How-to guide for instructors using clickers

Your Support Team
To ensure you get expert help targeting your specific needs, your use of clickers is supported jointly by three organizations:

Eberly Center for Teaching Excellence
Integrating clickers into your teaching
412-268-2896

Office of Technology for Education
Orientation, training, and how-to support
412-268-9090

MediaTech Computing Services
Classroom technology, infrastructure, and support
412-268-8855

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i>clicker Instructor Kit

A. Instructor Remote
B. Student Remote
C. Receiver
D. USB Cable Connector
E. Flash Drive with Software

Test it out.

i>clicker kits are available on loan to instructors for testing out the system before using it in the classroom. These kits contain all the hardware and software you need to get started.

Pick up an instructor i>clicker kit at MediaTech, Computing Services in Cyert Hall A74 or send mail to clickers@andrew.cmu.edu to have a kit delivered to your campus office and/or to request a quick tutorial with a teaching with technology consultant.

Make sure it's installed in your classroom.

If you plan to use clickers over the course of a semester, find out if i>clicker is installed in your classroom. A clickers classroom list is available online at: www.cmu.edu/teaching/clickers/classroomlist/

Order student remotes.

Order student remotes through the Carnegie Mellon bookstore before the start of the semester. To order student remotes, contact the bookstore at: bookstore.web.cmu.edu or 412-268-5591.
This section will help you obtain the most recent version of the needed software. Once you have completed the steps below, you will be ready to either begin questioning and gathering responses (for one-time or anonymous use), or create a roster and register student remotes (for longer-term usage, or when you would like to track responses and assign scores or participation credit).

1. **Connect the flash drive to the computer.** The flash drive contains the software needed to present questions, gather responses, and display the results. Connect the flash drive to one of your computer's USB ports, then open the flash drive's folder on your computer. If you are on a Mac, you can typically find the flash drive on your desktop. On a PC, you can find the flash drive under “My Computer,” and it typically appears as the E, F, or H drive.

2. **Run the update tool to get the most current version of the software.** On the flash drive, double-click the WebUpdate tool icon in the folder appropriate for your computer's platform (“MyCourseMac” or “MyCoursePC”). Your computer must have access to the internet to get the software update.

3. **Create a duplicate of the “MyCourse (Mac or PC)” folder for each of the courses for which you are using i>clicker.** Each course / session folder will contain the updated i>clicker and i>grader applications and data about polling questions and responses from each use.

   3.1 If you will be presenting in class from your own laptop, create the duplicate folders on your laptop.

   3.2 If you will be presenting from the resident classroom lectern computer, create the duplicate course folders directly on the flash drive. This will enable you to take your question and response data with you when you leave the classroom, since all associated data will be stored directly on the flash drive.

   3.3 Make sure your course clicker data is backed up and secure. If you prefer to keep i>clicker and the associated data portable by storing it on the flash drive, be sure to back up the data to your computer frequently, in case of loss or damage to the drive.

   3.4 Rename each new folder with the course and/or section name (for example, “Physics123,” “Physics311,” etc.).

   **TIMESAVING TIP: When using i>clicker for multiple courses, save some time by first setting your i>clicker preferences before duplicating the “MyCourse” folder for each course.**
This section details the most basic way to begin posing questions, gathering responses, and displaying results.

1. **Connect the receiver to the computer** (when using an instructor kit or your own laptop to present). Connect the small, square end of the USB cable to the back of the receiver into the port labeled “To Computer.” Connect the rectangular end of the cable to one of your computer’s USB ports. Place the receiver’s antenna in the upright position.

2. **Launch the i>clicker application from within your course folder.** The i>clicker Welcome Screen appears with four options: Start Session, Your Settings and Preferences, Loan Clickers, and Resume Last Session. Your screen resolution needs to be at least 1024 x 768 in order to view the full application.

3. **Click on “Start Session.”** The Welcome Screen disappears, and the floating menu bar appears in the top-left corner of your screen, indicating that i>clicker is active. You can reposition the menu bar anywhere on your desktop.

4. **Pose your first question and start polling.** Advise your students to turn on their clickers, then present the question and possible answers. When you’re ready to gather responses, click “Start” on the menu bar. The “Start” button changes to “Stop”, and the menu bar expands to include a timer and a vote counter display.

