Congratulations on your adoption of i-clicker, the easiest-to-use classroom response system available! The following guide will enable you to quickly start using i-clicker’s fundamental applications, as well as options to use some of the more advanced software tools.

Section One - Using i-clicker: How to Poll Your Students in Class

1. Connect the i-clicker receiver to your computer through the USB port. Your computer will tell you that it has recognized new hardware and inform you when it is ready to use it (this takes a few seconds).
2. Place your i-clicker flash drive (a.k.a. memory stick or thumb drive) in the USB slot on the back of the receiver. (Your flash drive should arrive with your shipment of the i-clicker receiver. If not, contact us at support@iclicker.com to request a flash drive.)
3. Go to “My Computer.” Locate and double-click on the flash drive (often E, F, or H; sometimes called a Removable Disk).
4. The flash drive will contain folders called MyCoursePC and MyCourseMac. These folders contain course templates and application software for PC and Mac users respectively. You will need to make a copy of the appropriate MyCourse folder for each class or section for which you are using i-clicker and rename each new folder with the name (or section) of the course. To copy, simply right click either the PC or Mac folder as many times as necessary for the number of courses you are teaching and using i-clicker. If you were teaching two sections of Physics, for example, the contents of your flash drive might look like this:

Tip: i-clicker software can be copied to another computer (or computers) rather than residing only on your flash drive. For example, many institutions are placing i-clicker on the college network drive (or H drive) and a number of individual professors are placing the i-clicker software on their laptop computers. However, you must have easy access to wherever your i-clicker software resides in lecture so that you are able to fully utilize all of i-clicker’s functions when you start polling in class.

Warning! You should not delete, rename, or modify the MyCoursePC or MyCourseMac folders – these are templates you will need when you create more courses.
5. Double-click on the folder for the course/section in which you are about to use i-clicker and you will see the following:

![i-clicker folder screenshot]

**Tip:** You can easily check for new updates to i-clicker and i-grader. These updates will not override your current course data but will provide you with key functional enhancements to the polling/grading software. We highly recommend you double-click the WebUpdate icon regularly to check for revisions and updates to the software.

6. Double-click the i-clicker icon to start the i-clicker classroom application.

When you open the i-clicker application, you will see the following welcome screen (though the version number displayed at the top may be different):

![i-clicker welcome screen]

7. Click on **Start Session** in the center of the welcome screen. The welcome screen will disappear and you will see the following floating menu bar appear in the top left corner of your computer desktop. You can move the menu bar anywhere you choose on your desk top.

![i-clicker menu bar]

This menu bar indicates that i-clicker is active and running. It allows you to operate i-clicker with your presentation application(s). For example, if you use PowerPoint, open a presentation and select “View Slide Show.” Both your PowerPoint presentation and the i-clicker menu bar will be activated (example below).
Tip: In order to record your question screen shots into i-grader, you will need to select a presentation application in addition to i-clicker. The screen shot below shows i-clicker floating above a PowerPoint slide. It would similarly float above any other application, such as Word, Excel, Mathematica, etc., for example. If you are not worried about capturing the question for later review and points assignment, then you don’t need to worry about displaying the question on your screen.

Laura was attacked and bitten by a miniature poodle when she was 3. Since then, Laura has been afraid of small dogs but not large dogs. This best illustrates which of the following?

A. Spontaneous Recovery
B. Stimulus Discrimination
C. Stimulus Generalization
D. Extinction

8. Select the START button on the menu bar when you are ready to ask students to vote on a question.

On the left, a green timer will appear on the menu bar and timing will start. This indicates polling is now active.

Tip: You can easily enable the major functions of i-clicker without having to stand near your computer by using the instructor’s remote feature. This makes it easy to move around the room and lecture while still using i-clicker. See page 26 for instructions on enabling this function.

Tip: Students can turn on their i-clickers and vote any time while a question is active (i.e. as long as you’ve selected Start to begin polling) by pressing the On/Off button on the remote. We recommend students keep their remotes on during the lecture. (This is particularly important if a sub-frequency other than the default AA is in use. More details regarding this on page 25.) There is an auto shut off feature that turns off their remotes after 90 minutes of inactivity to save battery power.

9. Click on the STOP button on the menu bar when you feel that enough time has elapsed. You will see the following change to the menu bar:

On the right, a counter will display how many students have voted thus far.
Note: i-clicker will only begin collecting your students’ votes after you’ve clicked Start and will stop collecting votes after you’ve clicked Stop. If you have not selected Start, no votes will be accepted or recorded by the i-clicker base. Once Start is selected, the Vote Status light on their remotes will flash and remain green for about ½ second, indicating that their vote is successfully recorded. After you’ve selected Stop, votes for each question will no longer be accepted. If your students vote before you’ve clicked Start (or after you’ve clicked Stop), the Vote Status light on their remotes will flash red three times, indicating their votes were not received.

10. You can click on the DISPLAY button at any time on the i-clicker menu bar to see a graph (or histogram) of student responses for the current question. The graph displays both the percentage and number of votes for each choice.

Tip: You may also display two graphs (the current graph and any previous graphs) side-by-side by clicking on Compare in the graph window. The second graph will display underneath your current graph. You may select Previous or Next to toggle between graphs in choosing your second graph to display. So, for example, if you wanted to compare the graph from Question 4 with the graph from Question 1, you would simply need to use the Previous button to move back to the graph from Question 1.

