



# Class Climate LTI® Integration

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# 1. Overview and Technical Requirements

The Class Climate LTI® integration functionality allows you to use the built-in LTI framework of your learning management system (LMS) to display Class Climate survey information within the learner and instructor views. The Class Climate LTI integration works with all systems supporting the IMS LTI® standard, such as Blackboard, Moodle, BrightSpace® by D2L or Canvas.

The LTI integration leverages LTI Roles to populate information in our two dashboards.

## 1.1. Learner Dashboard

Students now have a dashboard providing survey information in a rich and customizable content. Visual indicators have been incorporated to encourage students to take their surveys.

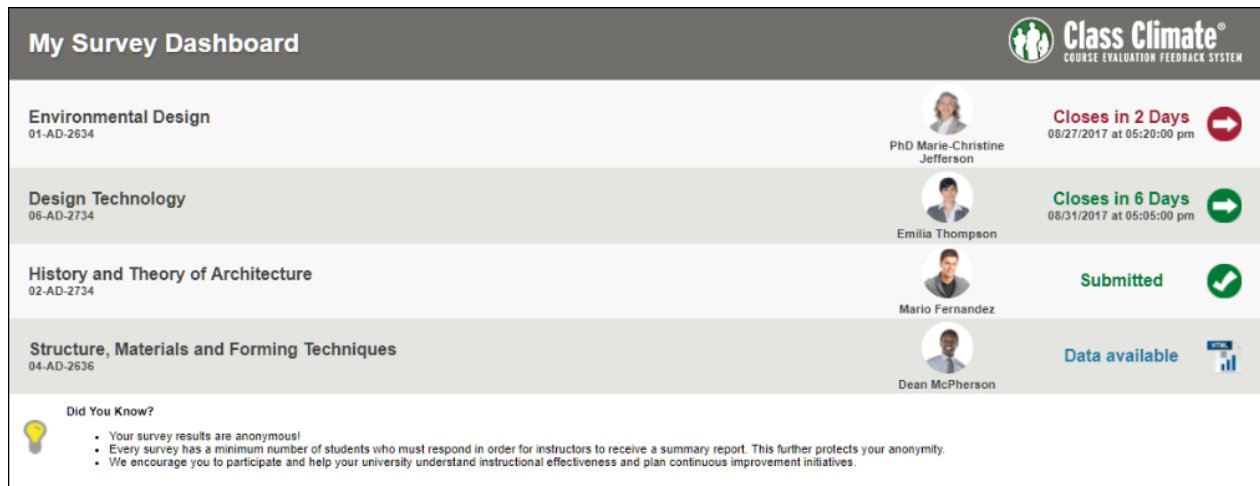


Figure 1: Learner Dashboard

## 1.2. Instructor Dashboard

Instructors will be provided their survey’s response rates throughout the evaluation period to help them encourage their students to participate.



Figure 2: Instructor Dashboard

The tool can be configured to provide access or not to course evaluation results such as PDF or CSV and can be displayed directly into your LMS portal.

The minimum version of Class Climate required is version 7.0 (2100). Please ensure that the current version of your LMS supports IMS LTI<sup>®</sup>.

To ensure a smooth implementation, you must have a Tested network route on port 443 between both servers. Load Balancer, Firewall, proxy servers must be configured adequately.

## 2. Configuring LTI for Class Climate

### 2.1. Activating LTI<sup>®</sup>

The LTI interface can be activated directly in the Class Climate administrator interface. To do this, go to “System Settings / Interfaces & Plug-ins” and open the tab “LTI<sup>®</sup> Interface”.

The screenshot displays the Class Climate administrator interface. The top navigation bar includes 'SUBUNITS', 'QUESTIONNAIRES', 'SYSTEM SETTINGS' (highlighted with a red box), 'SYSTEM INFORMATION', and 'EXTRAS'. The left sidebar shows a tree view with 'Interfases & Plug-ins' highlighted. The main content area is titled 'Interface Settings' and contains several tabs: 'Plug-ins', 'Web Service Settings', 'LDAP Settings', and 'LTI® Interface' (indicated by a red arrow). The 'LTI® Interface' tab is active, showing a configuration section with a dropdown menu set to 'Activated'. Below this is a 'Password' field with a red 'Insecure' warning. At the bottom, there is an 'Upload LTI® Template Files' section with a 'Browse...' button and an 'Upload' button.

**Figure 3: Activate LTI<sup>®</sup> Interface**

Here you can activate the option “LTI<sup>®</sup> Interface to integrate Learning Management Systems”.

If you have done so, you can define a password which secures the connection between the Class Climate server and the integrated LMS. The default password is “secret”. Please note: If you change the password here, it must be changed in the LMS configuration as well too to work properly.

At the bottom of the page you can upload your own customized LTI<sup>®</sup> templates. If you do not upload customized templates, the default template will be used. For further information, see below chapter 2.2.

## 2.2. Default LTI Templates

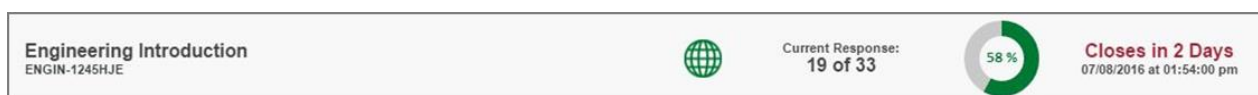
The layout of the Class Climate survey block for learners and instructors is defined by templates. There are four default templates:

- **Instructor\_template.html**  
Defines the layout and content of the header and footer in the instructor view
- **Instructor\_survey\_block\_template.html**  
Defines the content of the survey block within the instructor view (content repeated per survey)
- **Learner\_survey\_block\_template.html**  
Defines the layout and content of the header and footer in the learner view
- **Learner\_template.html**  
Defines the content of the survey block within the learner view (content repeated per survey)

The information displayed in the instructor and learner view is defined by the help of placeholders.

In the instructor view, by default the following information is displayed:

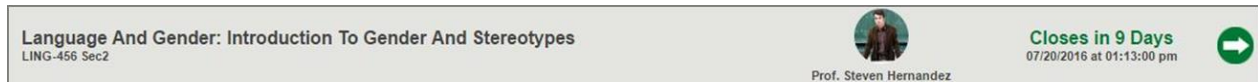
- Course name
- Course code
- Response Rate
- Enrollment number
- Open until...
- Status



**Figure 4: Instructor View**

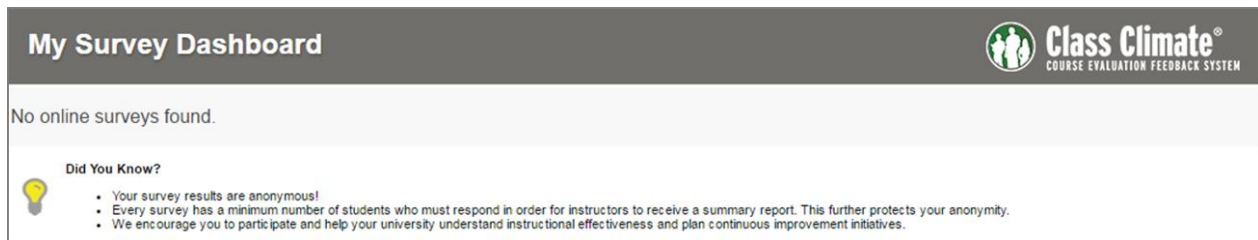
In the learner view, by default the following information is displayed:

- Course name
- Course code
- Instructor name
- Open until...
- Take Survey Button



**Figure 5: Learner View**

In both dashboards, the surveys of the current survey period are displayed by default. If there is no survey available, a corresponding message will be viewed by the learner.



**Figure 6: No surveys found**

## 2.3. Customizing your LTI Connector

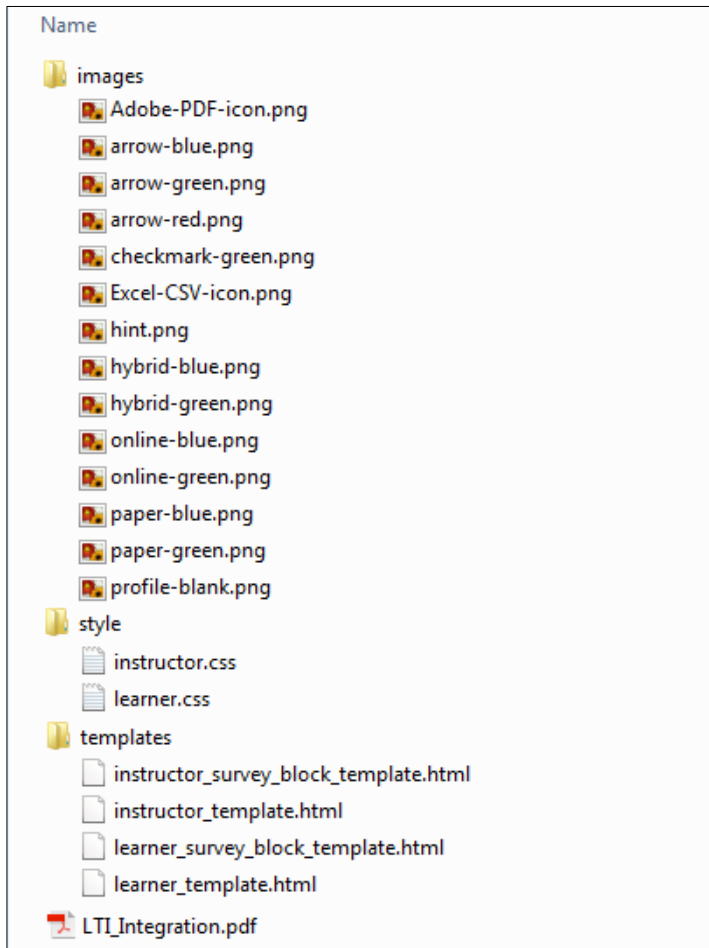
If you wish to adapt the content and layout displayed in your LMS, you can customize the LTI templates as well as the stylesheets. To do so, please download the original default templates in the menu “System Information/Sample Files”:

Type	Example file	Description
CSV	Sample CSV import	Sample file for the import of users via CSV (in the user list of a subunit, option "Import users from CSV File").
CSV	Sample CSV import (extended)	Sample file for the import of users via CSV (in the user list of a subunit, option "Import users from CSV File"). Contains additional examples for importing user data fields, external IDs etc.
CSV	Sample CSV import (modules)	Sample file for the import of modules via CSV (in the user list of a subunit, option "Import users from CSV File"). Please note: The sample file only serves to demonstrate the import. If you want to create a module survey for the imported data you will have to link module questionnaires to the assigned course types.
XML	Sample XML import	Sample file for the import of structural data via XML (menu "Subunits/Data Import/XML-Import for subunits, instructors, courses and modules")
XML	Sample XML import (modules)	Sample file for the import of structural data in the context of module evaluation (menu "Subunits/Data Import/XML-Import for subunits, instructors, courses and modules")
CSV	Sample CSV import for participants	Sample file for the import of participants of a course via CSV (for one specific course: in the details of a course, button [Edit data of participants], CSV import of participant data; for several courses: menu "Subunits/Data import/CSV-Import for participants data")
PDF	Certificate for participation in online surveys	Sample file for the import of a certificate for the participation in online surveys (menu "System Settings/Documents/PDF templates")
CSV	Question library	Sample file for the import of questions into the question library (menu "Questionnaires/Question Library/Import")
PDF	Cover letter for the PDF report	Sample file for a personalized PDF cover letter, which can precede the report for the instructors (menu "System Settings/Documents/PDF templates")
	PDF report plug-in	Sample file for PDF Report Plug-in import (menu "System Settings/Report Settings")
	LTI® Templates	Default templates for displaying Class Climate content in Learning Management Systems (LMS) when using the LTI® interface. Upload LTI® templates and CSS Stylesheets from the ZIP archive via the System Settings / Interfaces menu. For more information, see the LTI manual located in the same ZIP drive.

Figure 7: Download the default templates



The zip archive contains the four templates described in chapter 2.2 Default LTI Templates as well as the css stylesheets for the learner and instructor view (instructor.css and learner.css). In addition, it contains the LTI manual.



**Figure 8: Content of the zip archive**

### 2.3.1. Customize Templates

You can adapt the html templates to define which kind of survey data shall be displayed in the LMS and/or define logical conditions within the templates (using Java Script). The following list shows all placeholders which can be used in the templates:

Instructor & Learner Template	Description
[SURVEY_ID]	Internal Class Climate survey ID (e.g. 15306)
[SURVEY_NAME]	Name of the survey (e.g. Web Design)
[COURSE_CODE]	Course code (e.g. Co-002-A)
[INSTRUCTOR_NAME]	Name of the instructor (title, first name, surname) (e.g. Prof. Donna Harwood)
[INSTRUCTOR_IMAGE]	Path to the image of the main instructor
[SURVEY_STATUS]	Current status (e.g. In Progress, Data available)
[SURVEY_TYPE_IMAGE]	Link to graphic indicating the survey type (online.png, hybrid.png or paper.png); graphics are stored in subfolder "customer\LTI\images"
[SURVEY_TYPE_NAME]	Survey Type ("Online Survey", "Hybrid Survey", "Paper Survey")
[SURVEY_IS_ANONYMOUS]	Logical condition, value true / false
[SURVEY_IS_OPEN]	Logical condition, value true/ false
[SURVEY_PERIOD]	Survey period (e.g. 2016-1)
[SURVEY_CREATION_DATE]	Date of survey creation (e.g. 02/25/2016 at 09:18:04 am)
[SURVEY_SCHEDULED_START_DATE]	Start date defined in Scheduled Tasks (Task "PSWD to respondents") (e.g. 02/29/2016 at 09:30:00 am)
[SURVEY_SCHEDULED_END_DATE]	End date defined in Scheduled Tasks (Task "Finish survey") (e.g. 03/14/2016 at 06:00:00 pm)
[SURVEY_LAST_COLLECTION]	Date of last data collection (e.g. 03/07/2016 at 09:18:04 am)
[SURVEY_ENROLLMENT]	Number of course participants (e.g. 20)
[SURVEY_RESPONSES]	Number of responses (e.g. 18)

[SURVEY_RESPONSE_RATE]	Response Rate (e.g. 90) (consider method to calculate response rate in Class Climate, see information below)
[SECONDARY_INSTRUCTOR_NAMES]	Names of all secondary instructors divided by " " (Pipe)
[SECONDARY_INSTRUCTOR_IMAGES]	List of all paths to the images of the secondary instructors divided by " " (Pipe)
[LOAD_INSTRUCTOR_IMAGE]	Boolean ("True"/"False"), linked to the request parameter "learner_load_instructor_images"

Learner Template Only	Description
[DIRECT_ONLINE_LINK]	Direct link to online survey including PSWD
[PARTICIPATED]	Logical condition, value true/ false
[LEARNER_RESULT_ACCESS]	Boolean ("True"/"False"), linked to the option "Allow result access" in the questionnaire details
[LEARNER_RESULT_ACCESS_LINK]	Direct link to the HTML report view. Result access is limited to surveys in current period(s).

Instructor Template Only	Description
[PDF_REPORT_PATH]	URL to PDF report
[CSV_EXPORT_PATH]	URL to CSV export

After you have changed the HTML templates, please re-start the "memcached service" on the Class Climate server to ensure that the changes are taken over correctly.

In the example below, you can see an adapted HTML template. In this case, result access for students has been activated by means of the parameters [LEARNER\_RESULT\_ACCESS] and [LEARNER\_RESULT\_ACCESS\_LINK]:

**My Survey Dashboard**

**Environmental Design**  
01-AD-2634  
PhD Marie-Christine Jefferson  
Closes in 2 Days  
08/27/2017 at 05:20:00 pm

**Design Technology**  
06-AD-2734  
Emilia Thompson  
Closes in 6 Days  
08/31/2017 at 05:05:00 pm

**History and Theory of Architecture**  
02-AD-2734  
Mario Fernandez  
Submitted

**Structure, Materials and Forming Techniques**  
04-AD-2636  
Dean McPherson  
Data available

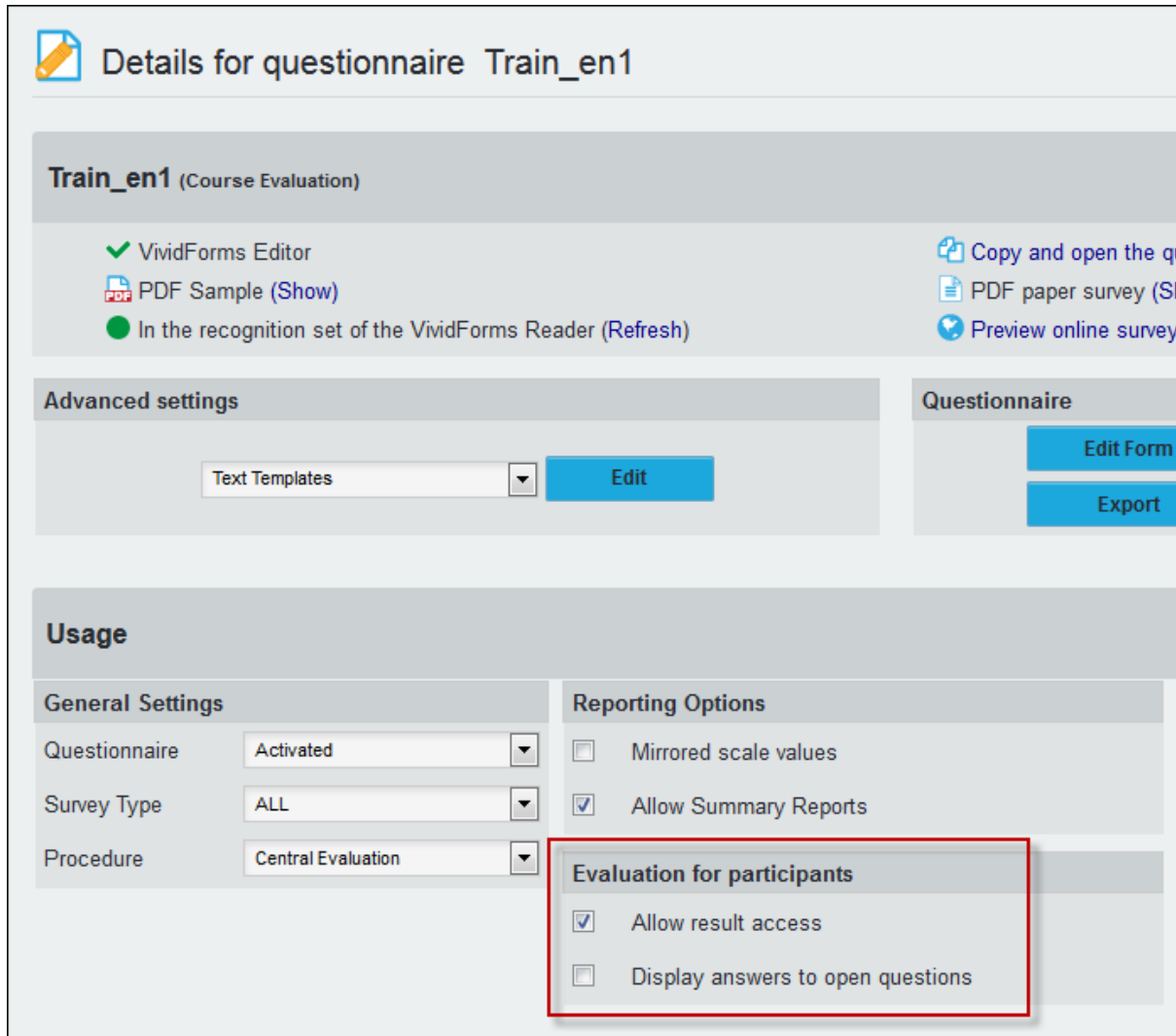
**Did You Know?**

- Your survey results are anonymous!
- Every survey has a minimum number of students who must respond in order for instructors to receive a summary report. This further protects your anonymity.
- We encourage you to participate and help your university understand instructional effectiveness and plan continuous improvement initiatives.

