



Moodle Plug-in for EvaSys V2.1

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1. Overview

The “Moodle Plug-in for EvaSys”¹ allows you to quickly and easily integrate survey information data from EvaSys into Moodle. This way you can, for example, place links to online surveys directly on the starting page of the Moodle learner accounts.

Two types of connection are available: Data can be exchanged either via an LTI[®] interface or via SOAP web services. Depending on the type of connection, different functions are at your disposal. When using LTI[®], you can display survey information in the learner view as well as in the instructor view. When using SOAP, survey information can only be displayed in the learner view. In the following, the two connection types are briefly contrasted.

1.1. Connection via LTI[®]

In comparison to a SOAP interface the LTI[®] interface provides a larger range of functions:

- A Moodle block on the starting page shows student users links to available online surveys.

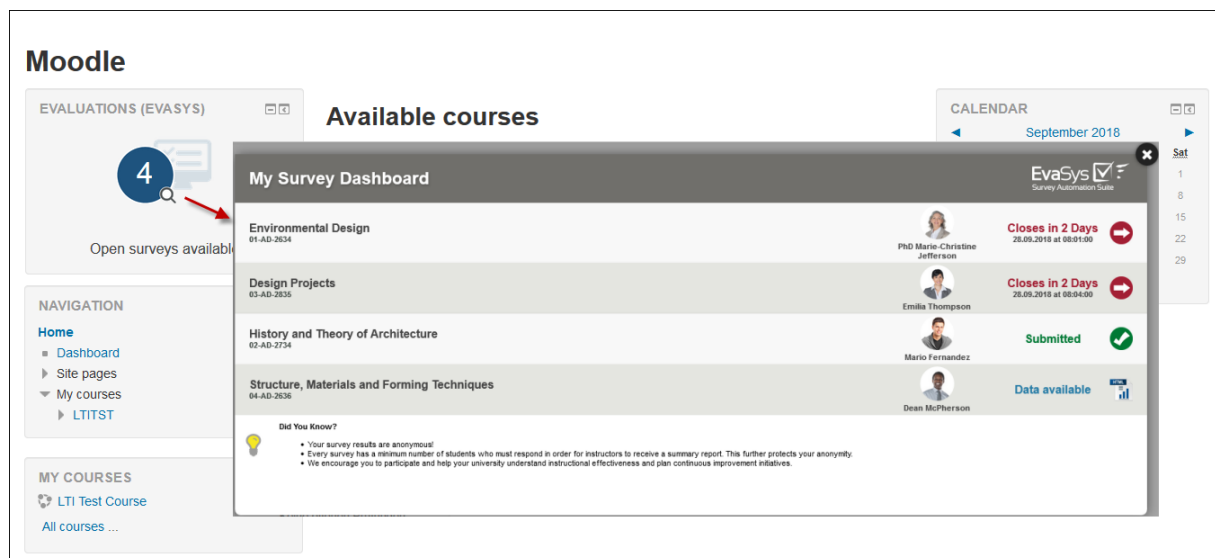


Figure 1: Survey list in learner view (LTI[®])

- Optionally, a pop-up can be activated, which alerts students to open online surveys immediately after logging into Moodle.

¹ The “Moodle Plug-in for EvaSys” has been developed by Soon-Systems GmbH on behalf of Electric Paper Evaluationssysteme GmbH.

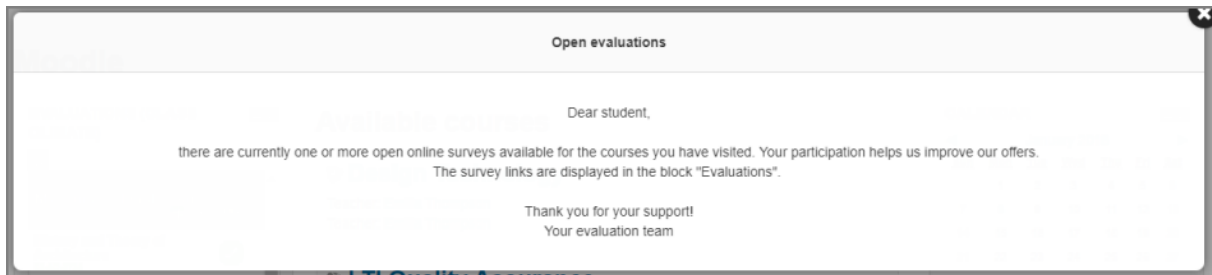


Figure 2: Pop-up learner view (LTI®)

- In the instructor view you can display an overview of the current evaluations with information on ongoing surveys.

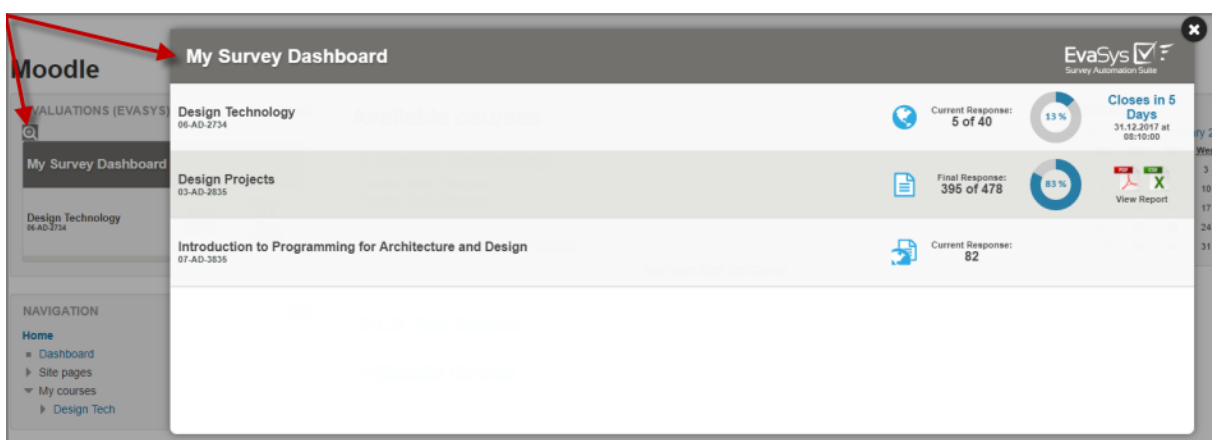


Figure 3: Survey list in lecturer view

Users can customize the appearance and structure of the blocks using HTML and CSS templates. For further information, please consult the separately available EvaSys LTI® manual which can be downloaded in the EvaSys menu “System Settings / Documentation”.

1.2. Connection via SOAP

If the data transfer from EvaSys to Moodle is performed by SOAP API, the range of functions is much more limited. In the learner view the Moodle homepage only shows a block with links to open online surveys. There are no other customization and configuration options.

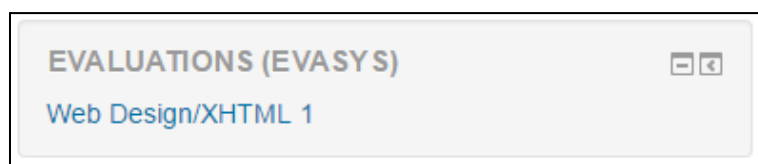


Figure 4: Survey list in student view (SOAP)

1.3. General Information

By implementing a single sign-on solution, learners as well as instructors only have to register with Moodle. It is not necessary to enter EvaSys PSWDs to participate in surveys.

The internationalization interface of Moodle is supported. If you choose a SOAP connection, English and German language sets are available. The LTI[®] templates are completely configurable. However, please note, that they do not consider the language selected in Moodle. This means, only the language defined in the template will be used.