Tip: You may also designate one answer in the graph as correct by simply pointing your mouse to and clicking on the bar of your choice. This will change your selected bar (i.e. the answer you’ve designated as correct) to green and the remaining bars to red to clearly delineate the question’s ‘correct’ answer. See the example below. Similarly, clicking to the left of the axes will clear the correct answer selection and the display will return to the default mode.

To stop displaying the graph, simply click on the Display button on the menu bar (which now says Hide) to minimize the graph.
The same information (for the current question only) is also displayed on the LCD screen of the **i-clicker** base (see below), which is a useful tool to monitor student voting progress and choices without displaying the graph to the whole class. Information is updated every second, and includes the timer (on the upper left), the total vote count (on the upper right), and the distribution (by percentage) of votes across the 5 choices is displayed across the bottom.

![LCD Screen of i-clicker Base](image)

10. Repeat steps 8 and 9 (and 10 if you want to display the results) for each question you ask in class. When your class is over, simply click on the small  at the top right corner of the menu bar to exit the **i-clicker** application. You will be asked if you really want to quit **i-clicker** and, if so, click on **Yes**.

**That's all there is to it!** Each student's response to each question will be saved in the class folder on your flash drive. Put the flash drive in your pocket and leave your class with confidence. The rest of this manual will tell you how to assign grades based on the responses of your students as well as outlining the many other useful features and options available to you.

**Tip:** We suggest you store any files associated with your lectures (your PowerPoint slides, for example) in the course folder on your flash drive – it’s a great way to keep everything organized.
Section Two - Registering Your Students: How To Give Your Students Credit

The i-clicker system may be used as a simple tool to give you instant, anonymous feedback in class, in which case nothing else needs to be done. However, if you (like most instructors) want to go a bit further and give credit to your students for class participation and/or performance, you will need to:

1. Associate each student's ID or name with the unique serial number on their i-clicker remote (i.e. Registration).
2. Decide on the grading details for each session of your class (see section on i-grader).

Note: Students do not need to be registered in order for i-clicker to collect votes. For unregistered students, responses will be stored and assigned to their unique remote serial ID number. After students register, all their previously recorded responses will be retroactively assigned to them.

Tip: You can elect to use i-clicker as a completely anonymous system, but you may have a difficult time with student compliance if you don't assign even a few points for participation. We've found that making i-clicker an option but not tying it to any points/grading results in very few students using i-clicker in class.

IMPORTANT: Course Management Systems (CMS) Integration
If you are using WebCT/Blackboard/ANGEL, it is important to read and follow the directions located in the course management system documentation (available on www.iclicker.com). This will eliminate potential future confusion and ensure your registration data is consistent with your course management system.

Registration:
The association (or registration) of a student's ID or name with the remoteID (the serial number on the back of each i-clicker remote) is required before a student can receive individual credit for voting in class. Before this can occur, you must create a text file called Roster.txt in your class folder. This file should have one line for each student in your class, with each line containing the student's LastName, FirstName, and StudentID (or any other easily readable text string that is guaranteed to be unique for each student). We recommend that you use whatever naming convention you currently use (or that is required by your institution) to record your students' other grades so that you can easily import i-grader data into your course grade book.

Roster.txt file: The Microsoft Notepad application (or any other plain text editor) can be used to easily create this file. To create a txt file using Notepad, go to “Start” and select “Accessories.” Open Notepad from the list of Microsoft Accessories. You can enter the student information, or Copy and Paste it from your roster (in Excel or any other format) into Notepad. Save this as “Roster.txt” within the folder you’ve renamed for your course. You will need to do this for each section or course in which you are using i-clicker.

An example Roster.txt file (shown below) is provided in your class folder. You may wish to simply edit this file rather than creating a new one.

![Example Roster.txt File](image)
i-clicker offers you three straightforward registration options: one in-class option (for your entire class), one manual option (for individual students), and an “online/web” option. Minimal information is required of your students and all registration options are tied to your class roster. There are no site license or registration fees for i-clicker software.

Tip: In-class and online registration are not mutually exclusive, and both can be used to register students in one class. For a small class, roll call is recommended, while a combination (or online exclusively) is recommended for larger classes.

Option One - In Class (or “Roll Call”) Registration:
To use Roll Call, your computer screen needs to be projected so all students can easily see it.

To begin, click on the LOAN/REGISTER button on the i-clicker floating menu bar:

![i-clicker LOAN/REGISTER button](image)

The following menu box will appear:

![Remote StudentLoan menu](image)

Select ROLL CALL to enable this registration feature. Your class roster (as long as you’ve created a Roster.txt file and placed it into your course folder) will begin scrolling as shown below:

![Register Your i-clicker](image)
The instructions for students to register are outlined on the screen and are easy to follow.

1. **Step One:** The student looks for his/her student ID as read from the Roster.txt file.

2. **Step Two:** Once located, the student must wait until his/her ID has scrolled down into the central blue region of the Step Two screen. A letter will then appear to the right of his/her ID or name. The student must press the displayed letter on their keypad, at which point a second (different) letter appears to the right of his/her name.

3. **Step Three:** The student should press the second letter on their keypad to complete the registration process. This is the final step in tying each individual student to his/her unique remote.

Once the second letter is selected, the boxes to the right of the name disappear and the student is registered for the duration of the course. His/her name will no longer appear on the scrolling roster list.