**Figure 9: Learner View: Access HTML report via LTI**

The results are displayed in the student view of your LMS as soon as the survey in Class Climate has been closed. Only closed surveys for the current evaluation period will be displayed.

Please note: To use this feature, as a prerequisite, you have to grant result access for the questionnaire used for your Class Climate survey.



**Figure 10: Allow result access for a questionnaire**

### 2.3.2. CSS Style Sheet

Additionally, you can adapt the CSS style sheets to change settings for fonts, colors, margins etc.

### 2.3.3. Upload templates

After you have done your changes to the html and css files, you can upload the templates in the menu “System Settings / Interfaces & Plug-ins”, tab “LTI® Interface”. Before uploading the files, please add them to a zip archive.

**Upload LTI® Template Files**

LTI® template files:

Please note: The template files uploaded here control the display of the Class Climate content in the student and/or instructor view of the Learning Management System (LMS) when using the LTI® interface. The default templates are overruled when uploading customized templates. In the menu "System Information / Sample Files" you can download the default LTI® templates and adapt them according to your needs. For further information please refer to the LTI® manual in the menu "System Information / Manuals".

**Figure 11: Upload template files**

Please note: The default templates are overruled when uploading customized templates. In the menu “System Information / Sample Files” you can download the original default LTI® templates again at any time.

### 2.3.4. Customize Images

If you wish to customize the images used for the display of survey types (placeholder [SURVEY\_TYPE\_IMAGE]), you have to change the image files directly on the Class Climate server.

- \*:\Apache\htdocs\classclimate\customer\LTI\images
- \*:\Inetpub\wwwroot\classclimate\customer\LTI\images

You can substitute the images with your own, keeping the correct file format and file name (online.png, paper.png, hybrid.png).

### 2.3.5. LMS Custom Parameters

Use the dashboard to add custom parameters directly in your LMS.

They can be divided in 2 types:

**Learner**

- order\_by\_survey\_close\_date
- learner\_survey\_types
- learner\_show\_completed\_surveys
- learner\_load\_instructor\_images
- learner\_lms\_identifier
- learner\_provider\_identifier

### Instructor

- order\_by\_survey\_close\_date
- instructor\_survey\_types
- instructor\_show\_past\_surveys\_for\_n\_previous\_periods
- instructor\_survey\_data\_access\_for\_n\_previous\_periods
- instructor\_show\_report
- instructor\_show\_export
- instructor\_plugin\_response
- instructor\_lms\_identifier

## 2.3.6. Learner Custom Parameters

*order\_by\_survey\_close\_date* = 0 or 1

Defines, if surveys in the learner and instructor view are ordered alphabetically (0) or by survey close date (1)

*learner\_survey\_types* = pipe separated “o”, “h” (e.g. “o|h” for online & hybrid surveys only)

Defines, which types of surveys are displayed in the learner view;  
o = online, h = hybrid

Default: o|h

*learner\_show\_completed\_surveys* = 0 or 1

Defines, if only open surveys are displayed in the survey list of the learner view (0) or if also completed surveys are displayed (1)

Default: 0 (only open surveys)

*learner\_load\_instructor\_images* = 0 or 1

Defines the ability to display the instructor profile picture uploading in Class Climate within the placeholders INSTRUCTOR\_IMAGE, SECONDARY\_INSTRUCTOR\_IMAGES (1)

Sets the placeholder LOAD\_INSTRUCTOR\_IMAGE

Default: 0

*learner\_lms\_identifier* = any parameter from the LTI request (e.g. “ext\_user\_username”)

Defines, which parameter from the LTI request should be used as identifier instead of the email address. Use this parameter in case the email address in the LMS differs from the email address of the participant in Class Climate.

Default: “” (the email address is taken as identifier)

*learner\_provider\_identifier* = “custom1”, “custom2”, “custom3”

Defines, which custom field of the participant in Class Climate should be used as identifier instead of the email address (e.g. if you use the LMS username as identifier, it has to be imported as a custom field of the participant)

Default: “” (the email address is taken as identifier)

### 2.3.7. Instructor Custom Parameter

*instructor\_survey\_types* = pipe separated “o”, “h”, “p” (e.g. “o|h” for online & hybrid surveys only)

Defines, which types of surveys are displayed in the survey list in the instructor view; o = online, h = hybrid, p = paper

Default: o|h|p

*instructor\_show\_report* = 0 or 1

Defines, if PDF survey reports can be opened via the survey list in the instructor view (1) or if not (0)

Default: 0 (no report)

Please note: If you activate the report function, this may increase the workload on the Class Climate server and thereby affect performance.

*instructor\_show\_export* = 0 or 1

Defines, if raw data for closed surveys can be opened via the survey list in the instructor view (1) or if not (0)

Default: 0 (no export)

Please note: If you activate the export function, this may increase the workload on the Class Climate server and thereby affect performance.

*instructor\_show\_past\_surveys\_for\_n\_previous\_periods* = 0 to X

Defines, if only surveys of the current survey period are displayed (0) or if surveys of former periods are displayed as well.

Default: 0 (only current surveys). X would be the number of past periods (X is a positive integer)

*instructor\_survey\_data\_access\_for\_n\_previous\_periods* = 0 to X

Defines, if you want to display survey information for a particular number of past periods.

Default: 0 (only current surveys). X would be the number of past periods (X is a positive integer)

*order\_by\_survey\_close\_date* = 0 or 1

Defines, if surveys in the learner and instructor view are ordered alphabetically (0) or by survey close date (1)

*instructor\_plugin\_response* = the plug-in name (e.g. BringYourOwnDevice)

Defines, if the survey list in the instructor view should be replaced by a plug-in content. All plug-ins, which are available for the instructor user role, can be displayed in the LMS. The instructor is automatically logged in and the default instructor view is replaced by the plug-in content. Below, you can see a sample of the plug-in “Bring your own device” displayed in Moodle:



**Figure 12: Plug-in in Moodle**

Apart from the plug-ins provided by Scantron you can also use your own plug-ins to be displayed in the LMS. The plug-in which you would like to show first has to be uploaded via the Class Climate menu “Interfaces & Plug-ins”. After this, it can be called via LTI with the help of the custom parameter.

Please note that the plug-in will substitute the instructor’s survey list which is displayed by default, so it will be displayed instead of the survey list.

*instructor\_lms\_identifier* = any parameter from the LTI request (e.g. “ext\_user\_username”)

Defines, which parameter from the LTI request should be used as identifier instead of the email address. Use this parameter in case the email address in the LMS differs from the email address of the instructor in Class Climate.

Please note: If you use this parameter, the identifier is matched against the external ID of the instructor. Therefore, the usage of external IDs must be activated in Class Climate.

Default: “” (the email address is taken as identifier)



## 2.4. Settings within Class Climate

The unique identifier and connector for instructors and learners is the email-address stored in Class Climate and in the LMS tool you are using.

### 2.4.1. Learner Settings

In case of learners, the system checks for each learner stored in the LMS database which of the open online surveys running on the Class Climate server contains the same learner's email address. If there are open online surveys for an email address, the surveys will be displayed in the learners LMS account.

When you set up or import courses in Class Climate, it is therefore necessary to also import the participants email addresses for each course.

Participants can be imported in a CSV file format that includes a course ID followed by an e-mail address for each line.

*Example:*

*MA05Wiw2; person01 @localserver.com*

*MA05Wiw2; person02 @localserver.com*

*MA05Wiw2; person03 @localserver.com*

*MA05Con; person01 @localserver.com*

*MA05Con; person03 @localserver.com*

*MA05Con; person04 @localserver.com*

*MA05Con; person05 @localserver.com*

This example shows two courses with three and four participants each. Some of the participants are attending both courses, some only one of both.

Before importing the participant data into Class Climate you will need to setup the subunits, questionnaires, instructors and courses. It is essential that the course IDs set for the courses are identical to those being used in the participant import file since they serve as a reference.

It is possible to use a different identifier than the e-mail address. In this case, it is necessary to import the identifier by using the additional fields for participant information.

When importing the participant data for an anonymous survey, the course ID and the email address, as well as the LMS user name, are uploaded. An example CSV import file could look like this:

Course ID	Email address					Custom field 1	Custom field 2	Custom field 3
A	B	C	D	E	F	G	H	I
VWL006	t1@example.com					LMS User Name 1		
VWL006	t2@example.com					LMS User Name 2		
VWL006	t3@example.com					LMS User Name 3		
VWL006	t4@example.com					LMS User Name 4		
VWL006	t5@example.com					LMS User Name 5		

**Figure 13: Import file with LTI name in the custom field**

Please note that you have to adhere to the correct format of the import file. In LTI you have to define which of the Class Climate user data fields has to be matched with the LMS user name.

Please refer to chapter 2.2.3 “Import of Course Participants’ Email Addresses” of the Class Climate User Guide for more information about the participants’ data import process.

Scantron also offers professional services to help convert your data into the XML format needed by Class Climate. It is also possible to create the courses manually within the Class Climate interface or to create simpler, Excel-based CSV import files for each sub-unit. Please refer to section 2.2.1 “CSV-Import within Subunits” of the Class Climate User Guide for more information about the CSV import process.

## 2.4.2. Instructor Settings

In case of instructors, the instructor’s email address has to be defined in the corresponding Class Climate user profile as well as in his LMS user profile. The system checks for each instructor stored in the LMS database which surveys are available for the instructor’s email address and displays the surveys in the instructor’s LMS account.

It is possible to use an external ID instead of the e-mail address. In this case it is necessary to set an external ID for the instructors. The LMS name used in the LMS must match with the information stored in the “External ID” field of the instructor.

The screenshot shows a user profile editing interface titled "Change the attributes of the user". The form contains the following fields and values:

- Title: Mr. (dropdown menu)
- First name: Demetrius
- Last name: Bowlin
- external ID: LMS-Name-1 (highlighted with a red box)
- Email: Demetrius.Bowlin@example.com
- Phone: (empty field)

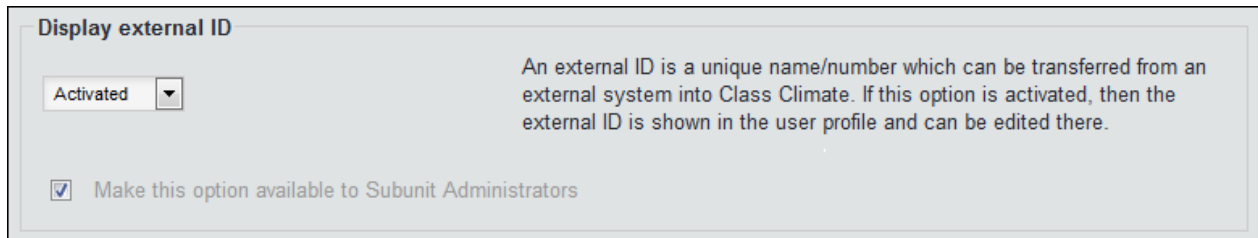
**Figure 14: Instructor’s external ID**

Of course, you can also import this information. When doing a CSV import, you have to use a column with the column label USER\_EXTERNAL\_ID. For further information on external IDs please refer to the Class Climate User Guide.

**Please note:** If an instructor is stored in more than one Class Climate subunit with the same email address, then the survey data can only be displayed in the instructor’s LMS account if you are using External IDs to connect the instructor accounts in Class Climate. If you do not use External IDs, then the data will not be displayed!

The same is true for courses or modules with secondary instructors: The data of these surveys will not be displayed in the instructor’s LMS account if there is no External ID defined for the instructor.

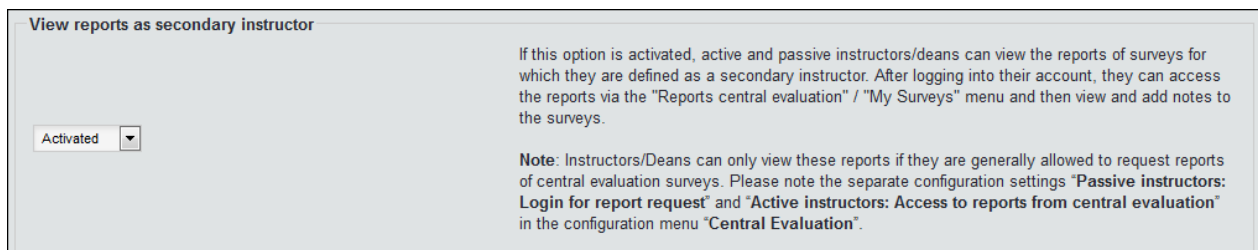
The use of External IDs is not activated by default. To activate the function, go to “System Settings / Class Climate Settings / Functions / General” and activate the option “Display external ID”.



**Figure 15: Activate External ID**

When activated, for each instructor an External ID can be defined or imported. For further information on the use of External IDs please refer to the Class Climate User Guide, chapter 2.1.2 “Generating and Managing User Accounts”, section “Using External IDs”.

In order to display survey data of courses an instructor is defined for as secondary instructor (e.g. module courses), the corresponding setting has to be activated in the Class Climate settings as well. To do this, go to “System Settings / Class Climate Settings / Data Privacy” and activate the option “View reports as secondary instructor”.



**Figure 16: View reports as secondary instructor**

### 2.4.3. Survey Settings

In the learners view, by default only those online surveys are displayed which are currently open. Surveys which have been prepared but are still closed, or surveys which have been finished, will not be displayed.

The easiest way to control the display of online surveys in the learner’s view is via the Class Climate “Scheduled Tasks”. If you create your online surveys in Class Climate, you can activate “Time Control” and define a date when to “Send PSWDs to respondents” and when to “Finish Survey”. Within the time frame of these two scheduled tasks the survey will be displayed in the LMS student’s view.

**Scheduled Tasks**

History of liberalism (Demo1, WS16/17)

<b>1. PSWD to respondents</b> 03/01/2017 at 02:32:00 pm Edit	<b>2. Online survey reminder</b> Deactivated Edit	<b>3. Response Rate Notification</b> Deactivated Edit	<b>4. Finish survey</b> Deactivated Edit
--	---	---	--

Deactivate

Date: 03/01/2017 at 02:32:00 pm

Inform the instructor of the course about the PSWD dispatch.  
(Please use the text template "Notification to the instructor about the survey start" for this task. It can be edited in the "Text Templates" menu.)

Note: Please note that due to the execution of additional tasks, there could be small delays in processing.