The Moodle plug-in for EvaSys is tested for Moodle 3.1 and higher. We recommend using the current Moodle version 3.5.

EvaSys 7.1 (2151) is required in order for the integration to work.

2. Network Preparations

Since the Moodle server will communicate via Web Service calls with the EvaSys server, it is essential to make sure that there's a valid network route between both server systems.

Technically, EvaSys communicates via HTTP or HTTPS. By default, this means that the ports 80 or 443 are used for communication with Moodle.

In order to implement a seamless installation process, it is recommended to check on this network route with the IT administration department in charge of the actual Moodle and EvaSys servers.

3. EvaSys Preparations

Depending on whether you opt for a connection via LTI[®] or SOAP, different preparatory steps need to be taken. Both ways will be described in the following.

3.1. Activating the LTI® Interface

The LTI interface can be activated in the EvaSys administrators interface. To access the setting please go to “System Settings/ Interfaces & Plug-ins/ LTI® Interface”.

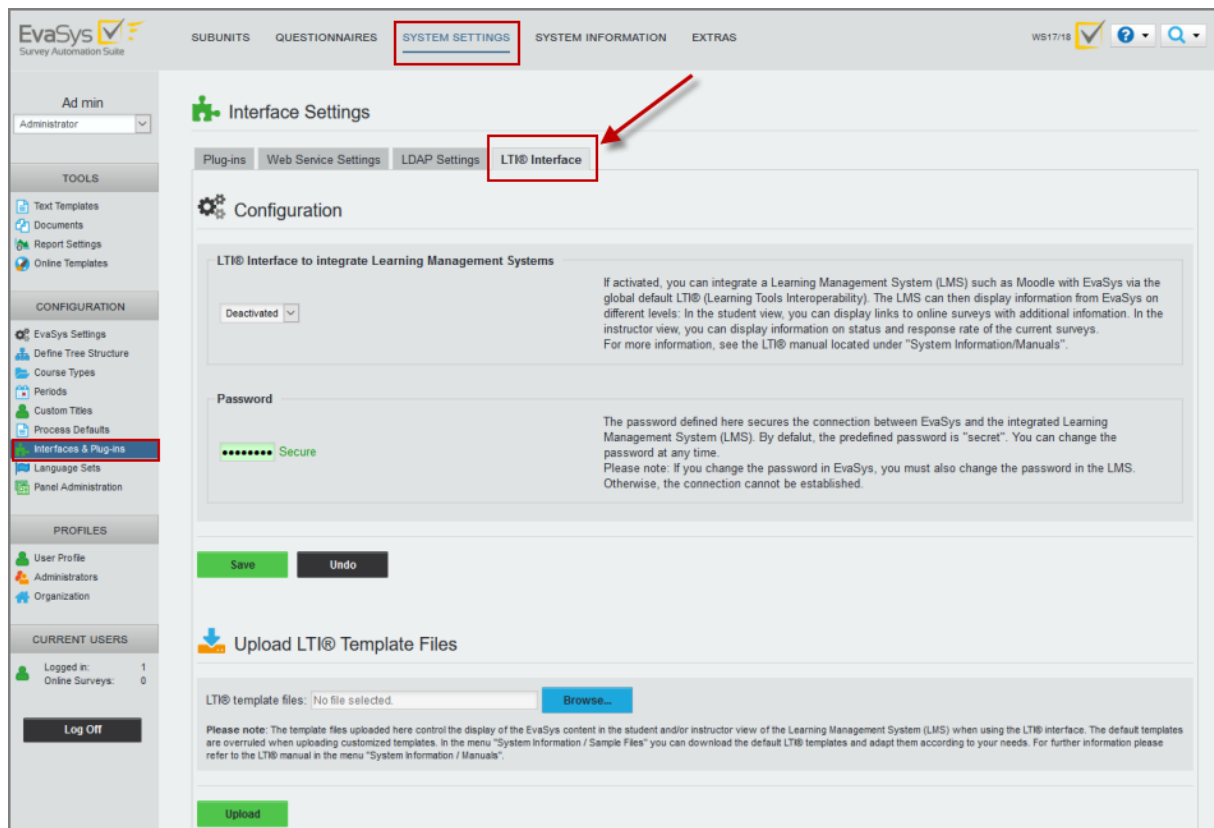


Figure 5: Activating the LTI® interface

Here you can activate the “LTI® Interface to integrate Learning Management Systems”. In addition, you must define a password which protects the connection between EvaSys and Moodle. The default password is “secret”. Please note that if you change the password here you need to change it in Moodle as well.

At the bottom of the page you can upload your own custom LTI® templates if you wish. If you do not upload a customized template, the standard templates are used. For further information, please consult the EvaSys LTI® manual which you can download in the EvaSys menu “System Information / Manuals”.

3.2. Web Service Configuration

To enable communication between EvaSys and Moodle via SOAP, the EvaSys web service interface must be configured by an administrator. To do this, open the menu "Settings / Interfaces & Plug-ins / Web Service Settings" in EvaSys.

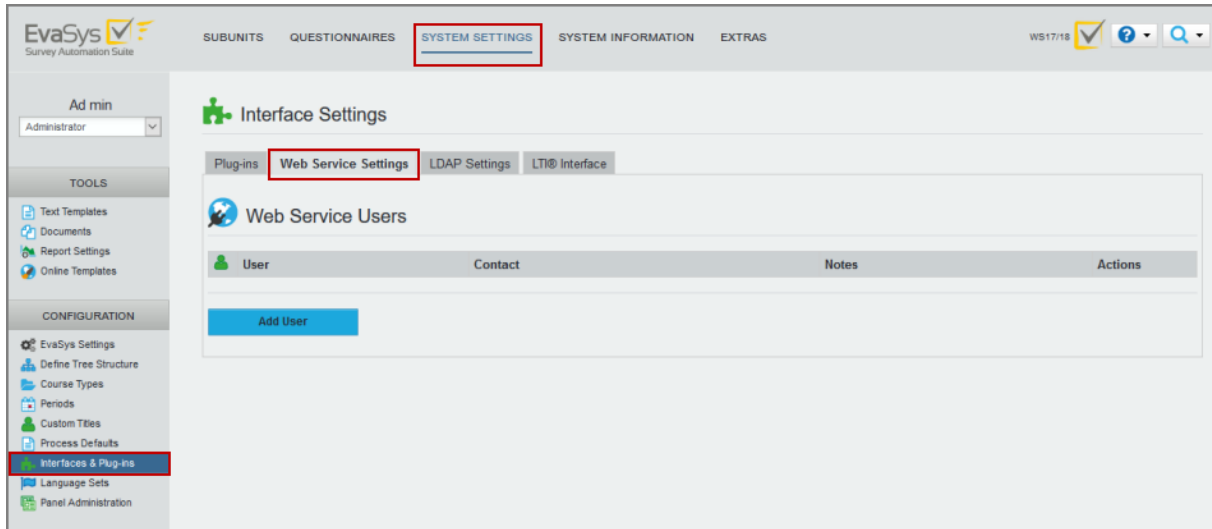


Figure 6: Web Service Settings

Adding a new Web Service User

Connecting Moodle web servers have to be added via the Web Service Users section. This area contains a list of existing web service users and an **[Add User]** button.