In the example shown below, Student_31 has just pushed the first button and is being prompted to push the second one (in this case D). Once Student 31 has pressed "D," his/her student ID and her i-clicker serial number will be tied together for the rest of the course.

If a student’s name scrolls off the screen before completing Steps 2 or 3, s/he should simply wait for his/her name to appear again. Names will continue to scroll on the screen until you click on the **Close** button (on the bottom right screen) or until all students have registered.

**Tip:** If a student accidentally registers his/her clicker to the wrong name, s/he should push the D button on his/her i-clicker remote **twice** to clear the incorrect registration and restart the registration process.
Option Two - Web Registration

Your students can also register through a simple Web registration process. To do this, send your students to the following website: www.iclicker.com/registration.

Once your students have arrived at the site, each student must:

1. Enter his/her First Name and Last Name in the appropriate boxes.
2. Enter his/her student ID (the same one that is in your Roster.txt file and generally the ID that you use to record and report grades to your institution).
3. Enter his/her i-clicker remote ID (this is the unique set of numbers and letters located on the bottom of the back of the remote).
4. Enter the security code that appears on the screen (example below). The security code will appear as a slightly distorted series of numbers and/or letters (and is designed to maintain the site’s security and prevent hacking). Click “Enter.”

5. After a student’s information is saved on the server, he/she will see an on-screen message confirming that registration was successful. The student’s ID is now tied to his/her unique i-clicker remote ID.

As a final step in Web registration, you will need to synchronize the relevant information from the Web server with your i-grader application. This enables you to update the student registration information in your class folder. This is one of the functions built into the i-grader application, which is described in the next section.

Note: If a student has not voted with their i-clicker remote, the online registration will not synchronize with your i-grader application. The student must vote at least once in class. As such, we recommend you ask at least one clicker question (for example, an attendance polling question) on the first day of class to capture remote id’s before requiring your students to register.

Tip: Since the i-clicker registration process is tied to individual faculty rosters AND the student’s votes, students can use one i-clicker remote for multiple classes and only need to register on the web once.
Option Three - In Class “Individual” Registration:
If only a few students need to register (for example, a new student joins your class after you've completed Roll Call registration), an individual registration option is available.

1. Using the i-clicker floating menu bar, click again on the LOAN/REGISTER button from your i-clicker floating menu bar. After the menu appears, un-check the Loan checkbox (as shown here).

2. Now enter the student’s Remote ID (the number on the back of their i-clicker). This can be done by just typing it into the Remote field, or by instructing the student to hold the On/Off button on his/her remote until the blue light starts flashing (around two seconds) and then telling the student to push the A button on his/her remote twice. This will send the clicker ID to the computer and the Remote ID will appear in the Remote field as though you had typed it.

3. The next step is to select the student’s ID from the pull-down menu labeled Student. If the student’s ID does not appear in the list (i.e. her name is not yet in the Roster.txt file), type the student’s ID into the box. Click OK. The student’s ID will be associated with the corresponding i-clicker remote ID. An example is shown below.

The procedure described above permanently assigns the remote to the student. In the example, Remote ID A646E is permanently assigned to the student with ID Student_69.

Note: Only one student at a time can register via this option.

Loaning a Clicker
If a student forgets his/her i-clicker remote, you can loan one for a single lecture. To associate the loaned clicker with a student for one lecture only, you should perform a temporary (or loaner) registration.

To do this, follow the exact same steps as outlined above for an individual registration, BUT make sure the Loan checkbox is selected (as shown here).

If the Loan box is checked, the assignment of the i-clicker remote ID is tied to that student for one lecture only. This temporarily overrides any permanent registration. The student will receive credit for any votes during that lecture and these will be synchronized with existing scores. In subsequent classes, the student can resume using his/her regular clicker.
Section Three - Using i-grader after class: Assigning Credit for Sessions and Questions

First, make sure you have exited the i-clicker application. (You may also want to run WebUpdate prior to opening i-grader if you haven’t done so recently.) In the appropriate class folder on your flash drive (or computer), double-click the i-grader icon.

The i-grader application will start and you will see a screen similar to this one:

A list of class participants (i.e. your students who have voted to date) will display in the left-most column, and a list of lectures will display in the top row. Registered student IDs or last names will appear as they appear in your Roster.txt file, and each Lecture (by default) is labeled with the date of the session. You now have the option to view your roster by StudentID or by your students’ last names (via a drop-down menu). If some of your students have not yet registered, their recorded votes will be stored with their i-clicker remote serial ID. Once registered, they will appear with the Student’s ID. The example screen shown indicates that clickers were used in just one lecture to date (on January 11, 2007) and that five students participated. Of these, Student_1, Student_2, and Student_3 have registered their clickers while the other two students (the ones with remote serial IDs 5EFCA2, and 266A9CD) have not.

Tip: To help you determine registered versus unregistered clickers, registered students will appear in blue type while unregistered clickers appear in red.
Synchronizing Web Registrations
Let's suppose you encouraged the students that did not register in class to use Web registration, and that all students complied. You may now update your local i-grader database using the Synchronize Web Registrations feature.

Simply click on the button labeled Synchronize Web Registrations from the main i-grader page. Before using this feature you will need to confirm that:

a. Your class roster is in your course folder (see the earlier “Registration” section)
b. You are connected to the Internet

A pop-up window will appear, and you will be prompted to click Continue to pull down clicker registrations from the server. Click the Continue button.