5. **To stop polling, click “Stop” on the menu bar.** Once you have clicked “Stop,” i>clicker will no longer accept votes. Note: If students vote when polling is inactive, the Vote Status light on their remotes will flash red three times to indicate that their votes were not received.
6. Click “Display” to see a graph of your students’ responses. The graph displays the number and percentage of votes for each option, and the “Display” button changes to “Hide.” To resize the graph, drag the lower-right corner of the graph window.

6.1 To view two response graphs simultaneously (the current graph and a previous graph), click “Compare Graphs” in the title bar of the graph display. Use the forward and back arrows to select the graphs you want to see in each window.

6.2 To designate one answer in the graph as correct, mouse over the graph and select the correct letter from the choices that appear. The bar for the answer you choose as correct will turn green, and the remaining bars will turn red. To clear your selection, mouse over the graph again and choose the “?” at the far left.

7. Repeat steps 3–6 above for each question you ask in class.

8. To exit i>clicker, click on the small white box in the upper right corner of the floating menu. You will be asked to confirm that you would like to quit i>clicker. Click “Yes” to quit.

9. The next time you launch i>clicker, you can choose between “Start Session” and “Resume Last Session.” If you choose “Start Session,” response data for this session will be recorded separately from the previous session. Choose “Resume Last Session” if you want the data for two sessions to be stored together, or if you inadvertently closed the program.
Setting up an instructor remote will allow you to move around the room and present questions while away from the lectern. The instructor kit contains a blue remote designated as the instructor remote. However, other than its outward appearance (including the stickers to help you remember its functions), this remote is no different from the remotes your student use. Any remote can be designated as the instructor remote for a course by following these steps.

**TIP:** When using i>clicker for multiple courses, you can save significant time by first setting your i>clicker preferences (like instructor remote and scoring preferences) before duplicating the “MyCourse” folder for each course.

1. **Launch the i>clicker application located in your course folder.** The Welcome Screen appears with four options: Start Session, Your Settings and Preferences, Loan Clickers, and Resume Last Session.
2. **Click on “Your Settings and Preferences.”** The Welcome Screen disappears, and a new preferences window appears with four tabs: General, Registration/Export, Question and Polling, and Scoring. Instructor remote information is entered under the “General” tab.
3. **Enter the remote ID in the “Designated Instructor's Remote” field.** The remote ID is an eight-digit string found beneath the small barcode sticker on the back of the remote.
4. **Save your settings by choosing “Set for Session” or “Set for Term.”** “Set for Session” will set the instructor remote for this session only. “Set for Term” will set the instructor remote for all sessions that are run from this course folder.

**Battery Information**

- Your remote uses 3 AAA batteries.
- The expected battery life on remotes is approximately 200 hours and the “Low Battery” light will flash red when you have 10 hours or less remaining.
- When changing batteries, be aware that the third battery often sticks in the compartment and requires a tap to release it.
- Duracell-brand batteries are not recommended for use in i>clicker remotes because they are shorter than other AAA batteries, and the connection is not as reliable as a result.
If you plan to assign credit to your students for attendance, class participation, or performance, you will need to build a student roster, and associate each student name with a unique remote ID number printed on the back of each student’s i>clicker remote.

Students will need to register their remotes to have student response data tied to student names, otherwise responses will be stored in the course folder and associated with the student remote ID numbers. Only after a student registers his/her remote will all previously recorded responses be tied to that student.

A. Building a Roster

There are two ways to build your roster, using a CSV text file or with a Blackboard export file.

Option 1: Using the i>clicker “Roster.txt” file

Use any plain text editor, like Notepad on a PC or TextEdit on a Mac, to edit the “Roster.txt” file.

1. Open the “Roster.txt” file found within your i>clicker course folder. Be sure to open this file in a plain text editor, not a word processing application like Microsoft Word.

2. Add your own roster of students using the format “Lastname, Firstname, AndrewID.” Enter one student per line, and separate each element by commas.

3. Save and close the file. Be sure you save the file to its original location in the appropriate i>clicker course folder.

Option 2: Using the Blackboard Grade Center

If you are using Blackboard to manage your course, you can export the student information present in the Blackboard Grade Center.

1. Log into your Blackboard course. Go to the course Grade Center, which is accessed from the Control Panel. The link to the Control Panel is in the left navigation, under “Tools” and the link to the Grade Center is under “Assessment.”

