



Getting Started and Instructions Manual

Version 3.21, December 2016.

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You can read more about Flipped Classroom teaching and tips and tricks in the **Introduction to Flipped Classroom Teaching** available in the Help menu on ScalableLearning.

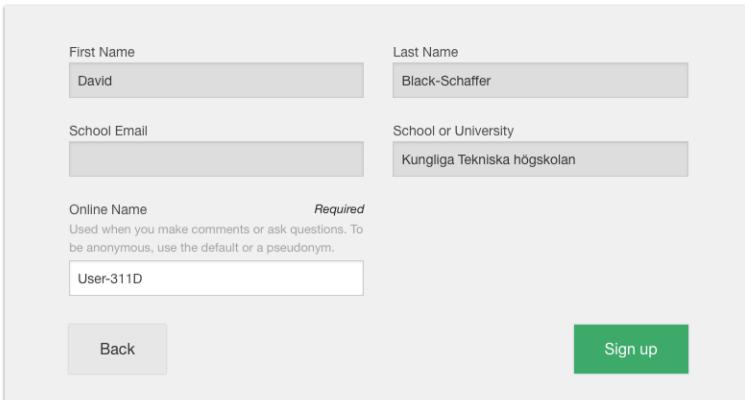
Getting Started

Accessing ScalableLearning

1. **Browser:** We strongly encourage the use of Google's Chrome browser (www.google.com/chrome). Newer versions of Safari and FireFox generally work as well. Older versions of Internet Explorer will not work. On the iPad you should use Safari.
2. **Site:** Go to www.scalable-learning.com.

Creating an Account

1. You can log into ScalableLearning either with your School/University account or by creating a separate ScalableLearning account. (Use the separate ScalableLearning Account if your School/University is not listed.)
2. When you first login you will be asked to fill in your account information.



First Name
David

Last Name
Black-Schaffer

School Email

School or University
Kungliga Tekniska högskolan

Online Name Required
Used when you make comments or ask questions. To be anonymous, use the default or a pseudonym.
User-311D

Back Sign up

- a. You should choose an "Online Name." The Online Name is what your students see when you respond to their questions. You can use your full name or something like "David (Teacher)". By default it is set to a random string to keep users anonymous.
- b. If you login with your School/University account you can only change the name/email/school through your university account page.
- c. If you login with a separate ScalableLearning account you need to provide this information and you will receive an email with a link to confirm your account before you can log in. If you do not receive the email within a few minutes, check your spam/junk mail folder.
3. You will next be shown an introductory video. Click on the appropriate link to see the video for students or teachers. (You can always re-watch the video from the Help menu later.)

Welcome to ScalableLearning!

New to ScalableLearning? Please watch a short introductory video to help you get started.

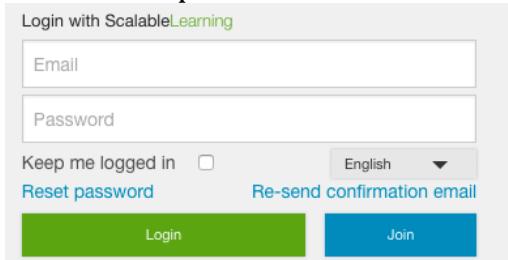
For Teachers

For Students

4. After watching the introductory video, you have successfully created an account and logged in and are ready to start using ScalableLearning.

Logging In

1. Click on “Login” and either use your School/University account or enter your email address and password.



Login with ScalableLearning

Email

Password

Keep me logged in

English ▾

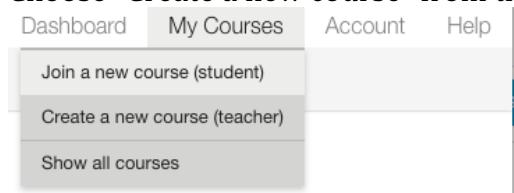
Reset password Re-send confirmation email

Login Join

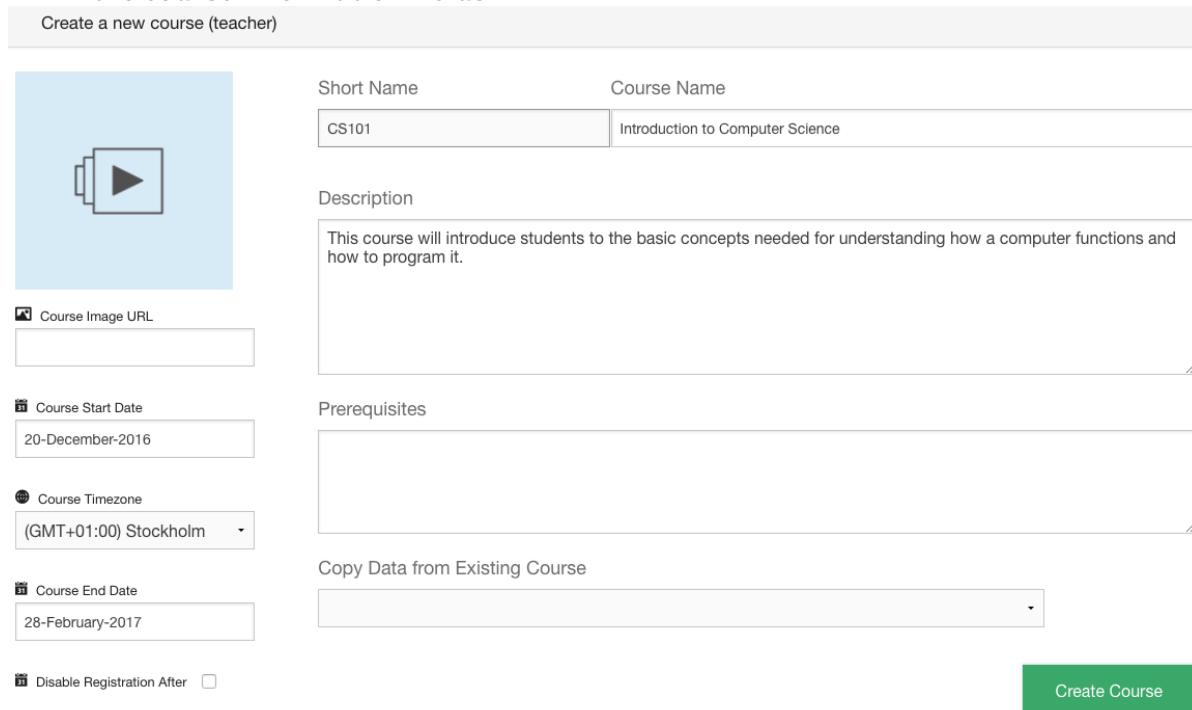
- a. If you use your School/University account, you can only change your account password through your School/University account page.
- b. If you use a ScalableLearning account, you can choose “Keep me logged in” to avoid having to log in each time and use the “Reset password” link to reset your ScalableLearning account password.

Creating a new Course

1. Choose “Create a new course” from the “My Courses” menu.



2. Fill in the course information fields:

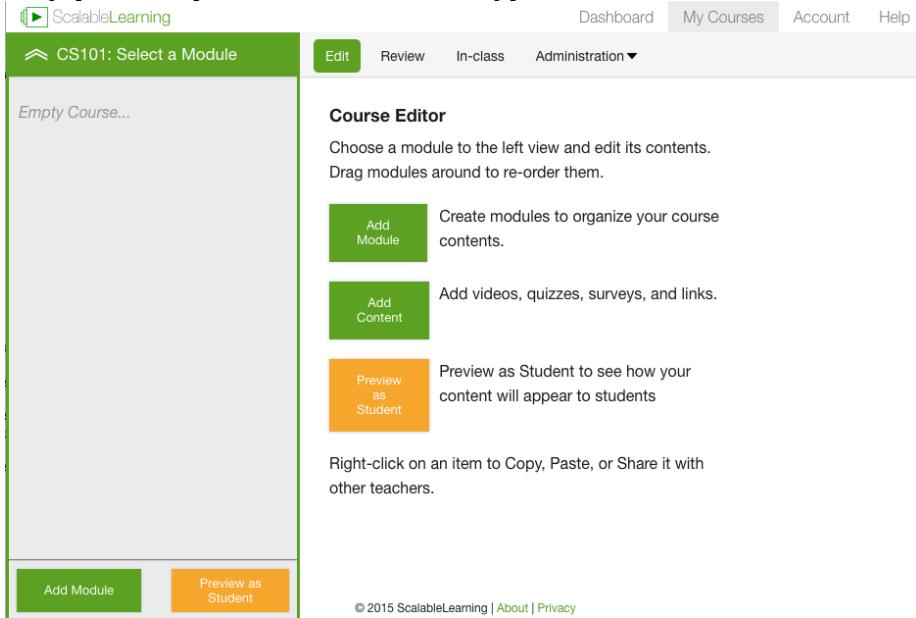


The image shows a 'Create a new course (teacher)' form. It includes the following fields:

- Short Name:** CS101
- Course Name:** Introduction to Computer Science
- Description:** This course will introduce students to the basic concepts needed for understanding how a computer functions and how to program it.
- Course Image URL:** (Placeholder field)
- Course Start Date:** 20-December-2016
- Course Timezone:** (GMT+01:00) Stockholm
- Course End Date:** 28-February-2017
- Prerequisites:** (Empty text area)
- Copy Data from Existing Course:** (Dropdown menu)
- Disable Registration After:** (Checkboxes)
- Create Course:** (Green button)

- a. The “Short Name” is typically the course code, such as CS101.
 - b. You can provide a “Course Image URL” so students are shown a picture for the course when they log in. Simply find the image online and right-click and choose “Copy URL” and paste it in here.
 - c. You should set the course start and send dates and timezone for deadlines.
 - d. You can choose to **disable course registration** after a certain date by enabling “Disable Registration After.”
 - e. Note that all of these options can be changed later in the Coures Information page.
3. **[Optional] To Copy an Existing Course:** Choose the course from which you want to copy course content in the “Copy Data from Existing Course” menu. To copy data from a course you need to be registered as a teacher or a TA for that course.
 4. Click “Create Course”.

5. After you create a course you will be brought to the **Edit Mode**. This will typically be empty unless you have chosen to copy data from another course.

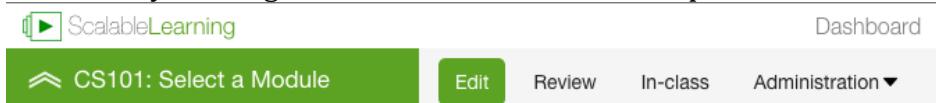


The screenshot shows the ScalableLearning Course Editor interface. At the top, there is a navigation bar with links for Dashboard, My Courses, Account, and Help. Below the navigation bar, the title "CS101: Select a Module" is displayed. A message "Empty Course..." is shown on the left side. On the right, the "Course Editor" section is visible, containing instructions to choose a module and drag modules around to re-order them. Three buttons are present: "Add Module" (green), "Add Content" (green), and "Preview as Student" (orange). A note below the buttons says: "Create modules to organize your course contents.", "Add videos, quizzes, surveys, and links.", and "Preview as Student to see how your content will appear to students". At the bottom of the editor, there is a note: "Right-click on an item to Copy, Paste, or Share it with other teachers." The footer of the page includes copyright information: "© 2015 ScalableLearning | [About](#) | [Privacy](#)".

- a. The Course Content list on the left is empty for a new course. Here is where you will see content you add with the “Add Content” and “Add Module” buttons.
- b. To add content (videos, quizzes, surveys) click “Add Content”.
- c. To create a module to organize your content, click “Add Module”.

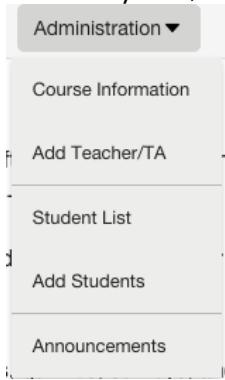
Modes

1. ScalableLearning has three modes for interacting with your course, which can be accessed by clicking on the mode buttons at the top:



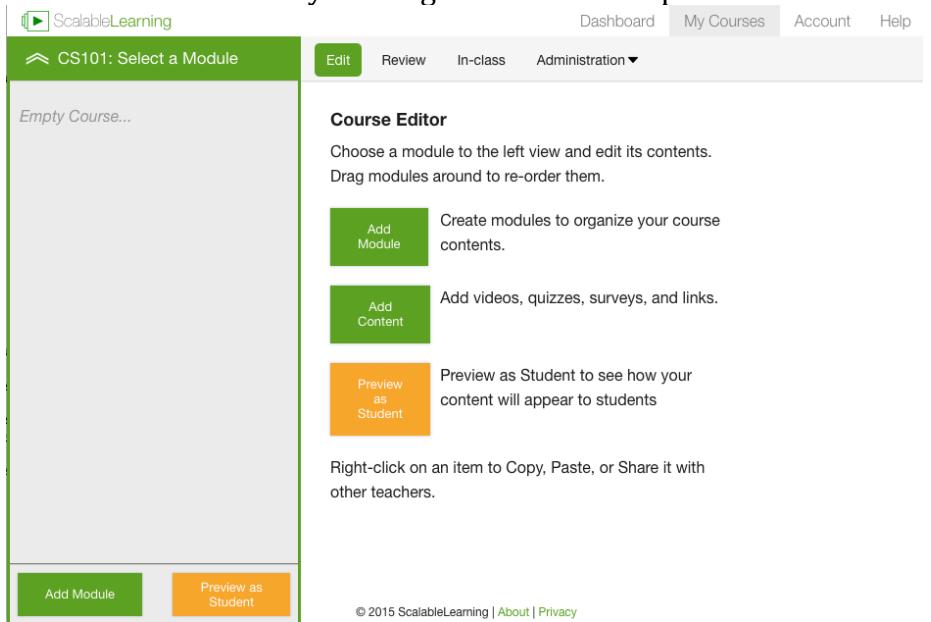
- a. **Edit Mode:** Allows you to create and modify interactive online content, including videos, quizzes, adjust due dates, etc.
- b. **Review Mode:** Allows you to review how students have done online, see the results of interactive quizzes, answer online questions, and choose material for the in-class review.
- c. **In-class Mode:** Allows you to project the material you selected for review and use in-class voting for peer instructions. It is designed to be used with a projector in the classroom.

2. **Administration** includes functions for editing course information, adding other teachers/TAs, viewing the student list, adding students, and posting announcements.



Adding a Video to a Course

1. Go to the **Edit Mode** by clicking on Edit at the top.



Course Editor

Choose a module to the left view and edit its contents.
Drag modules around to re-order them.

Add Module Create modules to organize your course contents.

Add Content Add videos, quizzes, surveys, and links.

Preview as Student Preview as Student to see how your content will appear to students

Right-click on an item to Copy, Paste, or Share it with other teachers.

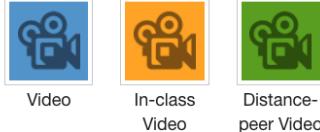
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2. Click “Add Content” to add new content to your course.
- a. You can organize content into Modules by clicking Add Module.
3. Choose the type of video to add:

Add New Content:

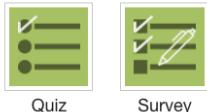
Video

You can add quiz questions on top of the video.



Quiz or Survey

Text-based, not part of a video. Can be graded or optional.



Link

Web link to other sites or pages.



- a. Video: Online interactive videos for students to watch at home.
- b. In-class Video: material for you to use in the classroom with students.
- c. Distance Peer-Videos: material for students to use remotely in groups in distance courses.
- d. Note: You can change the type of video later in the Details pane.

4. Enter the Title and URL for the video in the Details list on the right. Click the green check button to save your entries:

- a. For YouTube videos, click on the “Share” link below the video and then copy the <https://> link.

- b. Paste the URL into the Video link field in the Details.

- c. Note: for videos from a server at your institution, contact your local IT support staff for how to access them.

5. You will now be asked if you would like to trim the video. By trimming a video you can choose the start and stop time to only display part of a video.

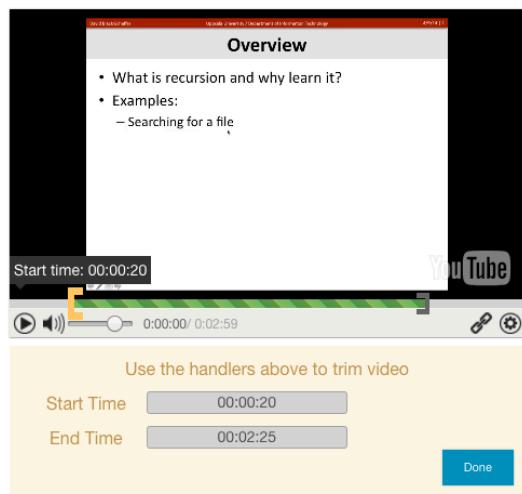
Would you like to trim your video?

With trimming, you can choose the start and stop times to show only a portion of the video to students. To change the trim times you have to re-add the video.

[Use Full Video](#) [Trim Video](#)

- a. If you choose to trim the video, you can use the handles on the left and right of the video to select the start and stop times.

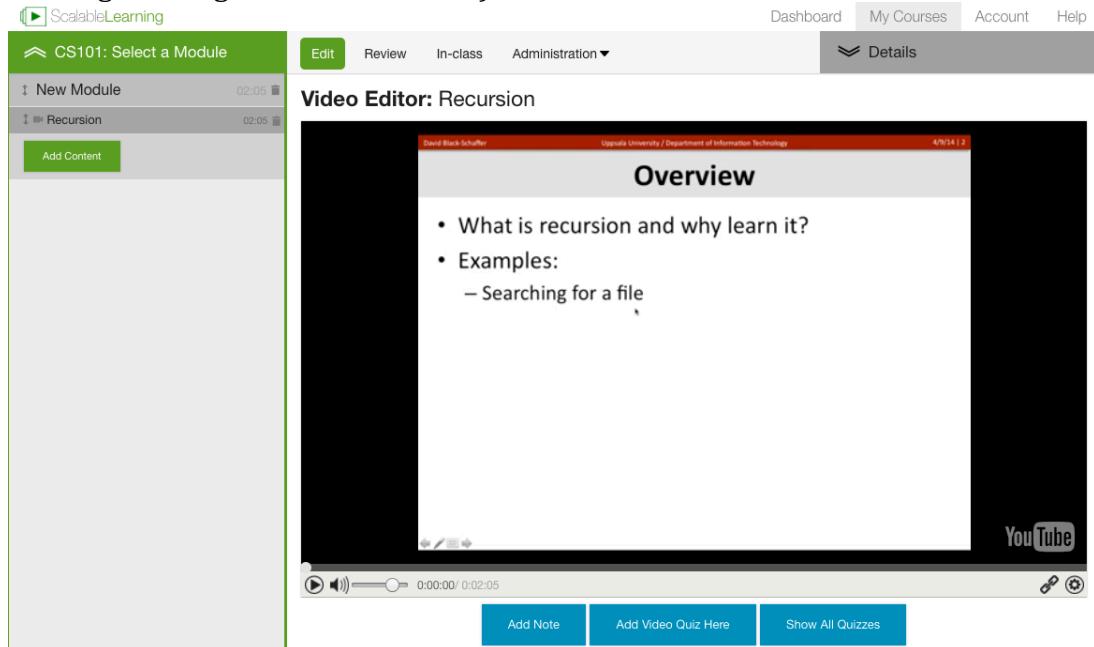
Video Editor: Recursion



6. You will now see your video in your course:

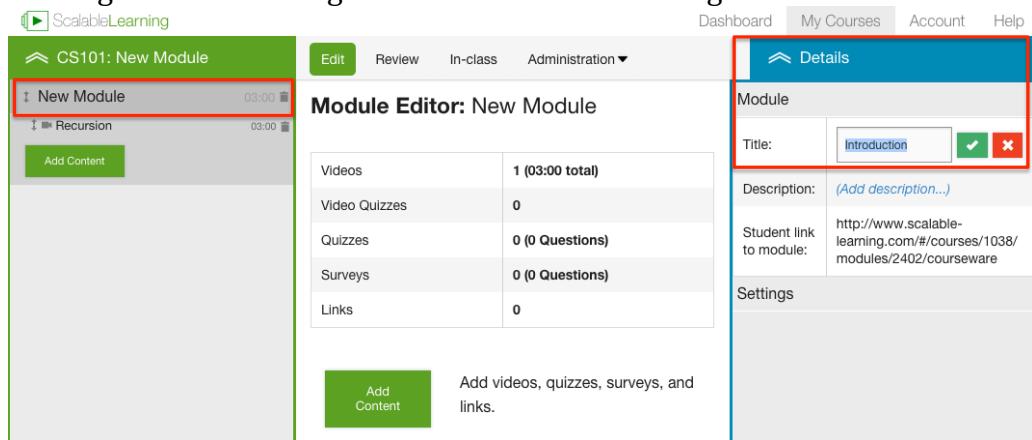
7. You can hide the Details menu by clicking on the blue "Details" header it to make the video larger when adding questions. (You can also hide the Course Contents list by

clicking on the green course name.)



The screenshot shows the ScalableLearning platform. On the left, a sidebar for 'CS101: Select a Module' lists 'New Module' and 'Recursion'. A green 'Add Content' button is visible. On the right, a 'Video Editor: Recursion' window displays a video player for a YouTube video titled 'Overview'. The video content includes bullet points about recursion. Below the video are controls for 'Add Note', 'Add Video Quiz Here', and 'Show All Quizzes'.

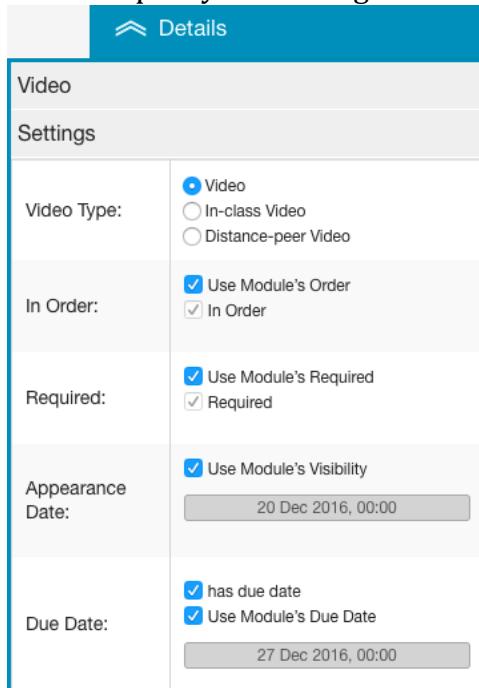
8. Note that if you did not have a Module selected before you clicked Add Content then one was created for you. In this case the video was placed inside a Module called "New Module" in the Course Content list on the left. You can edit the Module's name by clicking on it and editing it under "Details" on the right.



