

ENGAGE TO ACHIEVE MORE

# Helping Students Study Smarter with iClicker

You can make each student's exam preparation time more productive by turning iClicker in-class materials into at-home study aides. You just need to have that purpose in mind at the outset when creating your iClicker content.

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# Introduction

When exam time approaches, most students bear down and study hard, but are they using studying methods that actually help them prepare? The answer: not always.

Rather than asking your students to figure out how to study all by themselves, you can set them along a productive path by creating study materials using iClicker.

With iClicker Cloud, in-class polling questions can become instant study materials your students can use outside the classroom. By providing the right iClicker materials to students, you're giving them resources they can transform into strong study tools, such as flashcards and practice tests. They'll be focusing on the right material, and doing so in a way that makes them better prepared for the exam.

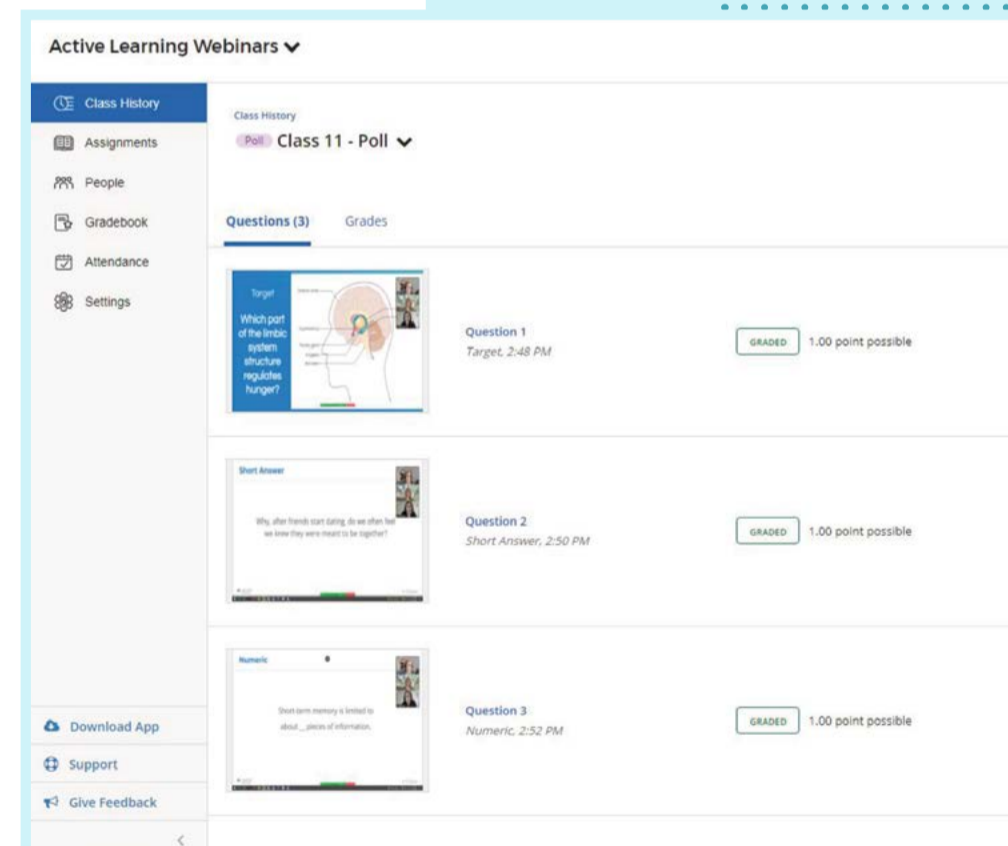
Translating your iClicker in-class materials into at-home study aides does require extra thought on question construction as well as some technical session maintenance. We've got all the tips and tricks you'll need to get started in this guide.



# Capturing Polling Questions

One of the great options in iClicker is being able to hold on to the polling questions you use in class. It keeps them linked to the session in which they were used, making them easy to find. This is particularly helpful for students who miss a class and want to see what you covered that day. By clicking on any class session, they see the exact questions you asked.

You can direct students to polling questions attached to a session or, as described next, you can provide them as a separate study tools. It's up to you. Either way, students will benefit from having the exact poll you used during class.