2. Download the grades as a comma-delimited file. (Note that it is not necessary to have entered any grades to complete this process.) Select “Download Grades” from the “Manage” drop-down menu. Under “Data,” select “User Information Only,” and under “Options,” choose “Comma” as the Delimiter Type. Click the “Submit” button, and on the following screen, click “Download.”

Locate the downloaded file on your computer, and rename it “gb_export.csv”. The file name for the original file created by
Blackboard will begin with the “gc_XXX-XXXXX_studinfo_.”, where XXX-XXXXX is your Blackboard course number (i.e., “S09-76101”), followed by the date and time, and include a .csv file type extension. Rename this file “gb_export.csv”.

3. Move the renamed file “gb_export.csv” to your course i>clicker folder. Do not open this file. If you do inadvertently open this file, it is likely that you will need to repeat the Blackboard export process.

4. Launch the i>clicker application located within the course folder and click on “Your Settings and Preferences” from the Welcome Screen.

5. Select the Registration/Export tab, and set the “Course Management System in use” to “Blackboard {Ver 8.0}.”

6. Save your settings by choosing “Set for Session” or “Set for Term”. “Set for Term” is recommended to prevent roster errors later in the semester.

7. To update your roster as enrollment changes occur, repeat steps 1–4 above. Overwriting the previous “gb_export.csv” roster file will update the information in both i>clicker and i>grader.

B. Registering Student Remotes

Option 1: Using Web Synchronization
(Recommended for Large Classes)

NOTE: Before you can use the Web Synchronization feature in i>grader, you must run at least one i>clicker session with your students. If a student has not yet voted with his/her i>clicker remote, the online registration will not synchronize with your i>grader application. Your students also need to have registered their i>clicker remotes online.

1. Direct your students to complete the web registration form at http://www.iclicker.com/registration. This form requests the student’s first and last names, clicker remote ID, and their student ID. (Please direct your students to enter their Andrew IDs as their “student IDs” on this form.) Tip: Students can use the same i>clicker remote for multiple classes, and will only need to register their remotes once. If a student makes a mistake he/she can simply register a second time.

2. Launch the i>grader application located within your course folder. You will see your session(s), labeled by date, and you will see names and remote IDs in red on the left.

3. If you are using Blackboard, make sure the “Output formatted for...” is set to “Blackboard {Ver 8}.” (See also “Building a Roster”, “Option 2: Using the Blackboard Grade Center” to see how to get your student roster file from your Blackboard course.)

4. Click “Synchronize Student Web Registrations” on the bottom right of the i>grader panel. A pop-up window will appear, and you will be prompted to click “Continue” to pull down clicker registrations from the server. Click “Continue”. Your list of registered students will be updated using the information from the Web server and will match student names with remote IDs.
5. **A notification will alert you to any discrepancies** between your roster and web registrations (e.g. students enter an incorrect student ID, a student votes and is not yet in your roster). To resolve a discrepancy:

   5.1 Ignore the Registration: Does not associate any registration information for that particular student.

   5.2 Accept the Registration: Allows the student ID to be included in i-grader, and associates the student with the correct i-clicker remote ID.

   5.3 Cancel the Registration: Exits the registration process and leaves i-grader as it was originally.

6. **If you continue to see any red/unassociated i-clicker ID numbers** in the left column, they likely belong to students who have not yet registered online. Check with your students and synchronize again. If there are problems synchronizing one or two students who have registered online, you can register these students manually or use an “In-Class Roll Call” (described below). You can repeat these steps as often as necessary. Tip: We suggest setting a deadline for Web registration (perhaps after the university deadline for adding/dropping courses). This will allow you to confirm all students are registered and assist you with classroom and i-clicker management.

**Option 2: Using In-Class Roll Call**
(Recommended for Small Classes)

1. **Launch the i-clicker application** located within your course folder. Select Start Session.

2. **Select “Loan/Register”** on the i-clicker floating menu under the “Arrow” button.

3. **Click “Roll Call”**.

4. **The Andrew IDs from your roster will populate the roll call list**, and students can then follow the on-screen instructions to register their remotes. For the students, this consists of seeing what letters appear after their Andrew IDs on the screen and clicking them with their remotes, then confirming. Once students have registered their clickers, select “Close”. The student remote IDs will now correspond with each student name and Andrew ID.

