

EQUELLA[®]

Moodle Configuration Guide

Version 6.4

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EQUELLA Moodle™ integration overview

EQUELLA integrates easily with Moodle™ by using the EQUELLA Moodle Module to create a seamless system for users. Additionally the EQUELLA Shared Secret functionality provides a single sign-on for users.

The purpose of this guide is to provide system administrators with an understanding of the EQUELLA Moodle integration process to enable successful integration.

Please note that this guide has been developed using EQUELLA version 6.4 and Moodle version 2.9 and, as such, may differ in appearance to your own installation.

Open source

The Moodle module, blocks and legacy repository plug-in are available under the GPLv3 licence. The source code for these projects can be found at <https://github.com/equella/>.

Prerequisites

To successfully complete this installation the system administrator will require:

- sufficient privileges to access the Moodle system integration functionality;
- sufficient privileges to access the EQUELLA User Management functionality (further information is provided in the *EQUELLA Security Guide*); and
- privileges to unzip and create files on the Moodle file system.

System prerequisites for integration

- EQUELLA version 6.4 and Moodle version 2.6, 2.7 or 2.8 must be installed and running. Further information on installing EQUELLA is provided in the *EQUELLA Installation and Administration Guide*.
- Ensure the time settings of the servers are set correctly, including DST, for the relevant time zone.
- To access the EQUELLA Dashboard page at least one course must have been created in Moodle. Refer to the Moodle documentation for more information.

Integration procedure

EQUELLA Moodle integration can be broken into the following steps:

1. Configure and enable the LTI consumer and shared secret in the EQUELLA User Management tool.
2. Download the Moodle Module from the EQUELLA Institution Manager.

3. Install the EQUELLA Moodle Module to the Moodle directory.
4. Activate the EQUELLA Resource Module in Moodle.
5. Test the installation.

Configure EQUELLA

This section describes the required configuration changes to EQUELLA to support a seamless integration. To achieve this, an EQUELLA LTI Consumer needs to be registered, along with a Shared Secret configuration.

Register an LTI consumer

LTI consumer client registrations are registered from the **Settings** page in EQUELLA.

To create a new LTI consumer

1. Select **Settings** from the navigation menu, and either type *LTI* in the filter box, then select **LTI consumers** from the results or scroll down to **LTI consumers** on the Settings list. An example is shown in Figure 1.