After you click on Continue, your list of registered students is updated using the information from the Web server. A software feature will alert you to any discrepancies between your roster and the web registrations.

Possible discrepancies include students entering an incorrect student ID or having a student vote in your class without being in your roster (e.g. if they just added the course). In these cases, the system will notify you of the discrepancy. If i-grader needs your input for any reason, you will see a window like the one below. There are three ways to resolve any discrepancy:

1. **Ignore the Registration**, which does not associate any registration information for that particular student.
2. **Accept the Registration**, which allows the student ID to be included in i-grader, and associates the student with the correct clicker remote ID.
3. **Cancel the Registration**, which exits the registration process and leaves igrader as it was originally.

**Example 1:**
In the screen below, a student tried to register his/her i-clicker online (remote ID 0266A9CD) with his/her student ID (Student_4) which was not in your Roster.txt file. You realize that the student likely mistyped his/her student ID by typing “Studnet” rather than “Student.” As a result, you select the correct student from the list of students in the roster (on the right), and click the “Accept” button to associate Student_4 with i-clicker remote ID 0266A9CD.
At this point i-grader will finish synchronizing the information from this student and any others that registered online. A box similar to the one below will appear:

If any unassociated clicker ID’s remain after this step (i.e. if you continue to see any red clicker ID numbers in the left column), confirm with your students that they have registered online or will do so in the near future. If you have outstanding unassociated IDs, synchronize again. If necessary, you can also run the Roll Call registration. You can repeat these steps as often as necessary.

**Tip:** If a student registers online and there are problems synchronizing, you can allow them to register in class.

**Tip:** We suggest setting a deadline (however loose or long) for registration. This will allow you to confirm all students are registered and promotes better classroom and clicker management.
i-grader Functions

I-Grader’s three main editing functions available from the opening screen are:
1. Editing a Student
2. Editing a Session
3. Setting Scores

Tip: If you started two sessions in the same day (for the same course), those two sessions will be reported as two separate sessions on this main i-grader screen, so, for example, if you began a polling session on 1/31/2007, closed i-clicker and began a second polling session on that same day (for the same course), your i-grader screen would display those two sessions as such: 1/31/2007 and 1/31/2007-2 (as displayed below).

Tip: If you unintentionally closed i-clicker in the middle of a lecture/voting session, simply choose Resume Last Session from the Welcome Screen and your additional polling data will be included in the previous session (thereby eliminating the second session 7/18/2006-2 in our example).

1. Editing a Student
This feature allows you to edit a student ID/remote ID association, if necessary.
1. Locate and click on the underlined student ID.
2. To remove the association of a particular clicker to that student, click on Remove Clicker.
3. To associate a new remote ID with this student, enter the new remote ID and click on Add Clicker.
2. Editing a Session:
This feature allows you to edit session titles or delete sessions.

1. Locate and click on the underlined session title. An Edit Session pop-up window will appear.

2. If you want to change the default name, simply type in the new session name in the Edit Session text box. Click Save to complete the process. In the example above, the session title is changed to “Lecture_15.” As a default, sessions are titled by date (e.g. 1/10/2007).

Note: There is a 15-character limit for displaying session titles. If you choose to assign a longer session name, the complete name will appear in your session log/data files, but will be limited to the 15-character maximum on the i-grader screen.

3. Setting Session Scores
To assign credit and establish the points for any given polling session, locate the relevant lecture session and click on the Set Scores button under the name of the session. That session’s information will appear and be available for editing. For the “1/31/2007” example you would see:

This screen allows you to award Participation/Attendance Points and Performance Points for this lecture.

In the above example, detailed information is displayed for the session held on 1/31/2007. “Question 1 of 3” indicates that three questions were asked during the 1/31/2007 lecture. The percentage field displays the percentage of students who chose a particular answer (50% chose A), while the numbers field displays the actual number of students (3 students chose A).

Participation/Attendance Points are used to credit students for attending class and for participating in the voting/polling activities. Here, you can determine the number of questions your students must answer in order to receive participation points. You also determine the total number of participation points possible for that session.

Participation points are not given for answering the question correctly; they are given for participating in class polling. They are therefore are awarded by session, not by question.

Tip: We strongly encourage you to utilize the participation/attendance feature. This objective of i-clicker is to promote student engagement and teacher-student interaction.
**Performance Points** are awarded to students by question for a specific answer or set of answers. Many professors use performance points to reward “correct” answers. You must assign performance points for each question. You are able to add point values in any of the five boxes (A, B, C, D, E). A detailed example is shown here.

**Tip:** You may also assign credit or partial performance credit for multiple answers to the same question.

**Note:** Students can earn performance points without earning participation points (or vice versa), depending on your preference and settings.

**Tip:** Students can earn partial or full credit for performance points, while participation points are “all or nothing.”

To scroll through the questions, click on “Previous” or “Next.” Once you have assigned points values for each question, locate and select **Set and Close** and all points allocations will be saved.

**Tip:** **i-grader** automatically assigns default point values to each question but you can easily change these defaults by using the Settings/Preferences option in **i-clicker**. To learn more about adjustments available in the Settings/Preferences screens, see page 23 of this manual.