The screenshot displays the iClicker interface for 'Active Learning Webinars'. The left sidebar contains navigation options: Class History (selected), Assignments, People, Gradebook, Attendance, and Settings. The main content area shows 'Class History' for 'Class 11 - Poll'. Below this, there are two tabs: 'Questions (3)' and 'Grades'. The 'Questions (3)' tab is active, showing a list of three questions:

Question Type	Question Text	Target Time	Status	Points
Target	Which part of the limbic system affects appetite regulation/hunger?	Target, 2:48 PM	GRADED	1.00 point possible
Short Answer	Why after friends start dating do we often feel we know they were meant to be together?	Short Answer, 2:50 PM	GRADED	1.00 point possible
Numeric	Does long memory is linked to about ___ pieces of information.	Numeric, 2:52 PM	GRADED	1.00 point possible

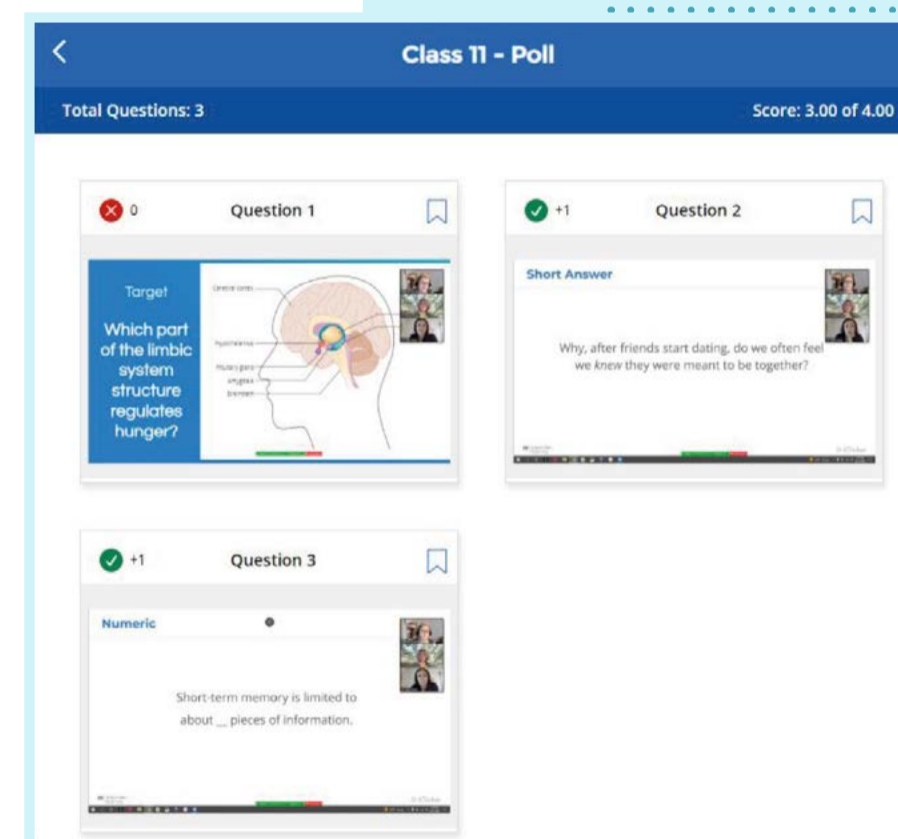
At the bottom of the sidebar, there are links for 'Download App', 'Support', and 'Give Feedback'.



# Adding Polling Questions to Study Tools

Students can actually take care of this task themselves. Once you've told them where to find the polling questions for each class, students can use their own class history to start adding questions into their study tools section. To do this, students need to go into each class session, look at the existing polling questions, and mark the questions they want for study and can add them to their study tools.

This enables students to customize their studying to meet their own specific needs. Maybe they're targeting the topics they feel they understand less, or maybe they want to only look at certain types of questions. Regardless of their strategy, iClicker gives them access to all the materials you create, ensuring they stay on top of key topics. Once added to study tools, students have the additional option to set up the questions as flashcards or test their knowledge through a practice test.