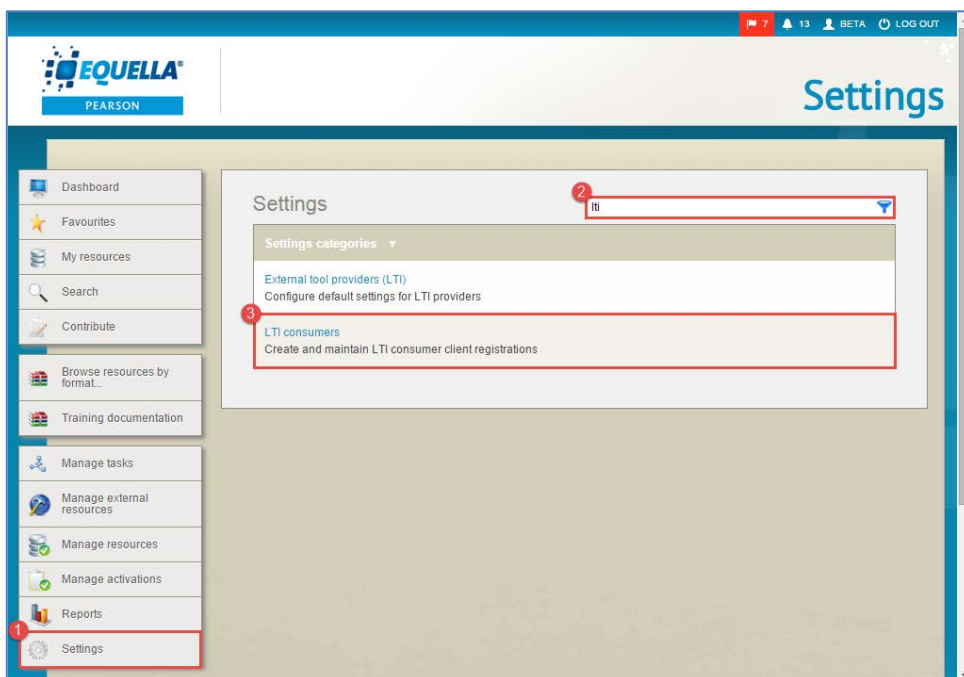


Figure 1 Settings page - LTI consumers

The **LTI consumers** page displays. An example is shown in Figure 2.

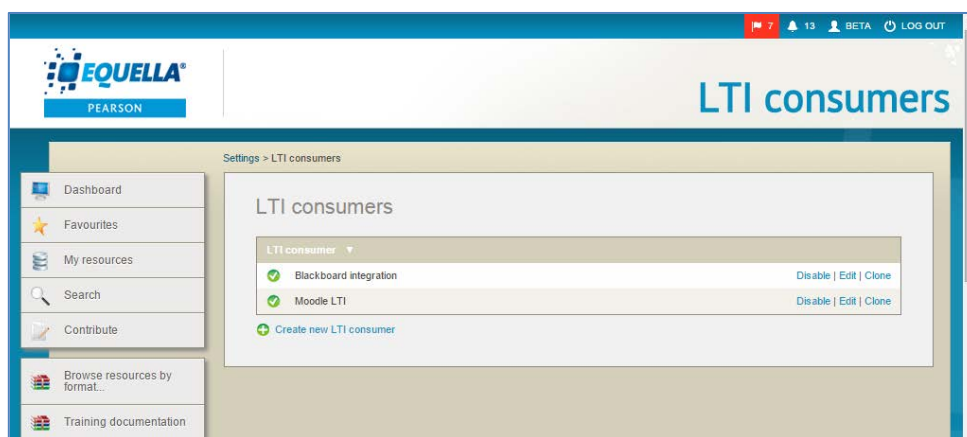


Figure 2 LTI consumers page

2. Select the **Create new LTI consumer** link to open the **Create new LTI consumer** page. An example is shown in Figure 3.

Figure 3 Create new LTI consumer page

3. Enter a **Title** (e.g. *Moodle LTI*) and a **Description** (optional).
4. A default **Consumer key** displays. This can be changed as desired (e.g. *moodleint*). Take note as the **Consumer key** is entered in Moodle during integration configuration.
5. A default **Consumer secret** displays. This can be changed as desired. Take note as the **Client secret** is entered in Moodle during integration configuration.

Other options can be enabled as required. Further information on LTI consumers is provided in the *EQUELLA LTI Consumer Configuration Guide*.

LTI/LIS Role Mappings

When logging into Moodle, users are assigned a Moodle role which can be *Teacher* or another role. Moodle's *Teacher* role is translated as *Instructor* for LTI purposes, and all other roles as *Other*. LTI '*Instructor*' and '*Other*' roles need to be mapped to the relevant EQUELLA roles for EQUELLA permissions to apply. Additionally, it is wise to map *Unknown* roles that may be sent to EQUELLA. This is done from the **LTI/LIS Role Mappings** section of the *Add new LTI consumer* or *Edit LTI consumer* pages.

The **LTI/LIS Role Mappings** section has three areas:

- **Instructor role** – map the Moodle 'Teacher' role to EQUELLA role/s.
- **Other roles** –this area is used to map all other roles that might be used in the integration. A list of the standard LTI/LIS roles is supplied, of which '*Other*' is one. For more information about mapping other LTI/LIS roles and custom roles, see the *EQUELLA LTI Consumer Configuration Guide*.
- **Unknown roles** – use this area to select the EQUELLA roles to default to when an unknown role is sent to EQUELLA. An example is shown in Figure 4.