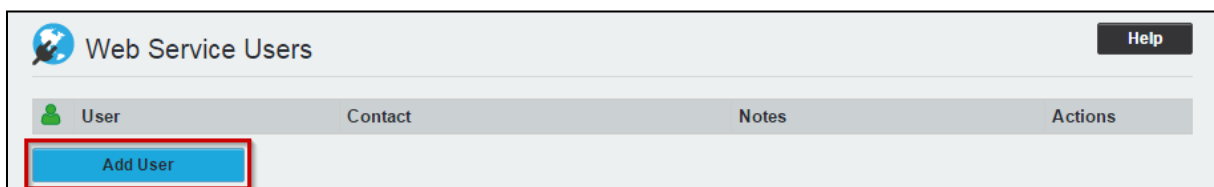


Figure 7: Web Service Users

Login name (default: soap) and password (default: server) are mandatory (later to be configured in the moodle block); other fields are optional when creating a new web service user.

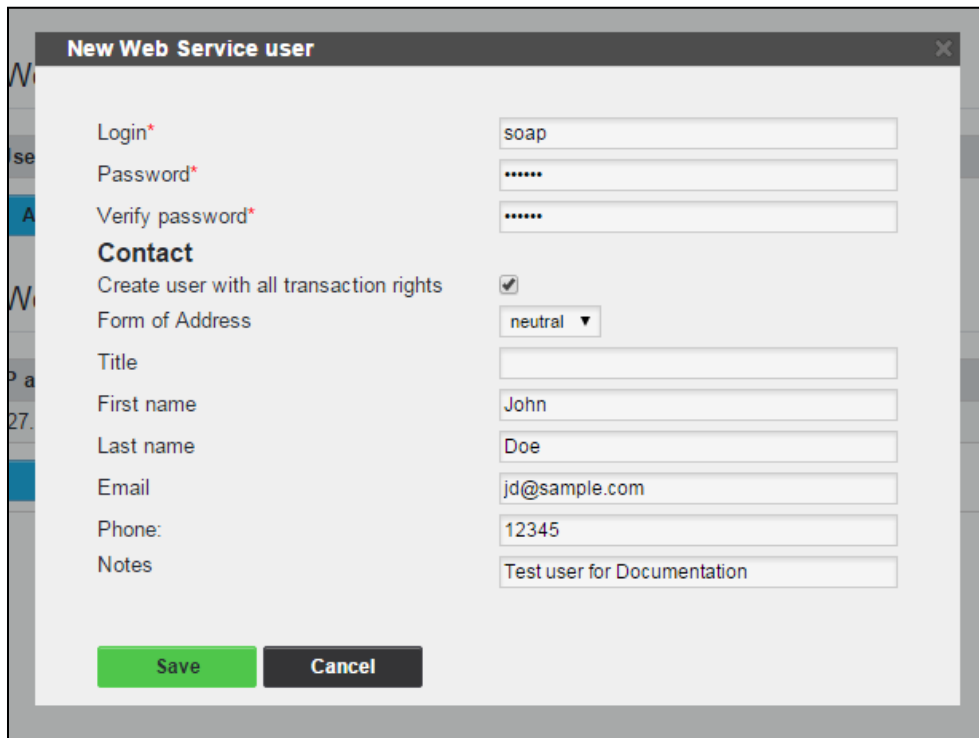


Figure 8: Adding new web service user

The IP address range must also be configured. The IP address of the connected Moodle server is configured in the "Web Service IP-Address Settings" tab.



Figure 9: Adding new web service user


Individual IP addresses or IP address ranges can be specified. The latter is only helpful for load balancing or redundant systems.

It is important that the connected server and the EvaSys server can communicate via the configured IP. When using proxy servers, it may be necessary to store the IP of the proxy server.

If a non-configured system tries to use the EvaSys web service, an error message appears.

Complete the process of adding web service users by clicking the **[Save]** button in the "Web Service user" tab.

Configuring Transaction Rights

It is important to create new web service users with all transaction rights. Please first click on the icon  to display the available transaction rights.

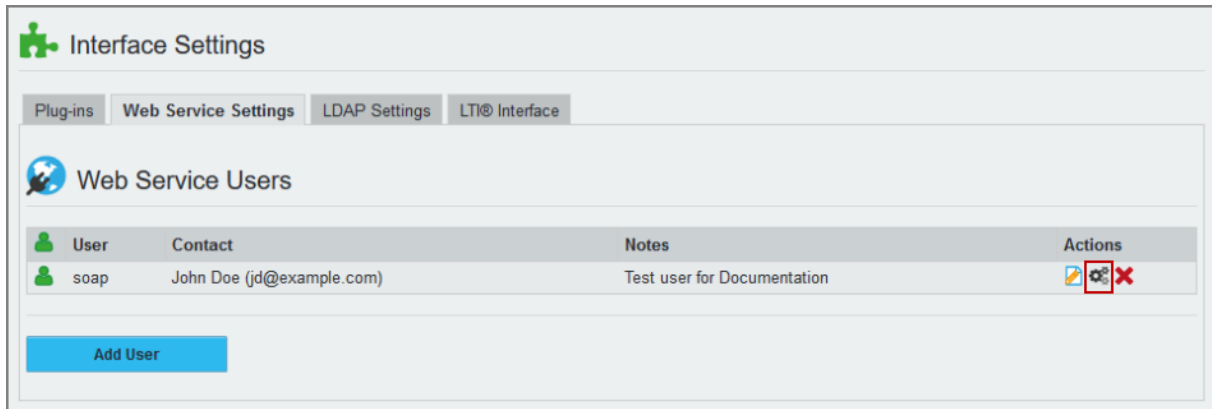





Figure 10: Open Web Service Transaction rights

Then select “getpswdbyparticipant” in the list and click **[Save]** at the end of the list.



Figure 11: Web Service Transaction rights

Editing and Removing a Web Service User

Existing web service users can be edited by using the icons  and  located in the “Actions” column. They can be deleted by using the icon .

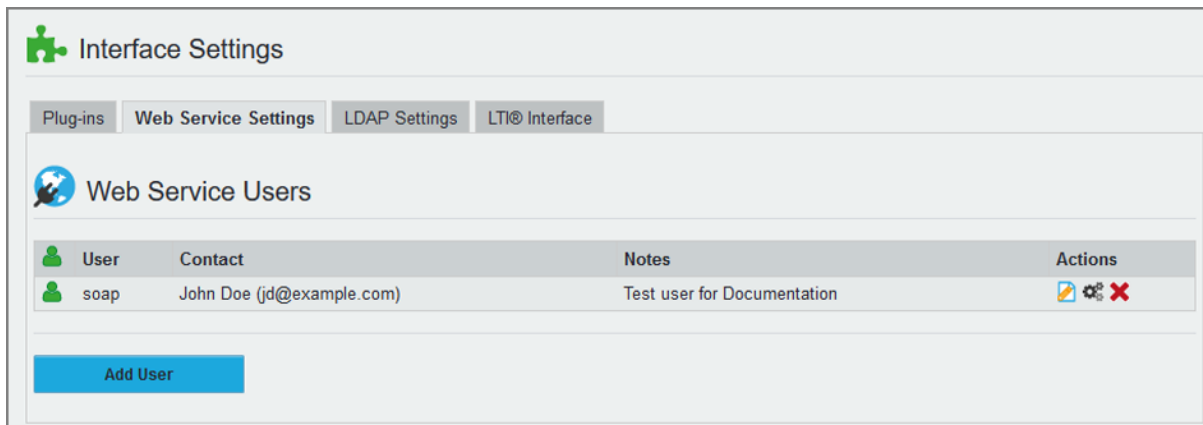


Figure 12: Actions column

Editing the WSDL File

Finally, locate the EvaSys WSDL file and enter the server's IP (the EvaSys server) at the very end of the file.

