime plus sliding-scale lispro with meals  
  B. NPH 30 units twice daily  
  C. Mixed insulin 70/30, 20 units in the morning and 10 units at bedtime  
  D. Glargine 15 units at bedtime and lispro 5 units with meals  
  E. Levemir 15 units twice daily |
| Prediction Questions | Requires students to predict the outcome of an experiment or situation. | How does the plot of $\sin(2t)$ compare to that of $\sin(t)$?  
A. It oscillates twice as fast  
B. It oscillates half as fast |
|----------------------|---------------------------------------------------------------------|------------------------------------------------------------------|
| Critical Thinking Questions | Requires students to analyze relationships among multiple concepts or make evaluations based on particular criteria | I loved Ophelia. Forty thousand brothers  
Could not with all their quantity of love  
Make up my sum…  
Woo’t weep? Woo’t fight? Woo’t fast? Woo’t tear thyself?  
Woo’t drink up eisel? 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…  

These lines from Hamlet suggest that:  
A. Hamlet really loved Ophelia and is so distraught to learn of her death that he proposes to eat a crocodile.  
B. Hamlet thinks that Laertes’s grief is mere posturing and mocks it by exaggeration.  
C. Hamlet cares little for Ophelia, but is eager to enter into a rhetorical chest-thumping competition with her brother |
| Peer Assessment Questions | Requires students to assess each other’s presentations, papers, or other work during class | How would you rate this group’s performance?  
A. Excellent  
B. Good  
C. Fair  
D. Poor |
| Student Perspective Questions | Provides useful information about students to help instructors tailor learning experiences to the unique makeup of students. | Which of the following statements most closely matches what you think?  
A. Humans evolved from other life forms with divine assistance.  
B. Humans evolved from other life forms without divine assistance.  
C. Humans were created directly by a divine being within the past 10,000 years. |
| Confidence Level Questions | Provides instructors with a level of information about their student’s learning beyond a simple assessment of their accuracy. | How confident were you on your last answer?  
A. Very confident  
B. Somewhat confident  
C. Not very confident  
D. I just guessed |
| Monitoring Questions | Provides instructors with an opportunity to monitor various aspects of the student learning experience beyond comprehension and confidence levels. | How long did it take to complete the take home quiz?  
A. Less than 1 hour  
B. 2-4 hours  
C. 4-6 hour  
D. More than 6 hours |

Reference: Derek Bruff, *Teaching with Classroom Response Systems*