Since you may not remember the details of each question you asked in lecture, you can select **View Screenshot** in the **i-grader** Set Scoring Session field. The screen shot function captures your screen every time you click Start (in **i-clicker**) to begin polling, so you can ask on-the-fly questions easily. In other words, the screen capture/question information for each question you ask using **i-clicker** will be recorded in **i-grader** automatically.

In example above, a quick review will reveal that C is the correct answer. By entering 2 in the “C” box, the program will automatically credit those students who correctly answered the question with 2 points. Likewise, since partial credit can be given, you can also enter 1 in “A” to credit students who voted A.

**Tip:** The “Correct Answer” drop-down menu can also be used to which answer is correct. When this is used, the default number performance points (as set in the Settings and Preferences menu in **i-clicker**) is assigned to the selected answer.

Once you have finished assigning **Participation/Attendance Points** and **Performance Points**, click **Set and Close** to record your settings and return to the main **i-grader** window.
You will now see the following adjusted scores:

Notice that i-grader has updated the summary for this lecture and the column of averages. As more sessions are recorded, the columns to the right of the one labeled 1/31/2007 will be populated, and you are able to assign grades for these sessions as well.

**Tip:** You are able to change the grading assignments/point values for any session at any time.
**Reporting**

The **Update Reports** feature creates summary information in an easily readable and printable HTML format. After selecting this, a report titled **Term_Summary.html** will be in your main course folder. You can open this with your favorite web browser and view the following:

### Term Summary Report: Physics 123

<table>
<thead>
<tr>
<th>Report Links</th>
<th>Number of Students in Session</th>
<th>Total Number of Questions Asked</th>
<th>Total Points Available</th>
<th>Class Average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session 1</strong>&lt;br&gt;07/22/2006</td>
<td>Session Summary&lt;br&gt;Student Responses</td>
<td>6</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td><strong>Session 2</strong>&lt;br&gt;07/22/2006</td>
<td>Session Summary&lt;br&gt;Student Responses</td>
<td>6</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td><strong>Session 3</strong>&lt;br&gt;07/22/2006</td>
<td>Session Summary&lt;br&gt;Student Responses</td>
<td>6</td>
<td>3</td>
<td>11</td>
</tr>
</tbody>
</table>

**Tip:** If you would like to make these reports available to your students, you can copy and paste the html link into your website and assign it a password.

The **Summary** page contains links to detailed information for each question as well as for each student.

For example, clicking on the **View Student Scores** option will create the Report shown to the right.

### Student Term Report: Physics 123

<table>
<thead>
<tr>
<th>Average</th>
<th>Lecture 1</th>
<th>Lecture 2</th>
<th>Lecture 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student_0</strong>&lt;br&gt;Total 23</td>
<td>62 %</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td><strong>Student_1</strong>&lt;br&gt;Total 25</td>
<td>68 %</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td><strong>Student_13</strong>&lt;br&gt;Total 21</td>
<td>57 %</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td><strong>Student_51</strong>&lt;br&gt;Total 23</td>
<td>62 %</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td><strong>Student_44</strong>&lt;br&gt;Total 21</td>
<td>57 %</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td><strong>Student_69</strong>&lt;br&gt;Total 25</td>
<td>68 %</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>
To view more detailed session information, locate and select **Session Summary** from the Term Summary report on the main reports page. You will see the following:

**Session Lecture 1 Summary Report: Physics 123**

<table>
<thead>
<tr>
<th>Time Started</th>
<th>Time Stopped</th>
<th>Number of Responses</th>
<th>Maximum Score</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question 1</strong></td>
<td>10:26:07 AM</td>
<td>10:26:33 AM</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td><strong>Question 2</strong></td>
<td>10:26:37 AM</td>
<td>10:26:46 AM</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td><strong>Question 3</strong></td>
<td>10:26:48 AM</td>
<td>10:26:55 AM</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td><strong>Question 4</strong></td>
<td>10:26:59 AM</td>
<td>10:27:06 AM</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

The Session Summary data is followed by information about individual questions, an example of which is shown at the right.

**Note:** The report entry **Correct Answer: A** shown at the right is the result of setting the correct answer field in the “Set Session Scoring” tool as described in the previous section.

**Tip:** You can use the Update Reports function as often as you need to – the old reports are simply over-written. If you want to retain older reports, simply rename them and save them in another folder.
Exporting Grade Data
Student grade data can be exported in several formats (General/Excel, Web CT, Blackboard and ANGEL). The General (i.e. simple generic) format is discussed below. For details on specific course management systems, please see the related course management system documentation.

There are two i-grader buttons available for exporting grades:
1. Export a Selected Session as CSV (Excel file)
2. Export Term Summary as CSV (Excel file)

Export Selected Session:
This function allows you to select a specific lecture to export. In the above example, Lecture 1 has been selected by checking the box to the left of that lecture’s name. This creates a file (named UploadData.csv) in the Reports folder (located in your course folder). The file can be opened with any database. In the example below, it is open with Microsoft Excel and reveals the following information:
Export Term Summary:
This option creates a different file, also named **UploadData.csv**, in the **Reports** folder.

**Tip:** Each time a Summary Reports is created, the same filename (UploadData.csv) is used, overwriting any existing file the same name in your Reports folder. If you wish to keep more than one version of this file, simply rename the first one something different before creating another. This will avoid the second report overwriting the first.