The screenshot shows the ScalableLearning platform. On the left, a sidebar for 'CS101: New Module' lists 'New Module' and 'Recursion'. A green 'Add Content' button is visible. On the right, a 'Module Editor: New Module' window shows a table of content items: Videos (1), Video Quizzes (0), Quizzes (0), Surveys (0), and Links (0). Below the table is a note: 'Add videos, quizzes, surveys, and links.' To the right, a 'Details' panel is open, showing the module's title as 'Introduction' (with a red box around the title field) and its student link as 'http://www.scalable-learning.com/#/courses/1038/modules/2402/courseware'. The 'Details' panel is also highlighted with a red box.

Video Settings: In-order, Required, Appearance, Due Dates, and Video Type.

You can specify the settings for a video under Details by clicking on “Settings”.

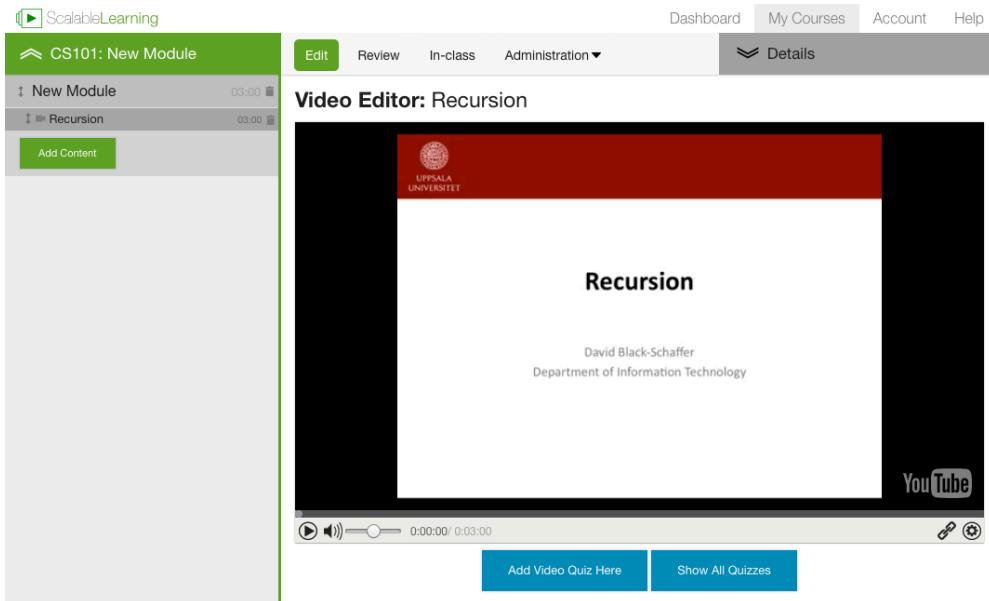


Details	
Video	
Settings	
Video Type:	<input checked="" type="radio"/> Video <input type="radio"/> In-class Video <input type="radio"/> Distance-peer Video
In Order:	<input checked="" type="checkbox"/> Use Module's Order <input checked="" type="checkbox"/> In Order
Required:	<input checked="" type="checkbox"/> Use Module's Required <input checked="" type="checkbox"/> Required
Appearance Date:	<input checked="" type="checkbox"/> Use Module's Visibility <div style="background-color: #f0f0f0; padding: 2px;">20 Dec 2016, 00:00</div>
Due Date:	<input checked="" type="checkbox"/> has due date <input checked="" type="checkbox"/> Use Module's Due Date <div style="background-color: #f0f0f0; padding: 2px;">27 Dec 2016, 00:00</div>

- **Video Type:** This allows you to select whether the video should be used as an online video for student preparation (Video), an in-class video (In-class Video) or for remote students doing online peer instruction (Distance-peer Video). Choose the type that reflects how you want students to interact with the video.
- **In-order:** If checked, students cannot skip ahead to other videos in a module until they have completed all the previous videos.
- **Required:** The students must complete this video to get credit for the module. If a video is not required, then it will be marked as “optional” for the students.
- **Appearance Date:** When a video is visible to the students. By default this will be the Module’s Appearance Date so that all items in a Module appear at the same time.
- **Due Date:** When a video is due for the students to not be marked as late. By default this will be the Module’s Due Date so that all items in a Module are due at the same time.

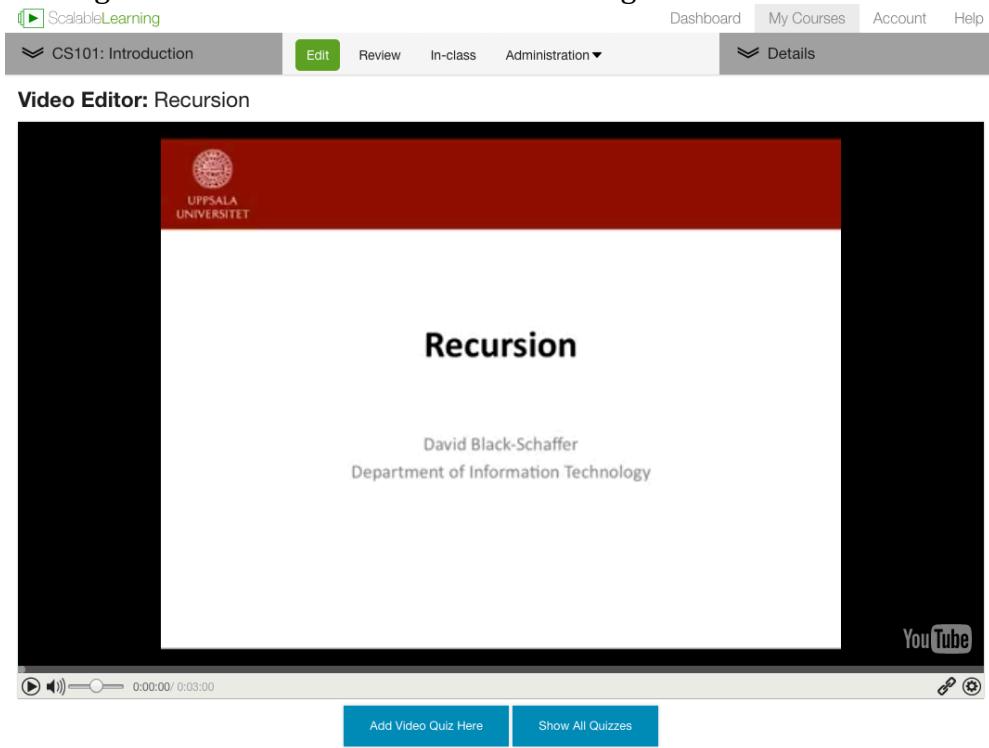
Adding Interactive Quizzes to a Video

1. Go to a video by choosing the course from the “Courses” menu and then clicking on the Module and video in the Course Content list on the left:



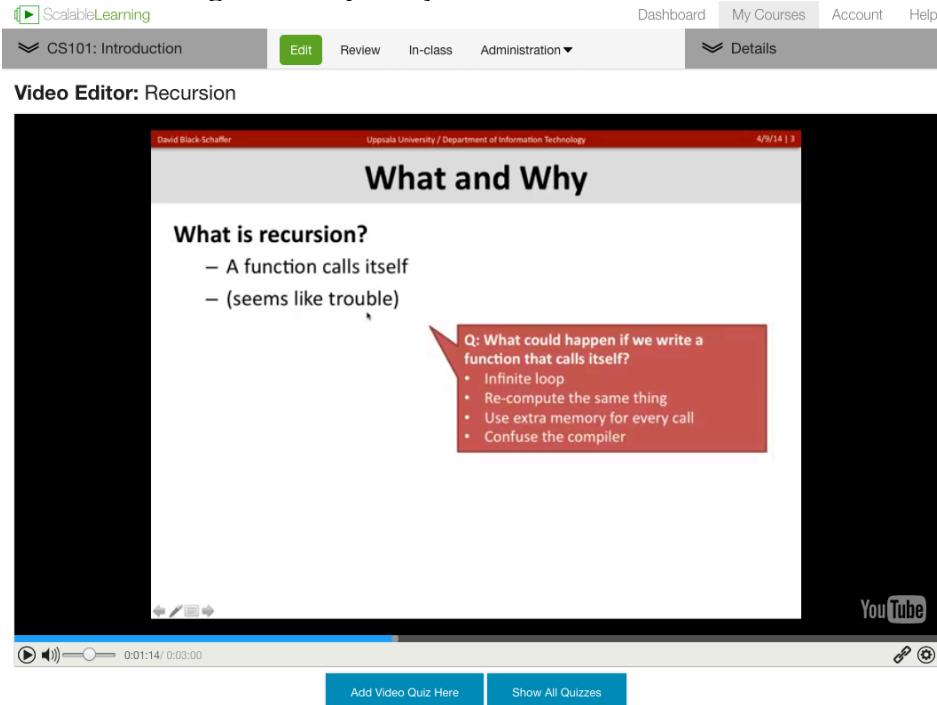
The screenshot shows the ScalableLearning platform's video editor interface. On the left, there's a sidebar with a green header 'CS101: New Module' containing two items: 'New Module' and 'Recursion'. The main content area is titled 'Video Editor: Recursion'. It features a video player with a red header bar containing the Uppsala University logo. The video title is 'Recursion', and it credits David Black-Schaffer from the Department of Information Technology. A YouTube logo is in the bottom right. At the bottom, there's a control bar with a play button, volume icon, and time indicator '0:00:00 / 0:03:00'. Below the video player are two buttons: 'Add Video Quiz Here' and 'Show All Quizzes'.

2. You can hide the blue Details list (right side) and the green Content list (left side) by clicking on them. This will make the video larger and easier to work with.



This screenshot shows the ScalableLearning platform's video editor interface after the user has collapsed the left sidebar and the right-side details panel. The main content area is now much larger, occupying most of the screen. The video player, title, and credits remain the same as in the previous screenshot, but the surrounding interface elements are minimized.

3. To add a quiz, play the video to the point where you want to insert the quiz (or click in the timeline to go to that point.)



4. Click on “Add Video Quiz Here” when you get to the time where you want to add the quiz.
5. Choose the type of quiz you want to insert:

On-video Quiz

Place quiz choices on top of the video. Use this if the answers are visible in the video.



One answer



Multiple answers



Drag and drop



Free text answer

Text Quiz

Text quiz on a white background. Use this if the quiz answers are not visible in the video.



One answer



Multiple answers



Drag and drop



Free text answer

On-video Survey

Surveys have no correct answer. Use this if the survey choices are visible in the video.



One answer



Multiple answers

Text Survey

Text Surveys have no correct answer on a white background. Use this if the survey choices are not visible in the video.



One answer



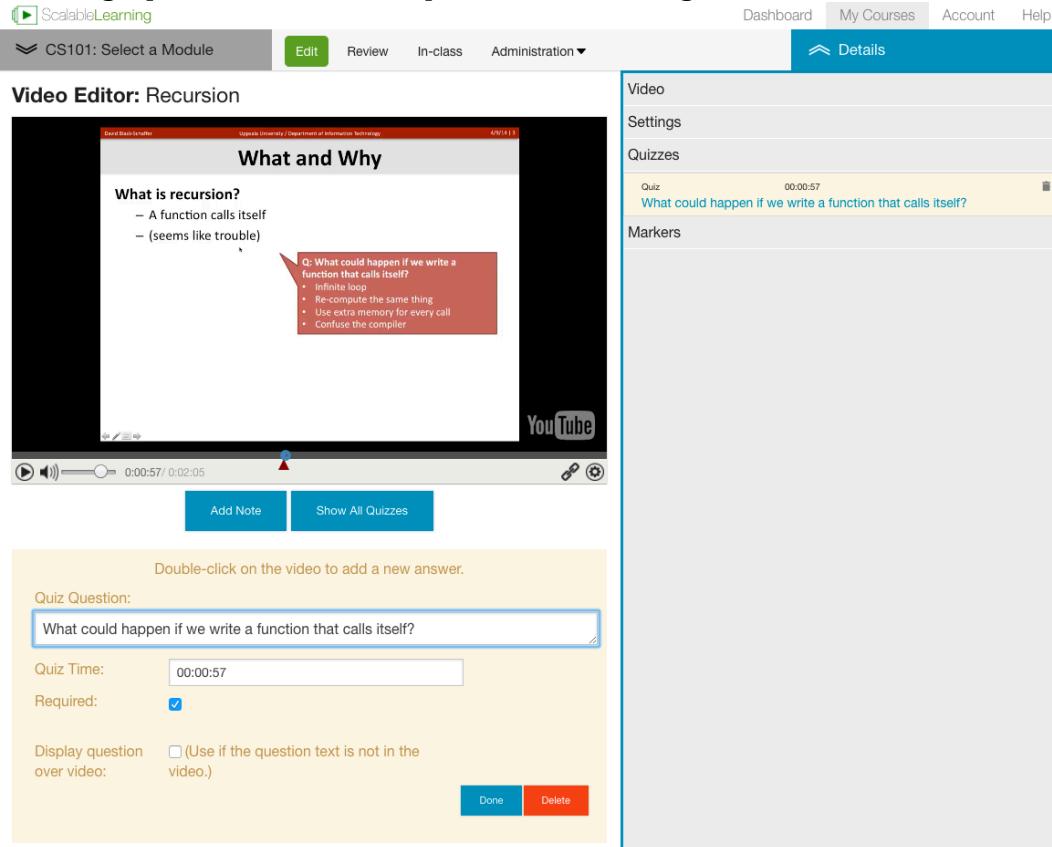
Multiple answers

- On-video Quizzes:** These are placed on top of the video and should be used if you have placed the quiz options in the video, or you want the students to interact with the graphical content in the video. You can choose:
- Text Quiz:** These quizzes cover the video with a white background and present the quiz as a series of text choices. Use this type of quiz if you have a video where the questions are not recorded in the video and you want to insert them.
- In-video Survey:** These options are the same as the In-Video Quizzes, but they are surveys, so there is no right answer.
- In-video Quizzes and Surveys:** Students click on different places in the video to answer the question.

e. **Types of quizzes:**

- i. **One answer:** Only one of the multiple choice answers is correct
- ii. **Multiple answers:** Any number of the multiple choice answers may be correct
- iii. **Drag and Drop:** Students move answers to the correct destination.
- iv. **Free text answer:** You can have students enter free text responses, which can be optionally matched to a correct answer.

6. Enter the Quiz Question below the quiz. This is the text shown when you review the results graph. You will see the quiz listed on the right in the Quizzes list under Details.



The screenshot shows the ScalableLearning Video Editor interface. On the left, there's a video player window titled "Video Editor: Recursion" displaying a YouTube video about recursion. A red box highlights a question and its options: "Q: What could happen if we write a function that calls itself?" followed by four choices: "Infinite loop", "Use up all the same thing", "Use extra memory for every call", and "Confuse the compiler". Below the video player are controls for play/pause, volume, and time (0:00:57 / 0:02:05). At the bottom are buttons for "Add Note" and "Show All Quizzes".

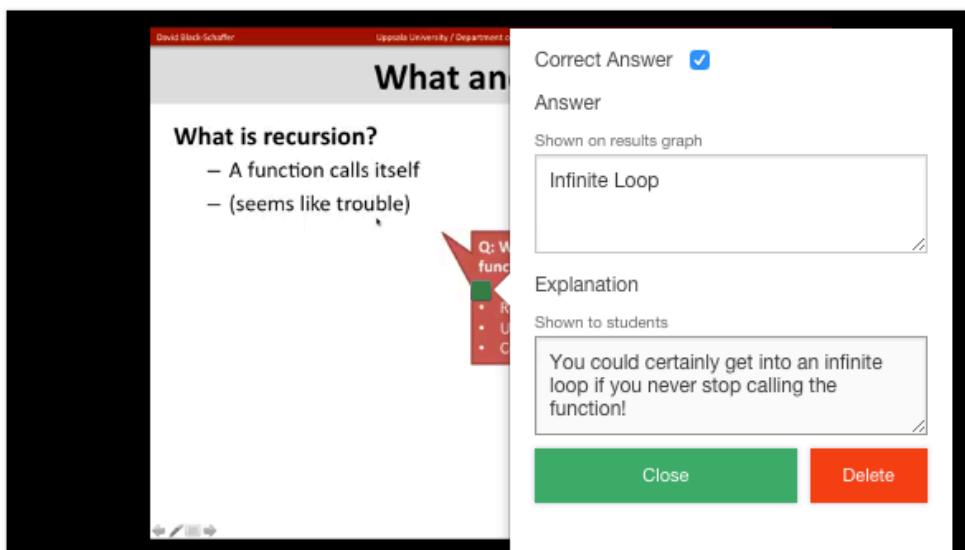
On the right, there's a "Details" panel with tabs for "Video", "Settings", and "Quizzes". Under "Quizzes", a list item is shown: "Quiz 00:00:57 What could happen if we write a function that calls itself?". Below this is a "Markers" section.

At the bottom of the configuration panel, there are fields for "Quiz Question" containing the text "What could happen if we write a function that calls itself?", "Quiz Time" set to "00:00:57", and a checked "Required" checkbox. There's also a "Display question over video" checkbox with a note "(Use if the question text is not in the video.)" and buttons for "Done" and "Delete".

- a. You can specify if the quiz is required or optional by checking the "Required" box.
- b. You can have the quiz question displayed over the video by checking the "Display question over video" box. This is useful if you want students to interact with the video but the question text is not in the video, for example, if you are using a video someone else produced.

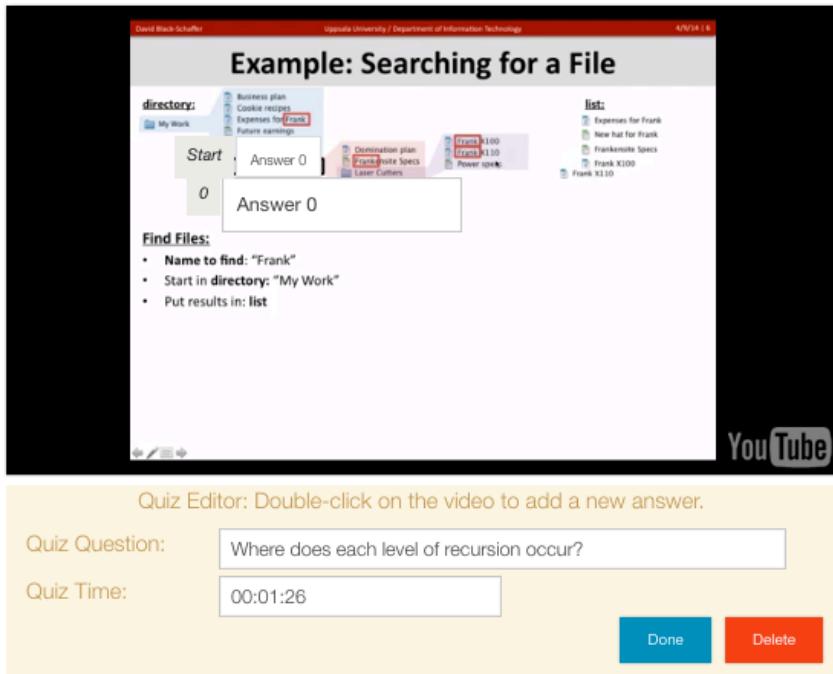
7. Double click on the video to place each answer:

Video Editor: Recursion



- a. When you place an answer you should enter the Answer text as this is what is displayed with the results graphs.
 - b. You should also be sure to enter an Explanation. This is what students see when they choose this answer and is particularly important for incorrect answers so students can learn from their choices.
 - c. If this is the correct Answer, then choose “Correct Answer”. The choice on the video will turn green to indicate it is a correct answer.
 - d. You can move the choices around by dragging them.
 - e. You can delete an answer by clicking on the Delete button and then confirming the deletion.
 - f. When you are finished with the quiz, click “Done”.
8. **In-Video Drag-and-Drop:** Students move items around over the video to the right location.
- a. Enter the Quiz Question below the quiz. This is the text shown when you review the results graph.

- b. Double-click to create a new answer.



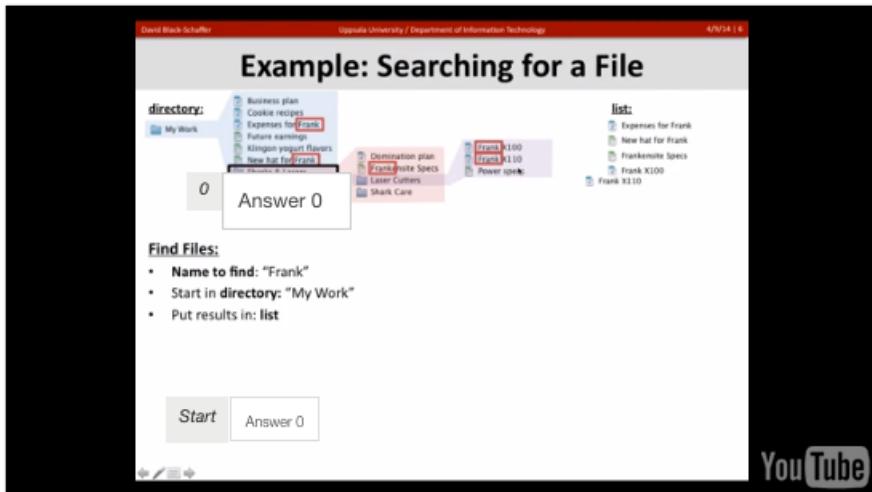
Quiz Editor: Double-click on the video to add a new answer.

Quiz Question: Where does each level of recursion occur?

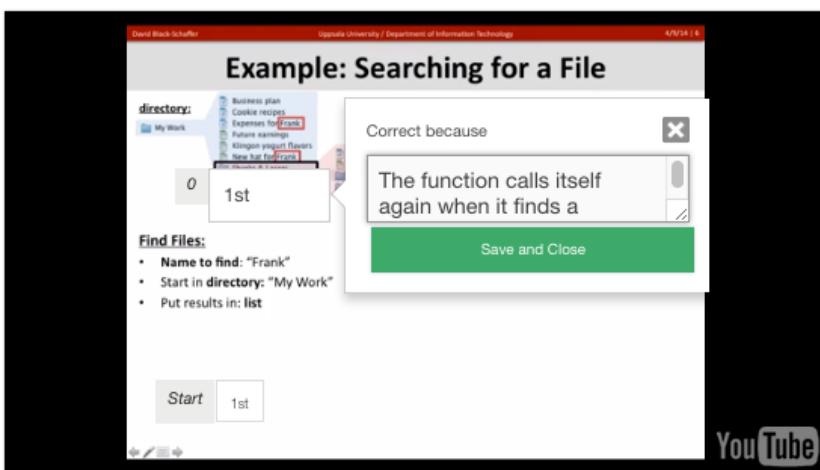
Quiz Time: 00:01:26

Done **Delete**

- c. Drag the “Start” to where you want the item to start when the students first get to the quiz.
- d. Drag the answer number (in this case 0) to the correct final location. You can resize the final location by dragging the corner of the answer.