**Option 3: Using Individual Remote Registration**

1. **Launch the i-clicker application** located within your course folder. Select Start Session.

2. **Select “Loan/Register”** on the i-clicker floating menu under the “Arrow” button.

3. **Enter the information for the Remote ID**. Select the student name from the drop down and select “Register for the term (permanent)”. NOTE: If a student has forgotten his/her remote and is borrowing one. You can register his/her remote for “one session (loan)”

4. **Click “Set and Close”** to confirm that student’s remote.
C. Editing Student Remote Registration

If a student replaces his or her remote (due to loss or damage) after initial registration, you will need to modify which remote ID is associated with that student in i-grader.

1. **Launch i-grader** from your course folder.
2. **Locate and click on the student ID or name that you wish to modify.** You will see a pop-up panel for that student, which lists clickers currently registered to that student.
3. **To associate a new remote ID with the student, click Add.** You will see an additional pop up prompt to add a new remote ID. Enter the new remote ID and click “OK.” The ID will then appear in the list of Registered Clickers tied to that student. Highlight the new clicker ID and click Add.
4. **To remove the association of a particular clicker to a student, highlight the clicker remote ID, and click “Remove”.** Please note that if a student lost or damaged a previous remote, you should not remove that remote from the student’s list. Removing the remote from the student’s list will cause the remote ID to appear in i-grader as an unregistered remote, and that data will no longer be identified with its original owner. If you accidentally remove a remote from a student’s listing, you can always add the remote (and its associated data) back to the student’s listing, following the directions in step 3 above.
5. **Click Save, then click OK** on the confirmation message.
A. Setting Scoring Preferences

Before your class session, you can assign point values for participating in class and for answering questions correctly.

1. **Launch the i>clicker application** located within your course folder. The i>clicker Welcome Screen appears with four options: Start Session, Your Settings and Preferences, Loan Clickers, and Resume Last Session.

2. **Click on “Your Settings and Preferences.”** The Welcome Screen disappears, and a preferences window appears with four tabs: General, Registration/Export, Question and Polling, and Scoring.

3. **Select the “Scoring” tab at the top of the preferences window.**

4. **Set your desired point values for attendance and participation.** Participation points are awarded by session, and are given whether the student responds to questions correctly or incorrectly. These settings allow you to give points to students who attend class and answer a minimum number of questions, which can be adjusted along a continuum from “at least one question answered” to “all questions answered.” Participation points are “all or nothing,” meaning it is not possible for students to earn a fraction of the participation points in a given session.

   4.1 **Number of Participation/Attendance Points per session:** This field allows you to enter the number of points students will earn in any given session by meeting the participation requirement, as defined in the following step.

   4.2 **Participation Requirement:** To earn the point value established above, students must respond to a certain percentage of questions in a session. Depending upon the total number of questions, i>clicker will automatically calculate the minimum number of responses needed.

   Example: Assume you enter “10” points in “Number of Participation/Attendance Points per session,” and choose “Lenient (At least 50% of the questions answered)” as your Participation Requirement. If you ask 10 questions in a session, a student must respond to at least 5 of the 10 questions to earn the 10 participation points.

5. **Set your desired point values for performance.** Unlike participation points, performance points are awarded for individual question responses. Performance points allow students to earn a fraction of total possible points for a given session, and also allow you to award additional points for correct answers.

   5.1 **Number of performance points for each question:** This field allows you to enter the default number of points students are awarded for each response submitted.
5.2 **Additional points for each correct answer:** This field allows you to reward students for choosing a correct answer, in addition to any performance points you award for simply answering the question. For example, you might choose to award students one point for each answered question (even if the answer is not correct), plus an additional four points for giving the correct answer.

5.3 **Cap Session Points:** If you want to set a maximum for total possible performance points in each session, you can enter a desired point value in this field. For example, assume you award one point for each question answered, and an additional four points for each correct answer. If you hold a 10-question session, and your maximum is capped at 15 points, a student who answers all 10 questions correctly will earn 15 points (rather than 50).

### B. Pre-Assigning Question Information

You can assign titles and correct answers for your questions before your lecture by creating a text file and saving it in your course folder.