While similar to the **Session Report**, the **Term Summary Report** includes an additional column for every lecture and column totals, as shown below:

![Excel spreadsheet](image)

**Note:** Please see the course management documentation for detailed instructions on integrating i-clicker and i-grader with WebCT, Blackboard, and Angel.
Section Four - Assigning Preferences and Settings: Customizing i-clicker and i-grader

There are a number of default settings for both the i-clicker and i-grader software applications (such as timer settings, graph display settings, and points values). These defaults are chosen defaults to make i-clicker/i-grader the easiest classroom response system to learn and quickly use.

However, we also recognize the need for additional functionality and a way to easily customize i-clicker for each professor using our system. In light of this need, you may adapt i-clicker/i-grader defaults to better meet your individual needs.

To customize our system, locate and select Your Settings and Preferences from the main i-clicker Welcome Screen.

From there, you will be taken to the main Settings and Preferences screen, for which there are three settings tabs: General Settings, Question and Polling, and Scoring.

Tip: You may set your preferences by individual session (so your settings are saved for one polling session) or for the entire course (so your settings are saved for the entire term).
Below is an overview of each subsection and choices for each tab in Your Settings and Preferences.

**General Settings/Preferences**

1. **Enter Your Course Name**: The course name entered is used with i-grader’s reporting function and does not have to match the name of your i-clicker course folder. You may assign a course name here that i-grader will use in formatting your summary reports. (Note: this is not the same as creating new i-clicker folders for each course or section. Remember that you will need to copy a separate folder for each section or course for which you are using i-clicker.)

2. **Setting a Frequency Code**: The i-clicker 2-way radio frequency student response system operates on one of 16 channels in the 915 MHz frequency range. The default frequency channel for both the base and the i-clicker remotes is AA. If you are the only professor using i-clicker at a given time you don’t need to worry about setting your receiver to a different frequency. However, if someone else is using i-clicker in close proximity, you (or they) will want to use a different sub-channel (such as AD, as in the example below). i-clicker has sixteen different frequencies available (AA, AB, AC, AD, BA, BB, BC, BD, CA, CB, CC, CD, DA, DB, DC, and DD).
Tip: If you know you will be using i-clicker near another professor using i-clicker for the entire semester/term, we recommend you set your default frequency for the entire term. You may also need/want to coordinate default frequencies (if i-clicker is in use campus-wide) with your instructional technology division.

To ask your students to change their i-clicker remote frequency, an alert will appear when you begin polling that will instruct your students to:
A. Press the On/Off (power) button on their clicker until the blue Power light begins flashing.
B. Press the new two-letter code (that you’ve designated in your Settings/Preferences). In the example below, that new code is BB. A green Vote Status light will indicate your students have successfully reset their remote frequency.

![Base Frequency Set to BB](image)

This code will remain in place for the duration of the lecture/session (as long as the remote is on). Students will need to repeat this procedure for every session, which is why setting one code for the entire term will be easier to administer and communicate.

Note: The receiver must be plugged in and the i-clicker application must be running to enable students to perform this procedure.

3. Floating i-clicker Bar Size: This allows you to choose the size of the floating menu bar that will sit on top of your presentation materials. The default size of the floating menu bar is small as it is the least obtrusive/distracting when projected on screen. However, if you have a very large lecture hall (auditorium), the larger menu bar projects the timer and vote count more easily.

![3. Floating i-clicker Bar Size](image)

4. Designated Instructor’s Remote: You may program one of your remotes (any i-clicker remote will do) for your own use in class. Known as the Instructor’s Remote, this function enables you to control polling, as well as your presentation, without having to stand near your computer. Rather than interpreting the five choices (A, B, C, D, E,) as student votes, your voting options become control commands and will control certain pieces of the i-clicker polling software. The image on page 25 illustrates what each selection’s functionality is as the Instructor’s Remote.
Tip: Your Instructor’s Adopter Kit included the base, flash drive with software, USB cable, and two blue remotes. We recommend you designate one of the blue remotes in your Instructor’s Adopter Kit as your Instructor’s Remote. If you are an adopter of i-clicker and did not receive a blue remote, contact your instructional technology administrator (if your school adopted i-clicker campus wide) or support@iclicker.com to request one. There are no technical differences between a blue “instructor’s remote” and a white student remote. The color is designed to make it easier for you to keep track of your individual and loaner remotes.

To activate the Instructor’s Remote, you must enter the clicker’s serial ID (located on the bottom of the back of your i-clicker) in the Designated Instructor’s Remote field (below) in General Settings and Preferences. Remember, your earlier entry (Set for Course or Set for Session) determines the length of time your clicker will function as the Instructor’s Remote. If you plan to use the Instructor’s Remote regularly, we recommend you set the code for the entire course (or term).

Tip: In this mode, i-clicker is never the “active” application on your PC – it can still float above your presentation software or remain in the background (hidden). However, to ensure that your presentation software (such as PowerPoint) is the active program, you will need to click once on your PowerPoint (or other) screen to ensure that i-clicker is not the active application.
5. Security Code for Web Synchronization: This is the database location setting used for Web Synchronization. The default value is SQL. Please speak with your system administrator before changing this setting. Do not use the school security code you received in fall 2006 (keep the space blank). (See Section 2 for more details on Web Synchronization.)

6. Course Management System in Use: If you are using a course management system to record/report grades, you will want to select the system here. 80% of college campuses have a license with a course management system. The two most widely used systems are WebCT and Blackboard, although use of ANGEL is increasing.