Replace 'localhost' with the actual IP or DNS name in this line:

```
<SOAP-address location="http://localhost/evasys/services/SoapServer-V51.php"/>
```

Default path to the WSDL file if Apache web server is used:

```
c:\apache\htdocs\evasys\services\soapserver-v51.wsdl
```

Default path to the WSDL file if IIS web server is used:

```
c:\inetpub\wwwroot\evasys\services\soapserver-v51.wsdl
```

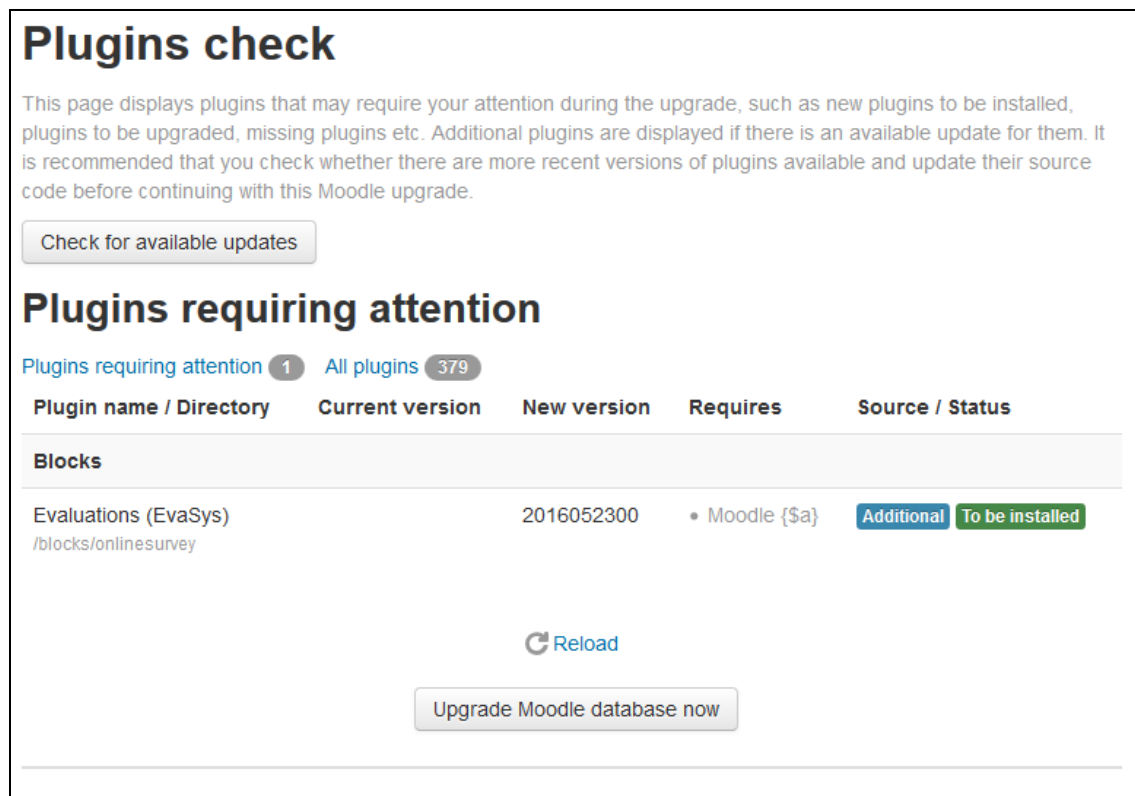
Please note, that the v5.1 WSDL file must be used with newer versions of EvaSys as well.

4. Installation in Moodle

The plug-in installation is conducted via copying the installation package directly into the file system. The destination directory is:

[MOODLE INSTALLATION DIRECTORY]\blocks

After performing the copy operation, log in as administrator and you will see the notification screen with a list of the new plugins:



Plugins check

This page displays plugins that may require your attention during the upgrade, such as new plugins to be installed, plugins to be upgraded, missing plugins etc. Additional plugins are displayed if there is an available update for them. It is recommended that you check whether there are more recent versions of plugins available and update their source code before continuing with this Moodle upgrade.

[Check for available updates](#)

Plugins requiring attention

Plugins requiring attention **1** All plugins **379**

Plugin name / Directory	Current version	New version	Requires	Source / Status
Blocks				
Evaluations (EvaSys) /blocks/onlineSurvey	2016052300		• Moodle {>3.9}	Additional To be installed

[Reload](#)

[Upgrade Moodle database now](#)

Figure 13: Plug-in installation

Click **[Upgrade Moodle database now]** on the bottom of the page to proceed with the installation:



Upgrading to new version

block_onlineSurvey

Success

[Continue](#)

Figure 14: Installation complete

Click the button **[Continue]** to get to the next step of the installation.

General settings for the EvaSys block are made in the upper section of the window. In the lower section, you can define specific settings for the connection via SOAP or LTI®.

In the general section **Evaluations (EvaSys)** you can set the following options:

- **Title:** The text entered here is used as the block title. (default: Evaluations (EvaSys)). You can define more than one language (e.g. English and German) using the following scheme:
`{mlang en}Evaluations (EvaSys){mlang}{mlang de}Evaluationen (EvaSys){mlang}`
- **Communication:** Here you can define whether Moodle should communicate with EvaSys via SOAP or LTI®. (default: LTI®)
- **User Identifier:** Select whether a user's email address or log-in name as a unique identifier should be used. (default: e-mail address)
- **Custom field in EvaSys:** If the login name is defined as an identifier, one of the first three custom fields in EvaSys can be used for authentication.
Please note: This setting is only relevant for learners. If you decide to use the login name for instructor, the login name must be stored in EvaSys in the field "External ID" of the user settings.
- **Display mode:** In compact mode, the EvaSys Block displays the number of open surveys by means of a graphic. In detailed mode, a list of available surveys is displayed. In both modes, an enlarged list view can be opened when clicking on the graphic or magnifier icon.

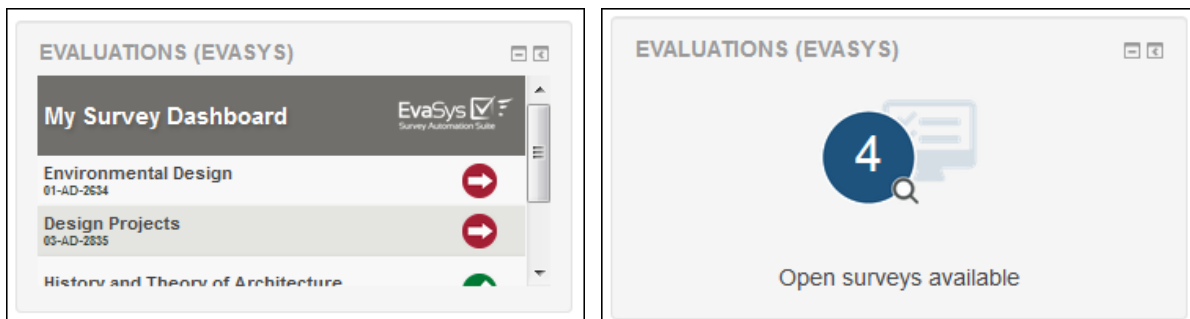


Figure 15: Display mode of the block – Detailed (left) and Compact (right)

- **Hide empty block:** If activated, the EvaSys block is hidden when the user has no surveys. If it is not activated, in the compact view a graphic with the text "No open evaluations available" is displayed. Please note: If the LTI template you are using is configured in a way that participants are allowed to see and/or access results for surveys they have taken part in, you may not hide the block. Otherwise, they would no longer be able to access the results.
- **Pop-up info active:** If activated, a pop-up with information on open online surveys (if existing) is displayed every time a student logs in to Moodle. (default: No)
- **Connection timeout in seconds:** max. response time of the EvaSys server. (default: 3 seconds)
- **DEBUG:** Activate / deactivate error reporting in the user interface. (default: No)

- **Additional CSS for iframe:** Here you can add additional elements to the iframe with the help of CSS.