1. **Using a plain text editor, enter your question and answer data** in a .CSV (comma separated values) format. Enter one "question,answer" set per line as shown here:
   - Question 1,A
   - Question 2,B
   - Question 3,B

2. **Save the file using the filename “questionlist.csv”** to the course folder where you will be running i>clicker. 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 use one questionlist.csv file at a time. If you want to create multiple files (i.e. one for each lecture in a single course), or if you want to save these files for later use, create the files and save them using different file names that provide you with more information (e.g. questionlist0716.csv, or Week 1 Lecture.csv). Do not save these files in your course i>clicker folder. When you are ready to use a file for the upcoming lecture, copy the file to your i>clicker course folder and rename it “questionlist.csv.” When you are finished with the lecture you can delete or remove the file from your course folder.

**How to create a .CSV File Using Microsoft Excel**

1. **Open Microsoft Excel** and create a new workbook.

2. **Enter question title and answer information in rows.** In column A, enter the title of your first question. In column B, enter the letter of the corresponding correct answer. In the second row, add the title and answer for your second question, and continue on until you have entered all question titles and answers for your session.
3. **Save the workbook as “questionlist.csv”** to the appropriate course folder.

   3.1 In Excel’s main menu, go to “File” and select “Save As.” In the Save dialog box, enter the name of your workbook as “questionlist” in the “Save As” field.

   3.2 In the “Format” pull-down menu, select “CSV” or “Comma Separated Values” as the file type.

   3.3 Make sure you are saving the file to the i-clicker folder for the desired course, and click “Save.”

   3.4 If a previous questionlist file exists, you will be asked if you wish to replace it. Select “Replace” to overwrite the previous version.

**How to create a .CSV File Using Microsoft Notepad (PC)**

1. **Open Microsoft Notepad** and create a new text file.

2. **Enter the question title and answer information on separate lines.**
   Type the title of the first question, followed by a comma and then the letter of the corresponding correct answer. Do not add a space between the comma and the correct answer. Hit the return key to create a new line, then enter the title, comma, and correct answer for the second question. Continue on until you have entered all question titles and answers for your session.

3. **Save the text file as “questionlist.csv”** to the appropriate course folder.

   3.1 In the main menu, go to “File” and select “Save As.” Enter the name of the file “questionlist.csv” in the “Save As” field.

   3.2 In the “File Type” pull-down menu, select “All Files.”

   3.3 Make sure you are saving the file to the i-clicker folder for the desired course, and click “Save.”

   3.4 If a previous “questionlist.csv” file exists, you will be asked if you wish to replace it. Select “Replace” to overwrite the previous file.

**How to create a .CSV file using TextEdit (Mac)**

1. **Open TextEdit and create a new text file.**

2. **Confirm that you are working in a “Plain Text” file, as opposed to “Rich Text.”** Plain text files are stripped of all formatting, and can be saved as CSV files. Rich text files include formatting, and cannot be saved as CSV. In the main menu, select “Format” and look at the options presented. If the first menu option after “Font” and “Text” reads “Make Rich Text,” that means you are already working in a Plain Text file and do not need to take any action before the following step. If the first menu option after “Font” and “Text” reads “Make Plain Text,” you should select that option to convert your file to Plain Text.

3. **Enter the question title and answer information on separate lines.**
   Type the title of the first question, followed by a comma and then the letter of the corresponding correct answer. Do not add a space between
the comma and the correct answer. Hit the return key to create a new line, then enter the title, comma, and correct answer for the second question. Continue on until you have entered all question titles and answers for your session.

4. **Save the text file as “questionlist.csv”** to the appropriate course folder.

   4.1 In the main menu, go to “File” and select “Save As.” In the Save dialog box, enter the name of the file as “questionlist.csv” in the “Save As” field.

   4.2 Make sure you are saving the file to the i>clicker folder for the desired course, and click “Save.”

   4.3 A dialog box will pop up asking whether you would like to “Use .txt” as the file extension or “Use .csv.” Confirm that you would like to “Use .csv” as the extension.

   4.4 If a previous questionlist file exists, you will be asked if you wish to replace it. Select “Replace” to overwrite the previous version.

   4.5 If you are not able to save the file in CSV format, cancel the Save and go to the Format menu. Select the option “Make Plain Text.”