Sender (email): admin@example.com  
Sender (name): John Doe  
Recipient (max. 25): victor.north@sample.com, natalie.ball@sample.com, kimberly.pullman@sample.com, jennifer.dickens@sample.com, brian.marshall@sample.com

Reference: Online survey

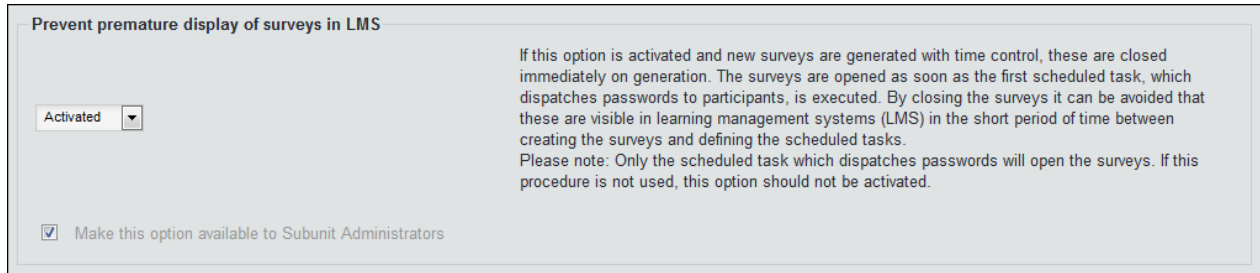
Text:  
This email entitles you to vote in an online survey. Please click on the link below and enter the password to gain access to the survey.  
The password: [PSWD]  
Survey location: [SERVER]

Save

**Figure 17: Define Scheduled Tasks**

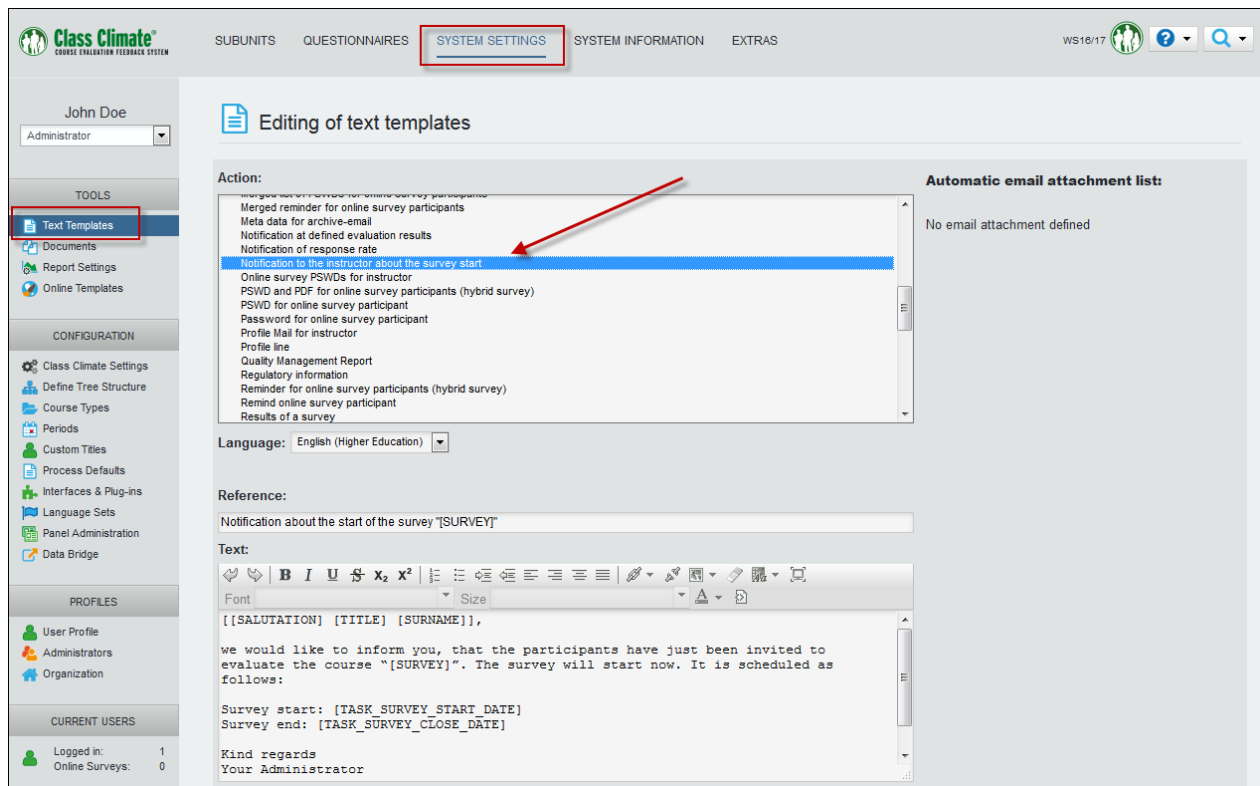
If you are using “Scheduled Tasks”, you should activate the option “Prevent premature display of surveys in LMS” in “System Settings / Class Climate Settings / Survey Online”. This way, the links to online surveys will not be displayed directly after the survey has been generated, but only after the first Scheduled Task date.

If you do not activate this option, the survey will be displayed directly after survey generation.



**Figure 18: Prevent premature display of surveys in LMS**

If desired, you can inform the instructor about the survey start when sending the PSWDs by activating the corresponding checkbox in the “Scheduled Tasks” (see above figure Figure 17). This way, the instructor can be notified that there will be a new survey displayed in the instructor view. There is a text template available in the menu “System Settings / Text Templates” so that the email text can be adapted beforehand.



**Figure 19: Informing the instructor about the survey start**

For further information on Scheduled Tasks please refer to the Class Climate User Guide, chapter 3.10.1 “Time Control”.

If you do not wish to work with Scheduled Tasks, you can also manually control the display of surveys in the LMS by manually locking and unlocking the online surveys.

You can lock or unlock each survey individually in the survey list or survey details by clicking on the lock icon, or you can lock and unlock all surveys of the current period for

a whole subunit by clicking on the lock icon below the user list. This helps you control the visibility of available online surveys in the LMS.

Users in subunit Demo Subunit Help

Name	CO	Surveys	Created	Actions
SU Admin (Subunit Administrator, Report Creator, Verifier, Data Entry Assistant)			01/14/2016	
Peter Harris	[ 4 ]	4 / 4	04/28/2015	
Donna Harwood	[ 5 ]	8 / 8 *	07/12/2014	
Carlos Hernandez	[ 6 ]	7 / 7 *	07/12/2014	
Grace Huddle	[ 3 ]	3 / 3	07/12/2014	
Richelle Meyer	[ 3 ]	0 / 0	07/12/2014	
Jasmine Sadhi	[ 6 ]	4 / 4	07/12/2014	

\* This user has one or more surveys from active accounts or module surveys. These surveys are listed here even though there is no corresponding course.

Select all   
Move selected to: Sample Neutral Subunit ▼  
Move   
Delete

Create New User
Create New Module

**Import Users from CSV File:**

No file selected.

Browse...

Import

CSV file contains a column with information whether the course has seen

**Export user list as a CSV file:**

(all courses will be exported)

Export

Lock/Unlock Online Surveys:

Lock/Unlock Online Surveys:

**Figure 20: Lock / Unlock Online Surveys**

In the default instructor's view, all surveys of the current evaluation period are displayed, independent of the survey status.

### 3. Configuring LTI for Learning Management Systems (LMS)

The following chapters will explain how to set up the LTI connection to Class Climate in the different LMS tools.

#### 3.1. Blackboard

To connect Class Climate and Blackboard via LTI, a new LTI tool has to be added and configured in Blackboard. In the following chapters, the relevant steps are described.

##### 3.1.1. Adding a new LTI Tool

Log in to Blackboard as administrator.

Select “System Admin” from the top navigation bar, then select Building Blocks.

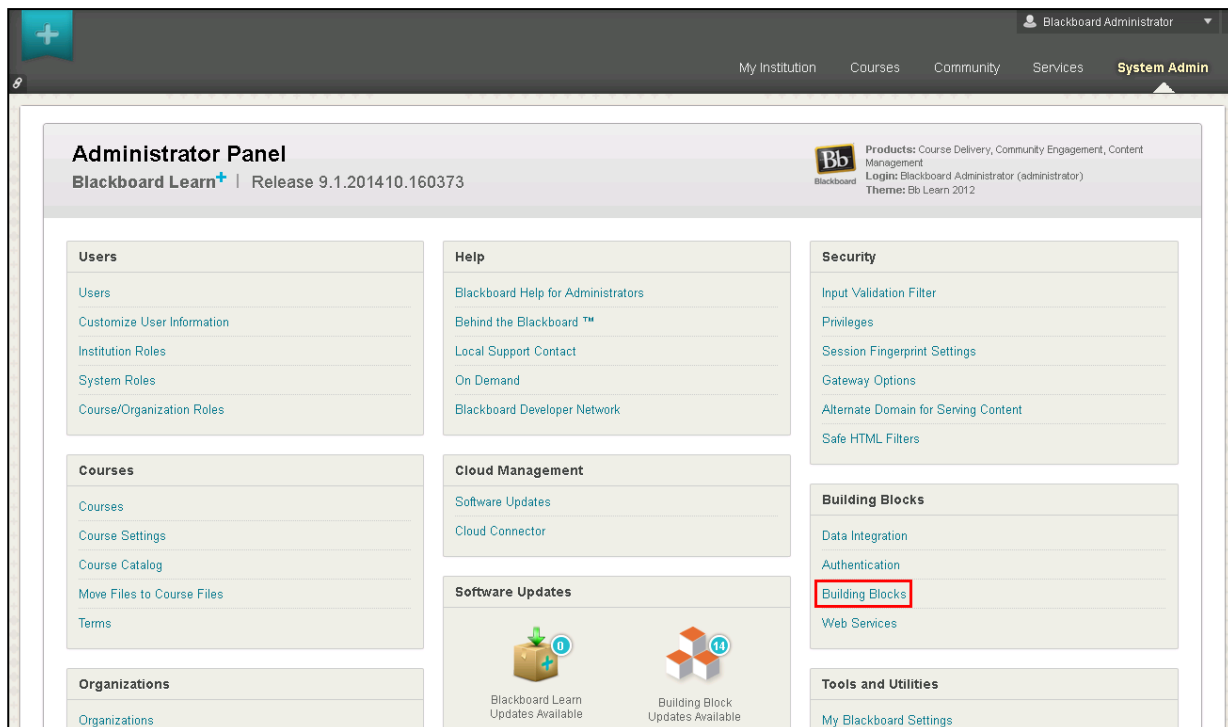


Figure 21: Building Blocks

Next, select LTI Tool Providers.

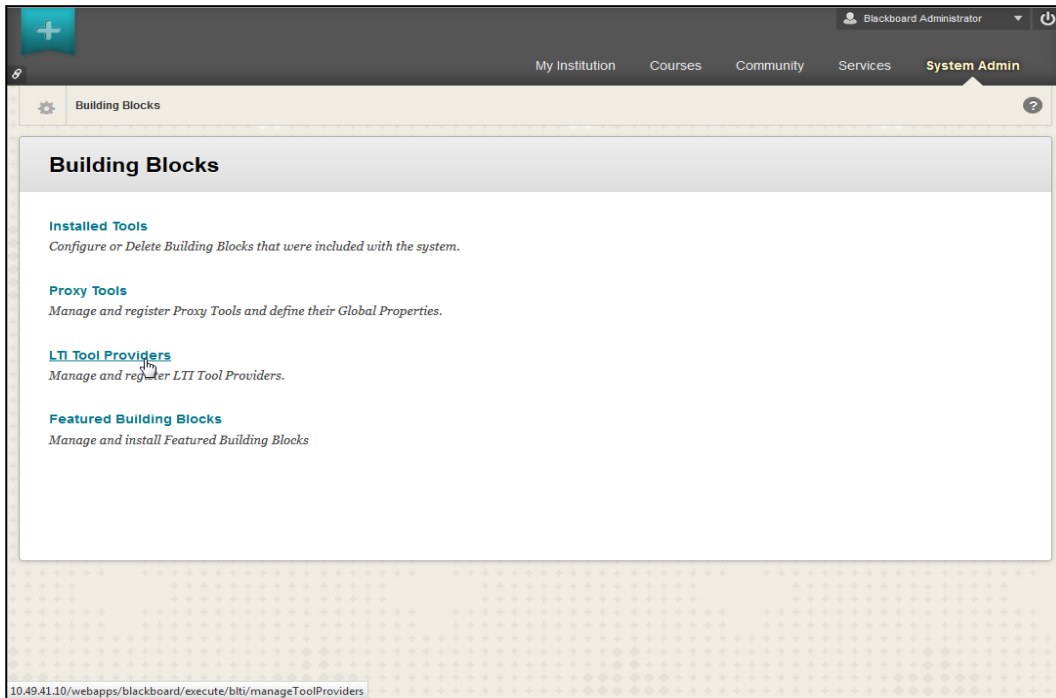


Figure 22: LTI Tool Providers

Use the Register Provider Domain option to create additional LTI Tool Providers.

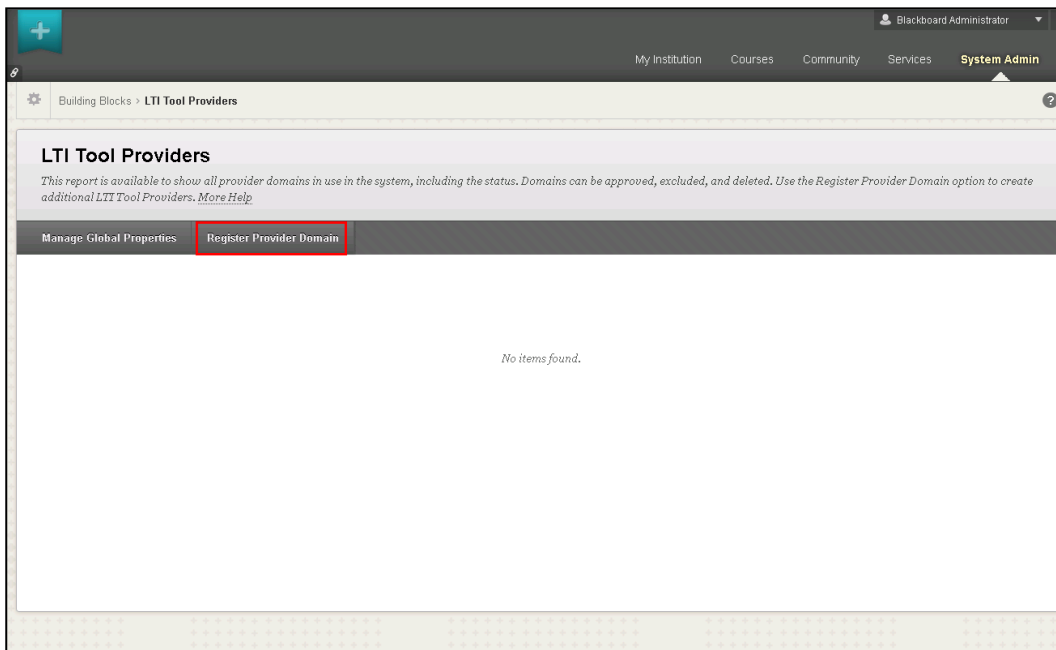


Figure 23: Register Provider Domain



### 3.1.2. Editing LTI Tool

This section contains the mandatory properties of the tool:

- Provider Domain
- Default Configuration
- Tool Provider Key
- Tool Provider Secret
- Send User Date
- User Fields to Send

The Provider Domain should be the IP or hostname of your Class Climate system and must be a HTTPS URL without any parameters, similar to this:

[https://<hostname>/classclimate/customer/lti/lti\\_provider.php](https://<hostname>/classclimate/customer/lti/lti_provider.php).

For “Default Configuration” choose “Set globally”.

The “Tool Provider Key” is “12345”.

The “Tool Provider Secret” is defined in the Class Climate menu “Interfaces and Plug-ins / LTI® Interface” (see above chapter 2.1).

In the “Tool Provider Custom Parameters” box you may add one or more of the parameters described in the section LMS Custom Parameters.

The screenshot shows the Blackboard Administrator interface for the 'Register Provider Domain' page. The page title is 'Register Provider Domain' with a subtitle: 'Create a new registered provider domain, configure, and set policies. The provider domain, and secondary hostnames must be unique.' There are 'Cancel' and 'Submit' buttons at the top right. The page is divided into sections: 'PROVIDER DOMAIN STATUS' and 'DEFAULT CONFIGURATION'. Under 'PROVIDER DOMAIN STATUS', there is a 'Provider Domain' field with the value '148.251.90.171', a 'Provider Domain Status' section with radio buttons for 'Approved' (selected) and 'Excluded', and a 'Secondary Hostnames' text area with the instruction 'Enter one hostname per line.' Under 'DEFAULT CONFIGURATION', there is a 'Default Configuration' section with radio buttons for 'Set separately for each link' and 'Set globally' (selected). Below this are 'Tool Provider Key' and 'Tool Provider Secret' text input fields, and a 'Tool Provider Custom Parameters' text area.

**Figure 24: Register Provider Domain settings I**

In the “Institution Policies” section, the option “Send User Data” should be set to “Send user data over any connection”. As “User Fields to send” select “Email Address” and “Role in Course”.

**INSTITUTION POLICIES**

Choose whether you want to override the institution policies for this specific tool provider domain.

**Send User Data**

- Never
- Send user data only over SSL
- Send user data over any connection

**User Fields to Send**

- Role in Course
- Name
- Email Address

**Show User Acknowledgment Message**

- Yes
- No

**Message Text**

Path: p Words: 0

**Figure 25: Register Provider Domain settings II**

After setting all these details, press “Submit” to create the LTI Tool.

### 3.1.3. Managing Placement

In order to reach the LTI Tool logged in as a student, a placement has to be created, which includes all the basic settings (displayed name, tool provider URL etc.).

Press “Manage Placement” and then “Create Placement” to set the placement’s details.

Blackboard Administrator

My Institution Courses Community Services **System Admin**

Building Blocks > LTI Tool Providers

Success: Provider Domain Registered: 148.251.90.171.