- e. Edit the item by clicking on the default text and putting in the name of the item students will drag. Here the item will be called “1st Recursion”.

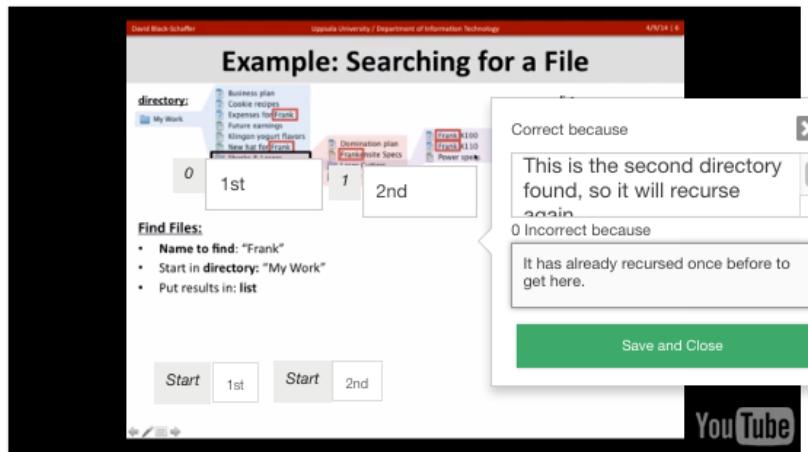


Correct because

The function calls itself again when it finds a

Save and Close

- i. You should provide an explanation of why this answer is correct.
- ii. You can delete the item by clicking the X and then confirming the deletion.
- f. Continue creating other answers to drag and drop by double clicking.
- g. When you have more than one answer, you can specify why each location is wrong for the other answers.

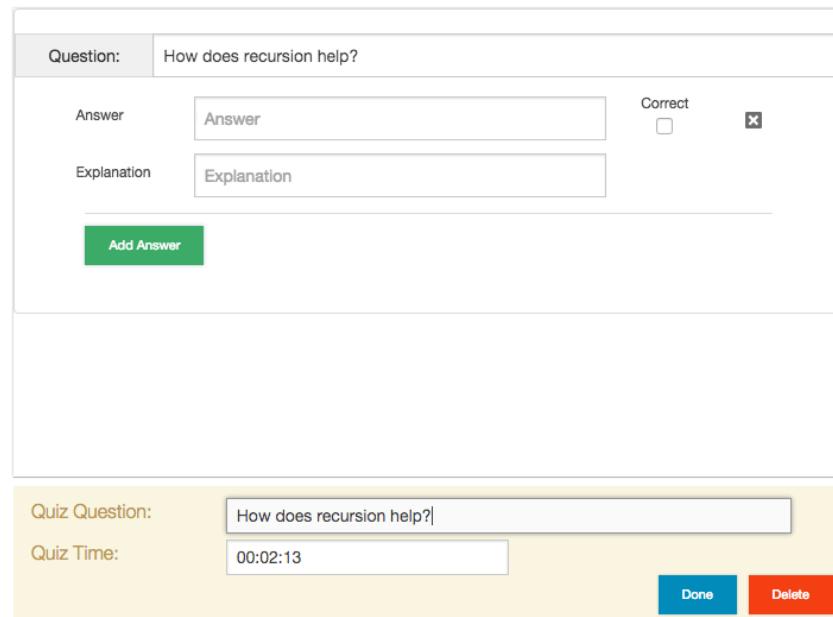


YouTube

- h. When you are finished, click “Done”.

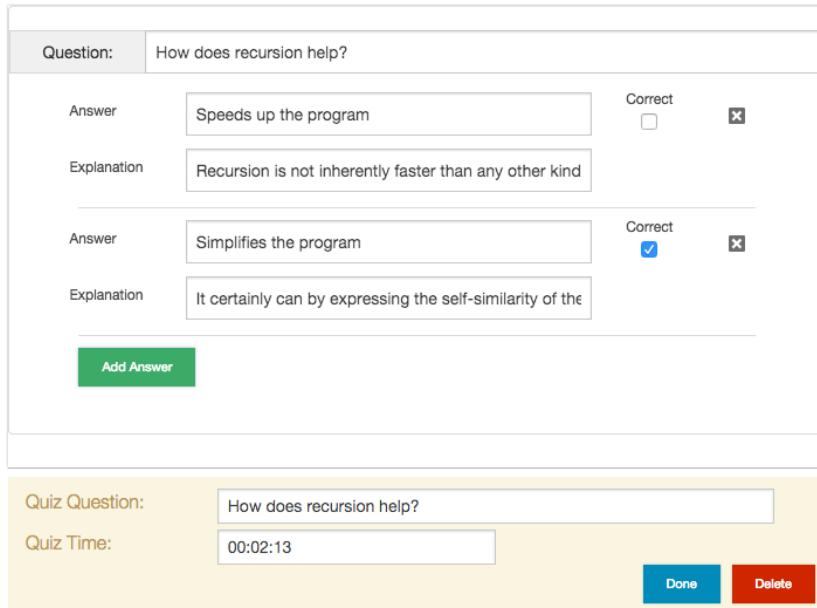
9. Text Quiz: Students choose from text-based answers.

- a. Enter the Quiz Question below the quiz. This is the text shown when you review the results graph.



- b. Enter the Answer choice and Explanation, and click the “Correct” box if it is a correct answer.

- c. Use the “Add Answer” button to add additional answers.



The screenshot shows a quiz editor interface. At the top, a question is displayed: "How does recursion help?". Below it, there are two answer entries:

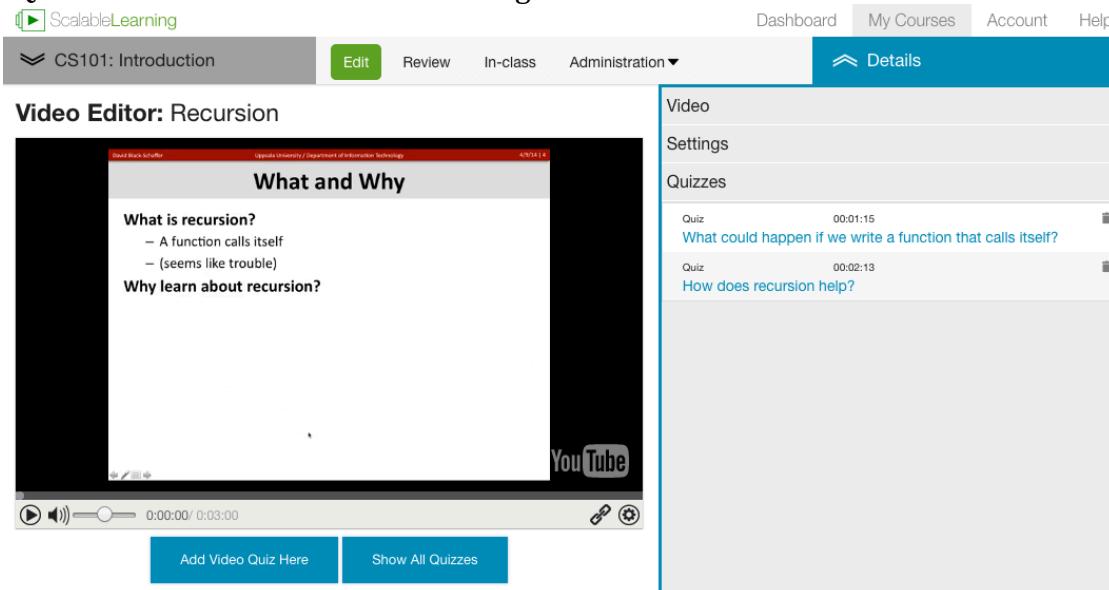
- Answer:** Speeds up the program. A "Correct" checkbox is unchecked (empty), and a red "X" icon is present to its right.
- Answer:** Simplifies the program. A "Correct" checkbox is checked (filled), and a red "X" icon is present to its right.

Below these entries is a green "Add Answer" button. At the bottom of the editor, there is a summary section:

- Quiz Question:** How does recursion help?
- Quiz Time:** 00:02:13

On the right side of this summary section are two buttons: a blue "Done" button and a red "Delete" button.

- d. You can delete an answer by clicking on the X and then confirming the deletion.
e. When you are finished, click “Done”.
10. You can see all the quizzes in a video by clicking “Show All Quizzes” or choosing “Quizzes” in the “Details” list on the right.



The screenshot shows a video editor interface for a video titled "Video Editor: Recursion". On the left, a video player displays a slide from a presentation about recursion. The slide has a title "What and Why" and two sections: "What is recursion?" (with bullet points: "A function calls itself" and "(seems like trouble)") and "Why learn about recursion?". On the right, a sidebar titled "Details" contains three main sections: "Video", "Settings", and "Quizzes".

The "Quizzes" section lists two quizzes:

- Quiz:** 00:01:15
What could happen if we write a function that calls itself?
- Quiz:** 00:02:13
How does recursion help?

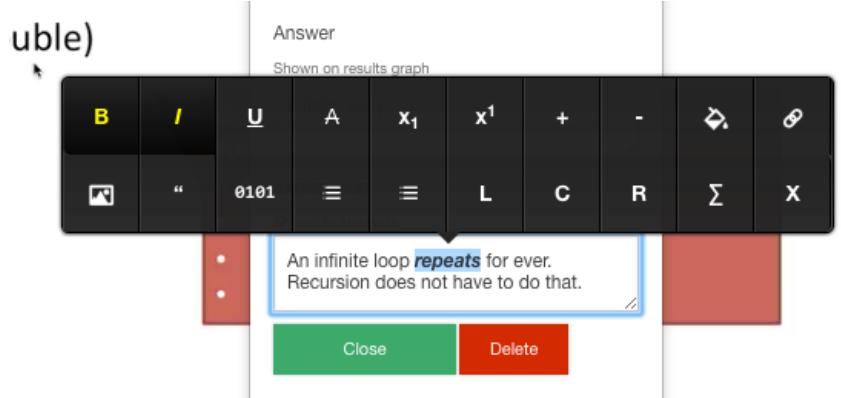
Below the quizzes is a trash can icon with a small number "2" next to it, indicating deleted items.

- a. You can go to any quiz by clicking on it and edit the quiz.
b. You can delete a quiz by clicking on the Trash Can next to the quiz.
c. You can move a quiz to a different time by editing it and changing its time.

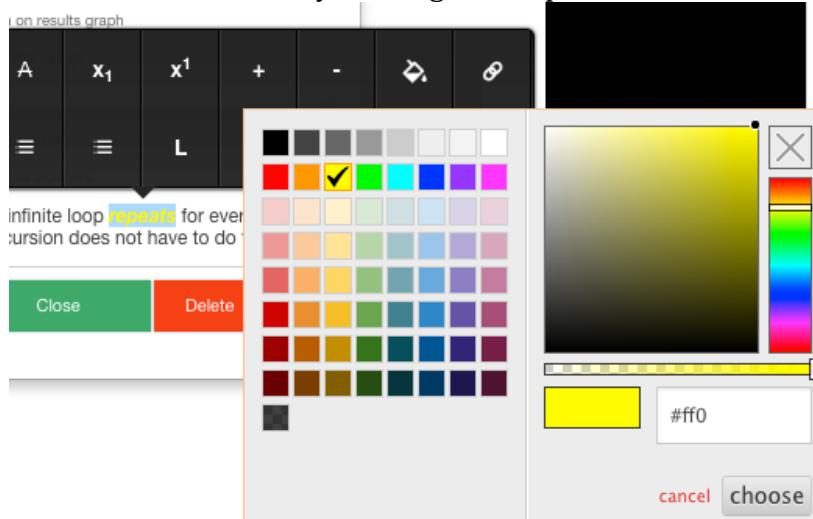
Formatting Text, Images, Links, and Equations

ScalableLearning supports the use of stylized text anywhere you can edit text. You can change the size, color, and style of the text you type, as well as inserting links, images, and mathematical equations.

To modify the style of text simply double-click on the word you wish to change:



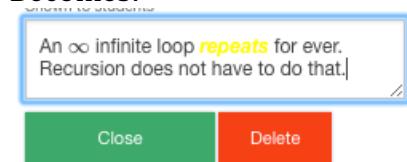
You can set the color by clicking on the paint bucket icon:



To insert a mathematical equation, type it in LaTeX format between two \$ and click on the Equation symbol to turn on equations:

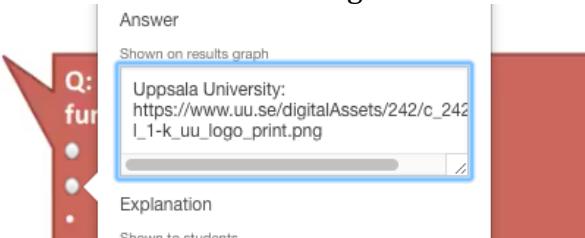


Becomes:



You can insert images by pasting in the URL of the image, selecting it, and then clicking the image icon.

1. Paste in the URL to the image:



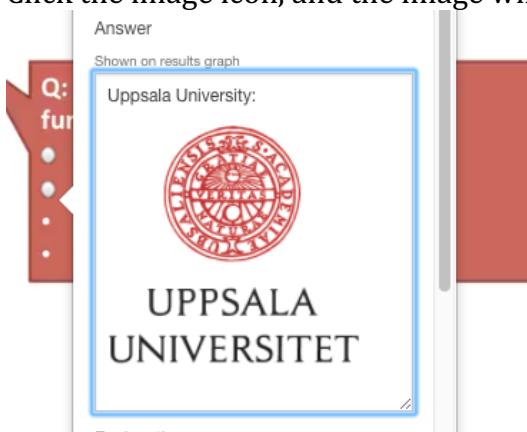
The screenshot shows a digital whiteboard interface. On the left, there is a red question card with the text "Q: fun" and three small white circles below it. To the right of the card is a text input field with a blue border. Inside the field, the text "Uppsala University:
https://www.uu.se/digitalAssets/242/c_242_l_1-k_uu_logo_print.png" is pasted. Below the input field, the word "Explanation" is visible, followed by the text "Shown to students".

2. Select the URL:



The screenshot shows a digital whiteboard interface. A text input field contains the URL "Uppsala University:
https://www.uu.se/digitalAssets/242/c_242_l_1-k_uu_logo_print.png". The URL is highlighted with a blue selection bar. Above the input field is a toolbar with various icons: B, I, U, A, x_1 , x^1 , +, , ", 0101, ≡, ≡, L, C.

3. Click the image icon, and the image will be displayed:



The screenshot shows a digital whiteboard interface. The text input field now displays the image of the Uppsala University logo, which is a circular seal with Latin text around the perimeter and a central figure. Below the logo, the text "UPPSALA" and "UNIVERSITET" is visible. The entire image is enclosed in a blue selection bar.

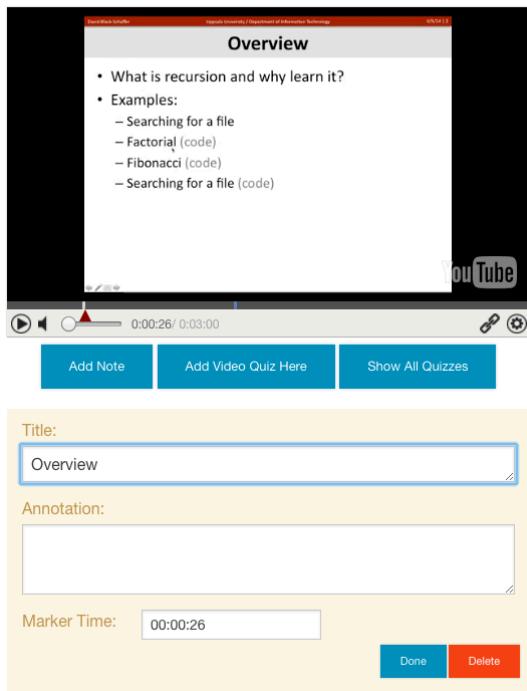
Adding Notes or Annotations to Videos

You can add notes to videos to indicate chapters or slides and provide annotations that show over the video to add information or corrections. Notes show up in the video player timeline and in the student's video timeline, and can be used to navigate through the video, both when watching it and in-class. You can also provide annotations for notes, which will appear over the video when the student gets to that point in the video. Annotations are particularly useful if you want to clarify or correct something in the video. The annotations can even include links to other material.

Notes can have Titles and/or Annotations:

- Notes with a Title show up in the student's Time Line and can be used to navigate the video in-class. You can use these to indicate sections in the video.
 - Notes with an Annotation show the annotation over the video when the students play them and can be used to navigate the video in-class. These can be used to provide additional information, such as links, or corrections to the material in the video
 - Notes with neither a Title nor an Annotation show up as markers. These can be used for navigating the video in-class. E.g., if you place one at each point in the video you want to go through, you can then use the video much like a slide presentation in class by walking through the notes.
1. To add a note, play to the time where you want a note and click the "Add Note" button or press "n". You can then give the note a Title (which will appear in the students' timeline and the in-class mode for easier navigation) and/or an Annotation (which will appear over the video when the students play it).

Video Editor: Introduction

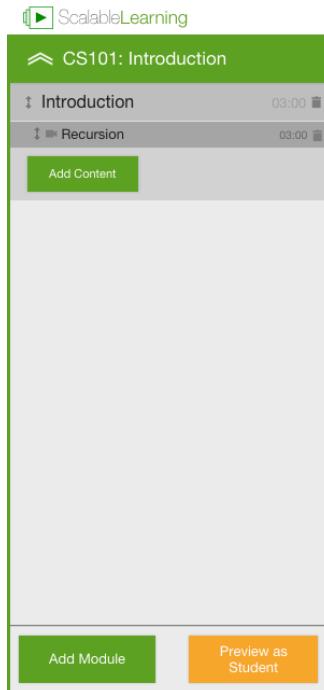


The screenshot shows the ScalableLearning Video Editor interface. On the left, a video player window displays a video titled "Overview" about recursion. The video player controls include a play/pause button, volume slider, and a progress bar showing 0:00:26 / 0:03:00. Below the video player are three buttons: "Add Note", "Add Video Quiz Here", and "Show All Quizzes". On the right, a larger pane titled "Marker Details" is open. It contains fields for "Title:" (set to "Overview"), "Annotation:" (an empty text area), and "Marker Time:" (set to "00:00:26"). At the bottom of this pane are "Done" and "Delete" buttons.

2. You can view/edit markers in the video details pane on the right and click to edit or delete them.

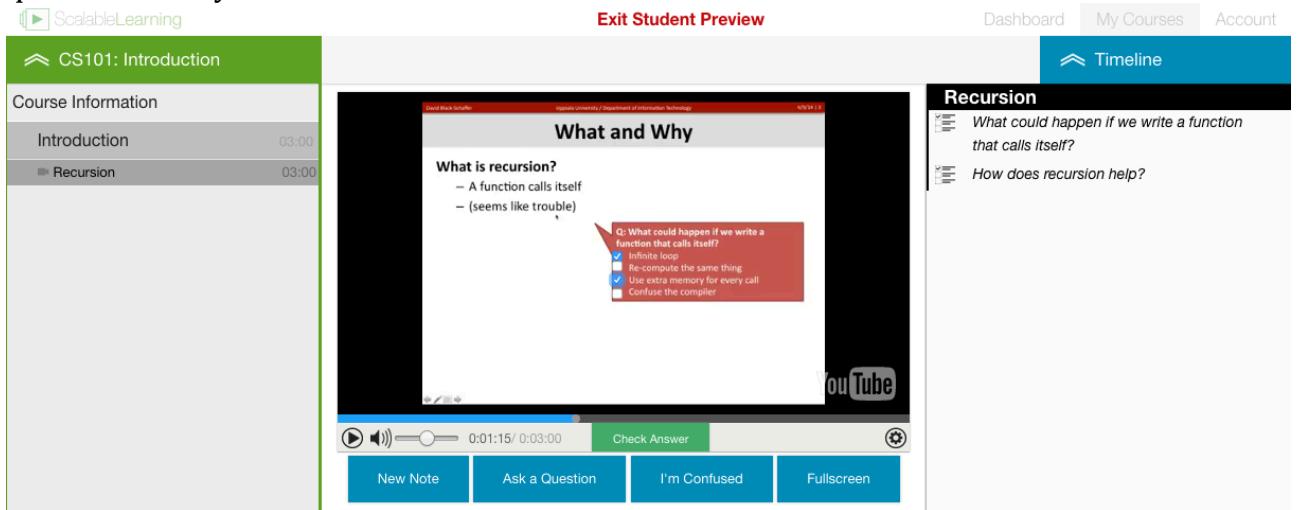
Previewing as a Student

To preview as a student, click the orange “Preview as Student” at the bottom of the Course Content menu.



The screenshot shows the ScalableLearning course content interface. On the left, there's a sidebar with a green header "CS101: Introduction". Below it are two items: "Introduction" (03:00) and "Recursion" (03:00). At the bottom of the sidebar are two buttons: "Add Module" (green) and "Preview as Student" (orange). The main area has a grey header with tabs: "Edit", "Review", "In-class", "Administration", and "Details". Below the header, the title "Video Editor: Recursion" is displayed. The video player shows a video titled "What and Why" by David Black-Schaffer from Uppsala University / Department of Information Technology. The video content includes sections on "What is recursion?" (with bullet points: "A function calls itself" and "(seems like trouble)") and "Why learn about recursion?". The video player has a play button, volume control, and a progress bar showing 0:00/0:03:00. Below the video are buttons for "Add Video Quiz Here" and "Show All Quizzes". The footer of the page includes a copyright notice: "© 2015 ScalableLearning | About | Privacy".

- You can click on the quizzes in the Timeline on the right to go directly to a quiz question and try them as a student.