   4.6 For both options, you must save the file 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.
A. Getting Started with i>grader

1. **Download the latest i>grader software.** (optional) Check for updates to the software by using the WebUpdate application in your course i>clicker folder.

2. **Quit the i>clicker application.** Before opening i>grader, always make sure to quit the i>clicker application.

3. **Launch the i>grader application.** Open the course folder on your flash drive or computer, and launch the i>grader application.

A list of students will display in the left-most column. Click on the arrow on the heading of the column of students to sort the student list by Student ID or by last name. In this column, you will see all students as listed in your Roster.txt file (or Blackboard roster file if you have exported the list from your Blackboard course).

**Registered vs. non-registered student remotes.** Names of students who have registered their i>clicker remotes will appear in blue text. Names of students who have not registered their i>clicker remotes will appear in red text and will have no grades attached to their names—the grades are tied to the remote IDs at the end of the list. Once students register their remotes the grades will be attached to the student names.

**Each polling session creates it's own column** and is labeled (by default) with the date of the session. If you start two sessions on the same day (in the same course), those two sessions will be shown separately on the main i>grader screen as two separate columns. If you choose to Resume Last Session from the Welcome Screen, the additional polling data will be included with the previous session data and will not generate a separate column.
B. Setting Session Scores

i-grader scoring tools allow you to designate correct answers and set scoring options for each individual session. TIMESAVING TIP: Save time by setting default scoring settings for all sessions in your course using the i-clicker Settings and Preferences.

1. **Assign points for any given polling session** by clicking on the session title (Mac) or the “Set Session” button (PC).

   1.1 **Edit the session name.** By default sessions are labeled by the date of the session. You have the option to enter your own title.

   1.2 **Assign participation and attendance points per session.** These points are awarded to students by session, not by question—the student either responds the minimum number of times required and receives all points (as set by the instructor) or does not and receives zero points.

2. **In the i-clicker Settings and Preferences,** you can set a participation requirement by percentage of questions answered. The minimum number of responses will be automatically calculated for you. The minimum number of questions required will be adjusted each time you delete and restore questions from your session.
2.1. **Assign performance points per question.** These points are awarded to students by question for correct answers and are assigned to each question individually.

If you have already set a point value for correct answers in i>clicker Settings and Preferences, you may simply designate the correct answer in the Performance Points area and that answer choice will automatically be awarded the correct number of points.

You may also assign credit or partial credit for multiple answers by manually adding point values in any of the five boxes for the answer choices (A, B, C, D, E).

3. **Edit/delete question data.** Edit the question title, assign a “correct answer”, assign points for correct answers, or delete questions. Note: Deleted questions will be marked as deleted on the thumbnail image, and the “Delete this question” box will be checked. You can still view the deleted questions by using the Previous/Next controls on the bottom right of the screen (below the thumbnail image). You can restore the question if you change your mind, and points will be recalculated to match your most current session information.

4. **View session screen captures.** i>clicker takes a screen capture for you every time you begin polling. To view and hide the screen capture in i-grader, click on the “View Screenshot” and “Hide Screenshot” button. The screen shot function supports ask on-the-fly questions by providing you with an automatic record of your lecture questions.

C. **Deleting a Question**

1. **Open the session containing the questions you wish to delete** by clicking the session title (Mac) or the “Set Session” button (PC).

2. **Use the Previous and Next arrows to review your questions and screenshots.** When you’ve located the question you wish to delete, select “Delete this Question”.

3. **The question will no longer be calculated in your participation requirements** and student scores for the session.
   3.1 It will remain visible in the scoring screen.
   3.2 At any time, you may restore the deleted question by returning to the session and unselecting this option.
A. Creating Reports

1. **Click “Run/Update HTML Reports”** (from the main i>grader screen) to generate summary report information. A “Report Summary” window will appear with links to three reports that can be opened and printed using a web browser. (Note: The generated reports are automatically placed within your course folder for you to access at any time.)

2. **Term/Session Summary and Review report** provides a breakdown of polling data, both for your term to date and for individual sessions. No individual student scores or votes are included in this report. The linked Summary Review reports contain individual question statistics, the screenshots taken when you began polling (which should contain each individual question), and the voting results graphs for each session.

3. **Student Voting Data report** contains grades for your individual students, by session and by question. From here you can also access a report of Cumulative Scores, which provides you with a detailed report of each student’s responses for each i-clicker session.