Evaluations (EvaSys)

Title

{mlang en}Evaluations (EvaSys){mlang}{i

Default: Evaluations (EvaSys)

Communication channel

LTI

Default: LTI

User Identifier

Email address

Default: Email address

Custom field in EvaSys

Custom field No. 1

Default: Custom field No. 1

Display mode

compact

Default: compact

Hide empty block

☐

Default: No

Pop-up-Info active

☒

Default: No

Connection timeout in seconds

3

Default: 0

DEBUG

☐

Default: No

Additional CSS for iframe

Default: Empty

Moodle and EvaSys can communicate via LTI or via SOAP. Depending on the communication channel selected here, please do your further settings in the corresponding section below.

You can either transmit the user login name or email address as unique identifier.

When using the login name as identifier you can specify, which of the first three custom fields in EvaSys should be used for authentication.

In compact mode, the EvaSys Block displays the number of open surveys by means of a graphic. In detailed mode, a list of available surveys is displayed. In both modes, an enlarged list view can be opened upon mouse click.

If activated, the EvaSys block is hidden when the user has no open surveys.

If activated, a pop-up message is displayed upon login of a user, giving notice of open surveys.

Content here will be added as CSS to the bottom of HEAD in iframe.

Figure 16: Block settings dialog

When using **SOAP**, configure the following settings:

- **EvaSys Server (SOAP):** URL of the web service description file of your EvaSys installation ([http://\[SERVERNAME\]/evasys/services/soapserver-v51.wsdl](http://[SERVERNAME]/evasys/services/soapserver-v51.wsdl))
Please note: If EvaSys is operated with several servers (dual server option), the back-end server on which users and administrators work, must be specified here. This prevents a too high load on the online survey server.
- **EvaSys path for online surveys (SOAP):** URL of the EvaSys online survey login ([http://\[SERVERNAME\]/evasys/](http://[SERVERNAME]/evasys/)).
- **EvaSys SOAP user:** User name of the EvaSys SOAP user (cf. section EvaSys preparations).

- **EvaSys SOAP password:** Password of the EvaSys SOAP user (cf. section EvaSys preparations).
- **SOAP request at pageview:** If activated, the content of the EvaSys block will be updated each time the user opens the starting page. If not activated, the block is only updated upon login / at the beginning of the session.

SOAP

The following information is required only if you selected "SOAP" for communication.

EvaSys server (SOAP)
block_onlinesurvey | survey_server

Default: Empty

EvaSys path for online surveys (SOAP)
block_onlinesurvey | survey_login

Default: Empty

EvaSys SOAP user
block_onlinesurvey | survey_user

Default: Empty

EvaSys SOAP password
block_onlinesurvey | survey_pwd

SOAP request at pageview
block_onlinesurvey | soap_request_eachtime

☒ Default: No
If activated, the content of the EvaSys Block will be updated each time the user opens the starting page. If not activated, the block is only updated upon login / at the beginning of the session.

Figure 17: SOAP settings


When using LTI®, configure the following settings:

- **URL of the LTI provider:** URL of the provider PHP file on the EvaSys server.
([https://\[SERVERNAME\]/customer/lti/lti_provider.php](https://[SERVERNAME]/customer/lti/lti_provider.php))
- **LTI password:** Password defined in the EvaSys LTI® interface. (default: secret)
- **Custom Parameter:** Here the custom parameters are stored, which can be used to define settings for displaying the surveys, e. g. whether the student view should also display completed surveys (learner_show_completed_surveys=1) or whether the reports of the surveys can also be called up in the instructor view (instructor_show_report=1). For detailed information on the available parameters, please consult the EvaSys LTI® manual.
- **Role mapping "Instructor":** Defines which Moodle roles should correspond to the LTI® role "Instructor" (= lecturer) who will see the EvaSys Moodle plug-in for instructors.
- **Role mapping "Learner":** Defines which Moodle roles should correspond to the LTI® role "Learner" (= students) who will see the EvaSys Moodle plug-in for students.
- **Learner regular expression:** Regular expression which searches the content of the LTI®-Response for open online surveys. This only needs to be adjusted if customized templates have been created or modified in a way that the functions differ from the standard templates.
- **Instructor regular expression:** Regular expression which searches the content of the LTI®-Response for open online surveys. This only needs to be adjusted if customized templates have been created or modified in a way that the functions differ from the standard templates.

LTI

The following information is required only if you selected "LTI" for communication.

URL of the LTI Provider
block_onlinesurvey | lti_url
 Default: Empty

LTI password
block_onlinesurvey | lti_password
 

Custom parameters
block_onlinesurvey | lti_customparameters

learner_show_completed_surveys=1
 learner_load_instructor_images=1
 order_by_survey_close_date=1
 instructor_show_past_surveys_for_n_previous_periods=10
 instructor_survey_data_access_for_n_previous_periods=10
 instructor_show_report=1
 instructor_show_export=1

 Default: Empty
 Custom parameters are settings used by the tool provider. For example, a custom parameter may be used to display a specific resource from the provider. Each parameter should be entered on a separate line using a format of "name=value"; for example, "learner_show_completed_surveys=1". For further information please refer to the EvaSys LTI Manual.

Role mapping "Instructor"
block_onlinesurvey | lti_instructormapping

Manager
 Course creator
Teacher
 Non-editing teacher
 Student
 Guest
 Authenticated user
 Authenticated user on frontpage

 Default: Teacher, Non-editing teacher
 Here you can define which Moodle roles shall be mapped on the LTI role "instructor".

Role mapping "Learner"
block_onlinesurvey | lti_learnermapping

Manager
 Course creator
 Teacher
 Non-editing teacher
Student
 Guest
 Authenticated user
 Authenticated user on frontpage

 Default: Student
 Here you can define which Moodle roles shall be mapped on the LTI role "learner".

Learner regular expression
block_onlinesurvey | lti_reger_learner

 Default: /<(div){1}\s{1},(class=){1}\s{1}[a-z]{0,}\s{0,}(participate){1}\s{0,}[a-z]{0,}\s{0,}\s{1}>/
 Regular expression to search for open online surveys for "learners" in the LTI result.

Instructor regular expression
block_onlinesurvey | lti_reger_instructor

 Default: /<(div){1}\s{1},(class=){1}\s{1}[a-z]{0,}\s{0,}(cell survey){1}\s{0,}[a-z]{0,}\s{0,}\s{1}>/
 Regular expression to search for open online surveys for "instructor" in the LTI result.

Figure 18: LTI® settings

If all necessary settings have been made, please click on the **[Save changes]** button to continue.

The block can be added to the user interface by turning on editing by the **[Turn editing on]** button and selecting the "Evaluations (EvaSys)" option in the "Add a block" menu.