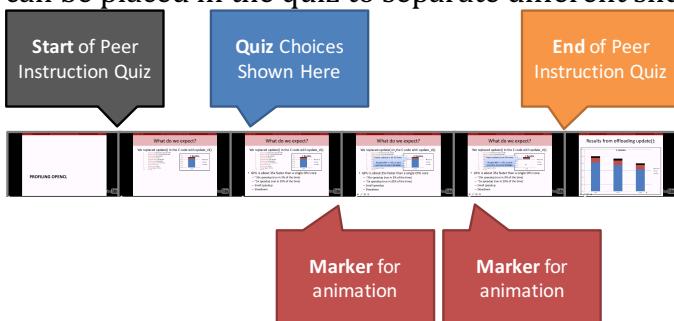
The screenshot shows the ScalableLearning course content interface with the "Preview as Student" mode active. The sidebar and main content area are identical to the previous screenshot. However, the top navigation bar now includes a red "Exit Student Preview" button. To the right of the main content, there is a sidebar titled "Timeline" with a section for "Recursion". This sidebar contains two questions: "What could happen if we write a function that calls itself?" and "How does recursion help?". A red callout box highlights a specific question: "Q: What could happen if we write a function that calls itself?". Below this question is a list of options with checkboxes: "Infinite loop" (checked), "Re-compute the same thing", "Use extra memory for every call" (checked), and "Confuse the compiler". The video player interface at the bottom includes a progress bar (0:01:15/0:03:00), a "Check Answer" button, and buttons for "New Note", "Ask a Question", "I'm Confused", and "Fullscreen".

- When you are done, click “Exit Student Preview” at the top to return.

Creating In-class Peer Instruction Quizzes

In-class Peer Instruction content is created in the same way as online video quizzes: upload a video and add quizzes. However, in-class quizzes have more details to enable the four steps of Peer Instruction: Introduction (teacher introduces the problem), Self (students answer and vote individually), Group (students discuss and vote together), and Discussion (the teacher leads a class discussion). As a teacher you place the quiz in the video, define markers for any slide animations in the video, and set the beginning and end times of the in-class question. When you advance to the question in-class, ScalableLearning will enable student voting at the question and display the results when you advance to the Discussion.

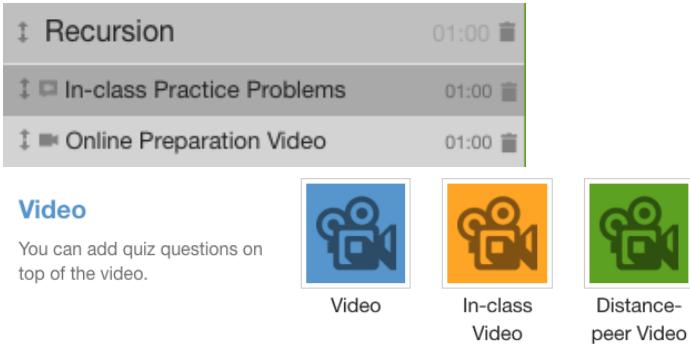
To see how this works, consider this timeline of a video. The Start of a Peer instruction quiz is placed where the quiz first appears in the video and the Quiz itself at the point where the question appears. The End is placed when the explanation for the quiz is finished. Markers can be placed in the quiz to separate different slides or animations for in-class display.



These times are shown in ScalableLearning in the video:



1. To create in-class Peer Instruction content first add an In-Class video to your module by clicking “Add Content” and choosing “In-class Video”. In-class videos are shown in the Course Contents list marked with a  icon:



The screenshot shows the Course Contents list with three items:

- Recursion (01:00)
- In-class Practice Problems (01:00)
- Online Preparation Video (01:00)

Below the list are three icons:

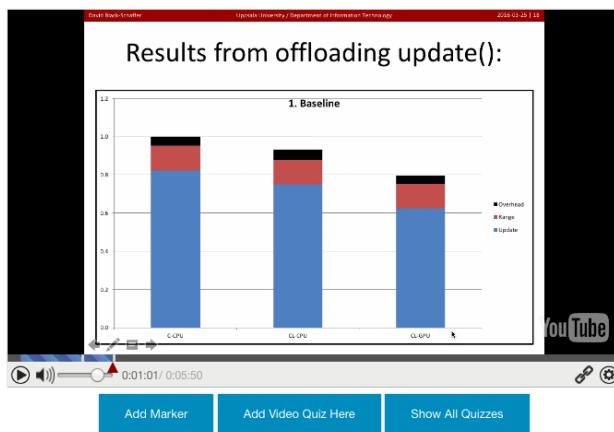
- Video:** Blue camera icon.
- In-class Video:** Orange camera icon.
- Distance-peer Video:** Green camera icon.

A note says: You can add quiz questions on top of the video.

2. To display the video in-class as a presentation you will probably want to insert Notes at each transition. (E.g., new slide or animation.) This allows you to use the keyboard or a presentation remote to move between parts of the presentation as you would with slides. To do so, play to the time where you want a note and click the “Add Note” button. You can then give the note a Title (which will appear in the students’ timeline and the in-class mode for easier navigation) and/or an Annotation (which will appear

over the video when the students play it).

Video Editor: Profiling OpenCL



Title: Results from offloading update()

Annotation:

Marker Time: 00:01:01

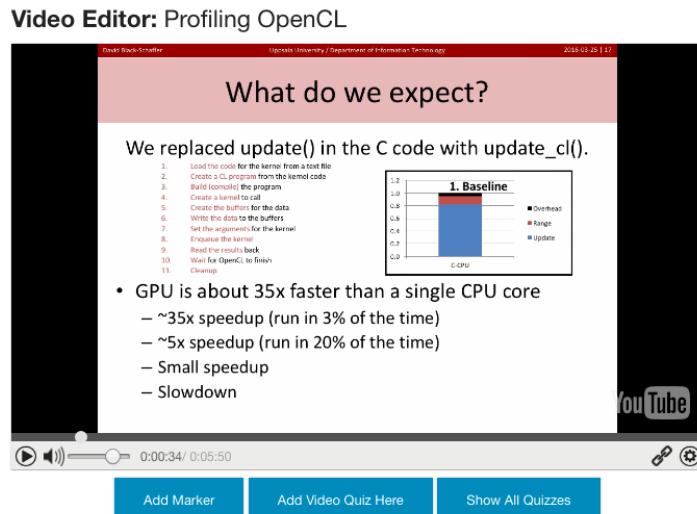
Done Delete

3. You can view/edit notes in the video details pane on the right.

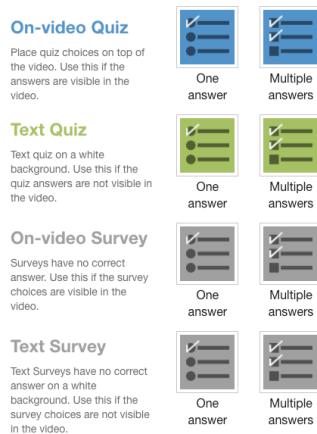
Markers	
Marker	00:00:01
Profiling OpenCL	
Marker	00:00:43
Marker	00:00:47
Marker	00:01:01
Results from offloading update()	
Marker	00:01:08
Marker	00:01:23
Marker	00:01:27
Marker	00:01:32
Marker	00:01:43
More Detailed Profiling	
Marker	00:01:52

4. Then play to the point where the in-class quiz options are displayed, and click "Add Video Quiz Here".

Edit Review In-class Administration ▾



5. You can then choose the type of quiz you wish to insert:



6. Enter the quiz question (which will appear on screen and on students' phones) and insert the quiz options by double-clicking on the screen where you want each option to appear, and configuring them as you would for an online quiz. You can specify that a quiz has a start and end time (used to know where to start the in-class quiz as you go through the material) and provide timers for use in-class to help keep you on track. The timers will be displayed as count down timers while the question is visible in-class.

Double-click on the video to add a new answer.

Quiz Question:
What do we expect?

Quiz Time: 00:00:34

Start time End time

Intro Timer: 00:02:00

Self Timer: 00:02:00

Group Timer: 00:02:00

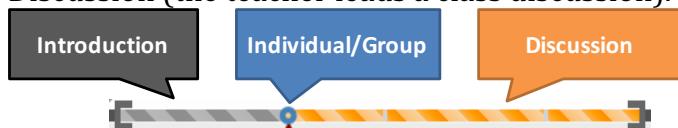
Discussion Timer: 00:02:00

Done **Delete**

7. The Start and End times of the quiz are displayed in the timeline and can be changed by dragging them. These times determine how much of the video (and any markers during this time) are displayed in-class during the Peer Instruction voting. The Introduction will start at the Start Time, the Self and Group student votes are at the quiz time, and the Discussion goes until the End Time.

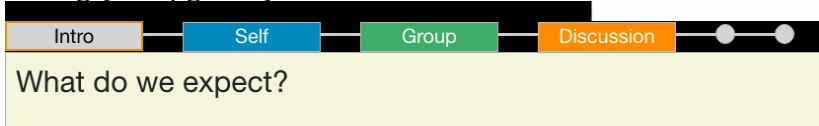


8. During the in-class session, you will see the four steps of the Peer Instruction displayed during the question: Introduction (teacher introduces the problem), Individual/Group (students answer and vote individually), Group (students discuss and vote together), and Discussion (the teacher leads a class discussion).



Circles shown in-class indicate markers during these portions so the teacher knows

how many slides are present. During the Discussion the results of before and after voting (blue/green) are shown on-screen.



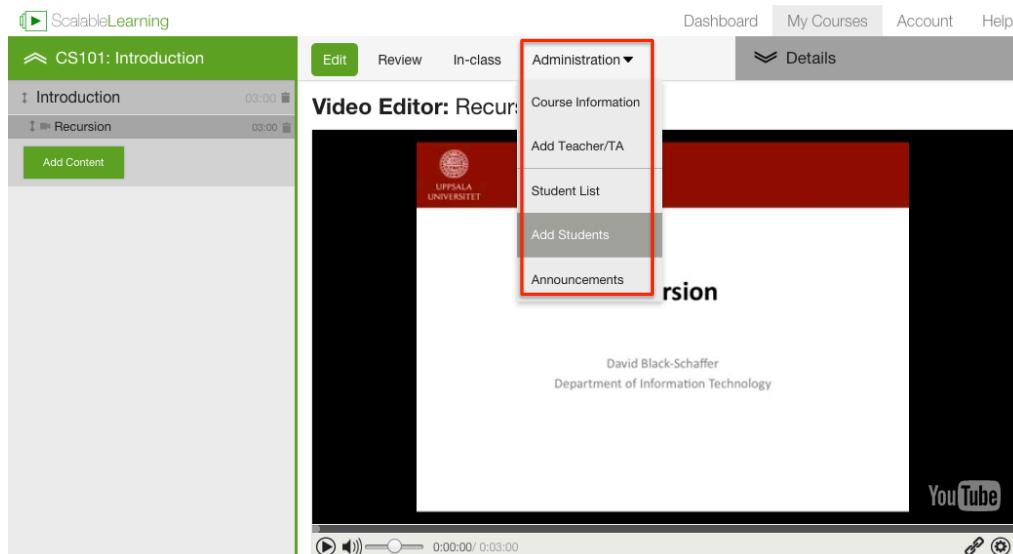
Creating Distance Peer Instruction Questions

ScalableLearning supports distance peer instruction as well as in-class. Distance Peer Instruction videos are created in the same was as in-class Peer Instruction videos, but students are expected to complete them at home. When a student starts a distance peer instruction video he or she is asked to choose another student in the class to work with. The two students are then directed to watch the video, answer the questions individually, and then in a group. This process simulates having the students do the peer instruction in-class. We recommend that you have the students use Skype or a similar program such that they can talk with each other while they are doing the peer instruction together.

Adding Students

To add students to a course they need to register and join the course with a course Enrollment Key.

1. Go to the course by choosing it from the “My Courses” menu.
2. From the “Administration” menu choose “Add Students”



3. Copy the text provided for student registration, and email it out to your class using your institution’s email list.

Dear Student,

This term in Demo we will be using ScalableLearning to help make your learning more interactive. To get started go to <https://test.scalable-learning.com/#/courses/enroll?id=853fa22612> and login with your school email..

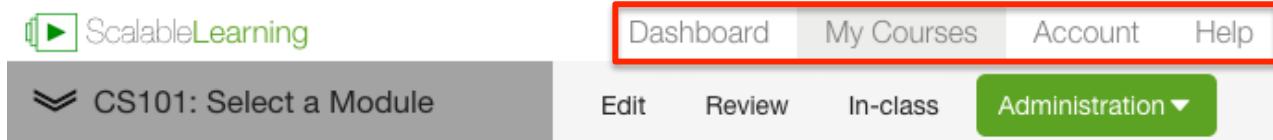
Sincerely,
David Black-Schaffer

4. Students will then register by creating an account on ScalableLearning and adding the course using the Enrollment Key in the email.

Student List

You can see a list of enrolled students by choosing “Student List” from the “Administration” menu. Here you can see a list of all enrolled students, send emails to students, remove students from the course, and export a student list.

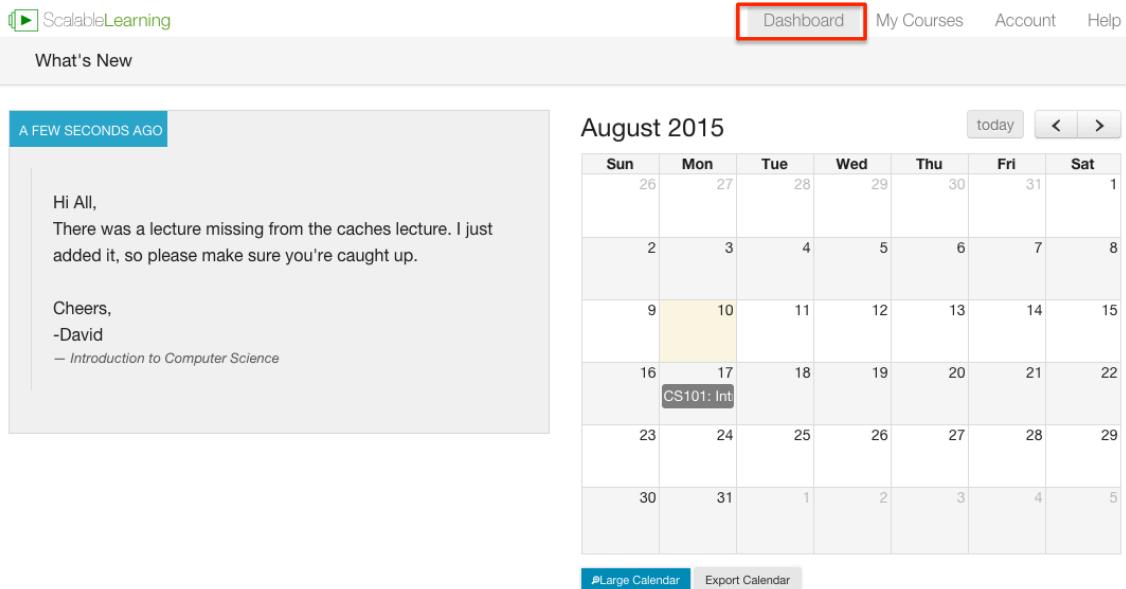
About the Main Menu



The screenshot shows the main navigation bar with four buttons: Dashboard, My Courses, Account, and Help. The 'Dashboard' button is highlighted with a red box.

Dashboard

- Shows a calendar view of the course due dates and a list of course announcements



The dashboard includes a message from David:

A FEW SECONDS AGO

Hi All,
There was a lecture missing from the caches lecture. I just added it, so please make sure you're caught up.

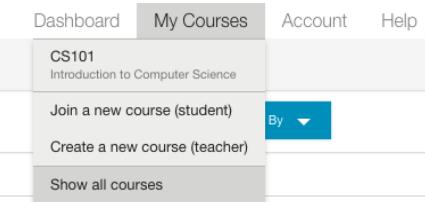
Cheers,
-David
— Introduction to Computer Science

Below the message is a calendar for August 2015. The 17th is highlighted with a yellow box and labeled 'CS101: Int'. Buttons for 'Large Calendar' and 'Export Calendar' are at the bottom.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

My Courses

- Choose a current course to go directly to it
- Create a new course:** create a new course as a teacher or a new copy of an old course
- Join a new course:** join a course as a student with a course enrollment code.
- Show all courses:** show all courses for which you are a TA or Teacher, including old courses.



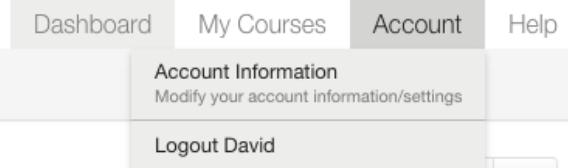
The 'My Courses' section shows a list of courses:

- CS101 Introduction to Computer Science
- Join a new course (student)
- Create a new course (teacher)
- Show all courses

A dropdown menu is open, showing 'By' and a dropdown arrow.

Account

- Account Information:** Change your account information including your name, email, and password, and delete your account.



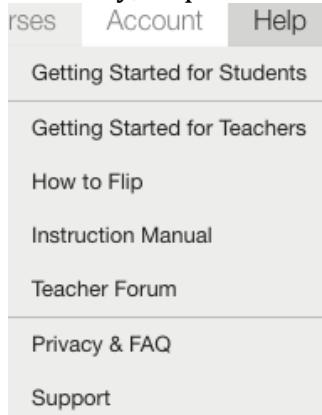
The 'Account' section shows:

- Account Information
- Modify your account information/settings
- Logout David

Help

- Access help for using the system, including Getting Started tutorials and the Instruction Manual.

- Direct access to the ScalableLearning Teacher Forum.
- Privacy policy
- **Feedback:** Provide feedback about ScalableLearning, including reporting problems with the system or suggestions for improvements. (We take every report very seriously, so please do let us know how we can improve!)



About the Course Menu

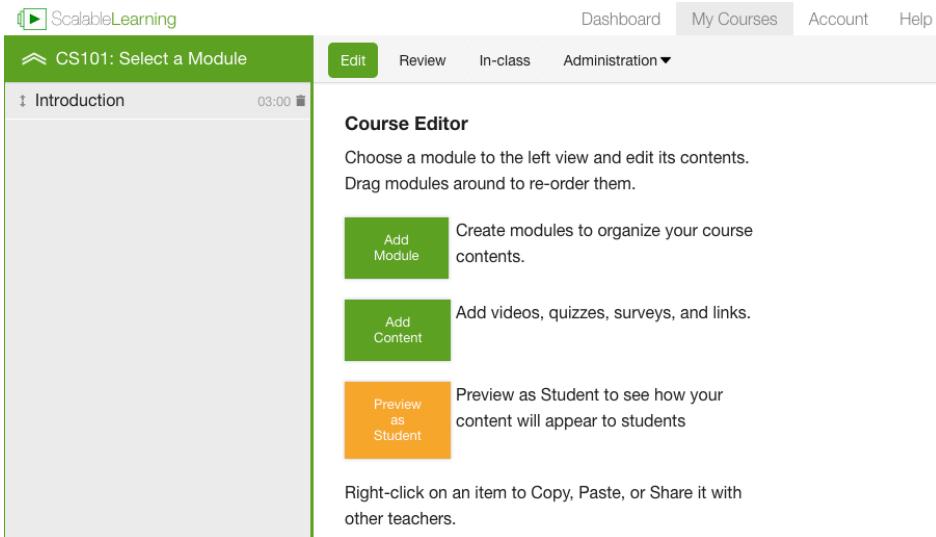
The course menu lets you choose to **Edit** a course content, **Review** student progress, and present material **In-class**. The course menu also gives you access to **Administrative** functions such as viewing a class list, adding students and teachers, and sending announcements.



The screenshot shows the ScalableLearning course menu. At the top, there are links for Dashboard, My Courses, Account, and Help. Below that, a green header bar says "CS101: Select a Module". To the right of the header are four buttons: "Edit", "Review", "In-class", and "Administration". The "Edit" button is highlighted with a red box.

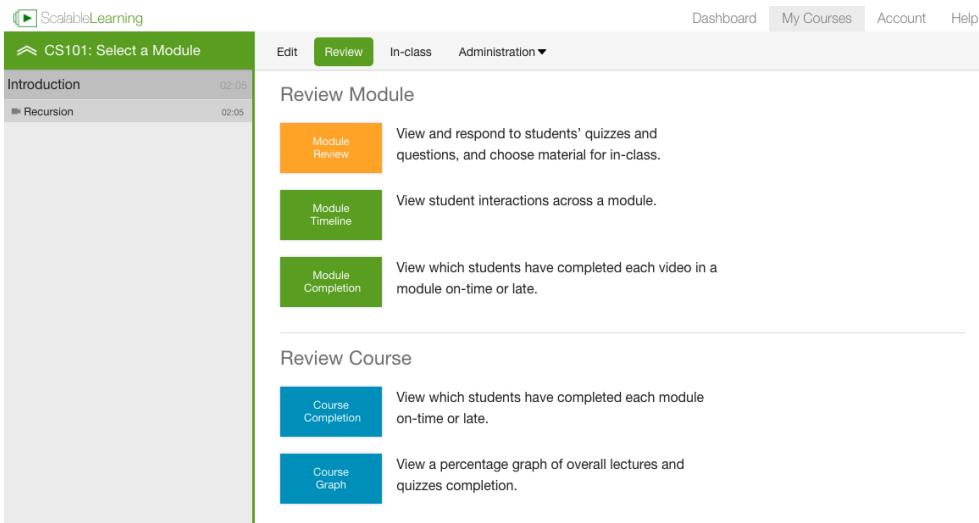
When you click on **Edit**, **Review**, or **In-Class** you will see instructions:

Edit Mode



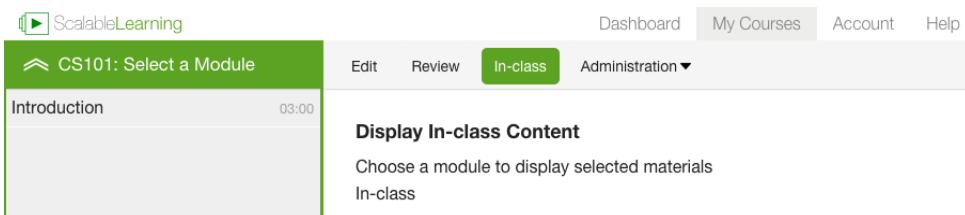
The screenshot shows the ScalableLearning Edit Mode interface. At the top, there are links for Dashboard, My Courses, Account, and Help. Below that, a green header bar says "CS101: Select a Module". To the right of the header are four buttons: "Edit", "Review", "In-class", and "Administration". The "Edit" button is highlighted. The main content area is titled "Course Editor" and contains instructions: "Choose a module to the left view and edit its contents. Drag modules around to re-order them." It includes three buttons: "Add Module" (green), "Add Content" (green), and "Preview as Student" (orange). Below these buttons is a note: "Right-click on an item to Copy, Paste, or Share it with other teachers."