LTI/LIS Role Mappings

Instructor role Instructor => Content Administrator Role ✕
 + Add roles
 Select the EQUELLA roles that should be used when the LTI Instructor role is detected

Other roles Other => Viewer Role ✕
 Enter LTI/LIS role + Add roles
 Enter a standard or custom LTI role, then select the EQUELLA roles. Note: LTI roles are case sensitive

Unknown roles <Unknown> => Guest User Role ✕
 + Add roles
 Select the EQUELLA roles that should be used for all unmapped LTI roles

* indicates mandatory fields

Figure 4 LTI/LIS Role Mappings

Mapping the Instructor and Unknown roles

In the **Instructor** and **Unknown** roles fields, the **Add roles** link is used to select the EQUELLA roles to be used in the mappings. An example using the Instructor role is shown below:

To map to EQUELLA role/s

1. Click the **Add roles** link under the **Instructor role** field. An example is shown in Figure 5.

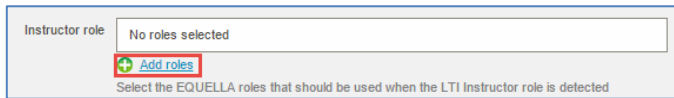


Figure 5 Add roles link

The **Select role(s)** dialog displays. An example is shown in Figure 6.

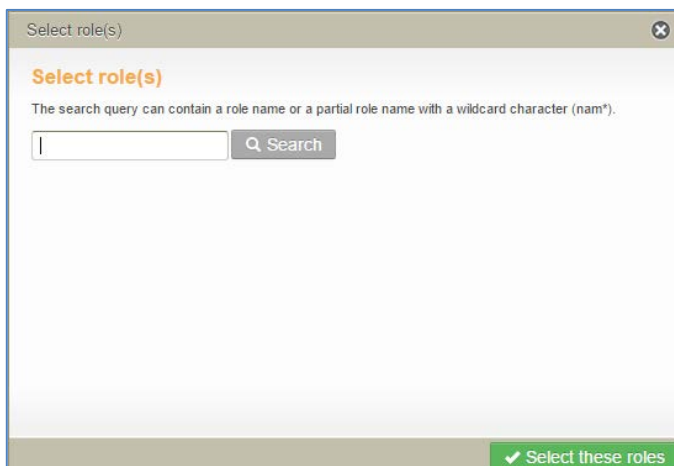
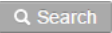


Figure 6 Select role(s) dialog

2. Enter a search query then click . Matching results display. An example is shown in Figure 7.

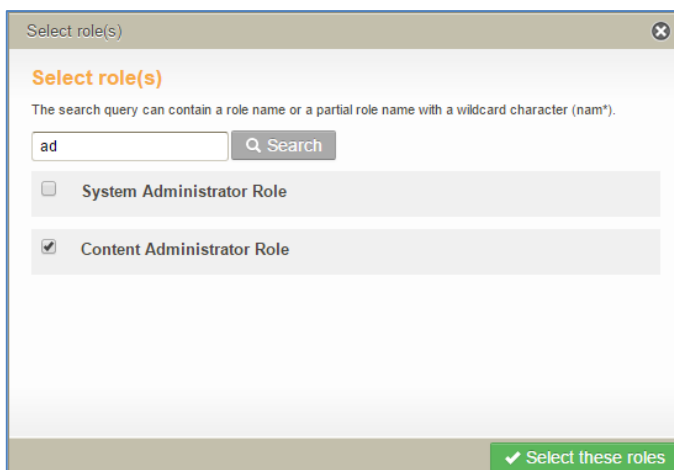


Figure 7 Select role(s) dialog – results

3. Select the required role/s, then click . The mapping/s displays in the Instructor role field. An example is shown in Figure 8.

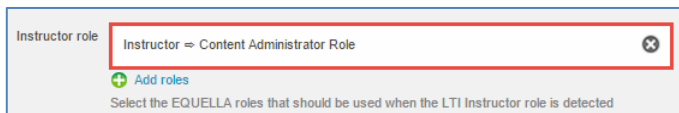


Figure 8 Instructor role field with one mapping

Select the **Add roles** link to add more mappings.