**LTI Tool Providers**

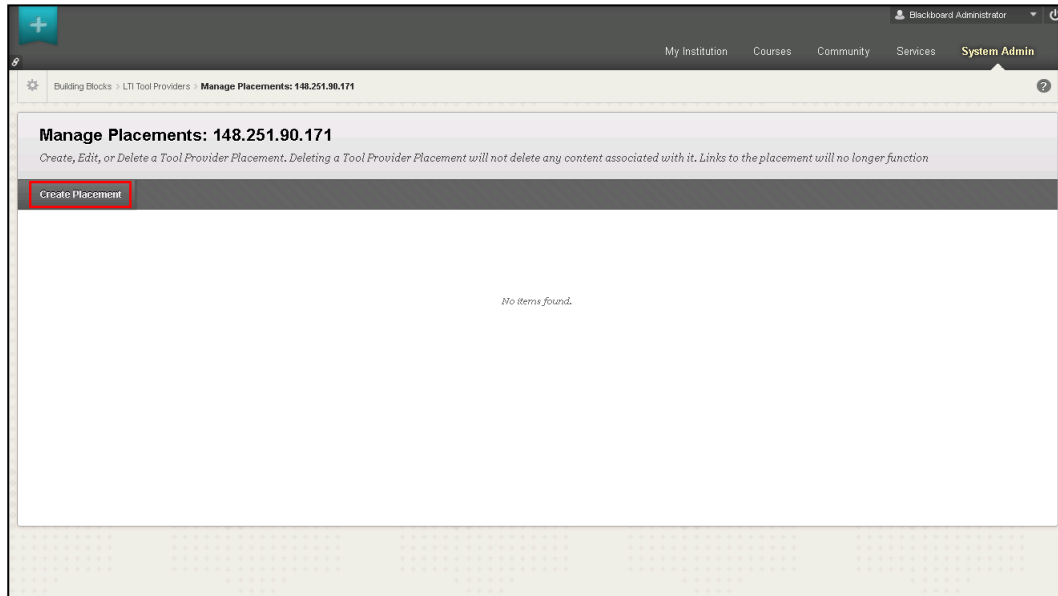
This report is available to show all provider domains in use in the system, including the status. Domains can be approved, excluded, and deleted. Use the Register Provider Domain option to create additional LTI Tool Providers. [More Help](#)

Manage Global Properties Register Provider Domain

Domain	Status	Credentials	Sends User Data	User Acknowledgment Page	Placements	Usage Count
148.251.90.171	Approved	Site	Email	No	0	0

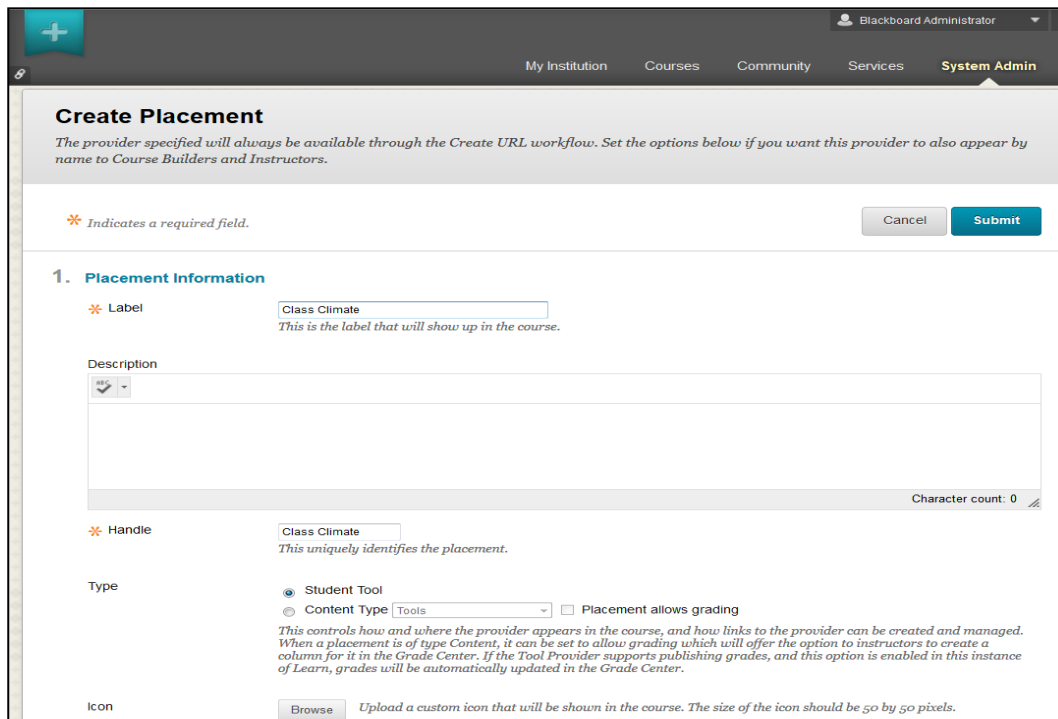
Displaying 1 to 1 of 1 items Show All Edit Paging...

**Figure 26: Manage Placements**



**Figure 27: Create Placement I.**

First, define the name of the LTI Tool, that the students would see (Label), then the unique name of the placement (Handle). The type should be set to Student Tool.



**Figure 28: Create Placement II.**

*This controls how and where the provider appears in the course, and how links to the provider can be created and managed. When a placement is of type Content, it can be set to allow grading which will offer the option to instructors to create a column for it in the Grade Center. If the Tool Provider supports publishing grades, and this option is enabled in this instance of Learn, grades will be automatically updated in the Grade Center.*

Icon  Upload a custom icon that will be shown in the course. The size of the icon should be 50 by 50 pixels.

---

**TOOL PROVIDER INFORMATION**

*Enter the Tool Provider Information. The Tool Provider URL must be located on one of the configured host names.*

✦ Tool Provider URL

✦ Tool Provider Key

✦ Tool Provider Secret

Tool Provider Custom Parameters

*Enter any custom parameters required by the tool provider. Parameters must each be on their own line and be entered in "name=value" format.*

Click **Submit** to proceed. Click **Cancel** to go back.

**Figure 29: Create Placement III.**

Once the settings are done, press "Submit".

Add the Tool link to the table of content. This can be added globally.

### 3.1.4. Blackboard Sample Screenshots

Class Climate LTI Integration in Blackboard:

The screenshot shows the Blackboard interface for a student. At the top, there's a navigation bar with "My Institution", "Courses", "Community", and "Services". Below that, the page title is "Environmental Design" and "Class Climate Surveys". The main content area is titled "My Survey Dashboard" and features the Class Climate logo. It lists four surveys:

- Environmental Design** (01-AD-2634): Closes in 2 Days (08/27/2017 at 05:20:00 pm) with a red arrow icon. Instructor: PHD Marie-Christine Jefferson.
- Design Technology** (06-AD-2734): Closes in 6 Days (08/31/2017 at 05:05:00 pm) with a green arrow icon. Instructor: Emilia Thompson.
- History and Theory of Architecture** (02-AD-2734): Submitted with a green checkmark icon. Instructor: Mario Fernandez.
- Structure, Materials and Forming Techniques** (04-AD-2636): Data available with a bar chart icon. Instructor: Dean McPherson.

At the bottom, there's a "Did You Know?" section with a lightbulb icon and three bullet points:

- Your survey results are anonymous!
- Every survey has a minimum number of students who must respond in order for instructors to receive a summary report. This further protects your anonymity.
- We encourage you to participate and help your university understand instructional effectiveness and plan continuous improvement initiatives.

**Figure 30: Blackboard Student View**

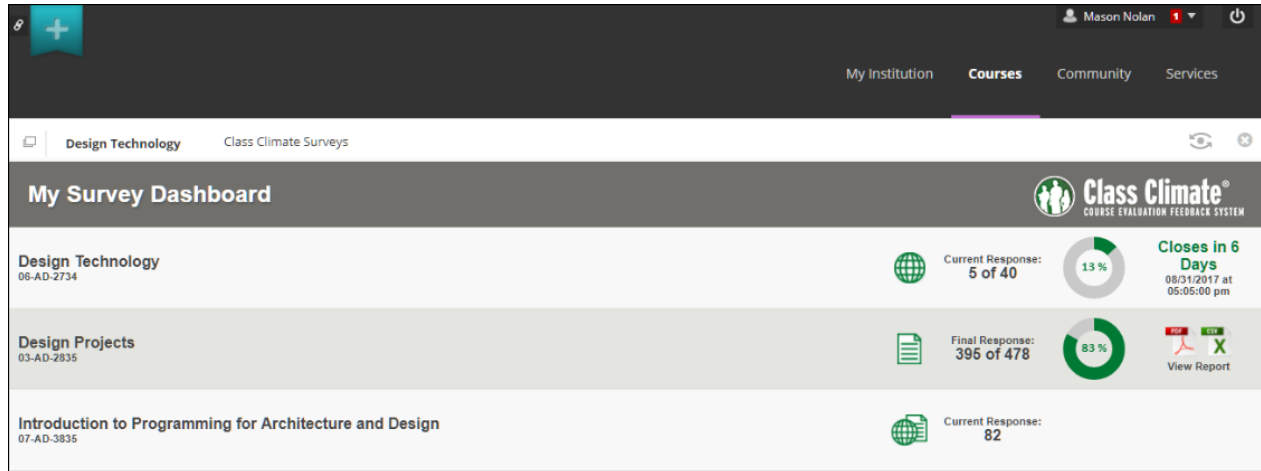


Figure 31: Blackboard Lecturer View

## 3.2. Moodle

To connect Class Climate and Moodle via LTI, a new LTI tool has to be added and configured in Moodle. In the following chapters, the relevant steps are described.

### 3.2.1. Adding a new LTI Tool

To add a new LTI tool, log in to Moodle as an administrator and turn on editing by clicking the option “Turn editing on” in the “Administration” section.

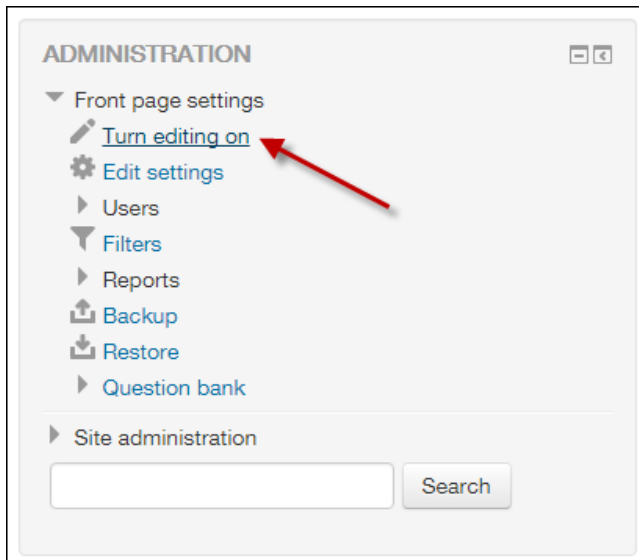


Figure 32: Turning editing on

Open the drop-down list, “Add an activity...”. Select the option “External tool”.

The screenshot shows a user interface for adding activities. At the top right, there are two dropdown menus: "Add a resource..." and "Add an activity...". The "Add an activity..." dropdown is open, showing a list of options: "Add an activity...", "Assignment", "Chat", "Choice", "Database", "External tool" (highlighted in blue), "Forum", "Glossary", "Lesson", "Quiz", "SCORM package", "Survey", "Wiki", and "Workshop". A red arrow points from the text above to the "External tool" option. Below the dropdowns, there is a section titled "Available courses" with three course cards: "LTI Test Course QA", "LTI Test Course", and "Moodle Course". At the bottom left, there is a button labeled "Add a new course".

**Figure 33: Add External Tool**

Click the + icon next to “Preconfigured tool”.

The screenshot shows a form titled "Adding a new External tool" with a puzzle piece icon. There is a link "Expand all" on the right. The form is organized into sections: "General", "Privacy", "Grade", "Common module settings", "Tags", and "Competencies". In the "General" section, there are three input fields: "Activity name\*" (empty), "Preconfigured tool" (set to "Automatic, based on launch URL" with a dropdown arrow), and "Launch/cartridge URL" (empty). To the right of the "Preconfigured tool" dropdown is a "+" icon, which is highlighted by a red arrow. Below the "Launch/cartridge URL" field is a "Show more..." link. At the bottom of the form, there are three buttons: "Save and return to course", "Save and display", and "Cancel".

**Figure 34: Add a new external tool**

In the “External tool configuration”, you can now define the settings for the Class Climate LTI integration.

## External tool configuration

▼ Tool settings

**Tool name\*** ⓘ

**Tool base URL\*** ⓘ

**Consumer key** ⓘ

**Shared secret** ⓘ   Unmask

**Custom parameters** ⓘ

**Default launch container** ⓘ  ▼

[Show more...](#)

▼ Privacy

**Share launcher's name with tool** ⓘ  ▼

**Share launcher's email with tool** ⓘ  ▼

**Accept grades from the tool** ⓘ  ▼

Force SSL

**Figure 35: External tool configuration**

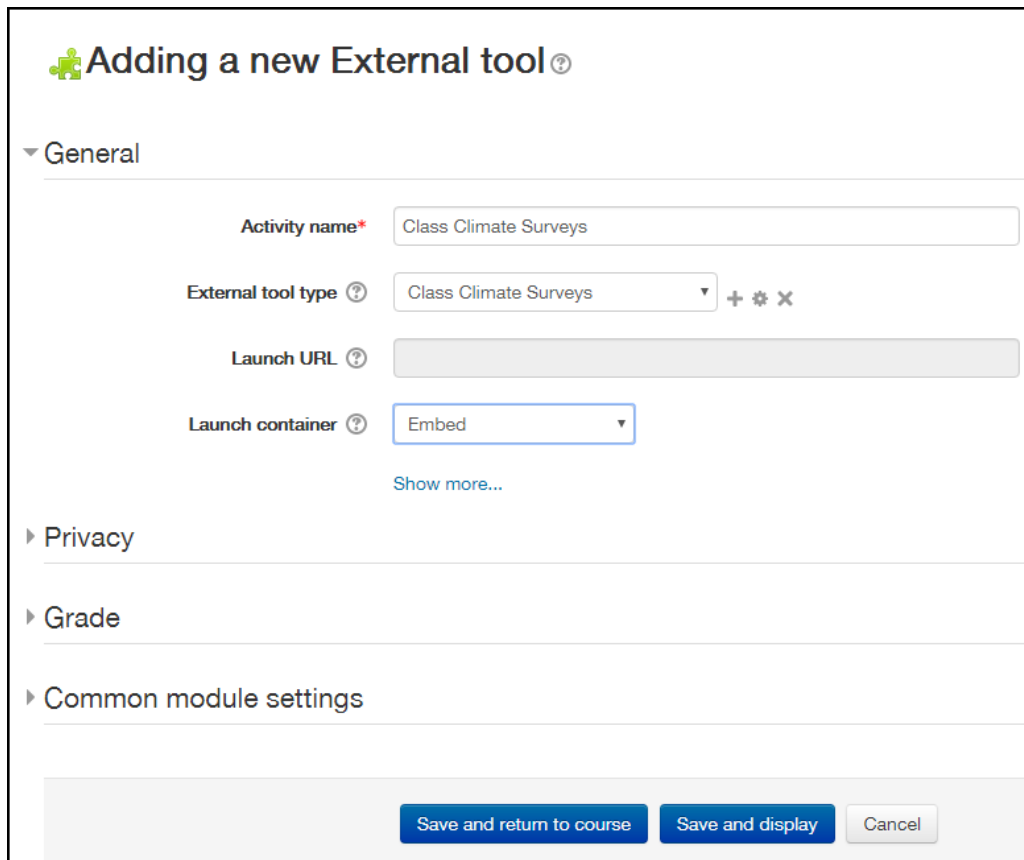
Enter the following information:

- Tool Name: e.g “Class Climate Surveys”
- Tool base URL: Customer specific URL to the Class Climate server, e.g. [https://<hostname>/classclimate/customer/lti/lti\\_provider.php](https://<hostname>/classclimate/customer/lti/lti_provider.php)
- Consumer Key: “12345”
- Shared Secret: e.g. “secret”, defined in the Class Climate menu “Interfaces and Plug-ins / LTI<sup>®</sup> Interface” (see above chapter 2.1)

- In the “Custom Parameters” box you may add one or more of the parameters described in the section LMS Custom Parameters.
- Default launch container: “Embed”

Click [Save Changes] to return to the prior view.

Enter an Activity name and select the external tool type you have just created from the drop-down list. Click [Save and return to course].



**Adding a new External tool** ⓘ

▼ General

**Activity name\***

**External tool type** ⓘ  + \* x

**Launch URL** ⓘ

**Launch container** ⓘ

[Show more...](#)

▸ Privacy

▸ Grade

▸ Common module settings

**Figure 36: Add external tool**



### 3.2.2. Adding the LTI tool to a course

If you want to add the tool to a course, open the course, open “Add an activity...” and select “External tool”.

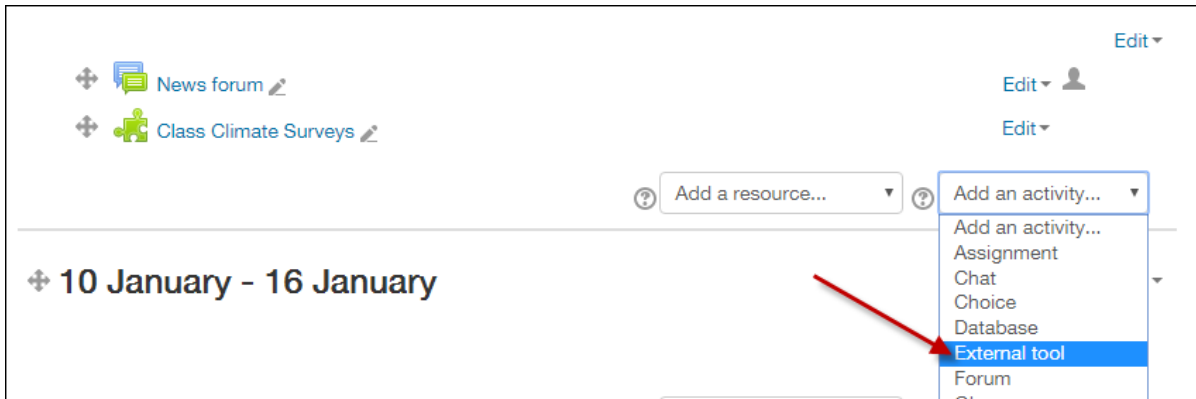


Figure 37: Add activity to course

Enter an Activity Name and select your Class Climate Surveys tool type from the Global tool types section.