Review Mode



The screenshot shows the ScalableLearning Review Mode interface. At the top, there are links for Dashboard, My Courses, Account, and Help. Below that, a green header bar says "CS101: Select a Module". To the right of the header are four buttons: "Edit", "Review", "In-class", and "Administration". The "Review" button is highlighted. The main content area is titled "Review Module" and contains three buttons: "Module Review" (orange), "Module Timeline" (green), and "Module Completion" (green). Below these buttons is a section titled "Review Course" with two buttons: "Course Completion" (blue) and "Course Graph" (blue).

In-class Mode

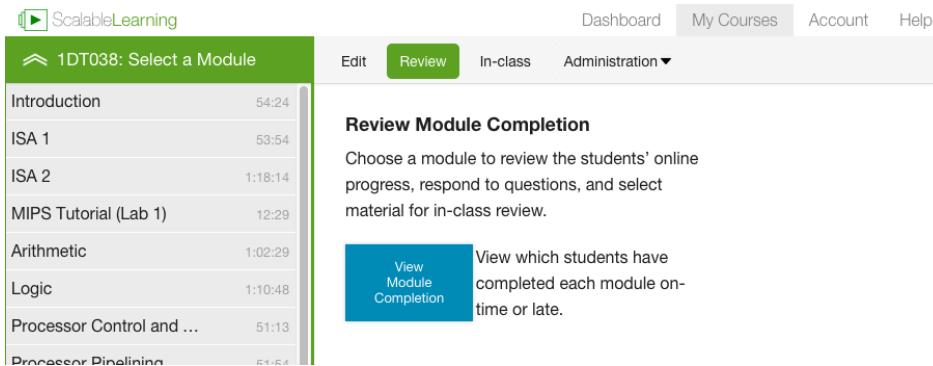


The screenshot shows the ScalableLearning In-class Mode interface. At the top, there are links for Dashboard, My Courses, Account, and Help. Below that, a green header bar says "CS101: Select a Module". To the right of the header are four buttons: "Edit", "Review", "In-class", and "Administration". The "In-class" button is highlighted. The main content area is titled "Display In-class Content" and contains the instruction: "Choose a module to display selected materials". Below this is a link: "In-class".

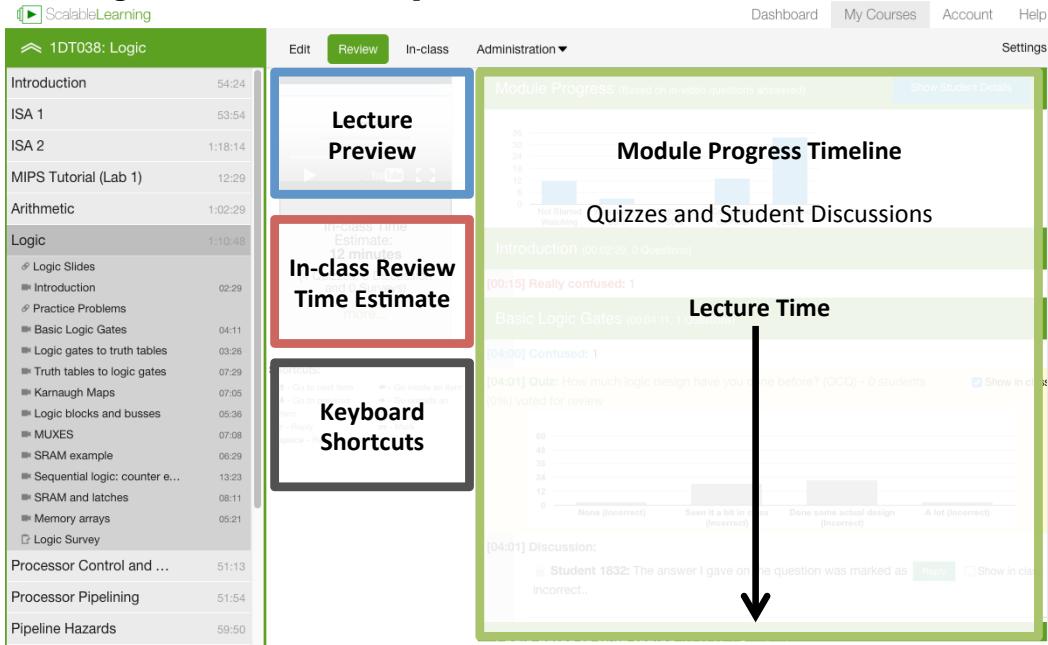
Reviewing Student Online Progress

Before each class meeting you will want to review how students did on the online quizzes and what questions they had about the material. While you are reviewing their progress, you should also select which parts of the online material you would like to bring into the classroom for an in-class review.

1. Go to the course by choosing it from the “Courses” menu.
2. Click on **Review** to switch to Review Mode

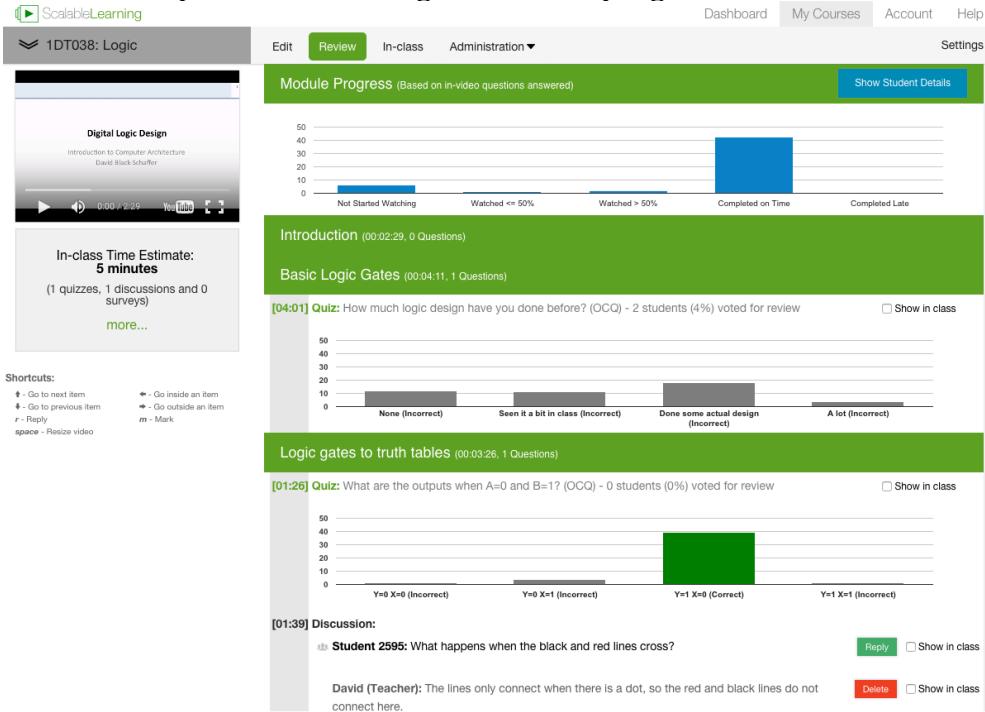


3. Choose the Module to review from the Course Content list on the left.
4. The Progress review has four parts:



- a. **Lecture Preview:** Shows you the location in the video lecture where the quiz or question occurred. This is useful for reviewing the context of the quiz or question. To make the preview larger just press the space bar on your keyboard.
- b. **In-class Review Time Estimate:** Estimates how much time it will take you to review the material you have selected for in-class review. It is important to make sure you don't spend too much time reviewing the online material in-class since you want to focus in-class time on active learning.
- c. **Module Progress Timeline:** Shows you all the quizzes and student discussions in time order (top is earlier, bottom is later) for the whole module.
- d. **Keyboard Shortcuts:** Lists shortcuts you can use to make it faster to review your students' progress and respond to their questions.

5. Tip: You can close the Course Content list on the left by clicking on the green title to make more space for reviewing the student progress.



Digital Logic Design
Introduction to Computer Architecture
David Black-Schaffer

In-class Time Estimate: 5 minutes
(1 quizzes, 1 discussions and 0 surveys)
[more...](#)

Shortcuts:
 ↗ Go to next item
 ↙ Go to previous item
 r - Reply
 space - Resize video

Module Progress (Based on in-video questions answered)

Dashboard My Courses Account Help Settings

Module Progress (Based on in-video questions answered)

Show Student Details

Not Started Watching Watched <= 50% Watched > 50% Completed on Time Completed Late

Introduction (00:02:29, 0 Questions)

Basic Logic Gates (00:04:11, 1 Questions)

[04:01] Quiz: How much logic design have you done before? (OCQ) - 2 students (4%) voted for review Show in class

None (Incorrect) Seen it a bit in class (Incorrect) Done some actual design (Incorrect) A lot (Incorrect)

Logic gates to truth tables (00:03:26, 1 Questions)

[01:26] Quiz: What are the outputs when A=0 and B=1? (OCQ) - 0 students (0%) voted for review Show in class

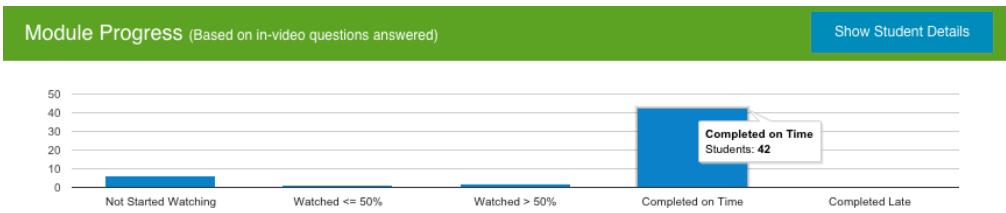
Y=0 X=0 (Incorrect) Y=0 X=1 (Incorrect) Y=1 X=0 (Correct) Y=1 X=1 (Incorrect)

[01:39] Discussion:

Student 2595: What happens when the black and red lines cross? [Reply](#) Show in class

David (Teacher): The lines only connect when there is a dot, so the red and black lines do not connect here. [Delete](#) Show in class

6. The first part of the Progress Timeline shows you how many students have completed the Module:



Module Progress (Based on in-video questions answered)

Show Student Details

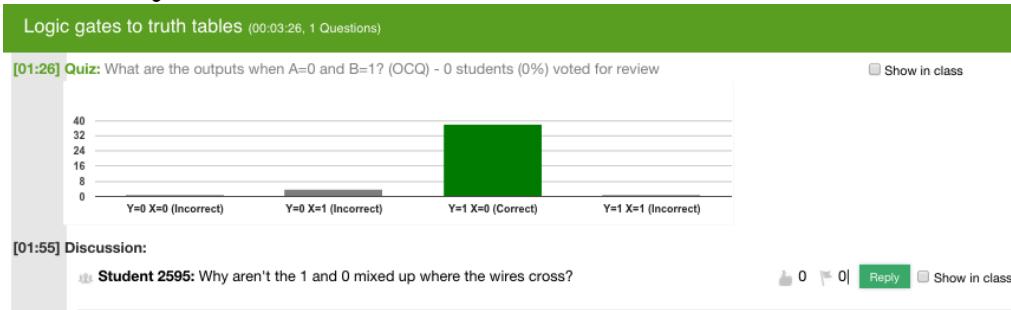
Not Started Watching Watched <= 50% Watched > 50% Completed on Time Completed Late

Completed on Time Students: 42

- a. You can click on "Show Student Details" to see how much each student has completed in this module.
7. The second part shows you, for each module, how students did on each quiz and questions they asked and where they clicked the Confused button. You can scroll down to go through all quizzes and questions in the whole Module.

Reviewing Quiz Performance.

1. Here is an example from the Module "Logic gates to truth tables," which is 3:26 long and has 1 Quiz.



Logic gates to truth tables (00:03:26, 1 Questions)

[01:26] Quiz: What are the outputs when A=0 and B=1? (OCQ) - 0 students (0%) voted for review Show in class

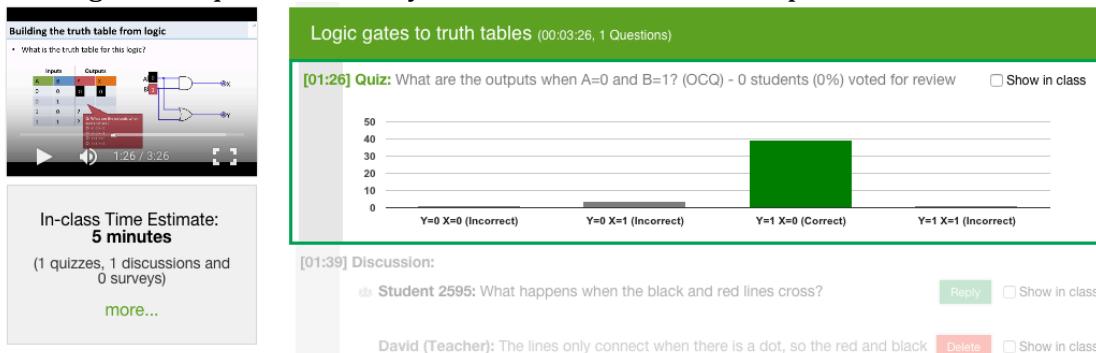
Y=0 X=0 (Incorrect) Y=0 X=1 (Incorrect) Y=1 X=0 (Correct) Y=1 X=1 (Incorrect)

[01:56] Discussion:

Student 2595: Why aren't the 1 and 0 mixed up where the wires cross? [Reply](#) 0 [Show in class](#)

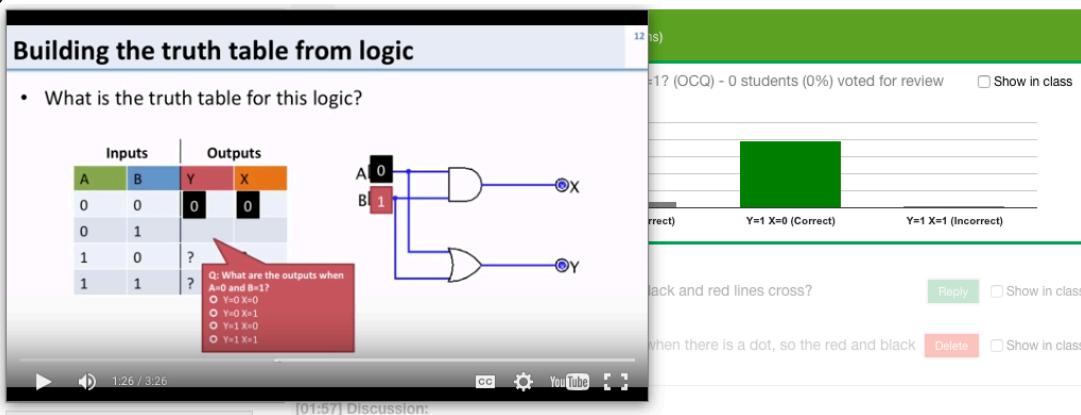
2. There was one quiz (at time 1:26) and you can see how students answered. The green answer is the correct one.

3. Clicking on the quiz will show you the lecture in the video preview.



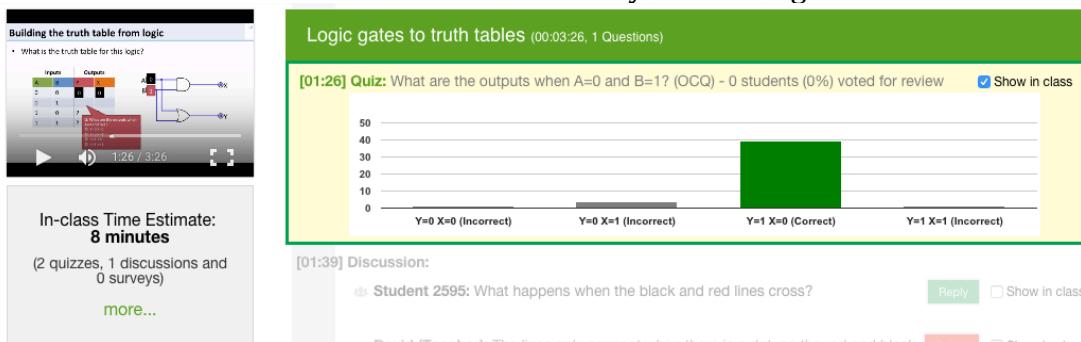
The screenshot shows a video player for a lecture titled "Building the truth table from logic". The video is at 1:26 / 3:26. A quiz question is displayed: "What are the outputs when A=0 and B=1? (OCQ) - 0 students (0%) voted for review". Below the video, an in-class time estimate of 5 minutes is shown, along with a link to more quizzes.

4. Pressing the space bar on the keyboard will temporarily enlarge the video preview so you can see it in more detail.



The video preview has been enlarged to show a close-up of the logic circuit diagram. A red callout box highlights a specific part of the circuit with the question "Q: What are the outputs when A=0 and B=1?". The options are: Y=0 X=0, Y=0 X=1, Y=1 X=0, and Y=1 X=1. The correct answer, Y=1 X=0, is highlighted with a yellow background.

5. Pressing the space bar again will shrink the video preview.
 6. You can choose to make a quiz part of the in-class review by clicking the “Show in class” button next to it or typing “M” on the keyboard when it is selected. Items selected for in-class review are marked with a yellow background.



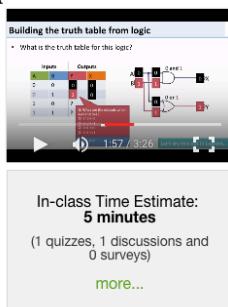
The video preview has been shrunk back to its original size. The quiz item is now highlighted with a yellow background, indicating it is selected for in-class review. The in-class time estimate is now 8 minutes.

7. When you mark an item for in-class review, the Time Estimate is updated to tell you how long much in-class time your review will take. Here the time estimate is 3 minutes because one quiz has been selected for review.
 8. To go on to the next item either click on it, or press the down-arrow on the keyboard.

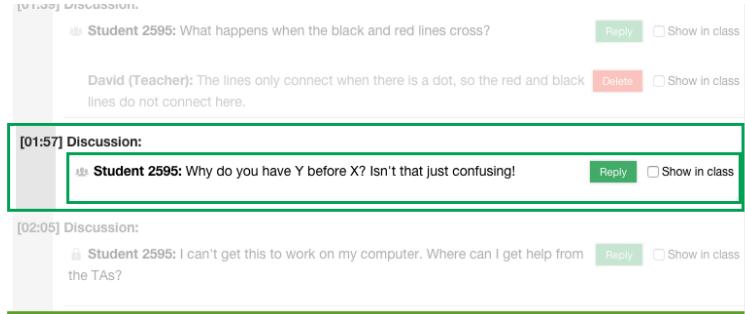
Responding to Student Questions and Discussions

- Students can ask questions and have discussions while watching the video. When such a discussion is selected, the video preview goes to the place in the video where the student asked the question and you can press the space bar to enlarge the video

preview.



In-class Time Estimate:
5 minutes
(1 quizzes, 1 discussions and 0 surveys)
[more...](#)

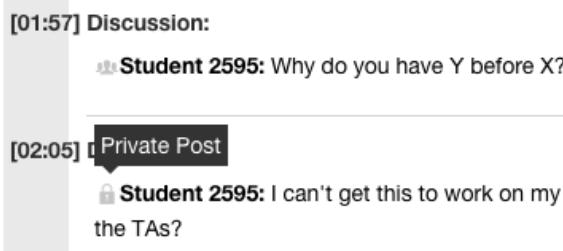


[01:57] Discussion:
Student 2595: Why do you have Y before X? Isn't that just confusing!

[02:05] Discussion:
Student 2595: I can't get this to work on my computer. Where can I get help from the TAs?

- a. You can see next to the question how many students voted for this question to be reviewed in-class, how many flagged it as inappropriate, and you can reply to the question by typing “R” or pressing “Reply” and mark it for in-class review by clicking “Show in class” or typing “M” for mark.

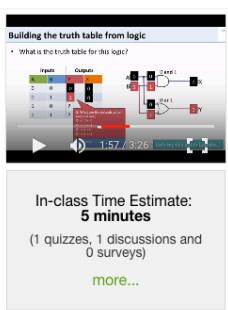
- b. Students can ask Public (visible to all other students) and Private (visible only to the instructor) questions. Private discussions are marked with a lock icon and public ones with a group icon.



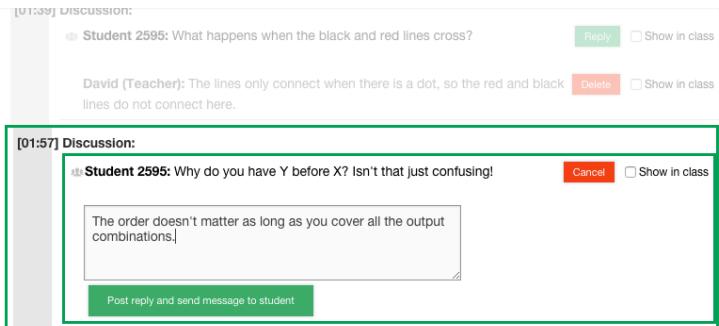
[01:57] Discussion:
Student 2595: Why do you have Y before X?

[02:05] Private Post
Student 2595: I can't get this to work on my the TAs?

2. You can reply to students and answer their questions by clicking on “Reply” or typing “R”.



In-class Time Estimate:
5 minutes
(1 quizzes, 1 discussions and 0 surveys)
[more...](#)



[01:57] Discussion:
Student 2595: Why do you have Y before X? Isn't that just confusing!

The order doesn't matter as long as you cover all the output combinations.

- a. When you post your reply the student will receive an email with your answer, and they can see the reply in their video timeline.
- b. If the student’s question was public, then other students can see your reply as well.
- c. You can delete your reply by clicking “Delete”, but an email is still sent when you post the reply.

Responding to Surveys and Making Results Visible to All Students

Anonymous surveys can be included in your Modules. The results are shown and you can reply to students comments (without knowing who the student is) by clicking “Reply”. You can also choose survey responses for in-class review by choosing “Show in class.”

Logic Survey(4 Questions)

Make Survey Visible to Students

Title: How was the pace of this lecture? (OCQ) Show in class



Free Text Question: List one thing you liked about this lecture: Show in class

- combin gates Related Show in class
- Learning about muxes, encoders and how its used to access memory. Related Show in class
- I like how everything is demonstrated in the simulator. Like theory + practice in one go. Related Show in class
- how you read out from memory Related Show in class
- The connection to the very common terms of clock speed and processor MHz/GHz was very interesting. I would have liked that to me explained some more to get more "real life" understanding. Related Show in class

Surveys also allow you to see which responses came from the same student by clicking “Related”. You can make the survey results visible to the whole class by clicking “Make Survey Visible to Students” at the top of the survey.