   **NOTE:** You can generate updates to the reports as often as you need to – the old reports are over-written with your most recent data.
TIP: If you are using Internet Explorer to view the HTML reports, you can right-click (control click) on any blank space within the table in your report and select “Export to Microsoft Excel” (provided Excel is installed on your machine). This will open an Excel worksheet containing information from the table you selected. To export information from more than one table in the report, click on a blank space outside of the report itself and you will be prompted to select tables to export to Excel.

B. Exporting Grade Data

You can export student grade data for use in Microsoft Excel or other text editors, spreadsheet and database programs.

There are two i>grader buttons available for exporting grades, available at the bottom left of the main i>grader screen:

1. **Export Selected Session as CSV (Excel) file.** Select one or multiple specific sessions to export by checking the box to the left of the session name. You will see a message that the scores have been saved to a file. The Export feature creates a file, named UploadFile.csv, in your course folder. NOTE: CSV is a comma separated value file type that can be read by nearly all text editors, spreadsheet and database programs, including Microsoft Excel.

2. **Export Term Summary as CSV (Excel) file.** This option also creates a file named UploadFile.csv, in the course folder. While similar to the “Export Selected Session” data, this file includes a column for every session you have held to date and a column for each student’s total number of points earned to date.

TIP: To avoid overwriting previously exported data files, give each file a unique file name. Each time you export student grade data, i>clicker generates a file named "UploadFile.csv" overwriting any existing files of the same name from previous exports. If you wish to keep more than one version of your exported data, rename each exported “UploadFile.csv” file with a unique file name.

NOTE: Exporting Grade Data for import to your Blackboard Grade Center. Files exported for use with Blackboard must be exported in a specific format. Please contact bb-help@andrew.cmu.edu for how-to’s and tips for using i>clicker data in Blackboard.
The Settings and Preferences screen has four tabs: General, Registration/Export, Question and Polling, and Scoring. You may alter default timer settings, graph display, point values, and many other features to best meet your individual needs. You have the option to save your Preferences for only one polling session or for the entire term.

Customize Your Settings and Preferences from the main i-clicker Welcome Screen or from the i-clicker floating menu by clicking on the down arrow button on the menu bar.

**General**

1. **Entering a course name:** The course name you enter here is used in i-grader, HTML reports and on the Welcome Screen of the i-clicker program. It does not have to match the name of your i-clicker course folder. (Note: Entering a new course name is not the same as creating new i-clicker folders for each course or section. Remember that you will need a separate copy of the “MyCoursePC” folder for each section or course for which you are using i-clicker.)

2. **Changing the Frequency Code:** The i-clicker 2-way radio frequency student response system operates on one of 16 channels in the 915 MHz frequency range.

3. **The default frequency setting is AA.** Generally, you should not modify this frequency. However, if you are in close proximity to another class concurrently using i-clickers, you may experience interference and may need to select a different channel. i-clicker has sixteen different frequencies available (AA, AB, AC, AD, BA, BB, BC, BD, CA, CB, CC, CD, DA, DB, DC, and DD).

4. **Students will need to change remote frequency if you change the default setting.** If you change your frequency from the default AA setting, your students will need to change their remote frequency at the beginning of each session and during a session if the student remote is accidentally turned off.

5. **When you begin polling, an alert will appear with instructions for your students** (Options are available for the length of time this alert stays visible on screen). To change their remote frequency, students will need to:
   - 5.1 Press and hold the On/Off (power) button on the i-clicker student remote until the blue Power light begins flashing.
   - 5.2 Press the new two-letter code (that you’ve designated in your Settings/Preferences).
   - 5.3 The Vote Status green light will light up on the student remote as an indicator to your students that they have successfully reset their remote frequency.

6. **Changing the size of the i-clicker floating menu:** Click to select “Small” or “Large” to choose the size of the floating menu bar that will sit on top of your presentation materials.
7. **Designating the instructor’s remote:** You may designate one remote as the Instructor’s Remote, for your own use in class. The instructor’s remote controls polling and moves between slides in your presentation software, allowing you freedom to move around the room while conducting i-clicker polling sessions.

7.1 Enter the instructor remote 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. If you plan to use the Instructor’s Remote regularly, we recommend you set the code for the entire course (or term).