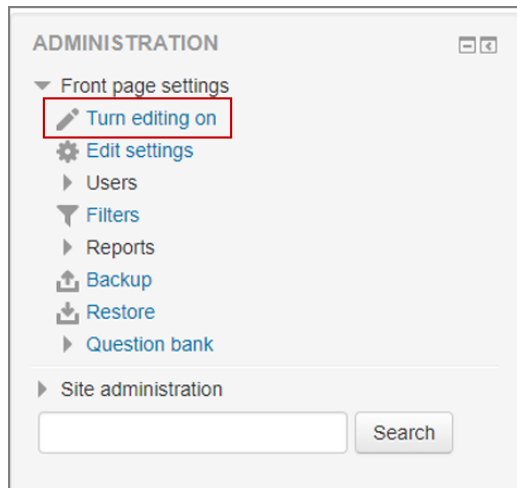


Figure 19: Turning editing on

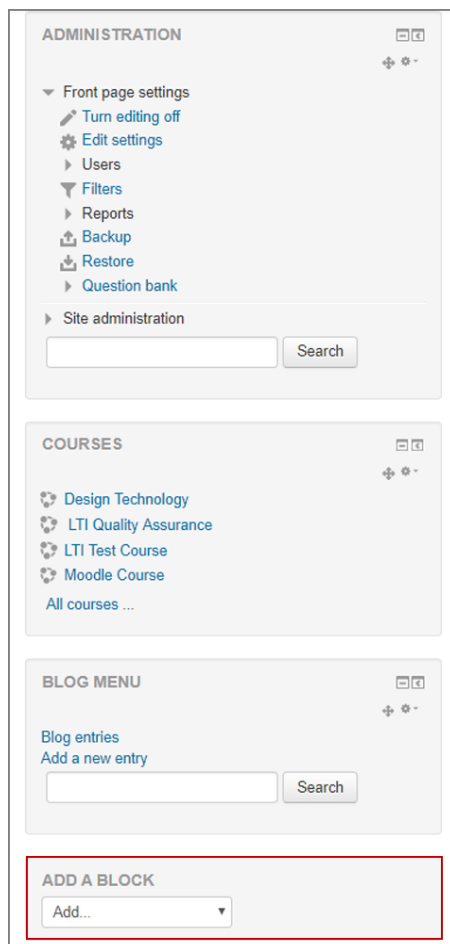


Figure 20: Adding a block

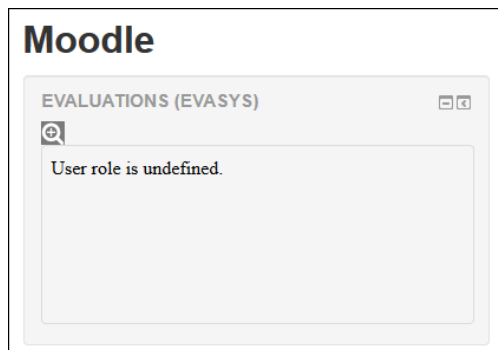


Figure 21: Block shown on the administrator's front page (above SOAP, below LTI)

5. Administrator's Functionalities

From the administrator's perspective, the block only checks whether the connection to the EvaSys server can be established. If problems occur these are logged to the log file (provided that logging is activated) and an error message is displayed.

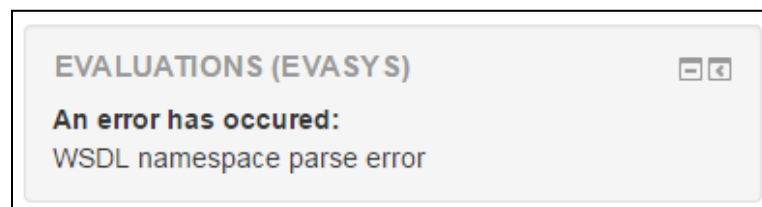


Figure 22: Connection error message

6. Moodle Block in Learner View

If the Moodle plug-in for EvaSys has been activated for the learner view, the block appears at the defined position directly on the Moodle homepage.

The following functions are available when using the LTI[®] interface:

If activated, a pop-up window will appear after logging in which informs students that open online surveys are available. The message appears after each new login as long as open online surveys are available. If there are no more surveys in which the student can participate, the message will not be displayed any more.

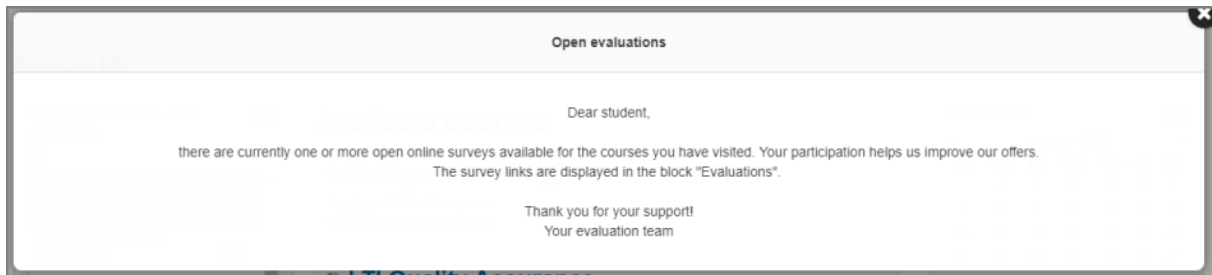


Figure 23: Pop-up window in student view

The Moodle block shows a list of current surveys for the time period defined by the LTI® parameter, e. g. for the current semester. Surveys in which the student has not yet taken part are always displayed at the top of the list.

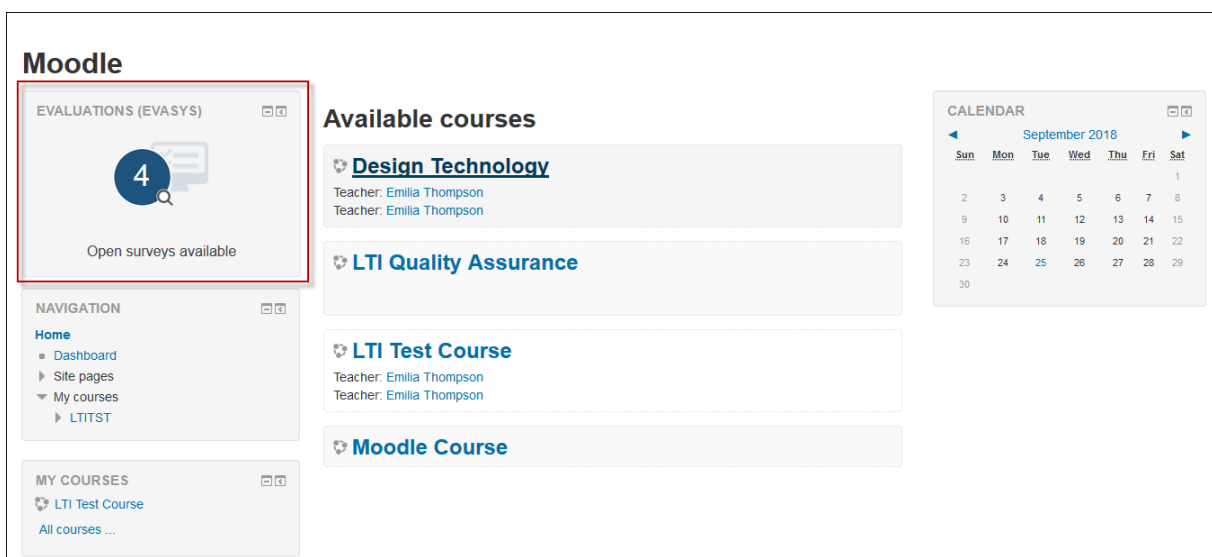
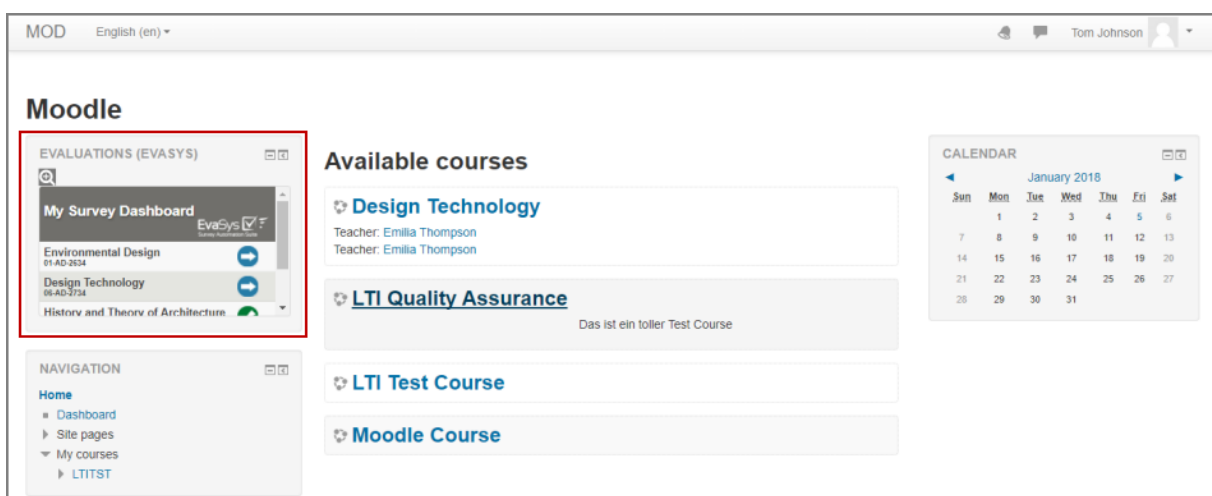