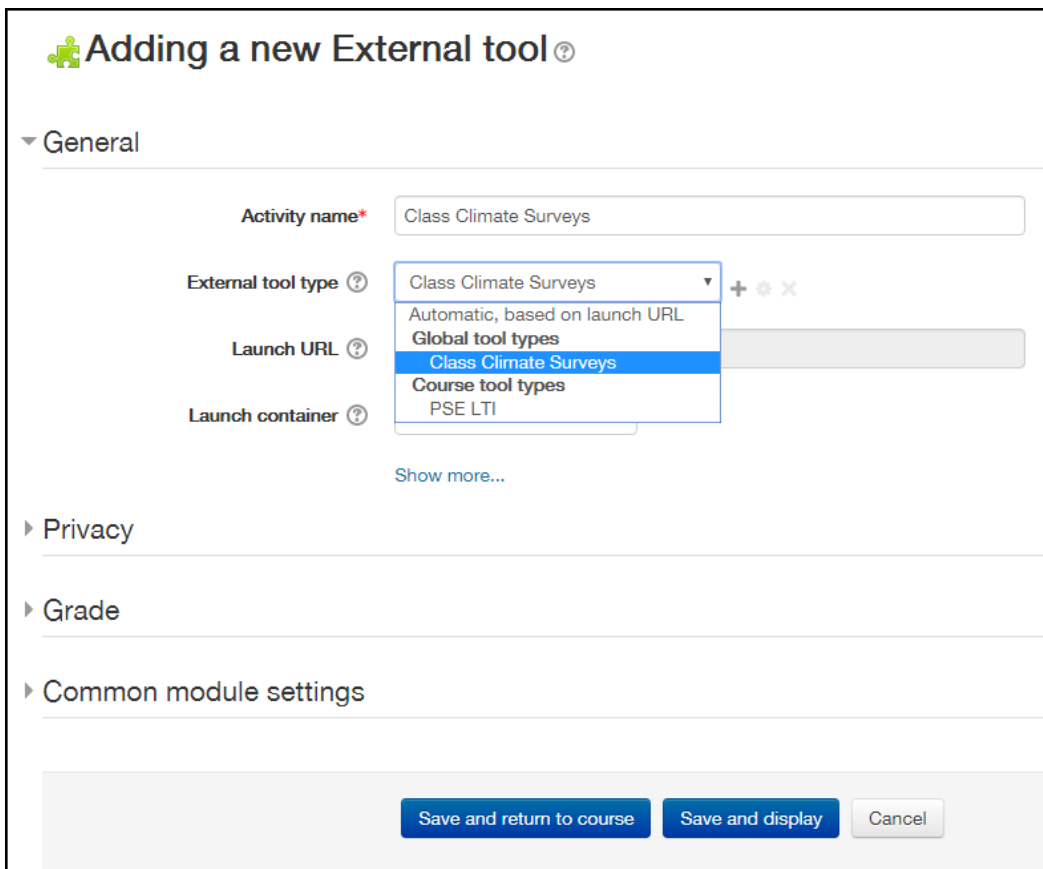


Figure 38: Select external tool type

Click [Save and return to course]. The activity will now be displayed at the top of the page.

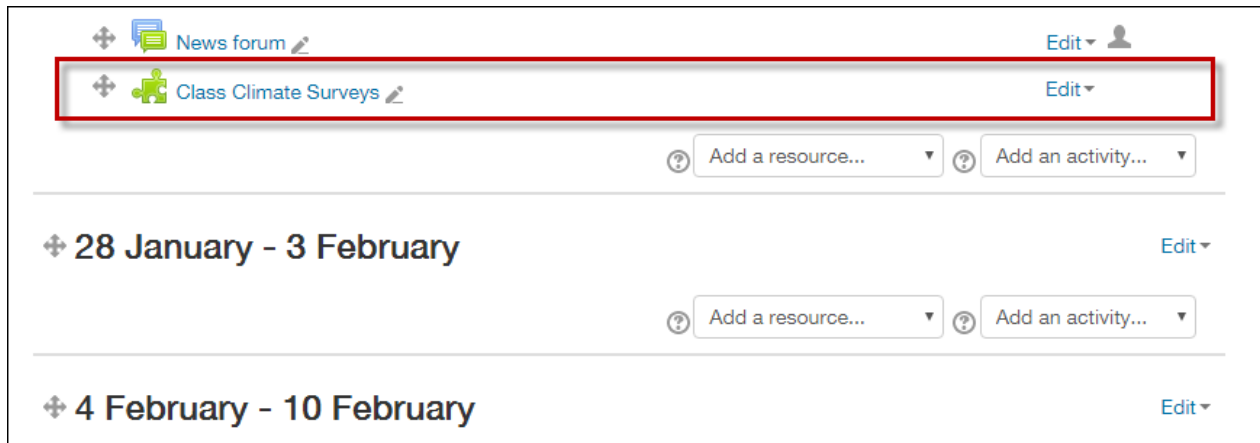


Figure 39: Activity added to course

### 3.2.3. Moodle Sample Screenshots

Class Climate LTI Integration in Moodle:

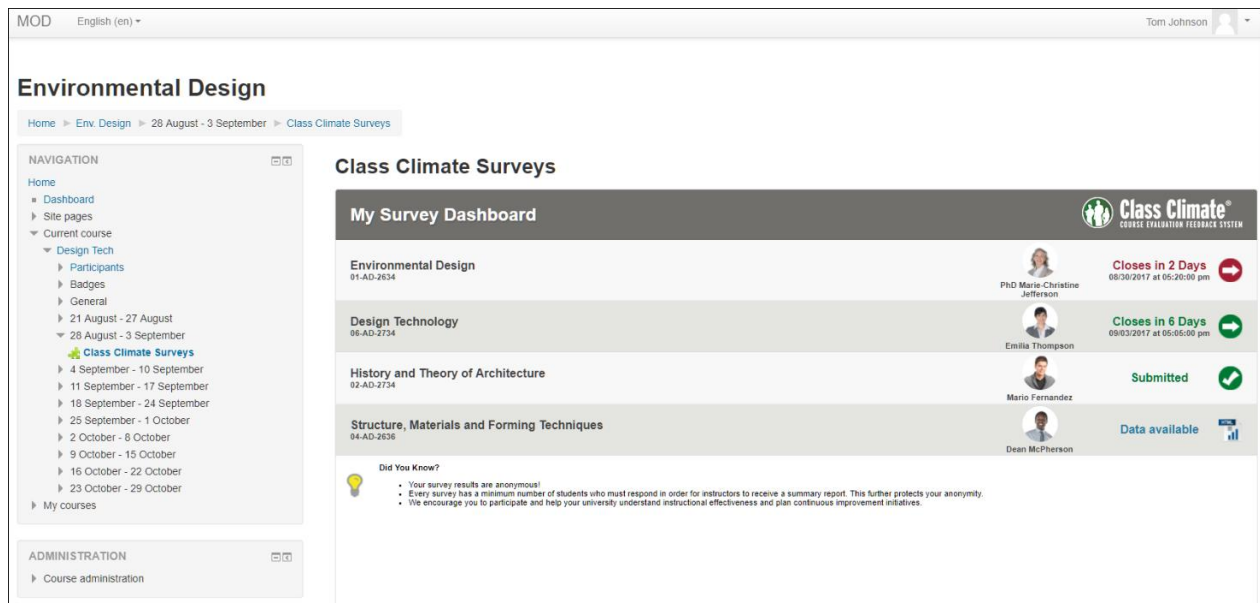


Figure 40: Student View

MOD English (en) Emilia Thompson

## Design Technology

Home > Design Tech > 28 August - 3 September > Class Climate Surveys

**NAVIGATION**

- Home
- Dashboard
- Site pages
- Current course
  - Design Tech
    - Participants
    - Badges
    - General
    - 21 August - 27 August
    - 28 August - 3 September
      - Class Climate Surveys**
      - 4 September - 10 September
      - 11 September - 17 September
      - 18 September - 24 September
      - 25 September - 1 October
      - 2 October - 8 October
      - 9 October - 15 October
      - 16 October - 22 October
      - 23 October - 29 October
- My courses

### Class Climate Surveys

#### My Survey Dashboard

Survey Name	Code	Current Response	Final Response	Progress	Additional Info
Design Technology	06-AD-2734	5 of 40	13%		Closes in 6 Days 09/03/2017 at 06:05:06 pm
Design Projects	03-AD-2835	395 of 478	83%		View Report
Introduction to Programming for Architecture and Design	07-AD-3835	82			

**ADMINISTRATION**

- External tool administration
  - Edit settings
  - Locally assigned roles
  - Permissions
  - Check permissions
  - Filters
  - Logs
  - Backup
  - Restore
- Course administration
- Switch role to...

**Figure 41: Lecturer View**

### 3.3. BrightSpace<sup>®</sup> by D2L

In this section the installation steps are described which are to be conducted after logging in as a BrightSpace<sup>®</sup> by D2L Administrator. It is possible to setup the LTI link in three ways:

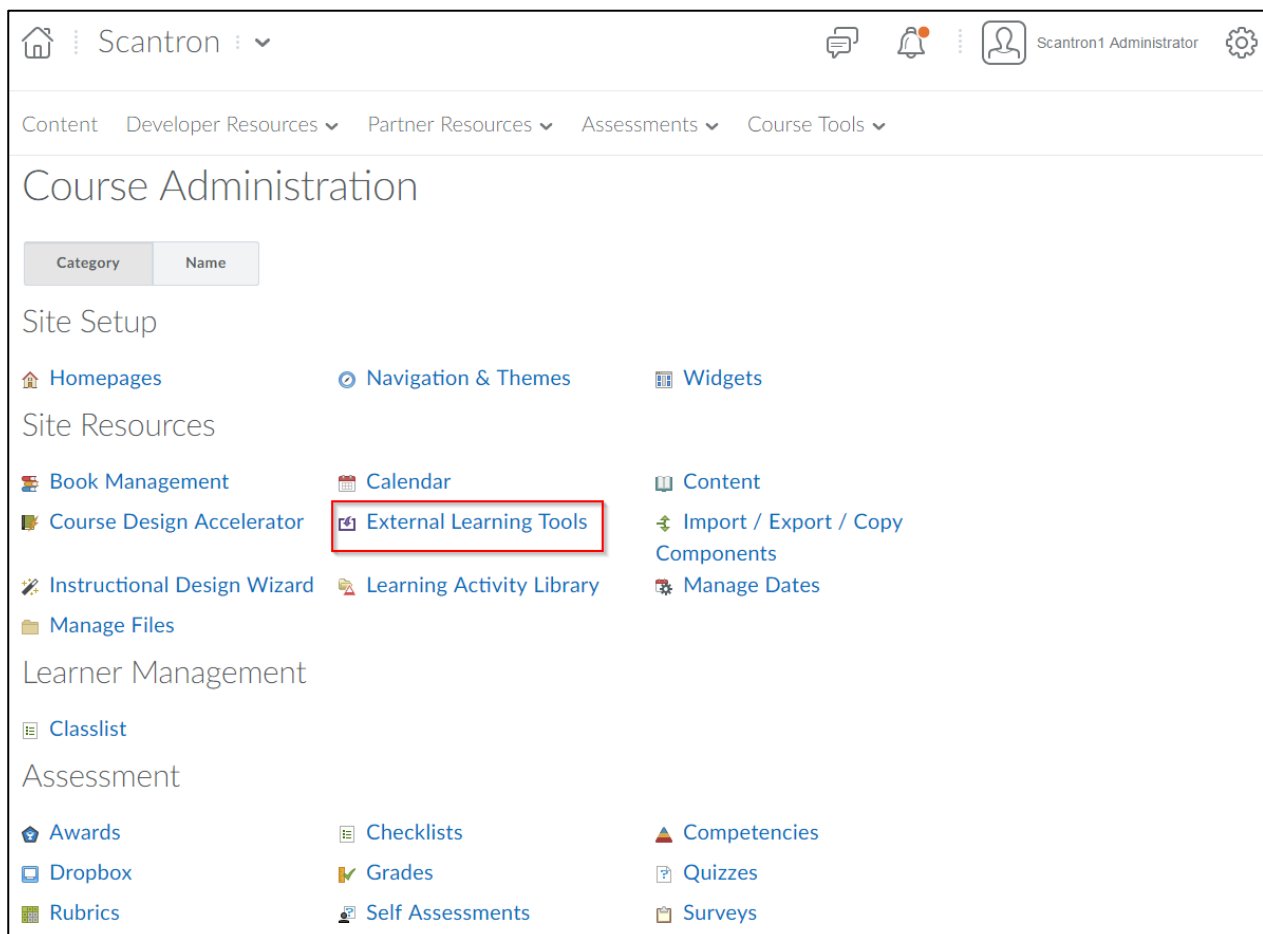
- Link (Widget with Link to open the dashboard in a new tab)
- Quick link (Widget with content inside the widget)
- Course level navigation

In this manual, we describe the quick link.

#### 3.3.1. Edit Course

Select the “Admin Tools” icon from the top navigation bar to access the course administration panel.

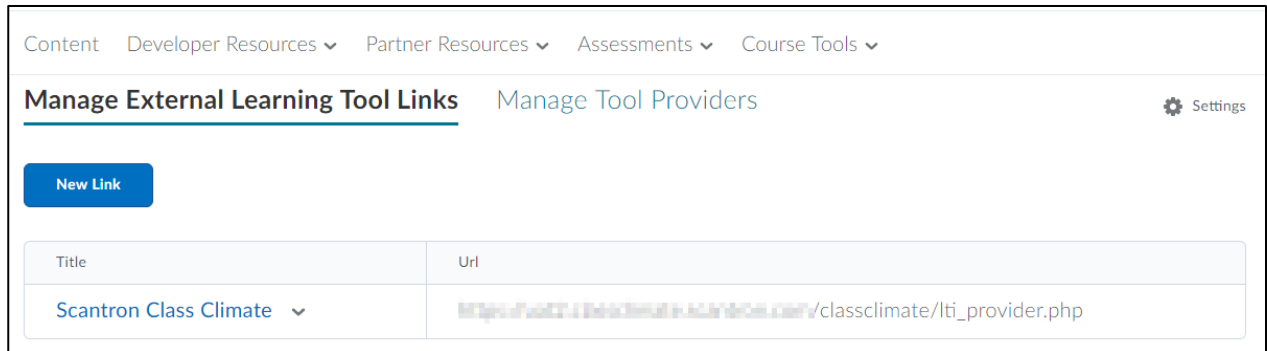
Open the section “External Learning Tools”.



**Figure 42: Edit Course**

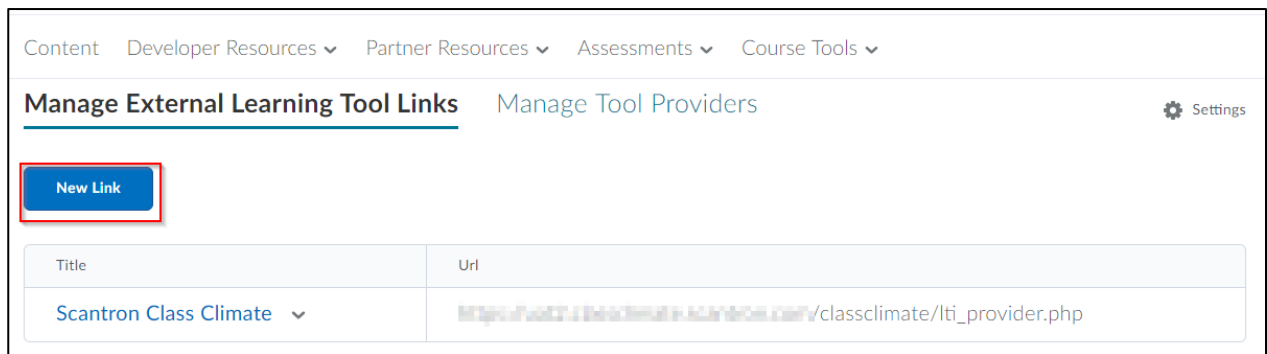
By default, the “Manage External Learning Tool Links” panel should be open.

If not, open the menu by clicking the corresponding link in the left navigation panel.



**Figure 43: “Manage External Tool Links” Navigation Button**

Click “New Link” to configure a new external learning tool.



**Figure 44: Add new External Learning Tool**

### 3.3.2. Configure the Link

The first section contains the mandatory properties of the tool:

- The title
- The URL used to access Class Climate

The description is optional, although it is advised to fill it in. The visibility option should be checked so that users can access it.

The screenshot shows a web form titled "New Link". Under the heading "Properties", there are three main sections:

- Title\***: A text input field with a lock icon on the right, indicating it is required.
- URL\***: A text input field, also required.
- Description**: A rich text editor area with a toolbar containing icons for bold, italic, link, list, and text color.

At the bottom of the form, there is a **Visibility** section with a checked checkbox and the text "Allow users to view this link".

**Figure 45: Properties**

Please note, that the URL be the IP or hostname of your Class Climate system and must be a HTTPS URL without any parameters similar to this:

[https://<hostname>/classclimate/customer/lti/lti\\_provider.php](https://<hostname>/classclimate/customer/lti/lti_provider.php)

In the section “Key / Secret” check the option “Sign messages with key/secret with” and select the "Link key/secret" option.

### Key/Secret

Signature

Sign messages with key/secret with

Tool consumer key/secret

Link key/secret

Key

Secret

Custom Parameters

No items found.

[+ Add custom parameters](#) 1

**Figure 46: Entering the key and secret**

The default "Key" is "12345". In the entry box for the secret, enter the secret you have defined in the Class Climate menu "Interfaces and Plug-ins / LTI<sup>®</sup> Interface" (see above chapter 2.1).

In the "Custom Parameters" box you may add one or more of the parameters described in the section LMS Custom Parameters.

Please make sure to check the option “Send user email to tool provider” in the “Security Settings” section as shown below.

### Security Settings

Use tool provider security settings  
 Use link security settings

- Send tool consumer information to tool provider
- Send context information to tool provider
- Send user ID to tool provider
- Send user name to tool provider
- Send user email to tool provider
- Send system username to tool provider
- Send system Org Defined ID to tool provider
- Send system role to tool provider
- Send link title to tool provider
- Send link description to tool provider

Make link available to:

Current Org Unit: **Scantron**

**Figure 47: Security Settings**

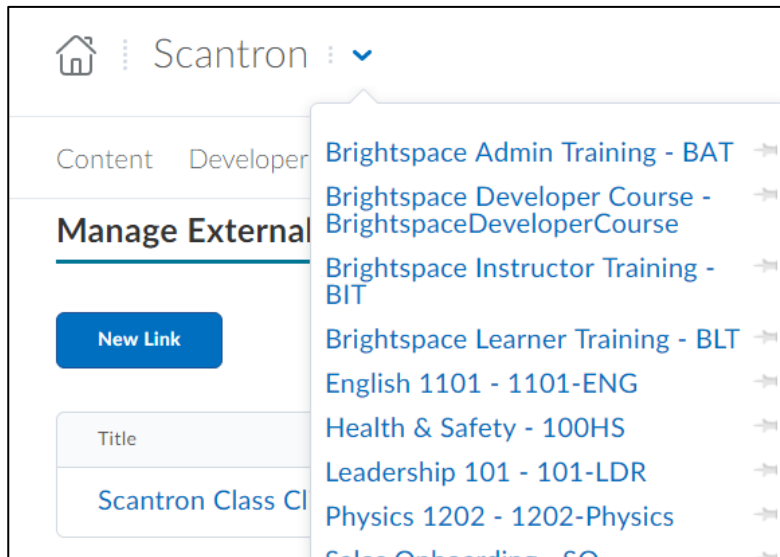
Once all settings are done, press [Save] and proceed to create a widget for the students.