Tip: To use the C and D functions on the instructor’s remote to advance forward or move backward in your slide presentation, your presentation software (such as PowerPoint) must be the “active” application on your computer. If i-clicker becomes the “active” program (for example, if you click on an i-clicker program window such as the voting graphs), you will need to click once on your PowerPoint (or other) screen to make it the active application again and use the C/D buttons on the instructor’s remote. i-clicker will still float above your presentation software.

**Registration/Export**

1. **Roll Call / In Class Registration:** This setting modifies the way that student names appear on the Roll Call screen for in class registration. This option does not modify the format of your roster or Gradebook file.

2. **Roster/Export – Course Management System in Use:** If you plan to record/report i-clicker grades in Blackboard, select the system version here (currently Ver 8.0). This will modify the format of the exported CSV files from i-grader so that they can be imported into Blackboard. Contact bb-help@andrew.cmu.edu if you would like additional assistance with importing i-clicker student grade data into Blackboard.

3. **Web Registration:** Leave this space blank. Carnegie Mellon is not hosting registration on campus at this time. Students can still register online or as directed by you.

**Questions and Polling**

1. **Set Polling Timer:** When you pose a question in i-clicker and 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 and you must select “Stop” to end the polling period.

You may choose instead to enter a pre-set amount of time, in increments of 15 seconds, for the i-clicker timer to count down. The timer will automatically stop at zero and end the polling period. 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**: This setting allows you to select whether a graph showing the results of each question during a session should be displayed as multi-color, monochrome, or a pie chart. The graphs can be displayed by clicking the “Display” button on the i>clicker floating menu bar or by using B on the Instructor’s Remote.

3. **Voting Results Grid**: This option allows you to display (or hide) a grid of your students’ voting entries each time you ask a question. If you choose to “Display” the Voting Results Grid, you can minimize this screen during a polling session by clicking on the ☰ on the top right corner of the grid.

The voting results grid is one way students can see if their votes were received. In addition, the “Vote Status” light on each student remote flashes green each time a vote is received by the i>clicker base.

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.

4.1 **Confirmed Vote Receipt** only displays the ID of each participating clicker. The color automatically changes from blue to green each time a vote is changed.

4.2 **Confirmed Receipt and Vote Selection** displays both the students i>clicker remote ID and a different color depending on their last received response. As in the example below, a key will appear at the top of the grid to let you know which colors correspond to which answer choices. The student with remote ID 02671277 answered “B” for this question, while students with remotes 0268CAA0 and 005EFCA2 answered “C.”

Tip: During polling, your students can freely change their votes at any time until you select STOP (their last vote is recorded). Students may use the color coding in this Vote Selection grid to quickly identify the most popular answer and change their vote in response. This behavior could both skew your question data and also impact your performance points assignments. If you are assigning performance 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**: If you select “Yes” here, a pop-up window will appear each time you initiate a question in i>clicker, allowing you to title the question (the default titles are Question 1, Question 2, etc) and assign a correct answer. The correct answer will not display in the “Answer” field; your students will only see an asterisk (*) regardless of the letter choice you enter.

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**Scoring**

In this section, you can establish the point values students can earn for actively participating in class and for answering questions correctly. 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).

Students can earn participation points without earning performance points, or vice versa, depending upon the preferences you set.

1. **Participation/Attendance Points.** Participation points are awarded to students who attend and vote during lecture.
   
   1.1 **Number of Participation/Attendance Points per session:** This field allows you to enter the number of points students can earn in any given session.
   
   1.2 **Participation Requirement:** To earn the participation/attendance points, students must respond to a certain percentage of questions in a session.

   Participation points are awarded by overall session activity, not by individual question. Depending upon the total number of questions, i>clicker will automatically calculate the minimum number of responses needed.

   Example: If you enter “10” points in Number of Participation/Attendance Points per session and there are 10 questions in a session, 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.

2. **Performance Points.** Performance points are earned for answering a specific question or questions.

   2.1 **Number of performance points for each question:** This field allows you to enter the default number of points students are awarded for any answer.

   2.2 **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 for simply answering the question.

3. **Cap Session Points:** Here, you can cap the number of total performance points a student can earn in a single session. Example: If your maximum is capped at ten points, and you hold a 15 question session with each question worth one point, even if a student answers all 15 questions correctly, the most she can earn for that session is 10 performance points.