Display Options for Review

You can choose which items from the online lecture to display in the Progress Review from the Settings menu and format the output for printing or saving to a PDF:

Settings

- Show Lecture Quizzes
- Show Confused
- Show Discussion
- Show Quizzes
- Show Surveys

 Print

Class Progress

To see overall class progress, click on the **Review** mode and choose “View Module Completion”.

Edit In-class Administration ▾

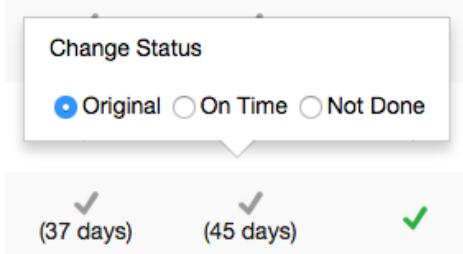
Review Module Completion

Choose a module to review the students’ online progress, respond to questions, and select material for in-class review.

View which students have completed each module on-time or late.

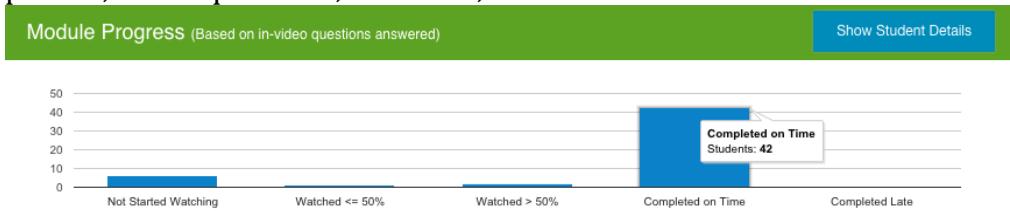
ScalableLearning		Dashboard										Courses	Account	Help
1DT038: Select a Module		Progress	Content	Students										
Course Progress		Progress Graph												
														✓ Finished Not on Time ✓ Finished on Time ✘ Not Finished
	Introduction	ISA 1	ISA 2	Lab 1 (MIPS Tutorial)	Arithmetic	Logic	Processor Control and Datapath	Lab 2	Midterm Review	Midterm course evaluation	Processor Pipelining			
	✓	✓ (20 days)	✓ (44 days)	✓ (13 days)	✓ (12 days)	✓ (33 days)	✓ (3 days)	✓ (3 days)	✓ (3 days)	✓ (3 days)	✓ (3 days)			
	✓	✓ (9 days)	✓ (7 days)	✓ (2 days)	✓ (2 days)	✓ (2 days)	✓ (2 days)	✓ (2 days)	✓ (2 days)	✓ (2 days)	✓ (2 days)			
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ (4 days)	✓ (4 days)			
	✓	✓ (37 days)	✓ (45 days)	✓ (40 days)	✓ (39 days)	✓ (39 days)	✓ (39 days)	✓ (39 days)	✓ (39 days)	✗	✗			
	✓	✓	✗	✓	✓	✓	✓	✓	✓	✗	✗			
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	✓	✗	✓	✓	✓	✗	✗	✓	✓	✗	✗			
	✓	✗	✓ (2 days)	✓	✗	✗	✗	✓	✓	✗	✗			
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ (2 days)	✓ (2 days)			

You can manually change a student's progress by clicking on a lecture and choosing a different status.



Detailed Lecture Statistics

You can get more detailed lecture statistics by clicking on “Show Student Details” at the top of the Lecture Review. Under the Lecture Statistics tab you can see a timeline of where students paused, asked questions, reviewed, and clicked confused.



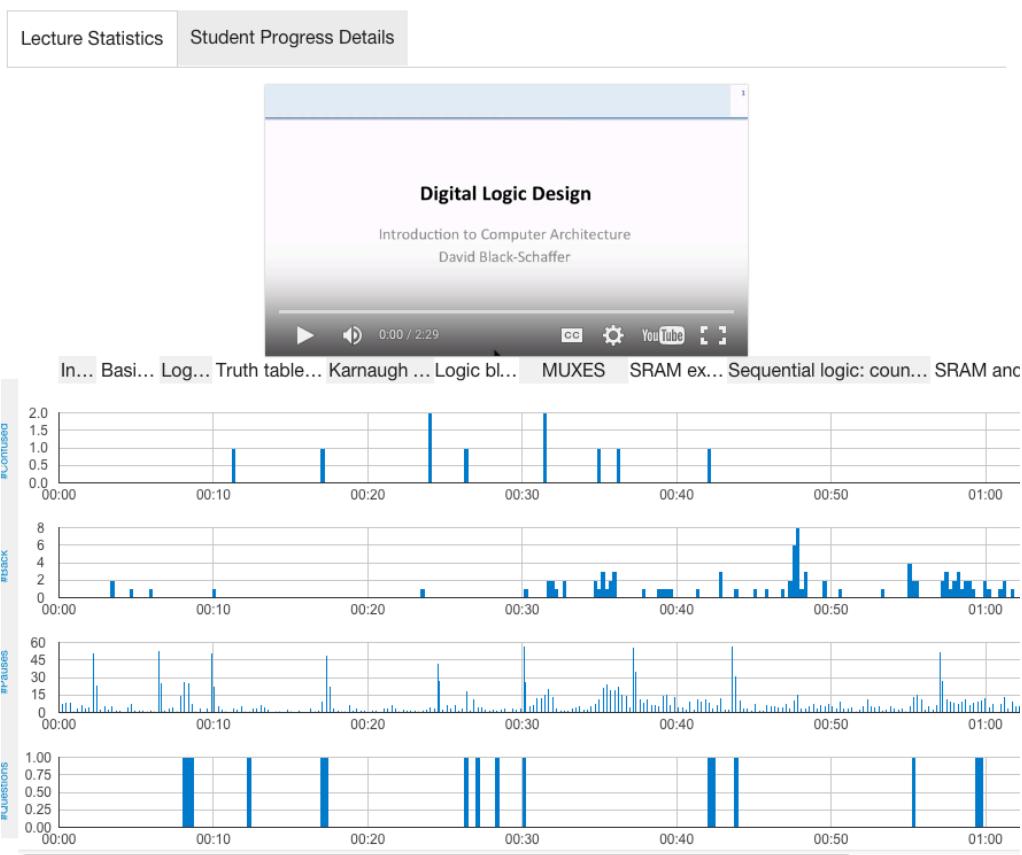
Under the Lecture Progress tab you can see which students have completed which parts of each Module.

Student Details: Logic

[Show Progress](#)

	Lecture Statistics	Student Progress Details						
	✓ Finished Not on Time ✓ Finished on Time ✗ Not Finished							
	Introduction	Basic Logic Gates	Logic gates to truth tables	Truth tables to logic gates	Karnaugh Maps	Logic blocks and busses	MUXES	SRAM example
ah al-eh	✓	✓	✓	✓	✓	✓	✓	✓
der	✓	✓	✓	✓	✓	✓	✓	✓
Hoff	✓	✓	✓	✓	✓	✓	✓	✓
la amn	✓	✓	✓	✓	✓	✓	✓	✓
;	✓	✓	✓	✓	✓	✓	✓	✓
is	✓	✓	✓	✓	✓	✓	✓	✓
i	✓	✓	✓	✓	✓	✓	✓	✓
dling	✓	✓	✓	✓	✓	✓	✓	✓

Student Details: Logic

[Show Progress](#)


Using ScalableLearning In-Class

To use ScalableLearning in-class, you first select the items from the Module you wish to review in-class while Reviewing the Students' Progress. Then in-class, ScalableLearning will help you review that material by displaying it on a projector along with the quiz results or the students' questions. This helps you bring the material you have selected from the online preparation into the classroom with minimal effort.

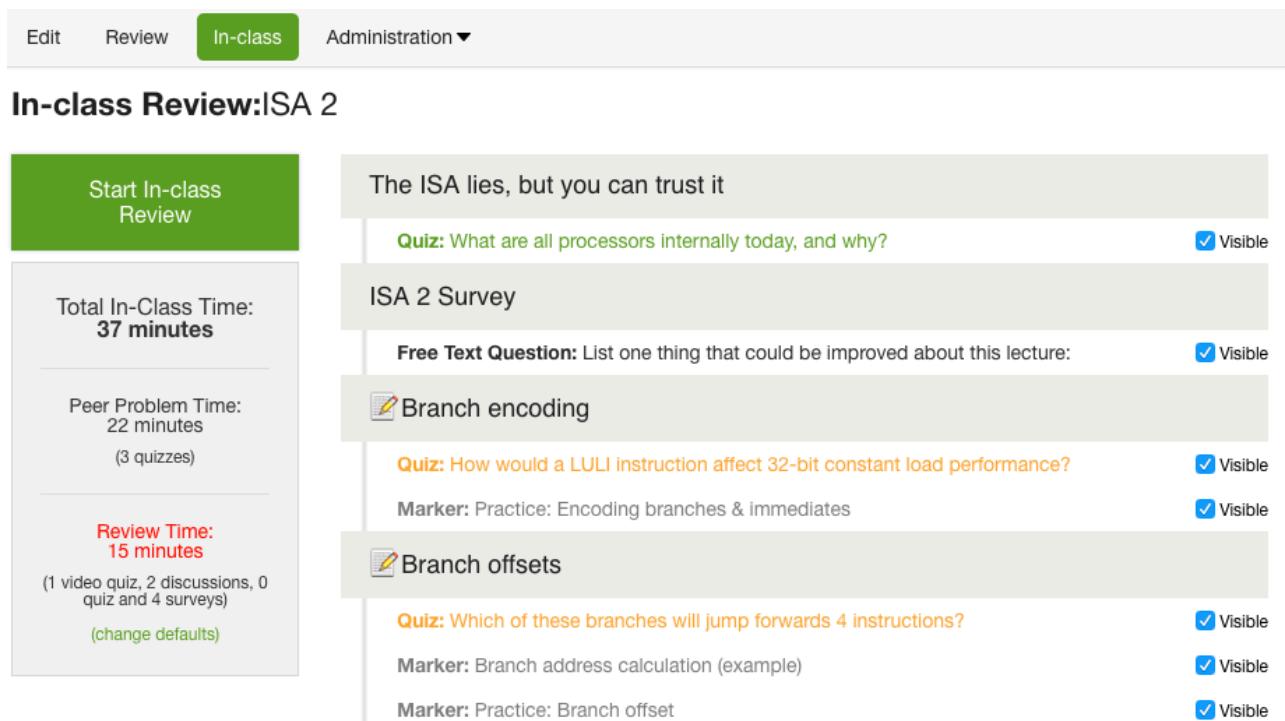
Reviewing Students' Online Performance

Before coming to class you should spend some time reviewing how students did on the online quizzes and answering any questions they have asked online, as discussed earlier in the manual. You should choose the online quizzes and questions you would like to review in-class and reply to students' questions. Remember that the students have already seen these quizzes at home, so be careful to not spend too much time repeating in-class. In general, in-class time should be spent on active learning such as group problem solving and not listening to the teacher review the online material unless there are significant confusions or great student questions.

Choosing In-class Material

If you have In-class Videos in your Module, when you go to the In-Class mode you will have the option to select them to include in the classroom. Choose the quizzes and material you want to include, along with the online quizzes and student questions from the review. You can choose to include or exclude portions of the in-class videos by selecting the Notes you wish to be visible much as you would hide or show slides in a presentation.

Online quizzes are show in green, online questions in black, in-class quizzes in orange, and slide notes in gray.



The screenshot shows the ScalableLearning interface for an in-class review session titled "ISA 2". At the top, there are tabs for "Edit", "Review", "In-class" (which is highlighted in green), and "Administration".

In-class Review:ISA 2

Start In-class Review (button)

Total In-Class Time: 37 minutes

Peer Problem Time: 22 minutes (3 quizzes)

Review Time: 15 minutes (1 video quiz, 2 discussions, 0 quiz and 4 surveys) (change defaults)

The ISA lies, but you can trust it

Quiz: What are all processors internally today, and why? Visible

ISA 2 Survey

Free Text Question: List one thing that could be improved about this lecture. Visible

Branch encoding

Quiz: How would a LULI instruction affect 32-bit constant load performance? Visible

Marker: Practice: Encoding branches & immediates Visible

Branch offsets

Quiz: Which of these branches will jump forwards 4 instructions? Visible

Marker: Branch address calculation (example) Visible

Marker: Practice: Branch offset Visible

Using ScalableLearning In-Class

When you click the "Display for In-Class Review" button, ScalableLearning will switch to a full-screen display suitable for projecting in the classroom. From this display you can use the arrow keys or a remote presentation controller to control your presentation.



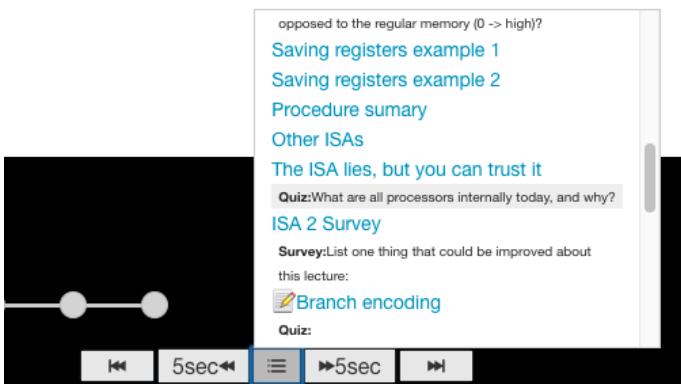
Review

- Instructions:
 - **Silently write** down your own answers to the questions
 - **Discuss** all answers in your group and choose the top 3 answers
 - **Class discussion** of top issues and teacher's list
- Questions
 - **Why do we have register conventions?**
 - Can we use any register for anything?
 - Do procedures have to put data on the stack in a particular order?



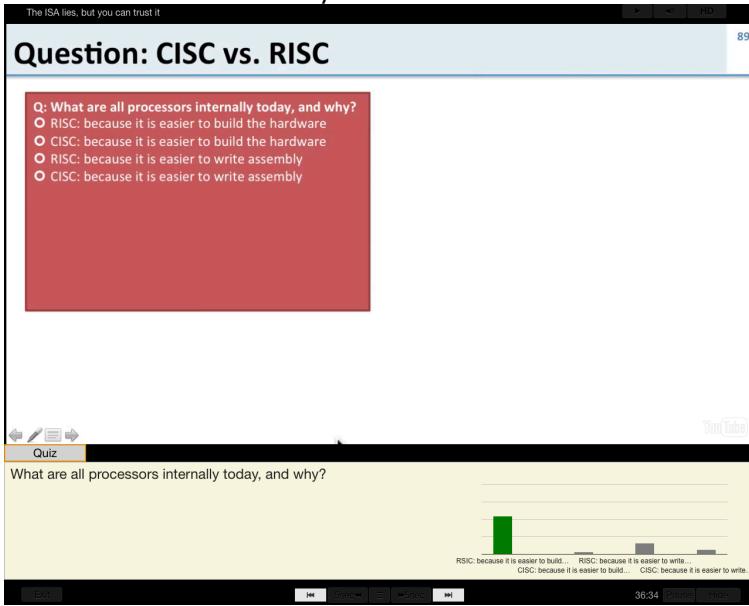
1. The full-screen view is designed to be projected in a classroom.
2. You can use a standard presentation remote control to control the screen, including the arrow keys to go between questions.
3. The display shows the estimated time as a countdown in the lower right hand corner.
4. You can switch to higher resolution by clicking on the “HD” button at the top.
5. You can start the video playing with the play button at the top and mute/unmute the audio. (Typically you will just advance through the questions in the video that you have marked during the progress review, but you can also play it if it is helpful in the classroom.)
6. Using the controls at the bottom you can go to the next/previous question and advance the video by +/- 5 seconds to get to the next slide.

You can use the menu at the bottom to navigate directly to different quizzes, questions, or notes in the module:



When you advance to a selected online quiz, the video will be shown along with a graph showing how students answered it online. This is helpful for discussing the question with the

class. You can use the +/- 5 sec buttons at the bottom to see other parts of the video as well.



The ISA lies, but you can trust it

Question: CISC vs. RISC

89

Q: What are all processors internally today, and why?

- RISC: because it is easier to build the hardware
- CISC: because it is easier to build the hardware
- RISC: because it is easier to write assembly
- CISC: because it is easier to write assembly

Quiz

What are all processors internally today, and why?

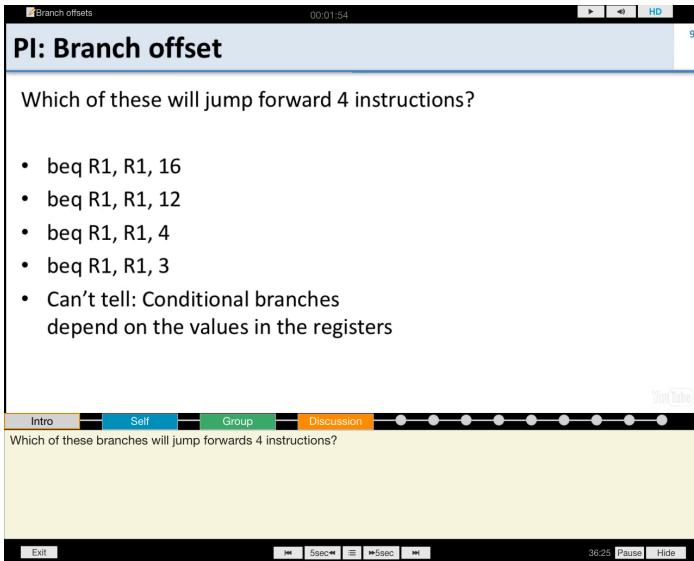
RSIC: because it is easier to build... RISC: because it is easier to write... CISC: because it is easier to build... CISC: because it is easier to write...

Exit 36:34 Pause Hide

Peer Instruction with ScalableLearning

When you get to a Peer Instruction question, you will see the four steps at the bottom of the video with the current one highlighted:

- **Introduction:** Teacher introduces the question
- **Self:** Students work on and choose an answer themselves
- **Group:** Students work in groups of 2 to choose an answer
- **Discussion:** The Teacher leads a discussion of the answers



Branch offsets 00:01:54 HD 9

PI: Branch offset

Which of these will jump forward 4 instructions?

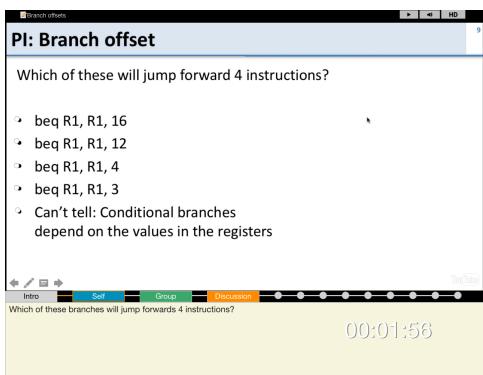
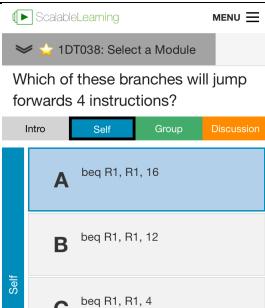
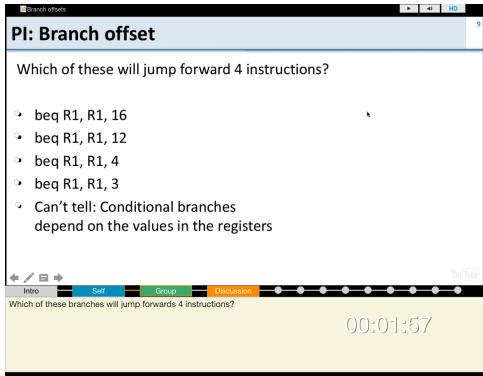
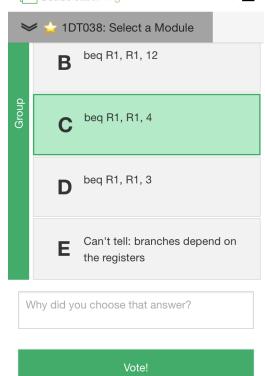
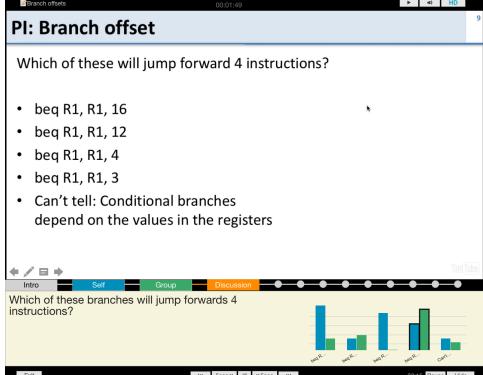
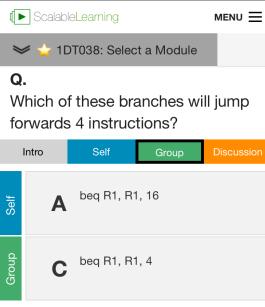
- beq R1, R1, 16
- beq R1, R1, 12
- beq R1, R1, 4
- beq R1, R1, 3
- Can't tell: Conditional branches depend on the values in the registers

Intro Self Group Discussion

Which of these branches will jump forwards 4 instructions?

Exit 36:25 Pause Hide

When you advance to the Self or Group portions a timer will be displayed and students can use their mobile phones to vote for the correct answer, and type in their reason for that choice. If they enter a reason, it will be visible to them online when they review the in-class video at home.