Figure 24: EvaSys Moodle block on the home page - Student view (detailed and compact view)

By clicking on the magnifier icon at the top left of the block, the view can be enlarged so that all information of the list according to the LTI® template can be seen.

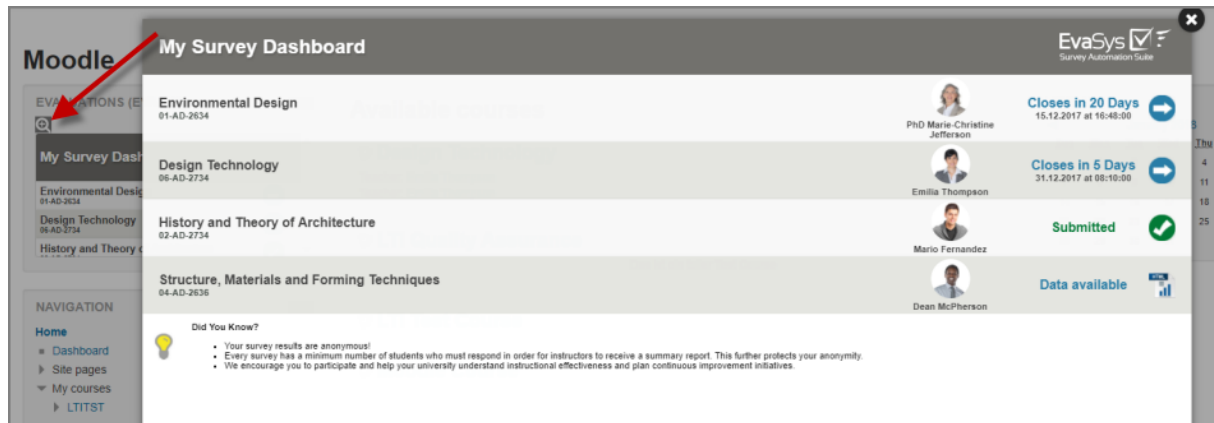


Figure 25: Moodle block enlarged view

The example shows four courses which the student can evaluate. The first two surveys have not yet been completed. By clicking on the arrow, you can switch directly to the survey. Further authentication via PSWD is not necessary.

The third course has already been evaluated. The online questionnaire has already been sent to the participants. However, the survey has not yet been officially completed. In the LTI® template, a custom parameter has been used to define that surveys in which the student has already participated are still to be displayed.

In the fourth case, the LTI® template has been set up through a custom parameter to allow students to access the data once the survey has been completed. If you click on the HTML symbol, you will receive a HTML representation of the survey results in your browser.

The layout and the displayed contents of the LTI® template are freely configurable. The result view for participants can be activated or deactivated, for example. For more detailed information, please consult the EvaSys LTI® manual.

When using **SOAP API**, the EvaSys Moodle Block is kept far more simply, as it only displays a list of links to open online surveys. The online questionnaire can be opened by clicking on the link.

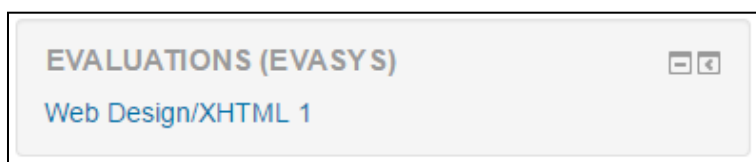


Figure 26: Online survey link

If no open online surveys are available, a message appears:



Figure 27: No open online surveys

The block cannot be further configured and has no extended functions.

7. Moodle Block in Instructor View

If the Moodle plug-in for EvaSys has been activated for the lecturer view, the block appears at the defined position on the Moodle homepage.

The instructor view is only available when using the LTI[®] interface, not when using SOAP.

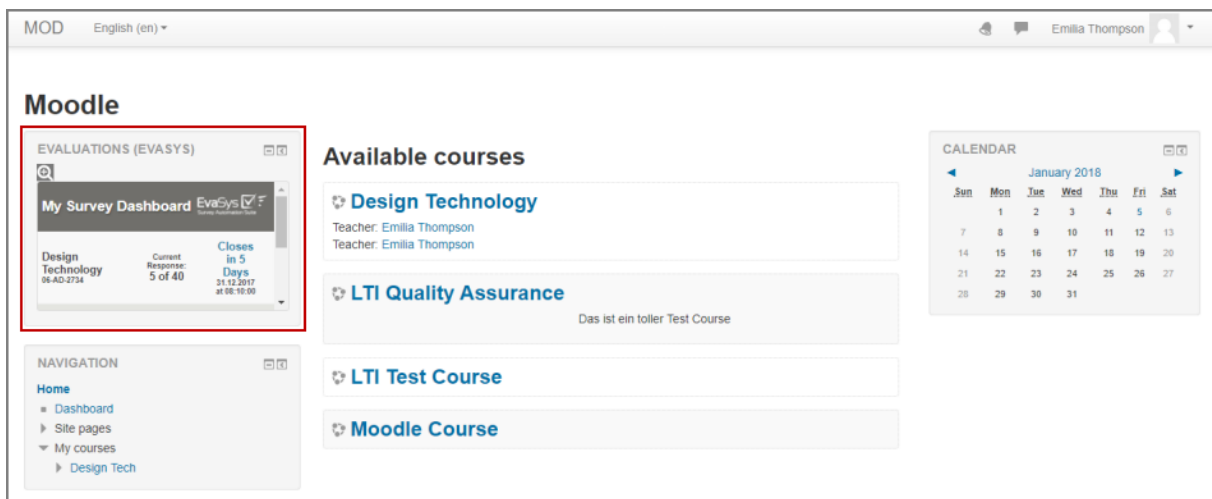


Figure 28: EvaSys Moodle block on the homepage – lecturer view

By clicking on the magnifier icon at the top left of the block, the view can be enlarged so that all information of the list according to the LTI[®] template are visible.