### 3.3.3. Create a Widget

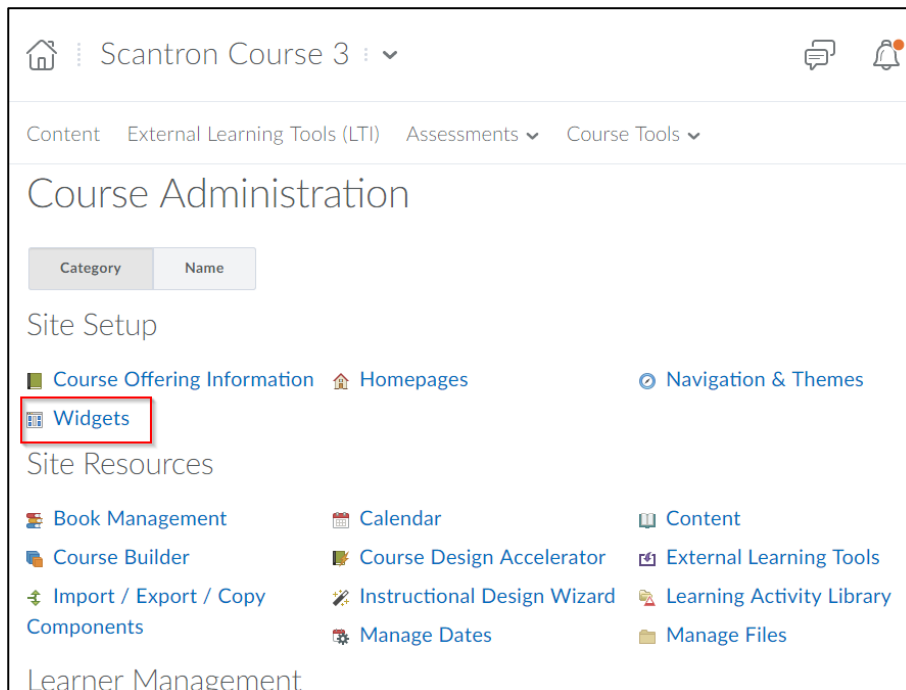
To create a widget, please proceed as follows:

- Click “Select a course...” and select the desired course from the drop-down menu.



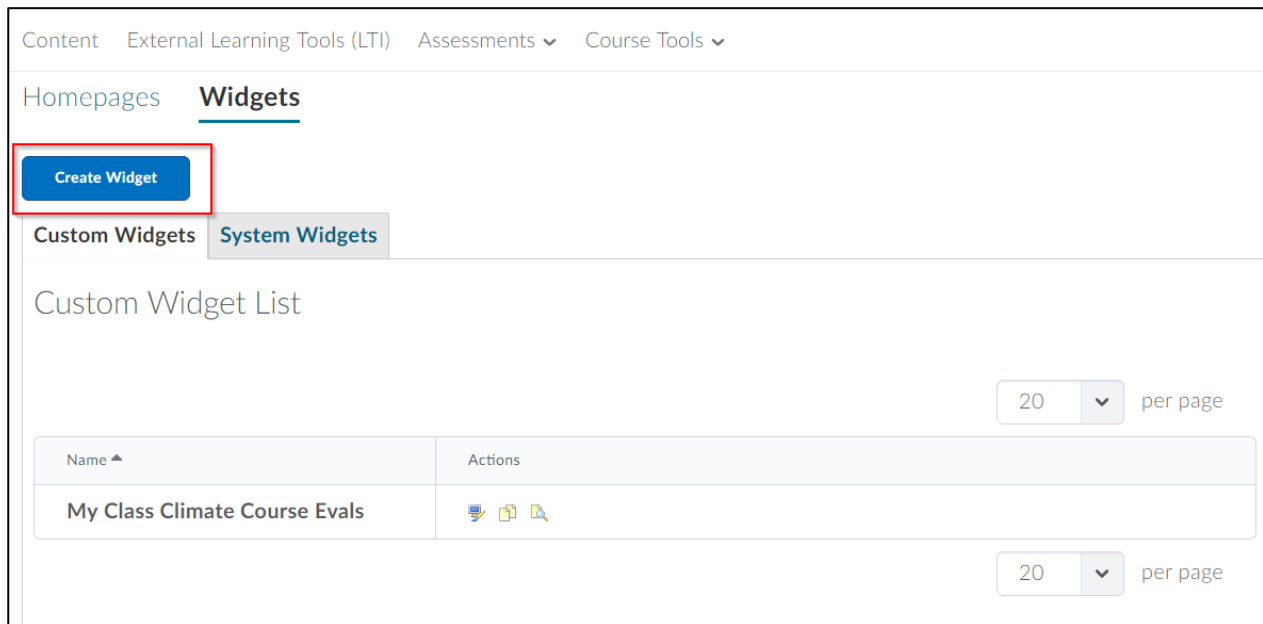
**Figure 48: Select Course**

Select the “Edit Course” menu from the top navigation bar. Then select “Widgets”.



**Figure 49: Widgets**

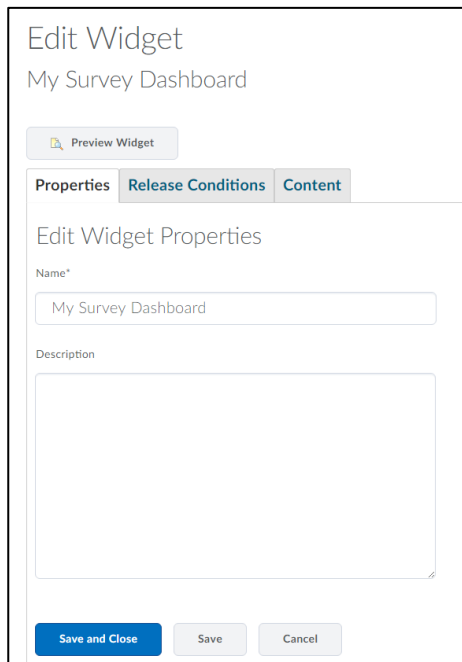
Select “Create Widget” under “Manage Widgets”



**Figure 50: New Widget**

Use the appearing tabbed panel to configure the new widget, following the steps described below.

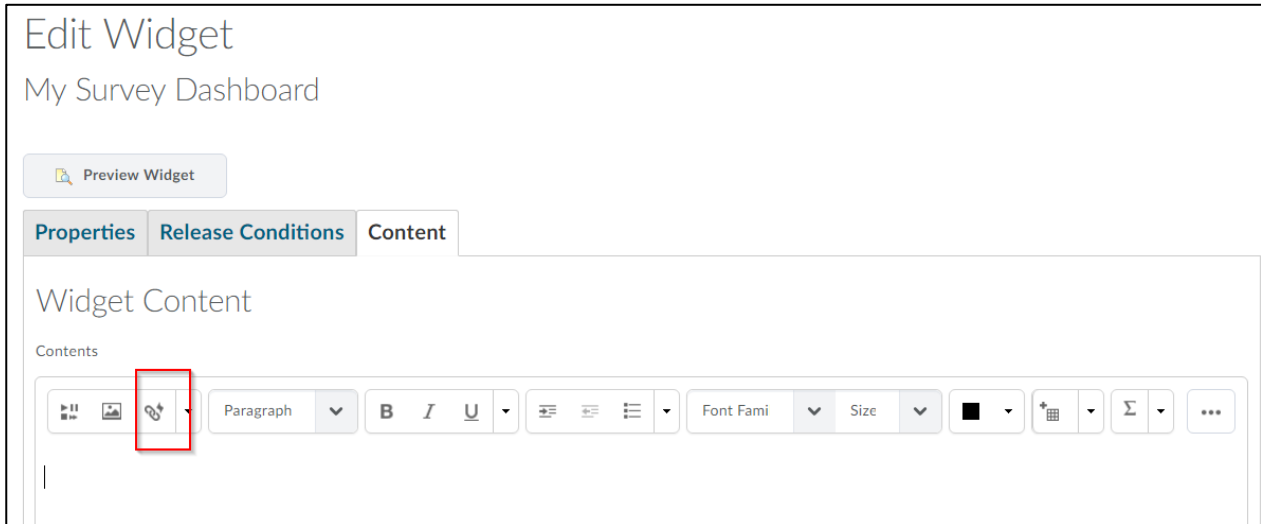
In the “Properties” tab, enter a name in the mandatory “Name” field and optionally a description in the description field.



**Figure 51: New Widget Properties**

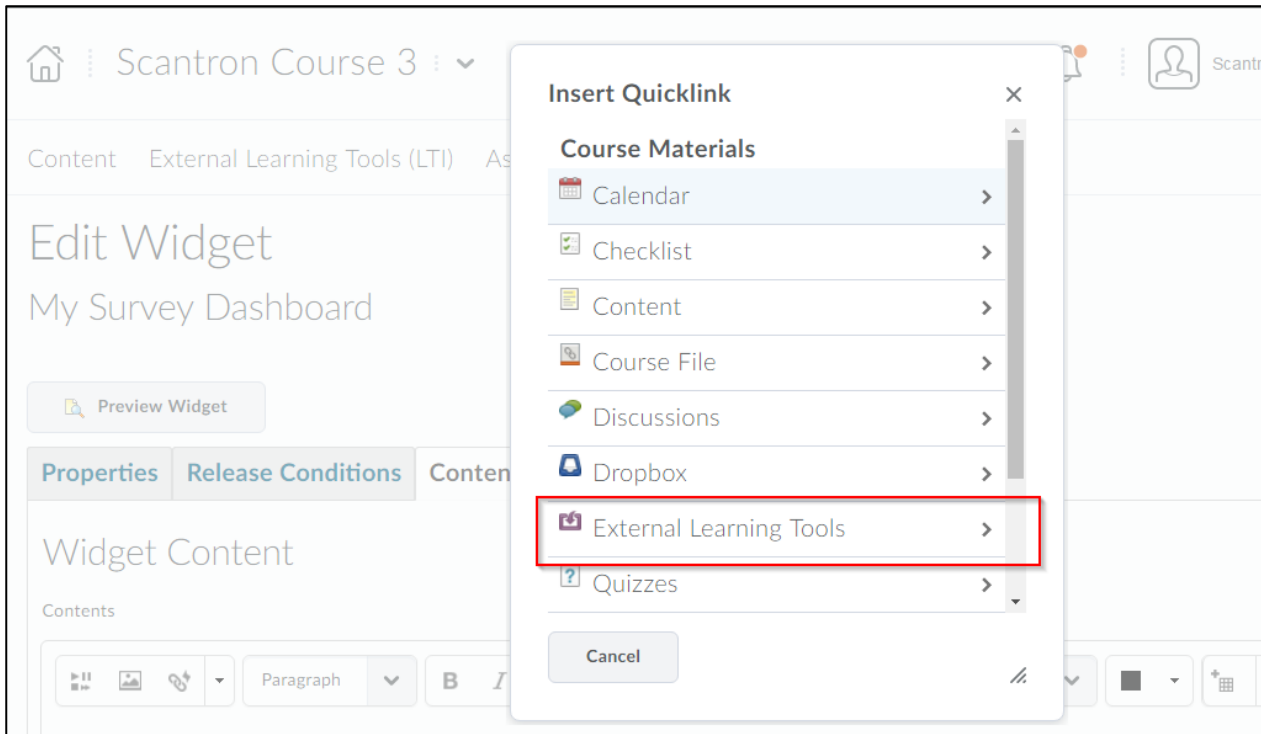
Open the “Content” tab where the content can be entered with the help of a WYSIWYG type editor.

Add a quick link with the editor's “Insert Quicklink” button.



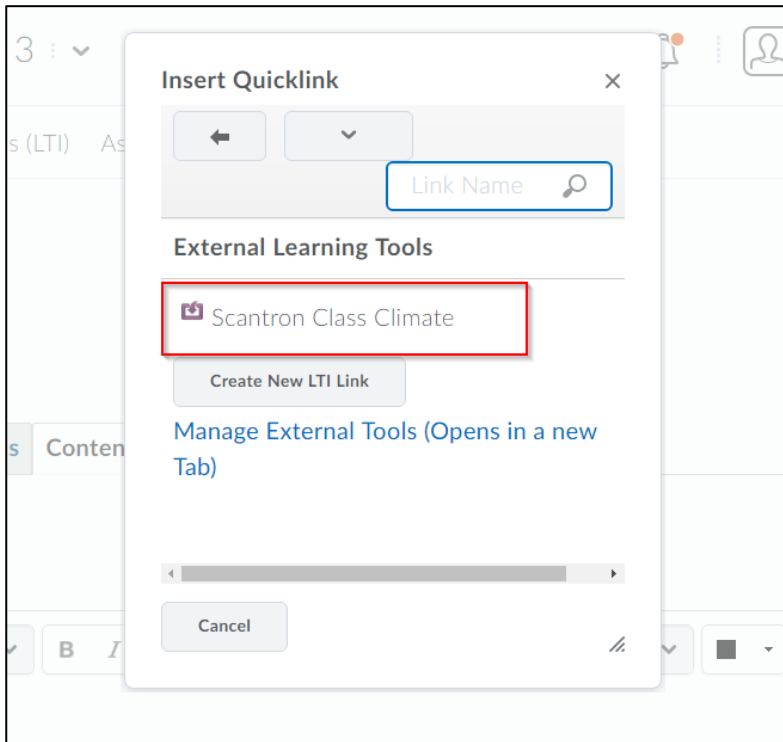
**Figure 52: Insert Quick Link**

In the pop-up dialog, select the category “External Learning Tool”



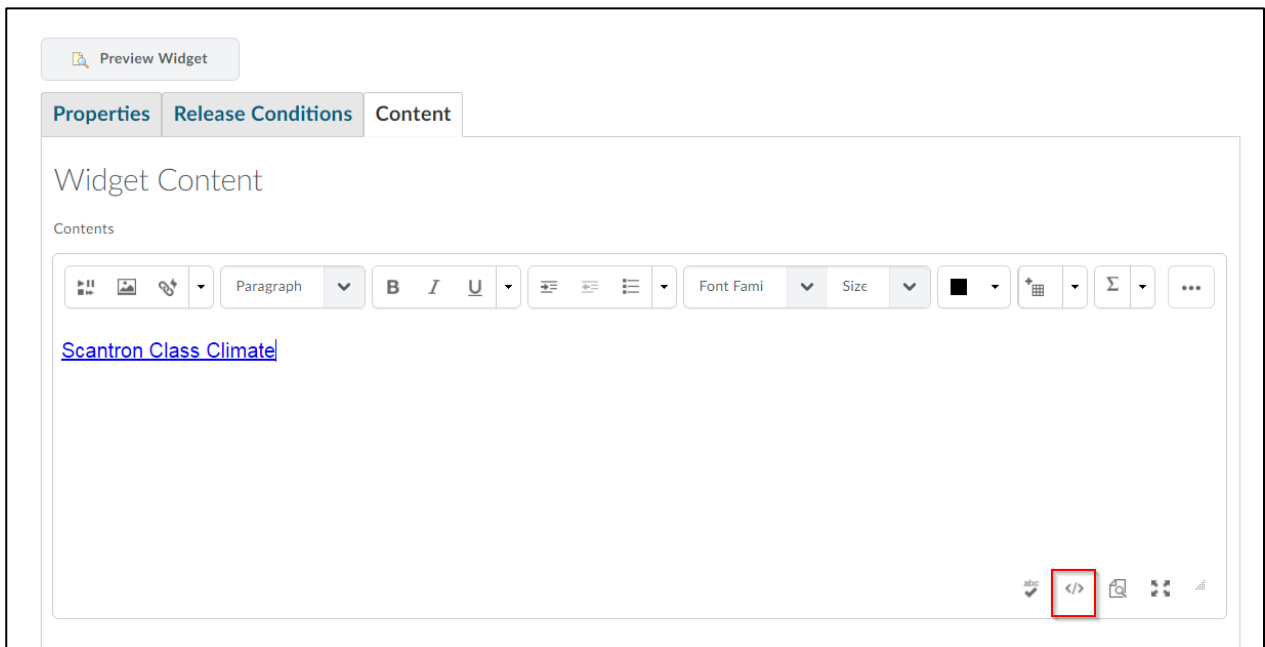
**Figure 53: Insert Quicklink – Step 1**

Select the tool added previously.



**Figure 54: Insert Quicklink – Step 2**

After having inserted the link, click the “Edit HTML Source” button at the bottom of the editor.



**Figure 55: Edit HTML Source**

This will bring up another window with the HTML content of the widget that looks something similar (in plain text):

```
<p><a href="/d2l/common/dialogs/quickLink/quickLink.d2l?ou={orgUnitId}&type=Iti&
amp;rCode=PNDevServe-3906&srcou=6756" target="_self">anything</a></p>
```

Copy the string between the quotation marks after "href=" part of the content (bold):

```
<p><a href="/d2l/common/dialogs/quickLink/quickLink.d2l?ou={orgUnitId}&type=Iti&
amp;rCode=PNDevServe-3906&srcou=6756" target="_self">anything</a></p>
```

Replace the whole content with:

```
<iframe src="" width="100%" style="height: 50vh;"></iframe>
```

Insert the previously copied string between the quotation marks after "src=", so the resulting content looks similar to:

```
<iframe src="/d2l/common/dialogs/quickLink/quickLink.d2l?ou={orgUnitId}&type=Iti&
amp;rCode=PNDevServe-3906&srcou=6756" width="100%" style="height: 50vh;"></iframe>
```

Click "Update" after finishing the content editing.