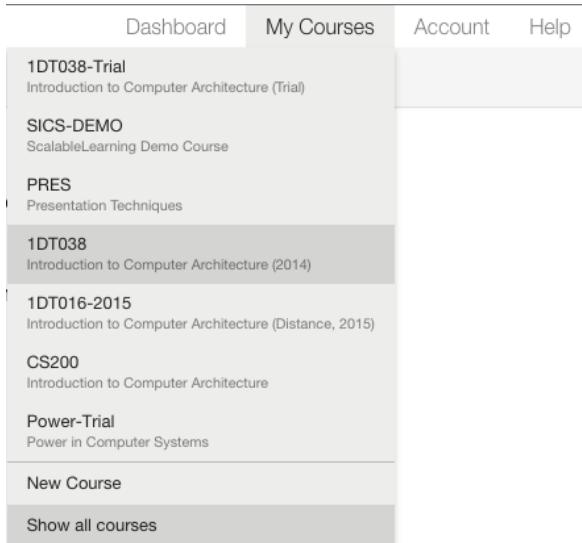
	Class Projector	Students' Mobile Phones
Self	 <p>Display question and timer.</p>	 <p>Students vote individually.</p>
Group	 <p>Display question and timer.</p>	 <p>Why did you choose that answer?</p> <p>Vote!</p> <p>Students vote in group.</p>
Discussion	 <p>Display question and results.</p>	 <p>Retry Next</p> <p>Students see their choices.</p>

Reviewing Student Performance After Class

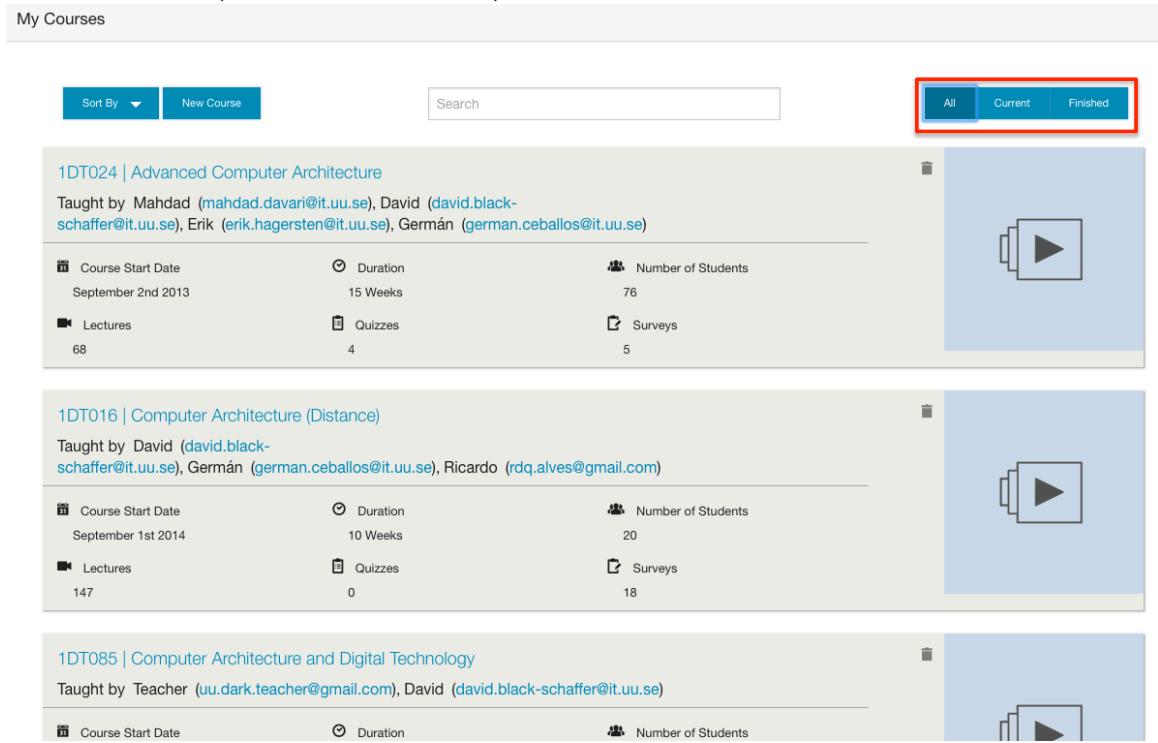
After class you can go into the Review mode and see how students answered the in-class questions just as you can for the online quizzes. Students can also go and review the in-class material again by re-watching the videos at home.

Viewing your Courses

- **Current Courses:** You can see a list of your **current courses** under the “My Courses” menu.



- You can go directly to any course by choosing it here.
- **All Courses:** You can see all courses (including finished courses) by choosing “Show all courses” from the “Courses” menu. You can then choose to view all courses, your current courses, or finished courses, and search for courses.



Course	Start Date	Duration	Students	Lectures	Quizzes	Surveys
1DT024 Advanced Computer Architecture	September 2nd 2013	15 Weeks	76	68	4	5
1DT016 Computer Architecture (Distance)	September 1st 2014	10 Weeks	20	147	0	18
1DT085 Computer Architecture and Digital Technology						

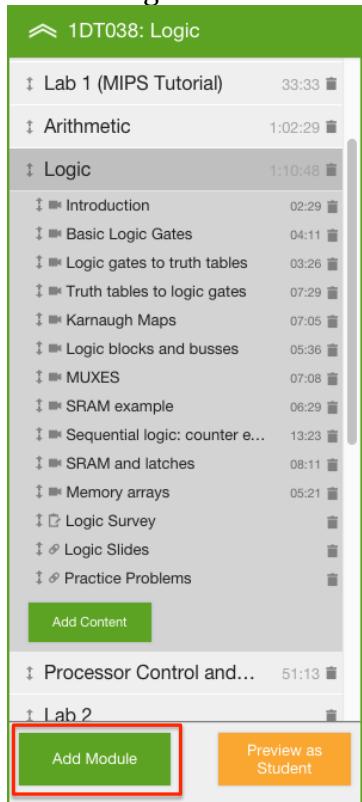
- You can go directly to a course by clicking on its title in the All Courses list.
- **Deleting Courses:** You can delete a course by clicking on the trash can to the right of the course in the “All Courses” view and then clicking on the confirmation button.
- **New Courses:** You can create a new course by choosing “New Course” in the “Courses” menu.

Organizing Courses with Modules

You can use Modules to organize your course. Modules allow you to group multiple videos, surveys, and quizzes, and can all have the same due dates and visibility dates.

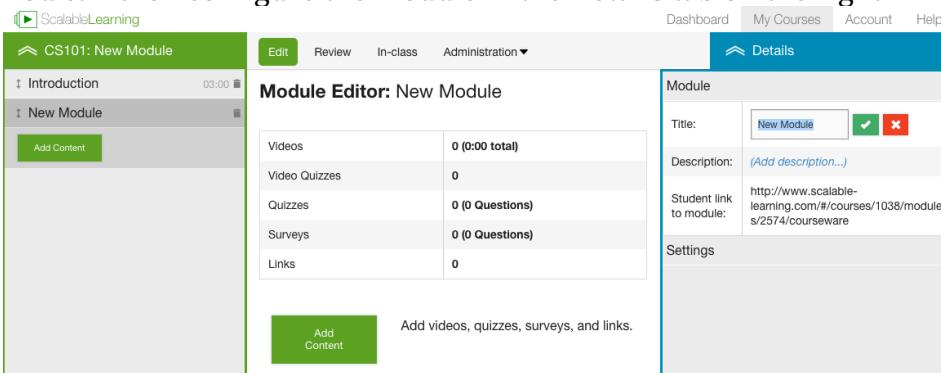
Modules can be thought of as complete lectures or units in your course. By dividing up your videos into short segments you give students an indication of their progress (each completed video gets a green checkmark) and make it easier for them to navigate the course material.

Example. Here you can see an example of a course with multiple Modules (Introduction, ISA 1, ISA 2, Lab 1, Arithmetic, Logic) and multiple items within the Logic Module (short videos, a survey, and links to extra material.) You can also see how the student has completed the first 5 video segments of the Module.



The screenshot shows a course content list for '1DT038: Logic'. The 'Logic' module is expanded, showing 13 sub-items with completion status indicated by green checkmarks. At the bottom of the list, there are two buttons: 'Add Module' (highlighted with a red box) and 'Preview as Student'.

1. To create a new Module, click “Add Module” at the bottom of the course content list on the left.
2. You can then configure the module in the Details tab on the right:



The screenshot shows the 'Module Editor' for a new module titled 'New Module'. The 'Details' tab is selected. The module configuration includes:

- Title: New Module
- Description: (Add description...)
- Student link to module: http://www.scalable-learning.com/#/courses/1038/module/s/2574/courseware

 The 'Module' section shows the following statistics:

	0 (0:00 total)
Videos	0
Video Quizzes	0
Quizzes	0 (0 Questions)
Surveys	0 (0 Questions)
Links	0

 A note below says: "Add videos, quizzes, surveys, and links."

- a. You can set the Module Name

Details	
Module	
Settings	
Appearance Date	Set Date: 11/08/2015 02:00
Due Date	<input checked="" type="checkbox"/> has due date Set Date: 18/08/2015 02:00

- b. You can choose a “Visible Date” to prevent the students from seeing the module until a given time and date. This is useful if you do not want them to skip too far ahead in the course. Note that if the module is not currently visible to students you will see a warning:

Visible: 01/03/2015 at 00:00  Not Currently Visible To The Students. Will Be Visible On This Date.

- c. You can set a “Due Date” by choosing “Has Due Date” and setting the date. Students who complete the module after this date will be marked as late, and students will see this module in their calendar as due on this date.

Has Due Date :08/03/2015 at 00:00

- d. You can provide a description of the Module to help students know what content it will cover. This is particularly helpful if you share your course with other teachers so they can quickly see what is in each module.
- e. You can copy the “Student link to module” if you want to email a link directly to the module to your students.
- f. You can see the contents of the module, including the total video time and number of video questions and extra quizzes.

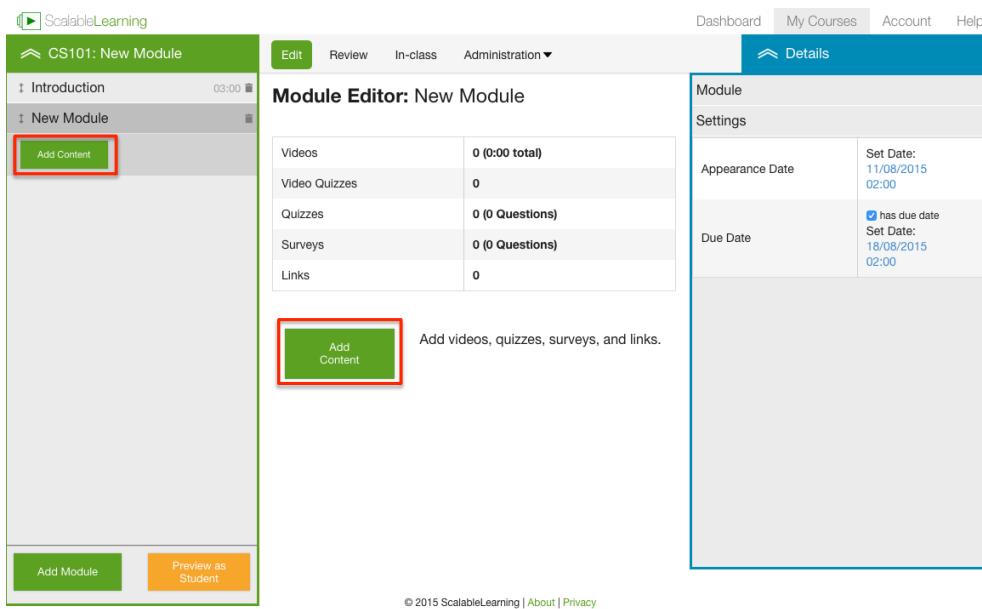
Module Editor: New Module

Videos	0 (0:00 total)
Video Quizzes	0
Quizzes	0 (0 Questions)
Surveys	0 (0 Questions)
Links	0

Add Content

Add videos, quizzes, surveys, and links.

3. To add items to the Module click “Add Content” in the Module Editor or at the bottom of the module in the content list, and choose what you would like to add:



The screenshot shows the ScalableLearning platform's interface for managing course modules. On the left, a sidebar lists 'Introduction' and 'New Module'. Below it are buttons for 'Add Module' and 'Preview as Student'. The main area is titled 'Module Editor: New Module' and contains a table of content types: Videos (0), Video Quizzes (0), Quizzes (0), Surveys (0), and Links (0). A large green 'Add Content' button is centered below the table. To the right, a 'Details' panel shows 'Module' and 'Settings' sections. Under 'Settings', 'Appearance Date' is set to 11/08/2015 at 02:00, and 'Due Date' is set to 18/08/2015 at 02:00.

Add New Content:

Video

You can add quiz questions on top of the video.



Quiz or Survey

Text-based, not part of a video. Can be graded or optional.

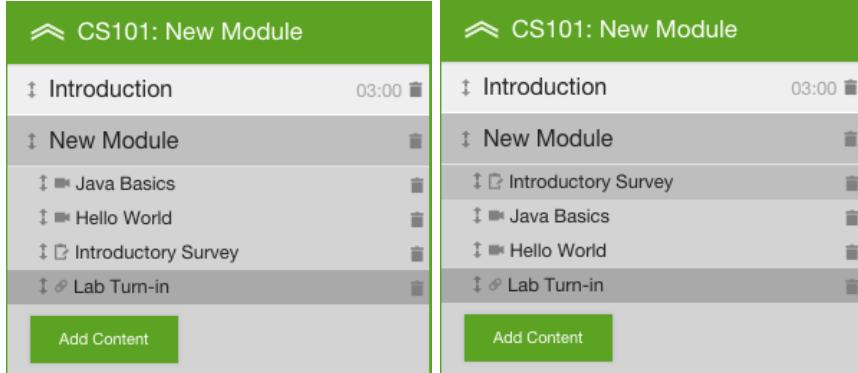
Link

Web link to other sites or pages.



- a. Videos, quizzes, and surveys will show up in the module. Links will show up under Course Links.
- b. **Videos:** Videos with interactive quiz questions
 - i. **Video:** Online preparation
 - ii. **In-class Video:** Interactive videos for in-class problems and voting.
 - iii. **Distance Peer Videos:** Interactive videos for distance students
- c. **Quiz:** A text-based graded quiz. (Right/wrong answers.)
- d. **Survey:** A text-based un-graded survey. (No correct answers.)
- e. **Link:** Links to other websites or online content.

4. You can re-order items in a Module by dragging on the arrows to the left of the items. You can delete items by clicking on the Trash Can and the confirming the deletion.

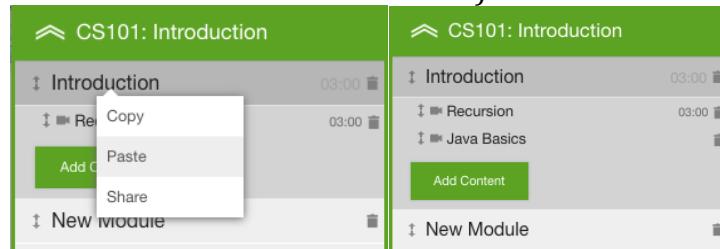


The screenshot shows the ScalableLearning platform's interface for managing course modules. It compares two states of a module named 'CS101: New Module'. The left state shows items in the following order: 'Introduction', 'New Module', 'Java Basics', 'Hello World', 'Introductory Survey', and 'Lab Turn-in'. The right state shows the same items, but 'Hello World' has been moved to the second position, immediately after 'New Module'. Both states include an 'Add Content' button at the bottom.

5. To move items between modules use Copy and Paste by right-clicking on the item.
 - a. Select the item you want to move and choose "Copy" by right-clicking on the item. (Here the video "Hello World" is selected in the "New Module" module.)



- b. Go to the module where you would like to paste the item, and choose “Paste Item” from the Content menu. (Note you can copy and paste whole Modules and individual items between courses.)

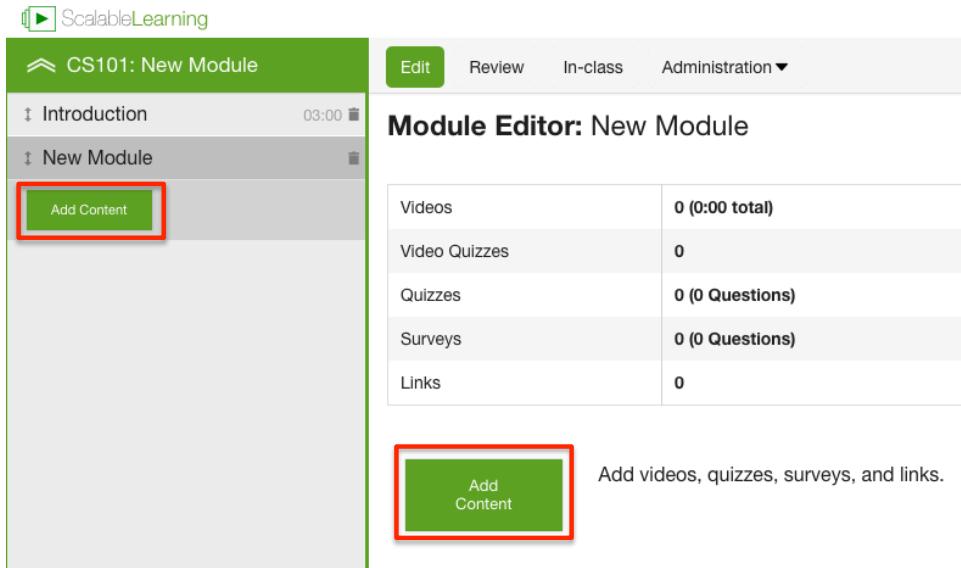


Adding Links to a Course

You can add links to Modules. Links can be used to point to external online resources for a course, such as a university LMS, course discussion forums, tools, etc.

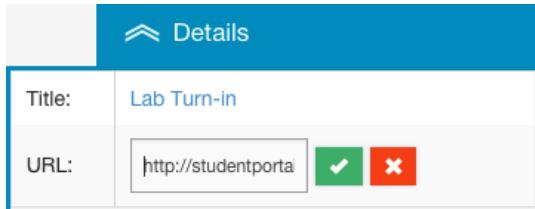
Course Links

1. Create a course link by clicking “Add Content”.



The screenshot shows the ScalableLearning interface. On the left, there's a sidebar titled "CS101: New Module" with sections for "Introduction" and "New Module". A green "Add Content" button is highlighted with a red box. On the right, the "Module Editor: New Module" panel displays statistics for Videos (0 total), Video Quizzes (0), Quizzes (0 Questions), Surveys (0 Questions), and Links (0). Below this is a large green "Add Content" button with a red box around it, accompanied by the text "Add videos, quizzes, surveys, and links."

2. Choose “Link” from the New Content types.
3. Edit the Course Link by clicking on the link in the course content list and editing the link Title and URL in the Details tab on the right.

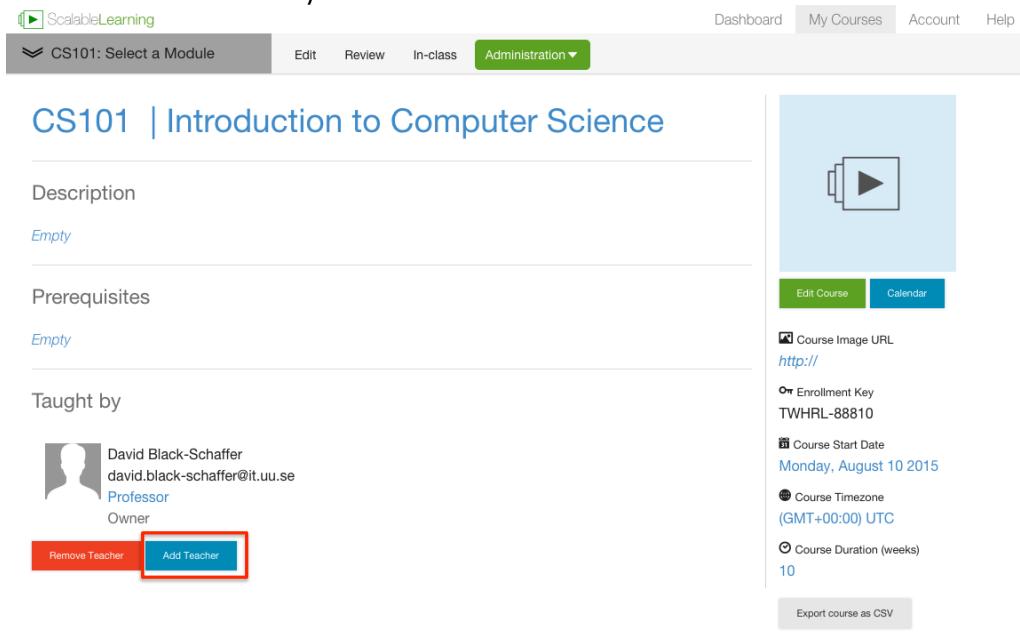


The screenshot shows the "Details" tab for a course link. It has two rows: "Title: Lab Turn-in" and "URL: http://studentporta". To the right of the URL field are two buttons: a green checkmark and a red X.

Adding Teachers and TAs

Adding other Teachers and TAs to a course allows others to review student progress, edit the course content, and reply to student questions.

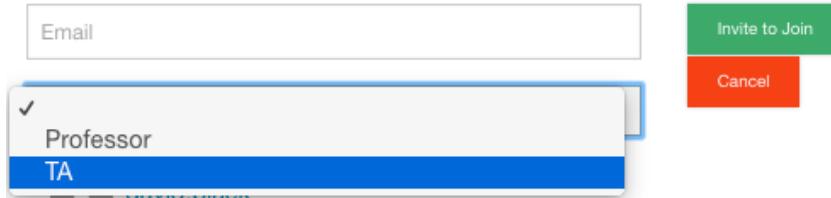
1. Go to the course by choosing it from the “Courses” menu.
2. Click on “Add Teacher/TA” from the Administration menu.



The screenshot shows the ScalableLearning course administration interface for a course titled "CS101 | Introduction to Computer Science". The "Administration" tab is selected. On the left, there are sections for "Description" (empty) and "Prerequisites" (empty). In the center, under "Taught by", there is a profile for "David Black-Schaffer" (david.black-schaffer@it.uu.se, Professor, Owner). Below this are two buttons: "Remove Teacher" (red) and "Add Teacher" (blue, highlighted with a red box). To the right, there are course settings: "Course Image URL" (http://), "Enrollment Key" (TWHRL-88810), "Course Start Date" (Monday, August 10 2015), "Course Timezone" ((GMT+00:00) UTC), and "Course Duration (weeks)" (10). At the bottom right is a "Export course as CSV" button.

3. Click “Add Teacher” and enter the email address for the teacher and specify whether the teacher is to be added as a TA from the menu.

*A teacher or TA must have a teacher account on scalable-learning.
To create a teacher account visit: <http://www.scalable-learning.com/#/users/teacher>*



The screenshot shows a modal dialog box for adding a teacher. It contains an "Email" input field, an "Invite to Join" button, and a dropdown menu with two options: "Professor" and "TA". The "TA" option is highlighted with a blue selection bar.