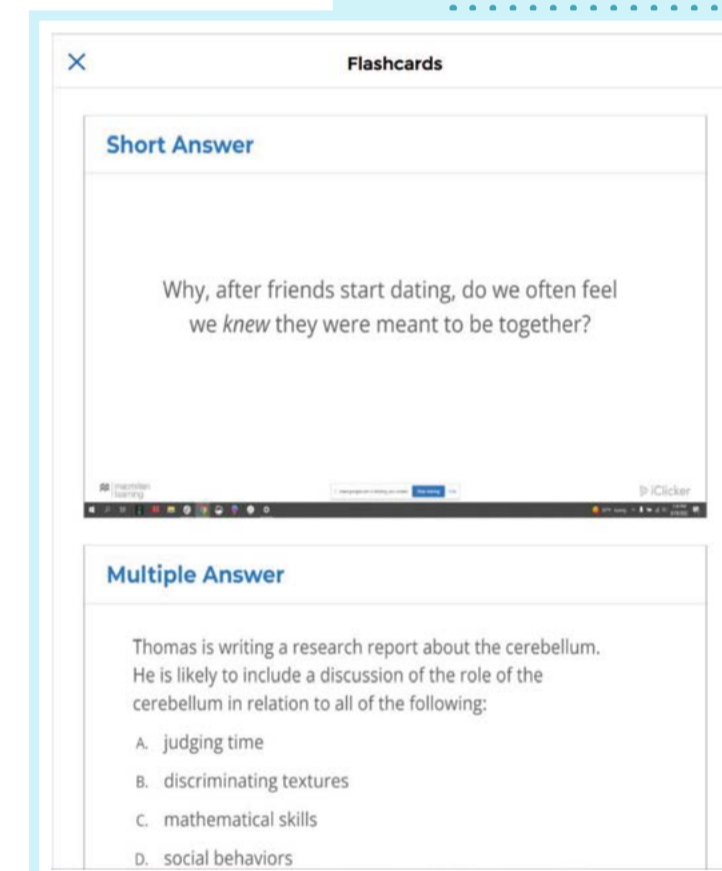


## Flashcards

iClicker flashcards let students see the questions you asked in class and virtually flip the question over to see the answer. Flashcards work with every iClicker question type, even those that have a heat map for an answer.

Flashcards themselves, whether created in iClicker or by hand, are a well-known mainstay of studying. Research continues to show that they work, and iClicker takes the experience of using flashcards one step further.

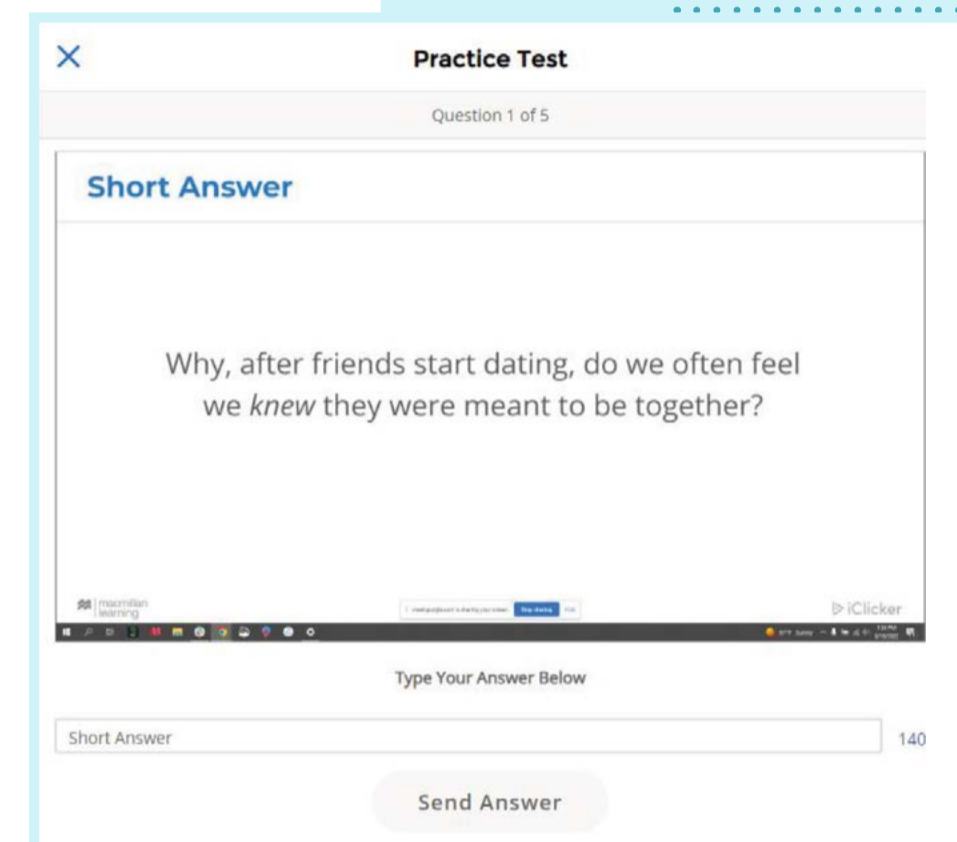
Flashcards are linked to memorization—you see the question, then you see the answer. But when you use iClicker flashcards, an additional memory layer gets added to the association. Students are not just seeing the answer, they're also recalling the conversation around that topic that took place during class.



## Practice Tests

Practice tests are a great way to supplement studying. Flashcards are great, but it's the student who decides when to flip the card over for the answer. They may look too soon. And they may develop a false sense of confidence that they 'get it' before they actually do. With practice tests, students have to pick an answer before they know it's right. It's a more rigid test of their skills to confirm (or disprove) that they're as ready for an exam as they think they are.

Once a student finishes their practice test in iClicker, they're able to go back and study all the questions on the test again, or simply focus on the ones they missed.