When using i-grader, you may export your session or term data into an easily readable CSV file. This data can be opened in Excel or uploaded to your course management system. However, each course management system requires a slightly different CSV format in order to seamlessly upload student data. By selecting the course management system in use here, you are enabling i-grader to format the CSV files appropriately for integration with your system.

If you are not using one (or are using i-clicker's generic program), select General.

For more help and information, refer to the course management system documentation or contact support@iclicker.com.

If you are using WebCT/Blackboard/ANGEL, it is important to read and follow the directions located in the course management system documentation (available on www.iclicker.com). This will eliminate potential future confusion and ensure your registration data is consistent with your course management system.
1. **Polling Timer Defaults**: When you pose a question in i-clicker (i.e. when you click Start), the software automatically starts a timer (which remains active while you are polling). The default i-clicker setting counts upwards, beginning with zero. In the default setting, you must select “Stop” to end the polling period.

Through Settings/Preferences, you may choose instead to enter a pre-set amount of time, in increments of 30 seconds. The i-clicker timer will then count down and automatically stop at zero (which also ends the polling period).

**Tip**: In the count down mode, the “+” and “−” buttons to the left of the timer allow you to add or subtract 20 seconds as needed. You can still stop polling (even if you selected the “count down” option) by pressing STOP on the floating menu bar.
2. **Chart Display Options:** The “Display” button on the i-clicker floating menu bar will reveal the voting results in a graph. The results can be displayed as *multi-color* (as in the left example below) or *monochrome* (as in the right example).

**Tip:** For either display option, you can also designate one answer in the graph as “correct” by rolling your mouse over and left-clicking the bar of your choice. This will change your selected bar (i.e. the answer you’ve designated as correct) to green and the remaining bars to red. See the example below (the left example is the multi-colored version *without* a correct answer designated; the right example is the same multi-colored version *with* a correct answer designed):

![Graph Examples](image)

Clicking to the left of the axes will clear the correct answer selection and the graph will return to the default mode.

3. **Voting Results Grid:** You have an opportunity to display (or hide) a grid of your students’ voting entries each time you ask a question. By displaying the voting results grid you can give students another opportunity to confirm their votes were received. Note that the green “Vote Status” light on their clickers indicates to students that their votes were both sent and received by the i-clicker base, so the voting grid is really not necessary.

**Tip:** While this is a comfort to students, the voting results grid can be distracting from lecture if used extensively. We recommend you use this only in the beginning of the term to reassure students that their votes were indeed confirmed. You may also minimize the voting results grid during a polling session by simply clicking on the `X` on the top right corner of the grid.

4. **Voting Grid Display Options:** There are two ways to display the voting results grid. **Confirmed Vote Receipt Only** allows students to see their vote was received but doesn’t indicate their choice, while **Confirmed Vote Receipt and Vote Selection** allows students to see both their vote receipt and last received response on the screen.

**Confirmed Vote Receipt Only** (shown below) displays the ID of each participating clicker. The color automatically changes from blue to green each time a vote is changed. So, for example, remote ID 51015 has voted but has also changed his/her vote, while remote ID 68482 has voted once. The color white indicates that the student has not voted.

In order for an ID to appear, the student must respond. The first time the voting grid displays in a polling session, all of the remote ID responses will be either blue or green. (The student’s first response is colored blue, the second is colored green, and any subsequent responses to that same question toggle between these colors.) For subsequent questions in the same lecture, however, the grid will display all remote IDs. When those remotes (displayed in white) have voted in response to the question, the color will change to blue. If they do not vote during a particular question, the remote IDs will remain on screen but stay white. For example, remote ID FFFF0 has voted in the session but has not yet voted for this question.
Note: To help a student find their response, their ID will always be in the exact same location for that lecture only. While the placement will change for subsequent lectures, they will always be in the exact same location each lecture.

Confirmed Receipt and Vote Selection displays both the students i-clicker remote ID as well as the color of the corresponding choice of their last received response. To illustrate, A is yellow, B is Blue, C is purple, D is red, and E is green.

Tip: During polling, your students can freely change their votes at any time until you select STOP (their last vote is recorded). If students quickly identify that “A” is the most popular answer because of the color coding on the Confirmed Vote Receipt and Vote Selection grid, they may change their vote in response to the most popular choice. This behavior could both skew your question data and also impact your participation points assignments. If you are assigning participation points for a correct answer in your sessions, you may not want to choose the Confirmed Vote Receipt and Vote Selection option.

5. Question Pop-Up Default Option. If you select “Yes” in answer to the question below, a pop-up window will appear each time you initiate a question in i-clicker and will allow you to title the question (the default is Question 1, 2, etcetera) and assign a correct answer. The correct answer will not display in the “Answer” field; rather, the students will only see an asterisk (*) regardless of the letter choice you enter.

The benefit to the pop-up question window: it allows you to assign a title to each question and designate the correct answer (invisible to students). The drawback: some instructors find it distracting in lecture.
Scoring Settings and Preferences

In this section, you are able to establish the point values for Participation/Attendance and Performance. Participation/Attendance points are earned for attending and actively participating in class with i-clicker. Performance points are earned for answering a specific question or questions. Students can earn performance points without earning participation points, or vice versa, depending upon your preference.

PARTICIPATION/ATTENDANCE
Participation points are awarded to students who attend and vote during lecture (encouraging student engagement). Participation points are awarded by overall session activity, not by individual question.