The editor's content will change from a link to a box (the widget will not work at this point). Click "Save" to save the new widget.

### 3.3.4. Add a Widget to the Course Homepage

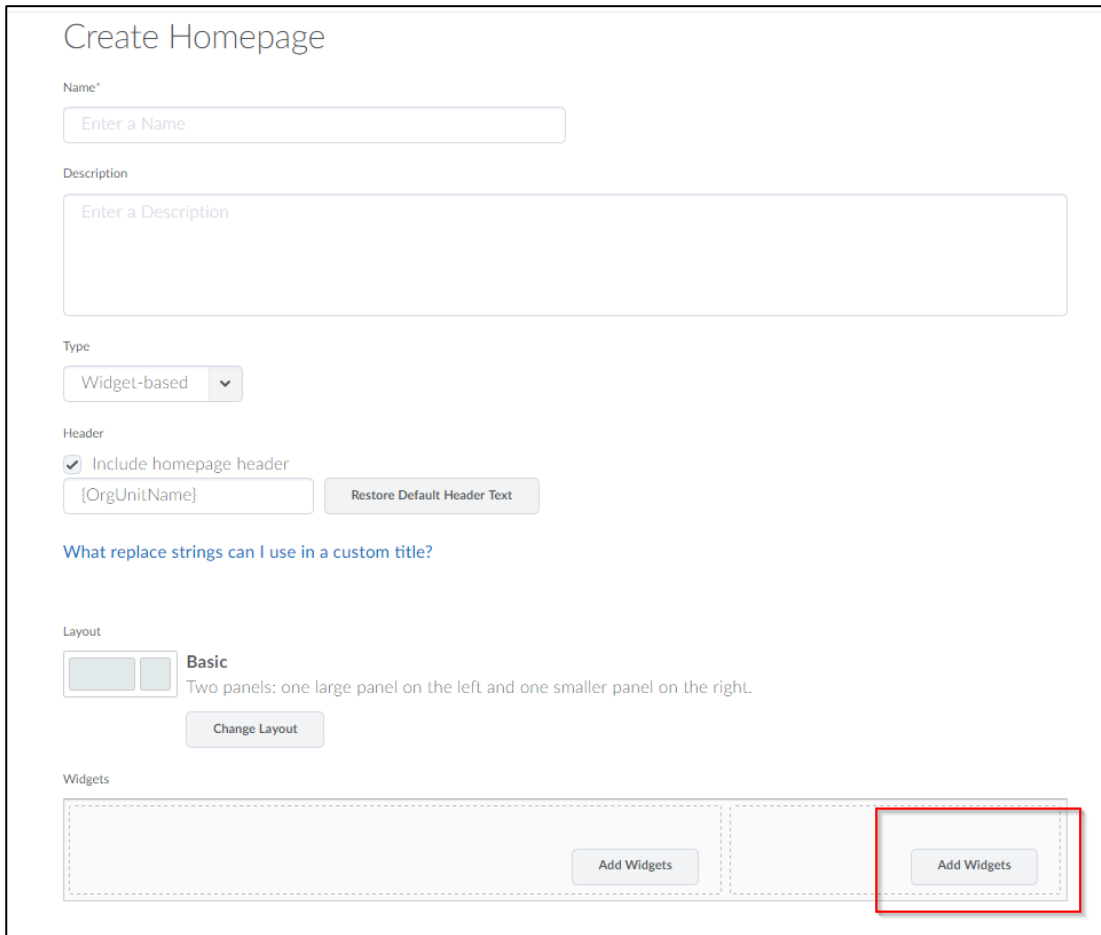
To add a widget to the homepage of a course, proceed as follows:

Select the course from the top menu bar “Select a Course...”, and click on the “Edit this homepage” button.

The screenshot shows a web interface for editing a course homepage. At the top, there is a navigation bar with the following items: 'Content', 'External Learning Tools (LTI)', 'Assessments' (with a dropdown arrow), and 'Course Tools' (with a dropdown arrow). Below the navigation bar, the text 'Edit Homepage' is displayed and is enclosed in a red rectangular box. Underneath this, there are three main sections: 1. 'Name\*' with a text input field containing 'My homepage |'. 2. 'Description' with a larger text area containing the placeholder text 'Enter a Description'. 3. 'Type' with a dropdown menu currently showing 'Widget-based' and a downward-pointing arrow.

**Figure 56: Edit Homepage**

At the bottom of the page, click [Add Widgets] to add a widget to the homepage.



Create Homepage

Name\*

Description

Type  
Widget-based

Header  
 Include homepage header

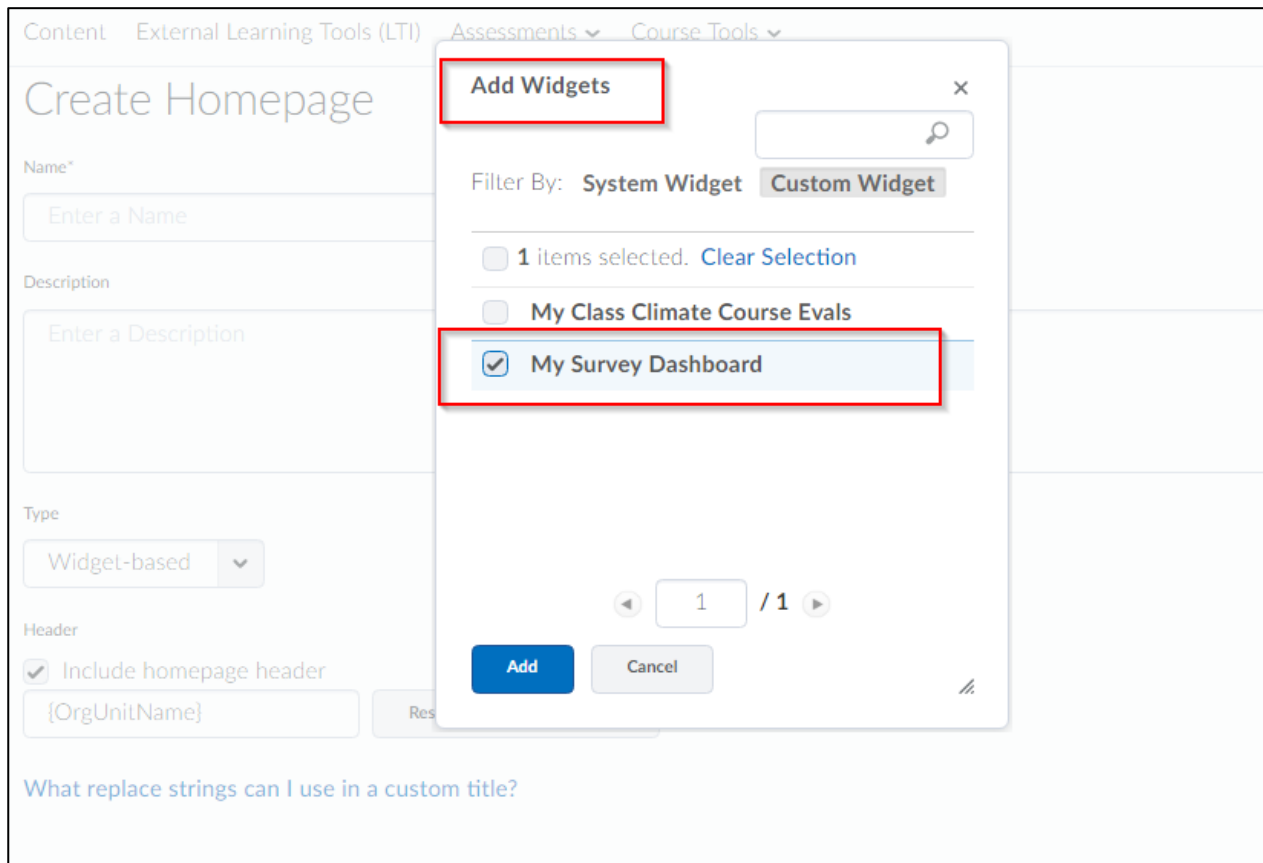
[What replace strings can I use in a custom title?](#)

Layout  
 **Basic**  
Two panels: one large panel on the left and one smaller panel on the right.

Widgets

**Figure 57: Add a Widget to the Homepage**

Select the widget from the dialog, and then click “Add”.



**Figure 58: Select the Widget**

Save your changes.

A box labelled “Scantron Class Climate” will now appear on your course homepage.

Please note that it is recommended to use the homepage of the system and not a particular course page for the widget.



### 3.3.5. Brightspace Sample Screenshots

Class Climate LTI Integration in Brightspace:

**My Survey Dashboard**

Survey Title	Code	Instructor	Status
Environmental Design	01-AD-2634	PhD Marie-Christine Jefferson	Closes in 2 Days (08/27/2017 at 05:20:00 pm)
Design Technology	06-AD-2734	Emilia Thompson	Closes in 6 Days (08/31/2017 at 05:05:00 pm)
History and Theory of Architecture	02-AD-2734	Mario Fernandez	Submitted
Structure, Materials and Forming Techniques	04-AD-2636	Dean McPherson	Data available

**Did You Know?**

- Your survey results are anonymous!
- Every survey has a minimum number of students who must respond in order for instructors to receive a summary report. This further protects your anonymity.
- We encourage you to participate and help your university understand instructional effectiveness and plan continuous improvement initiatives.

Figure 59: Student View

**My Survey Dashboard**

Survey Title	Code	Current Response	Final Response	Completion %	Status
Design Technology	06-AD-2734	5 of 40	-	13%	Closes in 6 Days (08/31/2017 at 05:05:00 pm)
Design Projects	03-AD-2835	-	395 of 478	83%	View Report
Introduction to Programming for Architecture and Design	07-AD-3835	82	-	-	-

Figure 60: Lecturer View

### 3.4. Canvas

To connect Class Climate and Canvas via LTI, a new app has to be added and configured in Canvas. In the following chapters, the relevant steps are described.

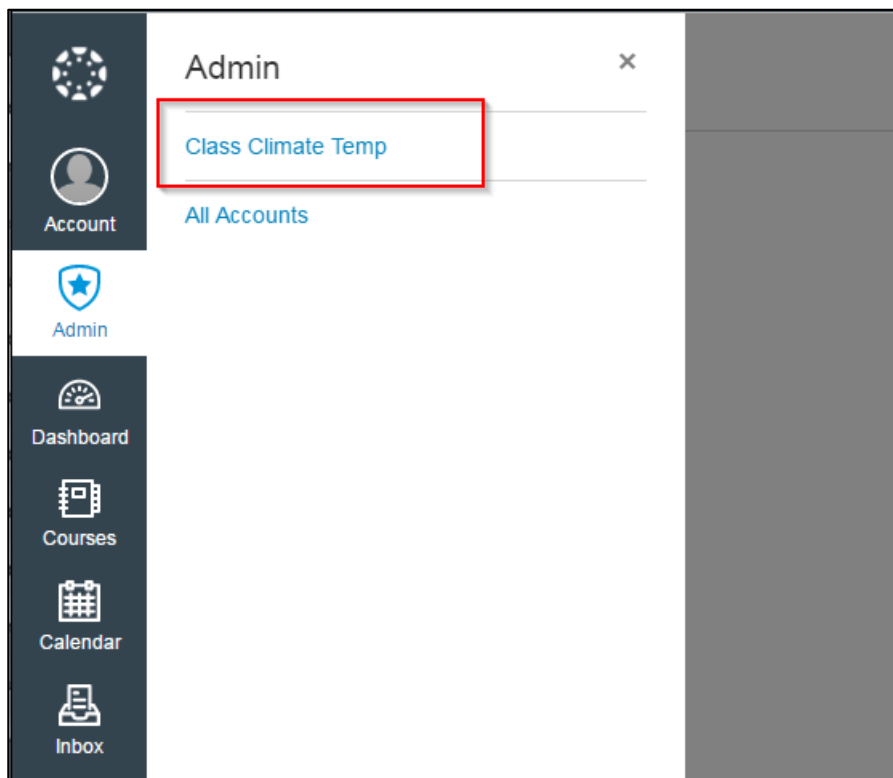
You have two ways to add the app in Canvas.

- **Manual Entry.** LTI link will need to be added manually to each course as a module.
- **XML.** LTI link will be added as a course navigation.

#### 3.4.1. Adding a new App

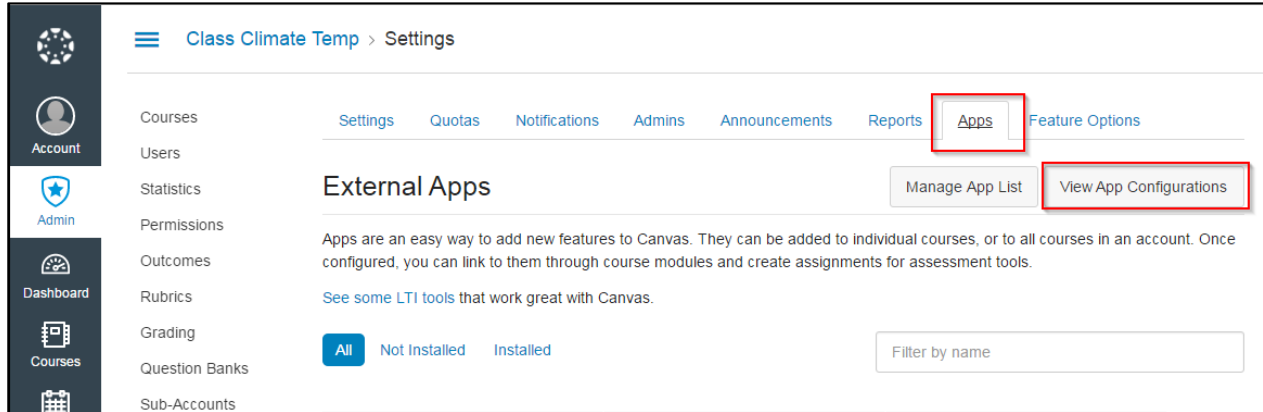
Log in to the Canvas administrator interface.

Select “Admin” from the left side panel, then select one of the managed accounts.



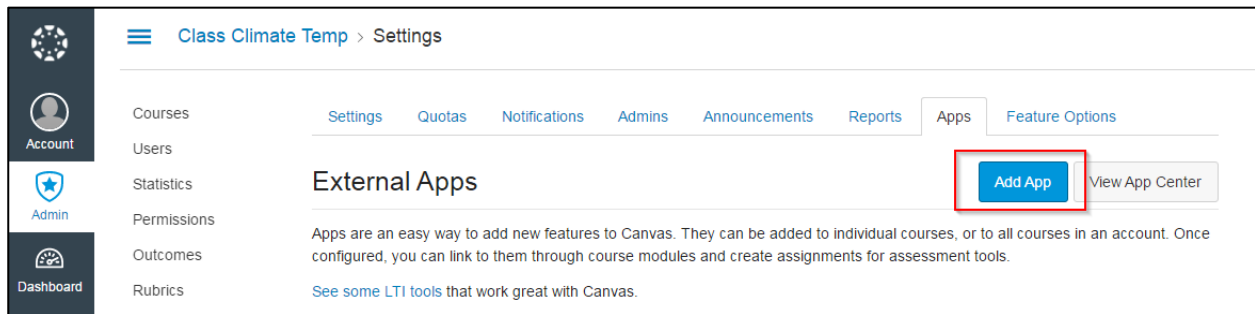
**Figure 61: Administrator’s Managed Accounts**

Go to menu entry “Settings” and then select the tab “Apps”. Click the button “View App Configurations” to reach the management section of external tools.



**Figure 62: External Apps**

Click the button “Add App” to add a new External App.



**Figure 63: Adding new App**

### 3.4.2. Editing External App

Apps are an easy way to add new features to Canvas. They can be added to individual courses, or to all courses in an account. Once configured, you can link to them through course modules and create assignments for assessment tools.

This section contains the mandatory properties of the tool:

- Name: e.g. “Class Climate Surveys”
- Consumer Key: “12345”
- Shared Secret: e.g. “secret”, defined in the Class Climate menu “Interfaces and Plug-ins / LTI<sup>®</sup> Interface” (see above chapter 2.1)
- Configuration Type: Select “Manual Entry”
- URL: Customer specific URL to the Class Climate server, e.g. [https://<host-name>/classclimate/customer/lti/lti\\_provider.php](https://<host-name>/classclimate/customer/lti/lti_provider.php)
- Domain: n/a
- Privacy: Select “Email only”
- Custom Fields: You may add one or more of the parameters described in the section LMS Custom Parameters.
- Description: n/a

Please note, that the URL should be the IP or hostname of your Class Climate system and must be a HTTPS URL without any parameters similar to this:

[https://<hostname>/classclimate/customer/lti/lti\\_provider.php](https://<hostname>/classclimate/customer/lti/lti_provider.php)

Once the settings are done, press “Submit”.

The Canvas connector (LTI tool) is now configured and can be added to the course pages.