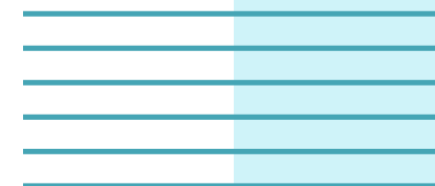
The screenshot shows a mobile interface for a 'Practice Test'. At the top, it says 'Question 1 of 5'. Below that, the question type is 'Short Answer'. The question text reads: 'Why, after friends start dating, do we often feel we *knew* they were meant to be together?'. At the bottom of the question area, there is a text input field with the placeholder 'Type Your Answer Below' and a character count '140'. A 'Send Answer' button is located below the input field. The interface also shows a navigation bar at the bottom with 'iClicker' branding.

# Creating a Stack of Flashcards

Create flashcards and practice tests in iClicker can easily lead to a massive stack of questions to study. As the semester goes on, the virtual pile will get bigger and bigger, and while you may worry that the stack is too large, it's best to let students decide that for themselves.

Sometimes, having a huge variety of questions can be a more effective way for students to learn (as opposed to smaller sets each with a narrow focus). That kind of targeted study might seem like it's a better use of a student's time, but that isn't always the case.

Allowing your students to decide how to use the study tools you've made available optimizes the experience for each student and helps ensure they're going to study everything they need to know before the exam.



# Optimizing Questions for Study Tool Conversion in iClicker

## 1. Give students access to all your polling questions as study tools.

In order to do this, you must share images with the class. This allows students to convert all types of questions you put up during class as study tools later on. This is a default setting within Course Settings.

## 2. Make sure to grade your questions.

This is the only way students will get a correct answer on both their flashcards and practice tests. If you don't grade the questions in class, you can into iClicker later and grade the questions then.

## 3. Put one question per slide.

This way the questions will easily transfer over to the study tools format.

### TIP:

**You can log into iClicker as a student with your instructor credentials to make sure the layout of your questions are easy to read before you put them up on the big screen for students.**





#### **4. Vary question type.**

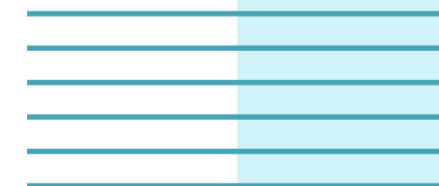
This is an easy way to up the challenge on certain questions. Instead of making everything multiple choice, consider tossing in a few short answer questions. This way students study a complete answer rather than just trying to remember if the answer was A or B.

#### **5. Don't forget to think about question content as well.**

Ask questions that fall into these three types:

- » Conceptual
- » How
- » Why

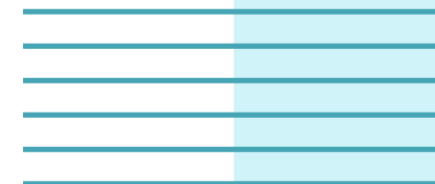
Questions most definitely do not have to have one narrow, correct answer. You can bring in vocabulary to questions that are focused on other topics, or you can formulate questions that bring in two related subjects if that makes it easier to broaden responses as well.



# Linking Questions to Formal Assessments

Drawing study questions from quizzes and tests you're giving is another way to enhance the value of the study tools in iClicker. If students see the connection between what they're studying and what they're being assessed on, they're more likely to use this method to study.

One way to do this is to look back at tests or quizzes from a previous class and identify any trends in questions that were answered incorrectly. It's worth taking the questions your students most commonly got wrong and making them available in study tools. It's also really worthwhile to go over these questions in class with a formal poll asking current students why they think last year's class all missed these select questions.



# Enhancing Questions with Pictures

Including simple graphics or pictures in your question slides can be effective, even if the question doesn't require referring to an image. The picture superiority effect—in which pictures and images are more likely to be remembered than words—has been proven in numerous studies. Using this phenomenon to your advantage when crafting iClicker questions means better questions for students to review.

Your image could be:

- » A picture of a person mentioned in the question
- » A map of a place you mentioned in the question
- » Charts or graphs that relate to the data in the question

None are actually necessary to get to the answer, but they make the question itself more memorable and can help improve retention overall.



## Why these Study Tools Matter

Study tools like these matter because many students are coming from an environment where memorization was the only study method they needed. This is most definitely not the case in college, where students need to analyze concepts not just repeat facts.

And, although the iClicker flashcards are akin to memorization, they can help students developing higher level thinking if crafted well

The right tools and the right strategies can work together to make studying a more productive and effective process, and iClicker study tools can to help facilitate that.





**Natalie Dougall** is a Faculty Advocate and iClicker Training Specialist at Macmillan Learning. Before coming to Macmillan, she was a community college instructor for over ten years, and she loves mixing practicality and pedagogy in her presentations.

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