1. **Number of Participation/Attendance Points per session**: This field allows you to enter the number of points students earn in any given session for meeting the participation requirement, as defined in the Participation Requirement field below.

   1. Number of participation/attendance points per session

2. **Participation Requirement**: To earn the point value established above, students must respond to a certain percentage of questions in a session. i-clicker determines this via three levels: Lenient, Medium, and Strict. Depending upon the total number of questions, i-clicker will automatically calculate the minimum number of responses needed.

   2. Participation Requirement

   - Strict (all but one question answered)
   - Medium (At least 75% of the questions answered)
   - Lenient (At least 50% of the questions answered)

Example: If you enter “10” points in **Number of Participation/Attendance Points per session** and there are 10 questions, a student must respond to 9 of the 10 questions in the Strict level to earn the 10 points. In the Lenient level, the student must respond to a minimum of 5 questions to earn 10 points.
PERFORMANCE

Performance points are awarded to students by question for a specific answer or set of answers. Students can earn performance points without earning participation points, depending on your preference.

1. Number of performance points for each question: This field allows you to enter the default number of points students are awarded for any answer. These are different from participation points in that they reward students for performance by question, whereas participation points reward students for participation by session.

2. Additional points for each correct answer: This field allows you to reward students for choosing the correct answer for each question, in addition to any performance points you award in for simply answering the question. In the above example, students are given one point simply for answering the question (even if their answer is not correct), plus an additional 4 points for getting the answer right.

3. Cap Session Points? Here, you can cap the number of total performance points a student can earn in a single session. Example: Your maximum is capped at five points. Even if a student answers 6 questions (each worth one point) in a session, the most s/he can earn is still 5 points.

You may choose to set these preferences for the entire term (course) or session. Your choices and selections on the Scoring Options page will appear in the i-grader Set Session Scoring window for subsequent lecture(s).
Section Five - Resuming Your Last Session

In addition to “Your Settings and Preferences” on the main welcome screen, there is also the option to “Resume Last Session.” This allows you to resume a lecture, rather than starting a new one. This option is useful if you accidentally exit the i-clicker application, had a computer crash, or if you would like all of your records stored as a single session.

Section Six - Updating the i-clicker and i-grader software

From time to time there will be improvements made to the PC applications i-clicker and i-grader. These updated versions can be downloaded free of charge using the WebUpdate application which you will find in each of your class folders (see below).

Simply double-click on the WebUpdate icon in your class folder, making sure the computer you are using has access to the internet. The WebUpdate application checks the i-clicker website for the version numbers of the latest available i-clicker and i-grader applications and compares these to what is found in the class folder you are currently in. If either or both of your applications are not the latest available you will be given information about the newer version(s) and the opportunity to update:
You will be asked about i-clicker and i-grader separately. Simply click on the “Upgrade Now” button to update your software.

**Note**: WebUpdate only updates the i-clicker and i-grader applications that are in the same class folder as the WebUpdate application. If you are teaching more than one class you will need to run the WebUpdate application in each of your class folders to confirm all of your applications are updated.
If you'd like to assign titles to your questions (and the correct answer) before your lecture (instead of the default Q1, Q2 assignments given by i-clicker), you will need to create a new file named questionlist.csv and save it in your course folder. If you are teaching multiple sections or courses, you will need to include a questionlist.csv file in each course folder.

**Note:** i-clicker can only identify and utilize one questionlist.csv file at a time. If you want to create multiple question files (i.e. one for each lecture), simply save the questionlist.csv as a different file name (e.g. questionlist0716.csv). Do not save these files within your i-clicker folder. When you are ready to use the appropriate file for the lecture, rename it as “questionlist.csv” within your i-clicker folder. i-clicker will then recognize and utilize the application.

### Creating a questionlist.csv in Microsoft Excel

1. Open Microsoft Excel.
2. In column A, enter the title of each question.
3. In column B, enter the corresponding correct answer.
4. Go to File, locate/select “Save As” and name your document questionlist in the File Name field.
5. In the “Save As Type” field, locate “CSV” or comma delimited as the file type from the drop-down menu and select that option.
6. Before clicking “Save,” make sure you are saving the questionlist file in your course folder (i.e. the folder in which your i-clicker and i-grader applications reside).
7. If a previous questionlist file exists, you will be asked if you wish to replace it. Select “Yes.”
8. Excel will then tell you that the selected file does not support workbooks that contain multiple sheets. Select “Ok.”
9. Excel will then prompt you that questionlist.csv may contain features that are not compatible with CSV (comma delimited) and will ask, “Do you want to keep the workbook in this format?” Select “Yes.”

**Tip:** Do not name your questionlist as questionlist.csv in the File Name field. If you do this and save the file as a CSV file, it will not work properly with your i-clicker application.

### Creating a questionlist.csv in Microsoft Notepad

1. From the Accessories option on your PC, locate and open Notepad.
2. Enter the title of the question followed by a comma and then the correct answer. Do not add a space between the comma and the correct answer.
3. Select “Save As” and name the file “questionlist.csv.”
4. Under “File Type,” select “All Files.”
5. Click Save.

For both options, you must save it within the i-clicker course folder so the software is able to recognize it and apply the values you defined in the file to i-grader.

**Tip:** Because of the ease-of-use, we recommend using the Notepad option.