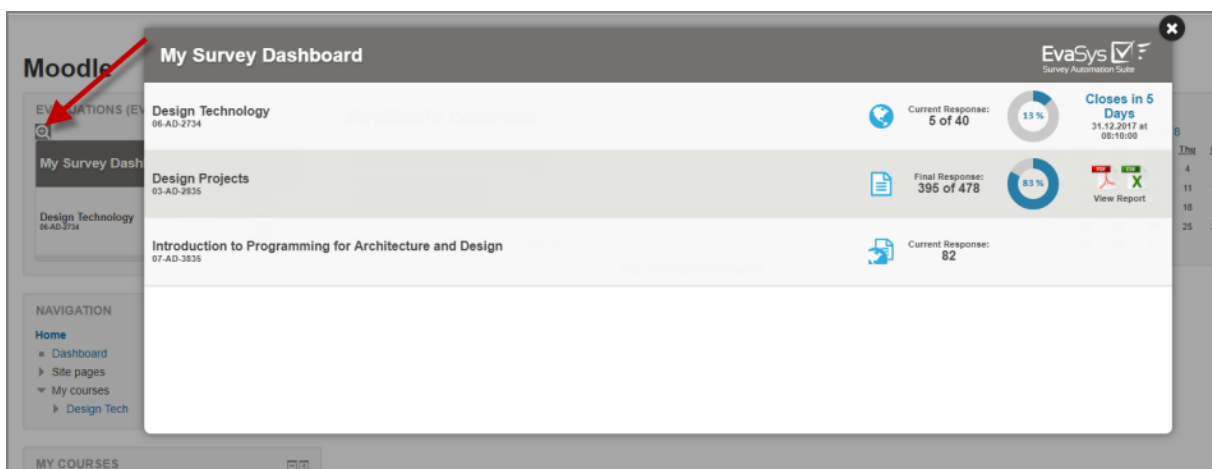


Figure 29: Moodle block enlarged view

In the example above you can see three courses of a lecturer. Depending on how the LTI[®] template is configured, different information can be made available. The first event is an open online survey. The currently available response rate is displayed, as well as information about when the survey ends.

The second example is a paper-based survey which has already been completed. The final response is displayed and the evaluation can be downloaded in PDF format or in the form of CSV raw data.

The third example shows a hybrid survey which is still open. Only the current response is displayed.

The layout as well as the displayed contents of the LTI[®] template can be freely configured. The download of the evaluations can be activated or deactivated, for example. For more detailed information, please consult the EvaSys LTI[®] manual.

8. How to Connect Surveys between EvaSys and Moodle

The link between student Moodle users and an EvaSys online survey is either achieved by using the student's email address or by an EvaSys custom field which must contain the name of the Moodle user (see chapter 4 "Installation in Moodle").

After the students have logged in to Moodle, the email address or user name is transferred to EvaSys. EvaSys checks whether there are open online surveys for courses in which the email address or user name of the student has been imported as a participant.

For this reason, it is necessary to import participants' data into EvaSys before generating online surveys.

Participants data can be imported using a simple CSV file format. If the **email address is used as an identifier** the CSV format only has to include the course ID followed by an email 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

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

If the user name is used as an identifier, the CSV format must also contain the Moodle user name. This is imported into one of the first three possible custom fields. Further information such as first and last name, title etc. can be imported, if desired. For more detailed information on the file format, please refer to the EvaSys User Guide.

Example:

MA05Wiw2;person01@example.com;;;;;person01_User_name

MA05Wiw2;person02@example.com;;;;; person02_User_name

MA05Wiw2;person03@example.com;;;;; person03_User_name

MA05Con;person01@example.com;;;;; person01_User_name

MA05Con;person03@example.com;;;;; person03_User_name

MA05Con;person04@example.com;;;;; person04_User_name

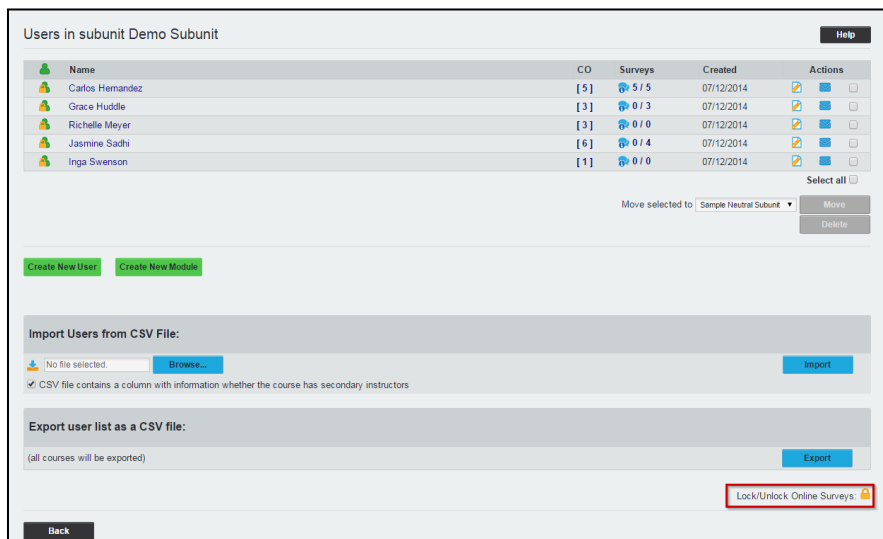
Please note: If you import further information such as the user name via a custom field in addition to the course ID and the email address, the related course is automatically treated as non-anonymous which means that the raw data of the surveys will later allow you to assign the record to the participant.

If you want to avoid this, create a "dummy" course in your EvaSys system, which is used exclusively to record all student participant data. If you import the email addresses of the participants for the "real" courses, the system checks in the background when communicating with Moodle whether there are any surveys for the user name which belongs to this email address. The courses remain anonymous.

Before importing the participants' data into EvaSys you first have to setup the subunits, 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.

Please refer to chapter B 2.2.3 of the EvaSys User Guide for more information about the participants' data import process.

Existing online surveys will not be visible in Moodle if they are set to "closed". You can lock or unlock each survey individually or for a whole subunit. This helps you to control the visibility of available online surveys in the Moodle portal.



Users in subunit Demo Subunit

Name	CO	Surveys	Created	Actions
Carlos Hernandez	[5]	5 / 5	07/12/2014	
Grace Huddle	[3]	0 / 3	07/12/2014	
Richelle Meyer	[3]	0 / 0	07/12/2014	
Jasmine Sadhi	[6]	0 / 4	07/12/2014	
Inga Swenson	[1]	0 / 0	07/12/2014	

Move selected to: Sample Neutral Subunit

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 secondary instructors

Export user list as a CSV file:

(all courses will be exported) Export

Lock/Unlock Online Surveys

Back

Figure 30: Lock / Unlock surveys in EvaSys

Alternatively the duration of the survey can be defined by using the function „time-controlled surveys“.

In case of configured scheduled tasks, the survey will not be displayed in Moodle before the survey start date and after the survey end date.

Please refer to chapter B 3.10 of the User Administrator Guide for more information about the scheduled tasks.

9. Notes on Contacting Support

In order to be able to trace the problem efficiently, support needs various log files from the servers involved in the integration. When contacting Electric Paper support please take the following steps and provide the log files listed below:

- Enable “Debug mode” on the EvaSys server (please refer to the EvaSys Administrator manual for details)
- Enable “Debug mode” in the Moodle block settings
- Perform a test run with a student account for which online surveys are available
- Make notes (screenshot if possible) regarding date and time of your test run and the error message displayed
- Disable “Debug mode” on the EvaSys server and Moodle

The following log files should be provided when contacting Electric Paper support:

File name	Default location
access.log	C:\apache\apache\logs (if Apache web server is used)
soapserver.log	C:\apache\htdocs\evasys\data\logs (if Apache web server is used)
	C:\inetpub\wwwroot\evasys\data\logs (if IIS web server is used)
MoodleBock.log**	Directory name provided in the settings dialog

If you need assistance in setting up and configuring the plug-in in Moodle, or if you are interested in a custom development for the plug-in, Soon-Systems GmbH can offer you a corresponding service. In case of interest, please contact info@soon-systems.de.