Add App ✕

Configuration Type  
Manual Entry ▼

Name  
Name

Consumer key  
Consumer key

Shared Secret  
Shared Secret

Launch URL  
Launch URL

Domain  
Domain

Privacy  
Anonymous ▼

Custom Fields  
Custom Fields

One per line. Format: name=value

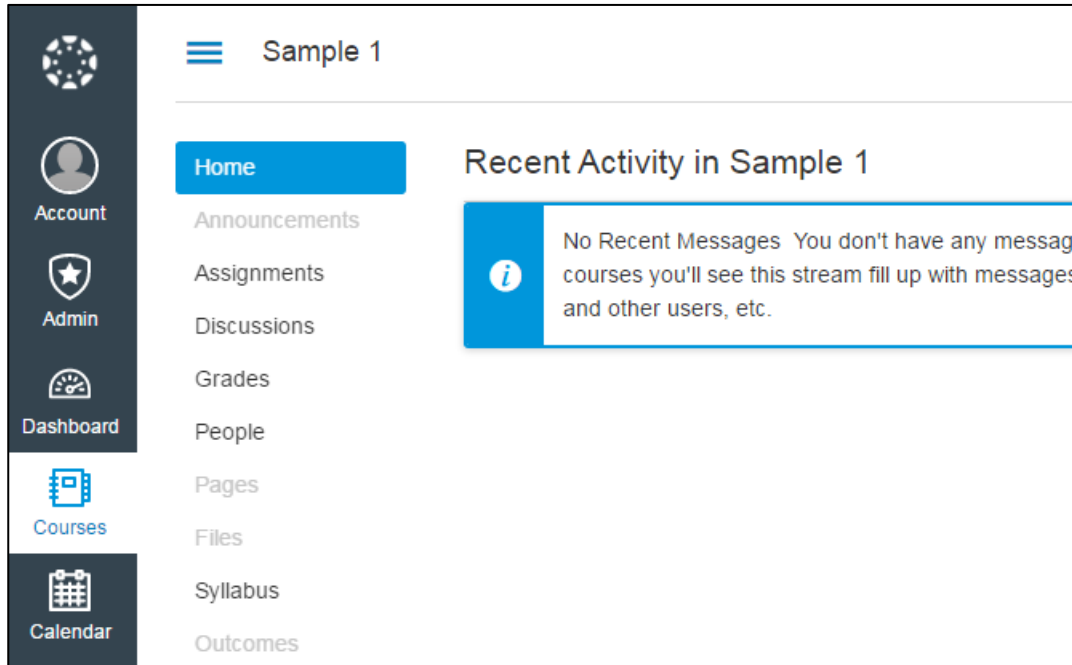
Description  
Description

Cancel Submit

**Figure 64: Editing External Tool**

### 3.4.3. Adding an App to a course

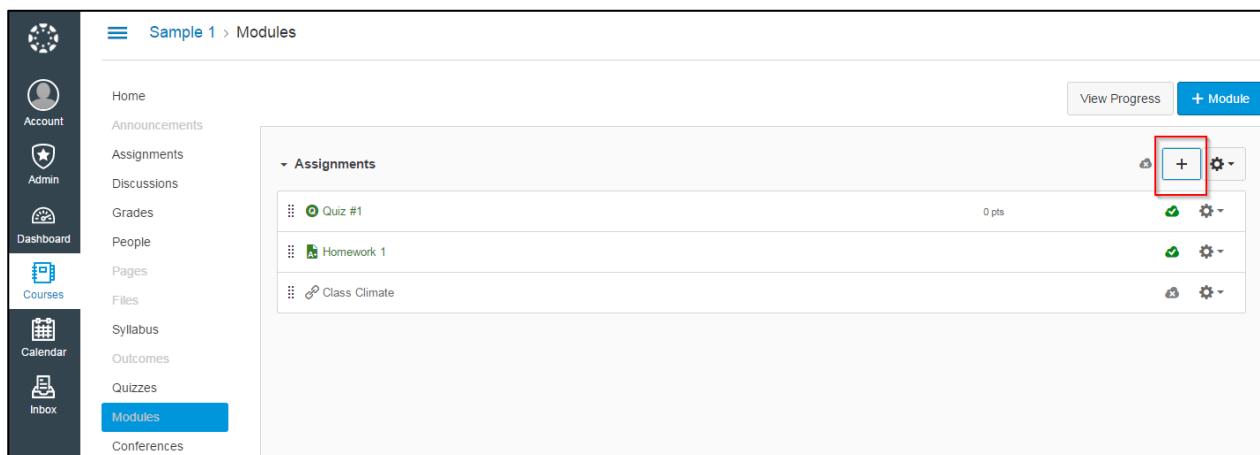
Scantron Class Climate Learning Tool can be added to any courses by clicking on the name of the course.



**Figure 65: Selecting course for adding external tool**

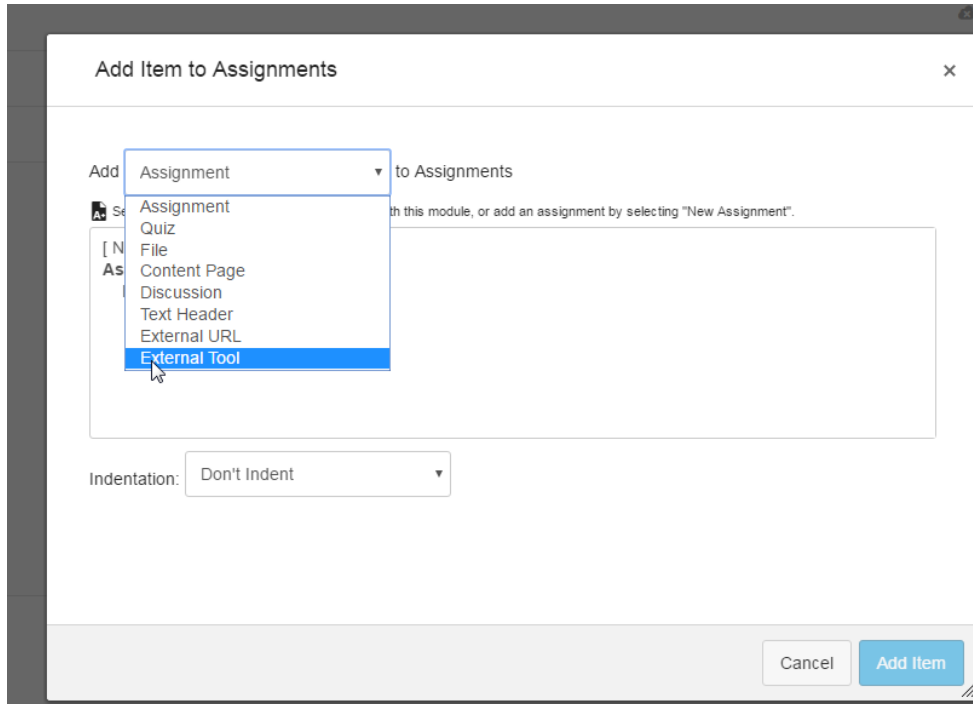
After selecting the course, click on “Modules” on the side bar. Here you can add the external tool to one of the Modules.

Select “Add Content” in the “Module Options” dropdown menu at top right.



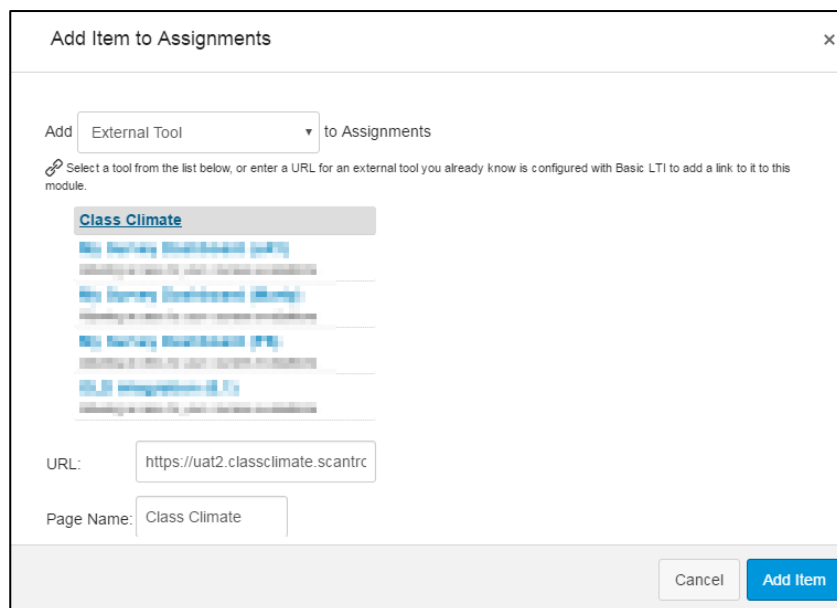
**Figure 66: Adding content to a module**

Choose “External Tool” from the list.



**Figure 67: Selecting External Tool to add**

Select “Class Climate Surveys” and click on button “Add Item” to finish the process and to add the chosen external tool to your course/module.



**Figure 68: Adding Scantron Class Climate tool**

### 3.4.4. Configuring the tool as a course level left-hand menu item

With the aid of a configuration XML file, the tool can be used as a course level left menu navigation item, bypassing the need for more segmented usage of the tool.

A different setup method is required for this functionality.

By following the steps described in chapter 4.1, the dialog for adding the external tool can be accessed.

By selecting **Paste XML** from the Configuration Type dropdown list, the dialog will be accommodated to accept the XML configuration. The LTI tool can be added by clicking the **Submit** button.

**Add App** [X]

Configuration Type  
Paste XML

Name  
Class Climate LTI Tool

Consumer key  
12345

Shared Secret  
secret

XML Configuration

```
<?xml version="1.0" encoding="UTF-8"?>
<cartridge_basiclti_link xmlns="http://www.imsglobal.org/xsd/imslticc_v1p0"
  xmlns:blti = "http://www.imsglobal.org/xsd/imsbasiclti_v1p0"
  xmlns:lticm = "http://www.imsglobal.org/xsd/imslticm_v1p0"
  xmlns:lticp = "http://www.imsglobal.org/xsd/imslticp_v1p0"
  xmlns:xsi = "http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation = "http://www.imsglobal.org/xsd/imslticc_v1p0 http://www.imsglobal.org/xsd/lti/ltiv1p0/imslticc_v1p0.xsd
  http://www.imsglobal.org/xsd/imsbasiclti_v1p0 http://www.imsglobal.org/xsd/lti/ltiv1p0/imsbasiclti_v1p0.xsd
  http://www.imsglobal.org/xsd/imslticm_v1p0 http://www.imsglobal.org/xsd/lti/ltiv1p0/imslticm_v1p0.xsd
  http://www.imsglobal.org/xsd/imslticp_v1p0 http://www.imsglobal.org/xsd/lti/ltiv1p0/imslticp_v1p0.xsd" />
```

Cancel Submit

**Figure 69: Adding the Class Climate LTI tool with course level navigation**



Below is the sample XML definition you can use to create the course navigation link.

```
<?xml version="1.0" encoding="UTF-8"?>
<cartridge_basicti_link xmlns="http://www.imsglobal.org/xsd/imslticc_v1p0"
  xmlns:blti = "http://www.imsglobal.org/xsd/imsbasicti_v1p0"
  xmlns:lticm = "http://www.imsglobal.org/xsd/imslticm_v1p0"
  xmlns:lticp = "http://www.imsglobal.org/xsd/imslticp_v1p0"
  xmlns:xsi = "http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation = "http://www.imsglobal.org/xsd/imslticc_v1p0 http://www.imsglobal.org/xsd/lti/ltiv1p0/imslticc_v1p0.xsd
  http://www.imsglobal.org/xsd/imsbasicti_v1p0 http://www.imsglobal.org/xsd/lti/ltiv1p0/imsbasicti_v1p0.xsd
  http://www.imsglobal.org/xsd/imslticm_v1p0 http://www.imsglobal.org/xsd/lti/ltiv1p0/imslticm_v1p0.xsd
  http://www.imsglobal.org/xsd/imslticp_v1p0 http://www.imsglobal.org/xsd/lti/ltiv1p0/imslticp_v1p0.xsd">
  <blti:launch_url>https://<hostname>/classclimate/customer/lti/lti_provider.php</blti:launch_url>
  <blti:title>Class Climate Survey Evaluation</blti:title>
  <blti:description>Allowing access to your courses evaluations</blti:description>
  <blti:extensions platform="canvas.instructure.com">
    <lticm:property name="privacy_level">public</lticm:property>
    <lticm:options name="course_navigation">
      <lticm:property name="enabled">>true</lticm:property>
      <lticm:options name="custom_fields">
        <lticm:property name="instructor_show_report">1</lticm:property>
        <lticm:property name="instructor_show_past_surveys_for_n_previous_periods">0</lticm:property>
        <lticm:property name="learner_show_completed_surveys">1</lticm:property>
        <lticm:property name="order_by_survey_close_date">1</lticm:property>
        <lticm:property name="instructor_show_export">1</lticm:property>
        <lticm:property name="learner_load_instructor_images">1</lticm:property>
      </lticm:options>
    </lticm:options>
  </blti:extensions>
</cartridge_basicti_link>
```

The following values need to be modified in the XML to achieve the desired functionality:

- **<blti:launch\_url>https://<hostname>/classclimate/customer/lti/lti\_provider.php</blti:launch\_url >**  
This field needs to contain the customer specific Class Climate URL
- **<blti:title>Class Climate Survey Evaluation</blti:title>**  
Title of the external tool
- **<blti:description>LTI tool</blti:description>**  
The description of the external tool. This can be modified after the tool has been added within the tool configuration.
- **<lticm:options name="custom\_fields"></lticm:options>**  
Method used to import the desired custom parameters.

Other values should not be modified in the XML configuration to ensure the validity of this.

After the tool has been added with a valid configuration, an additional left menu entry will be available for the external tool.

### 3.4.5. Canvas Sample Screenshots

Class Climate LTI Integration in Canvas:

The screenshot shows the Canvas LMS interface for a student. The left sidebar contains navigation options: Account, Dashboard, Courses, Calendar, and Inbox. The main content area is titled 'My Survey Dashboard' and lists four surveys:

Survey Name	Code	Status	Due Date
Environmental Design	01-AD-2634	Closes in 2 Days	08/27/2017 at 05:20:00 pm
Design Technology	06-AD-2734	Closes in 6 Days	08/31/2017 at 05:05:00 pm
History and Theory of Architecture	02-AD-2734	Submitted	
Structure, Materials and Forming Techniques	04-AD-2636	Data available	

Below the survey list, a 'Did You Know?' section provides information about survey anonymity and participation.

Figure 70: Student View

The screenshot shows the Canvas LMS interface for a lecturer. The left sidebar contains navigation options: Account, Dashboard, Courses, Calendar, and Inbox. The main content area is titled 'My Survey Dashboard' and displays survey progress for three surveys:

Survey Name	Code	Current Response	Final Response	Percentage	Status
Design Technology	06-AD-2734	5 of 40	395 of 478	13%	Closes in 6 Days
Design Projects	03-AD-2835	82		83%	View Report
Introduction to Programming for Architecture and Design	07-AD-3835	82			

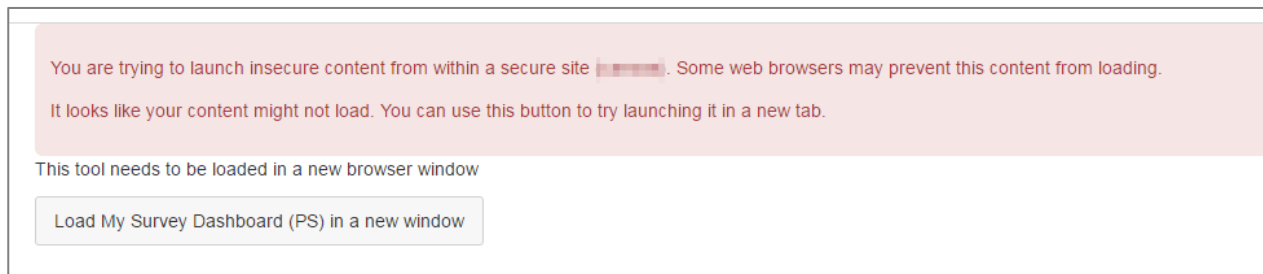
Figure 71: Lecturer View

## 4. Troubleshooting

In this section, we have listed some common errors and issues along with suggested solutions.

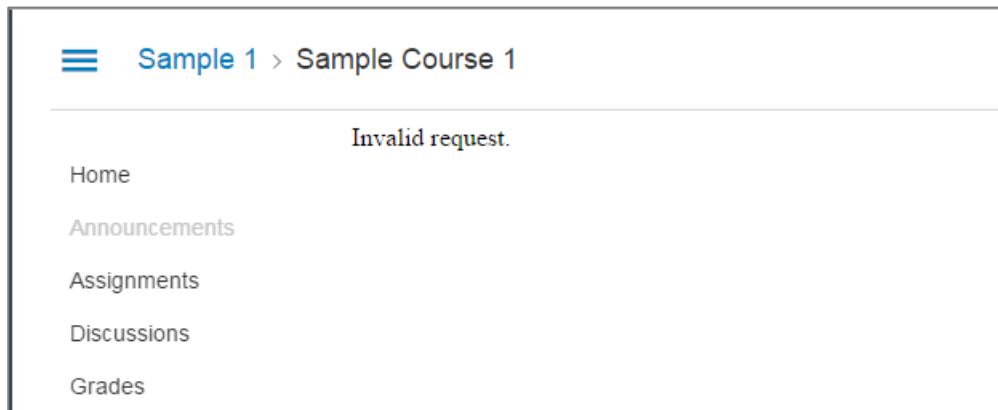
### 4.1. Insecure content

Using a SSL certification is a requirement for the LTI integration. Please contact your Server administrator for its implementation or configuration. If you are using a Load balancer, you will need to make sure the communication between the 2 systems remains encrypted with SSL within or outside your network.



**Figure 72: Insecure content**

### 4.2. Invalid Request Error



**Figure 73: Invalid request**

This type of error is typically displayed in case of mismatched information in the configuration of the integration or an issue with the communication across your network.

We suggest to review the value used for your shared secret on both systems.

Additionally, you might need to review the communication settings. If you are using a Load balancer, you will need to make sure the communication between the 2 systems remains encrypted with SSL within or outside your network.

### 4.3. User could not be determined



**Figure 74: User could not be determined**

This message is displayed when the system is not able to determine which information should be provided. Email addresses and LTI roles are used to identify which dashboard board to populate.

Please verify if the instructor or student account exist in Class Climate. Double check the email address and confirm the email value is not assigned to multiple accounts in Class Climate.

**Please note:** If an instructor or secondary instructor is stored in more than one Class Climate subunit with the same email address, then the survey data can only be displayed in the instructor’s LMS account if you are using External IDs to connect the instructor accounts in Class Climate. If you do not use External IDs, then the data will not be displayed!

For more information, see chapter “Instructor Settings”.

### 4.4. User Role undefined

This message is typically displayed when the LTI roles could not be determined. Ensure the account used is either a LMS instructor or Learner to display the desired dashboard.