4. The teacher will receive an email inviting them to join the class. If they do not have a teacher account on ScalableLearning they will have to create one to join the class.
5. Once the teacher has been invited to join the course, he or she will see a Notifications list in ScalableLearning and will be able to choose to join the course from there.

Sharing Courses with Other Teachers

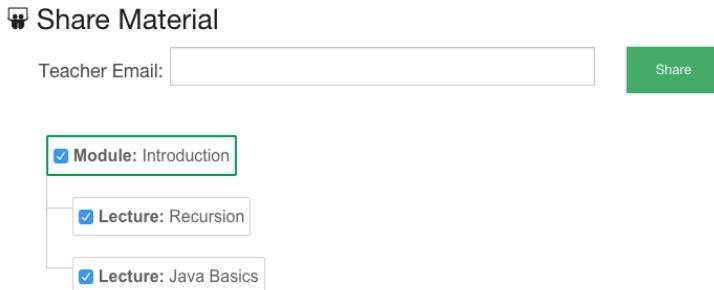
You can share a copy of your course content with other teachers.

1. Go to the course by choosing it from the “Courses” menu.
2. Choose the Module you wish to share by clicking on it in the Course Content list on the left and right-click to choose “Share”.



A screenshot of the ScalableLearning interface showing the course content list for "CS101: Introduction". A context menu is open over the "Introduction" module, listing "Copy", "Paste", and "Share" options. The "Share" option is highlighted with a green background.

3. Select the items from the Module to share and enter the teacher's email address.



A screenshot of the "Share Material" dialog. It includes a "Teacher Email:" input field, a "Share" button, and a list of checked items under "Module: Introduction".

<input checked="" type="checkbox"/> Module: Introduction
<input checked="" type="checkbox"/> Lecture: Recursion
<input checked="" type="checkbox"/> Lecture: Java Basics

4. When the teacher logs into ScalableLearning he or she will receive a notification that the material has been shared and can place a copy of it in his or her course.

Recording Videos

How you record a video depends a bit on what type of computer and program you are using.

- For the Mac we recommend:

Program	Record Yourself	Auto scaling to 1280x720	Start/Stop Shortcut	Trimming Ends of Video	Auto Upload to YouTube	Cost
QuickTime Player			(stop)	Yes	Yes	Free
ScreenFlow	(complex)	(complex)	Yes	(complex)	Yes	700SEK
Screen Record		Yes		*	*	35SEK
Screen Record Studio	Yes	Yes	Yes	*	*	105SEK
iScreen Record Pro	Yes	(soon?)	Yes	*	*	80SEK
U2Any Screen Recorder	Yes	Yes	Yes	*	*	100SEK
Screeny	Yes	Yes	Yes	*	*	100SEK
Camtasia	(complex)	(complex)	Yes	(complex)	Yes	700SEK
Snagit			Yes		Yes	260SEK
Screenium	Yes	(complex)	Yes	(complex)		280SEK
Screencast Maker	Yes	Yes	Yes	*	*	35SEK
Adobe Presenter Video Express	Yes	Yes	Yes	Yes	Yes	14SEK per video

* Supports this indirectly by opening in QuickTime Player after recording.

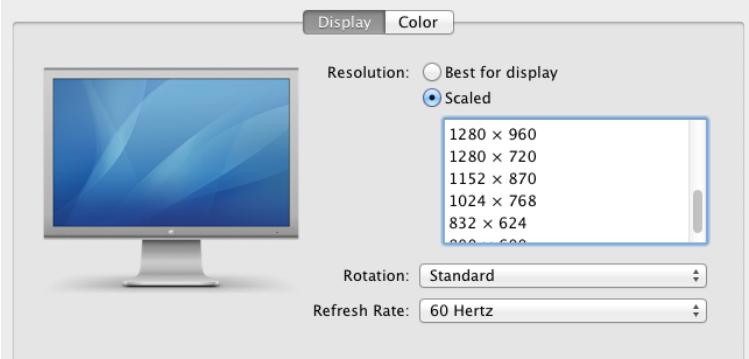
- Note that the programs that scale the screen by themselves will make the mouse pointer really small. You can make it larger with programs such as ScreenFlow and Camtasia, or with utilities such as Keymo (\$5), PinPoint (\$5). (The built-in MacOS X pointer enlargement does not get recorded.)
- For Windows we recommend:
 - Camtasia (170EUR, lots of features, record yourself as well)
 - Snagit (30EUR, simple screen recorder)
 - Adobe Presenter (\$500, lots of features)
 - (There are lots of other free utilities, which we have not tried.)
- Most of these programs will easily upload your videos directly to YouTube for hosting.

Setting Up the Screen

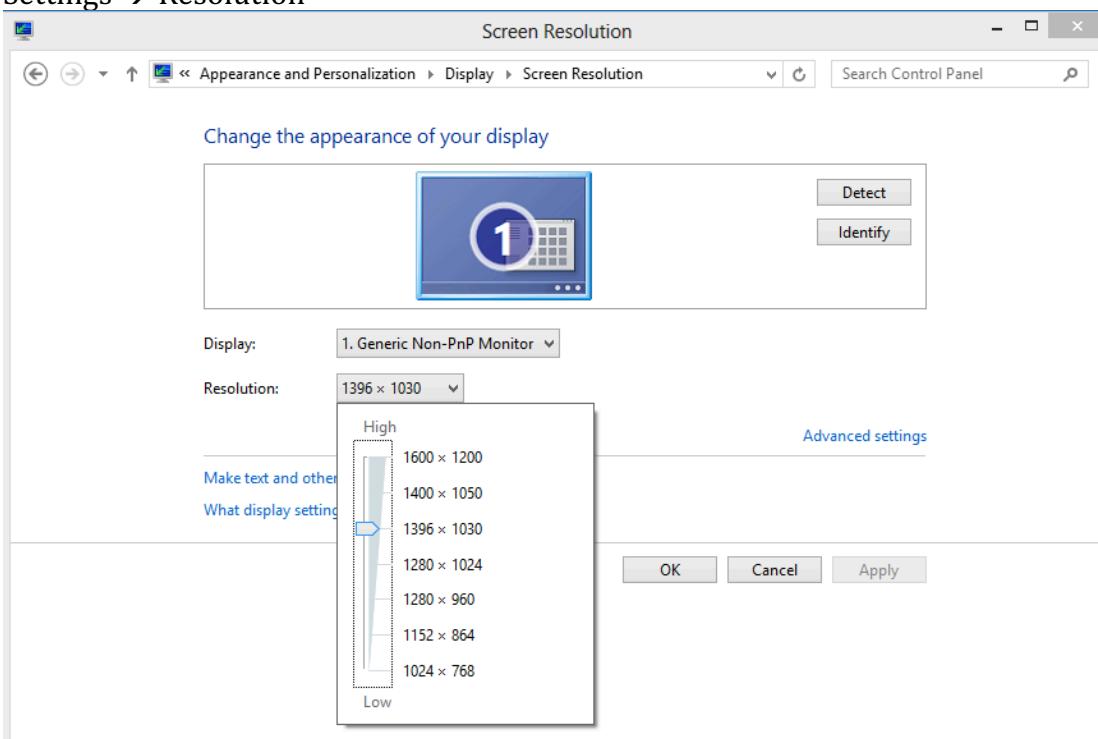
1. When you record your video you don't want to make it too large. Normally people have their computer screens set to full HD resolution (1920x1080). For recording videos you want to reduce this resolution to reduce the file sizes. Typically you want 1280x720 for widescreen (or 1024x768 for non-widescreen presentations if you don't want the black on the sides).
2. On a Mac: Apple Menu → System Preferences → Displays



- Choose “scaled” and then select either 1280x720 for widescreen or 1024x768 for normal presentations. (Do not use widescreen for non-widescreen slides or you will just end up recording a lot of black on the sides.)



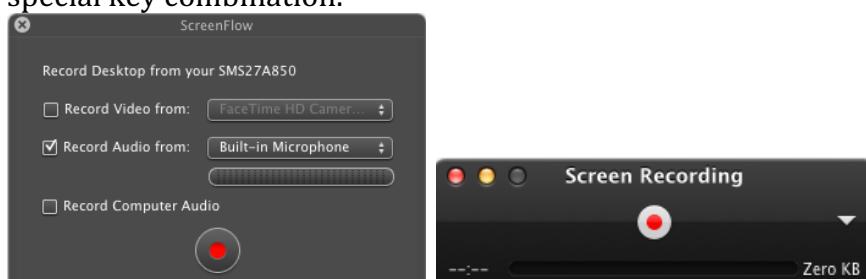
3. On Windows: Control Panel → Hardware and Sound → Display → Change Display Settings → Resolution



4. When you change the resolution to a lower one than what you usually use, everything will look larger and blurry. This will not be a problem because the video will record fewer pixels (the resolution is lower) and will look fine. When you are done recording set your screen back to the previous values.

Recording

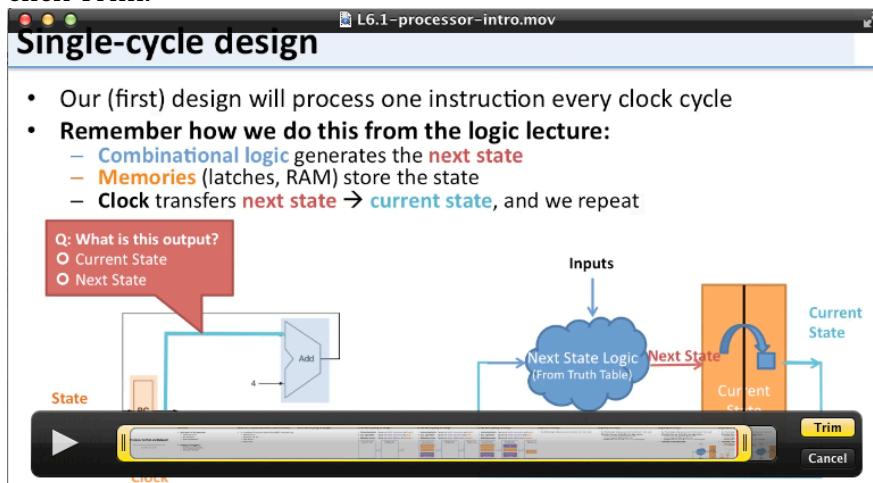
5. To record, launch your presentation program and your screen recording program.
6. Tell your screen recorder to start recording.
 - This is typically done by choosing “New Screen Recording” or typing a special key combination.



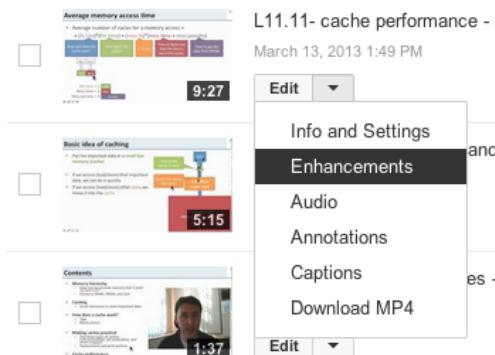
- Make sure that your microphone is recording well and close the door!
- Once you have started recording, switch your presentation into full screen mode and record your presentation.
- When you are done, stop the recording either by clicking on the stop button or using the special key combination.

Trimming

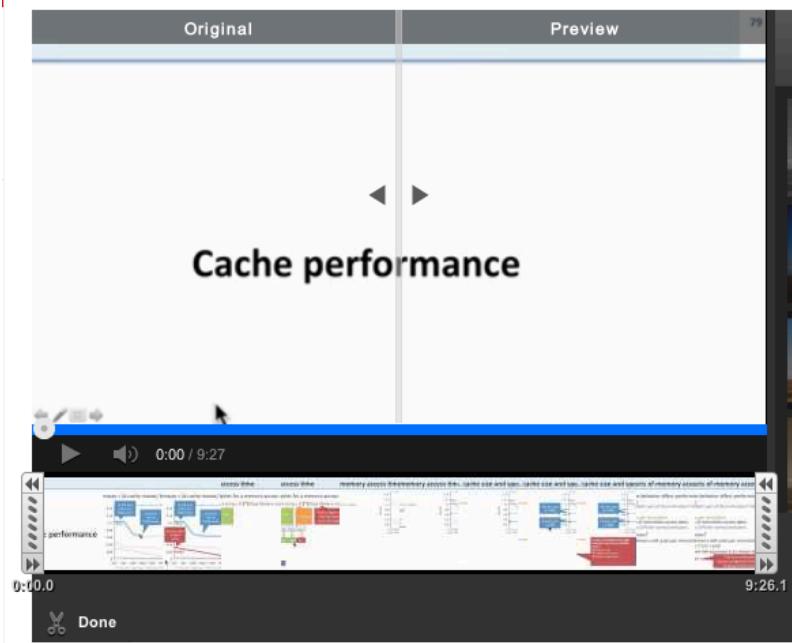
7. Once you have recorded your video, you need to trim off any starting or ending parts you don't want in your video.
8. Trimming can be done on your own computer or in YouTube after you have uploaded the video.
 - In QuickTime Player you chose "Trim" from the Edit menu and drag the yellow handles. Drag them until any extra material at the start or end is removed and click Trim.



- If you want to trim after you have uploaded your video, choose Edit → Enhancements in the YouTube video manager:



- Then click on the trim scissors at the bottom and drag the handles at the left and right:

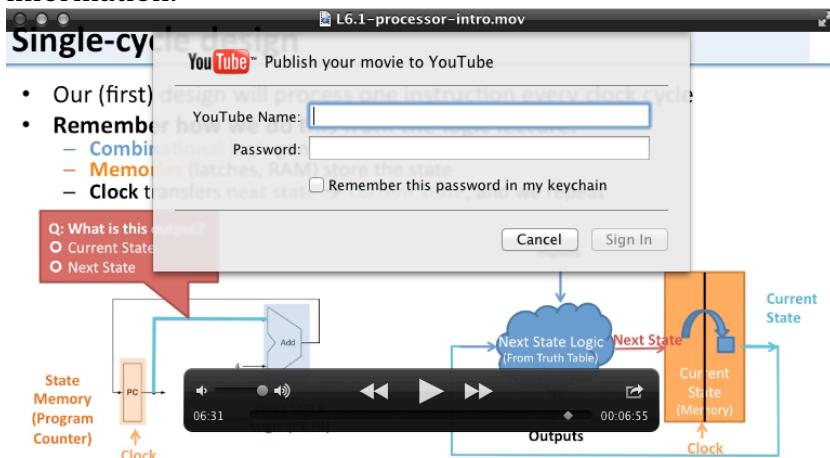


Once you have recorded your video we recommend you save a copy on your computer in case you want to edit it again or upload it to another service. (You can re-download it from YouTube, but it will have been recompressed.)

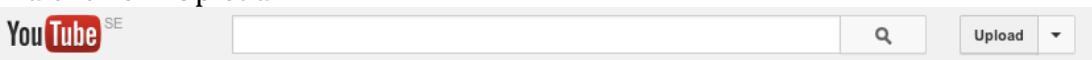
Uploading Videos to YouTube

Most video capture programs let you directly upload a video to a YouTube account. Otherwise you have to save the video to your local computer, log into YouTube, and drag the video into the YouTube upload window to upload it.

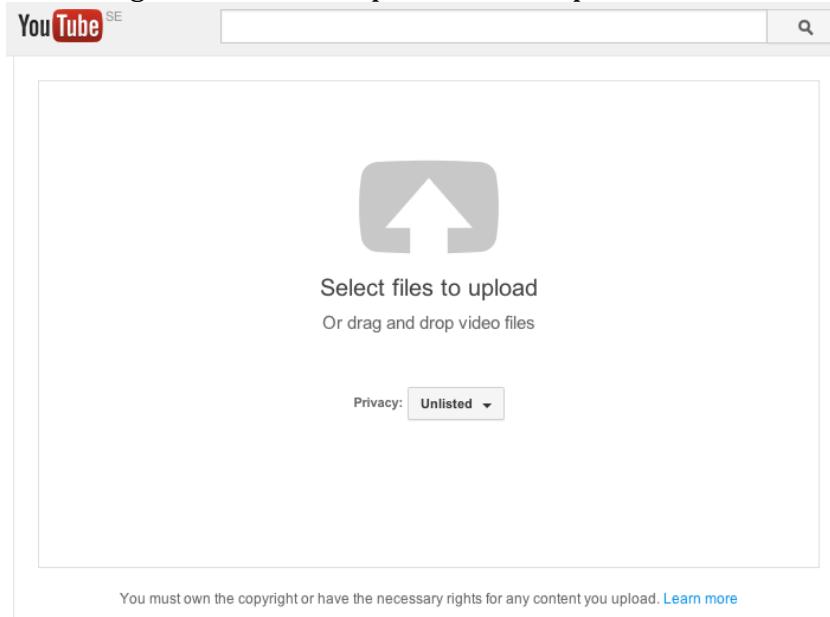
- In QuickTime Player choose File→Share→YouTube and use your YouTube account information:



- To upload a video manually, log into your YouTube account with your web browser and click on "Upload"

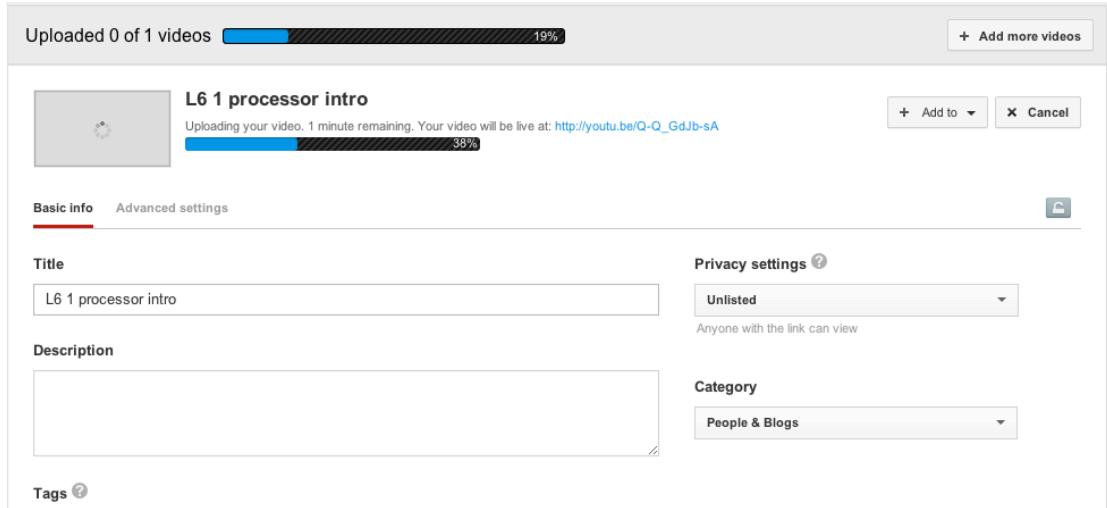


- Then drag the files to the upload icon to upload them:



- When you first upload a movie, YouTube will process it. This can take several minutes depending on the size of the movie. Until it is done being processed you cannot view or

edit the movie.



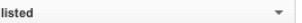
Uploaded 0 of 1 videos 

L6 1 processor intro

Uploading your video. 1 minute remaining. Your video will be live at: http://youtu.be/Q-Q_GdJb-sA

Basic info Advanced settings

Title L6 1 processor intro

Privacy settings 

Unlisted

Anyone with the link can view

Description

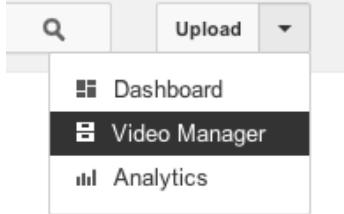
Category People & Blogs

Tags

YouTube Videos Privacy: Unlisted or Public

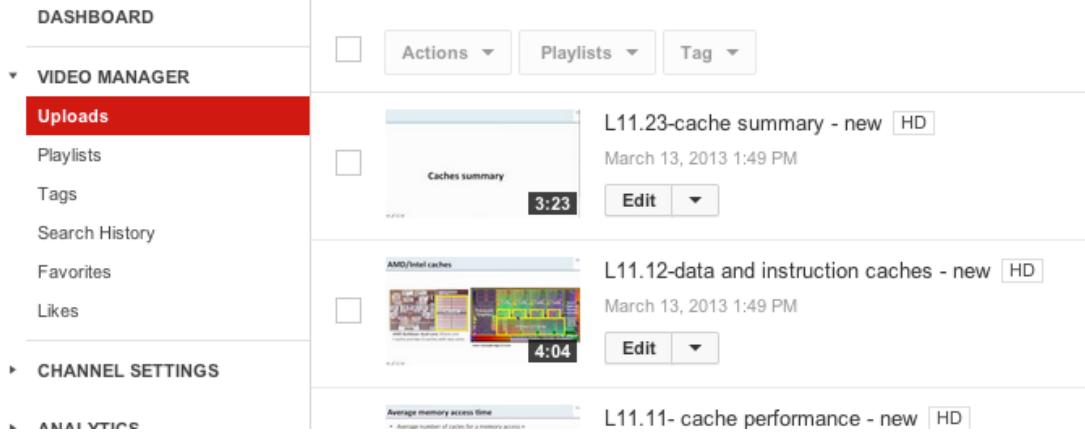
When you upload YouTube videos they can be public (anyone can see them and find them by searching), private (only google accounts you allow can see them), or unlisted (anyone with the right URL can view them, but no one can find them via search). You should keep your videos either **public** or **unlisted**.

9. Go to the YouTube Video Manager



- Dashboard
- Video Manager**
- Analytics

10. Click “Edit” on your video:



DASHBOARD

VIDEO MANAGER

Uploads

Playlists

Tags

Search History

Favorites

Likes

CHANNEL SETTINGS

ANALYTICS

L11.23-cache summary - new 

March 13, 2013 1:49 PM

3:23

Edit

L11.12-data and instruction caches - new 

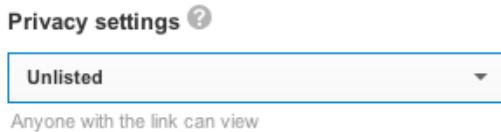
March 13, 2013 1:49 PM

4:04

Edit

L11.11- cache performance - new 

11. Set your desired privacy settings and save the changes:



Privacy settings 

Unlisted

Anyone with the link can view

More Information

You can read more about Flipped Classroom teaching and tips and tricks in the **Introduction to Flipped Classroom Teaching** available in the Help menu on ScalableLearning.

If you have any questions, comments, or feedback, please feel free to email me directly at david.black-schaffer@it.uu.se or join in the discussion with other teachers in the ScalableLearning teacher forum from the Help menu.