Mapping the 'Other' role

The **Other roles** section is used to map LTI/LIS standard roles (including the role '*Other*' which is used in the Moodle integration) to EQUELLA roles.

To map the 'Other' role

1. In the **Other roles** area, start typing the required LTI/LIS role (*Other*) in the **Enter LTI/LIS role** field. A list of all the standard LTI/LIS roles displays in a drop-down list. An example is shown in Figure 9.

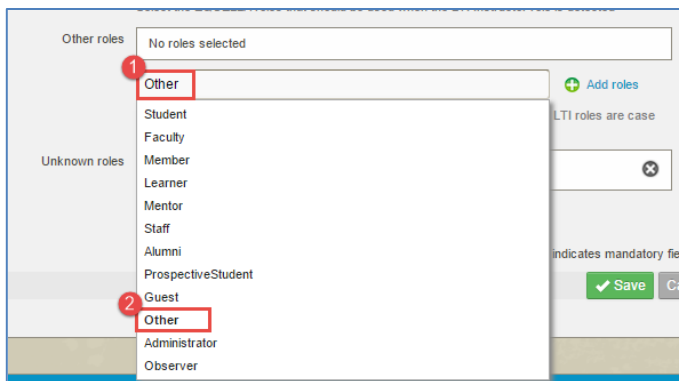


Figure 9 List of standard LTI /LIS roles

2. Select **Other** from the drop-down list.
3. Click the **Add roles** link next to the selected LTI/LIS role. An example is shown in Figure 10.

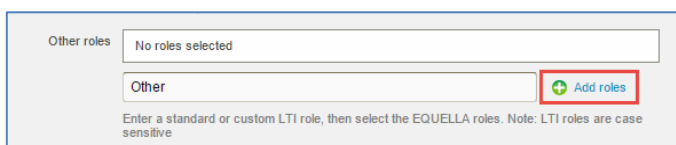


Figure 10 Add roles link

The **Select role(s)** dialog displays. An example is shown in Figure 11.



Figure 11 Select role(s) dialog

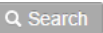
4. Enter a search query then click . Matching results display. An example is shown in Figure 12.



Figure 12 Select role(s) dialog – results

5. Select the required role/s, then click . The mapping/s displays in the **Other roles** field. An example is shown in Figure 13.

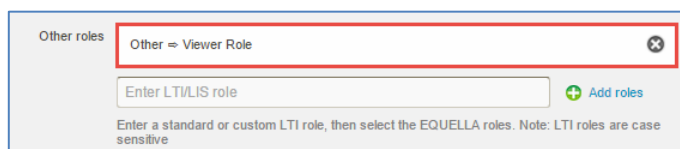


Figure 13 Other roles field with one mapping

To add further EQUELLA roles to 'Other' roles that have existing mappings or to add another LTI/LIS role mapping, repeat steps 1 to 5.

An example with multiple EQUELLA roles mapped to LTI role 'Other' is shown in Figure 14.

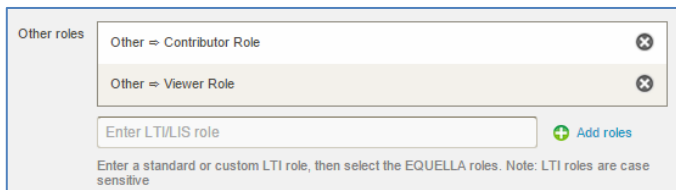


Figure 14 Other roles section with multiple EQUELLA mappings for 'Other' role

Configure a shared secret

Shared secrets are configured in the EQUELLA Administration Console.

To open the Administration Console

1. Open a browser and enter your EQUELLA URL (e.g. 'http://equella.myequellainstitution.edu').
2. Log in to EQUELLA as an administrator, select **Settings** then **Administration console**, as shown in Figure 15.

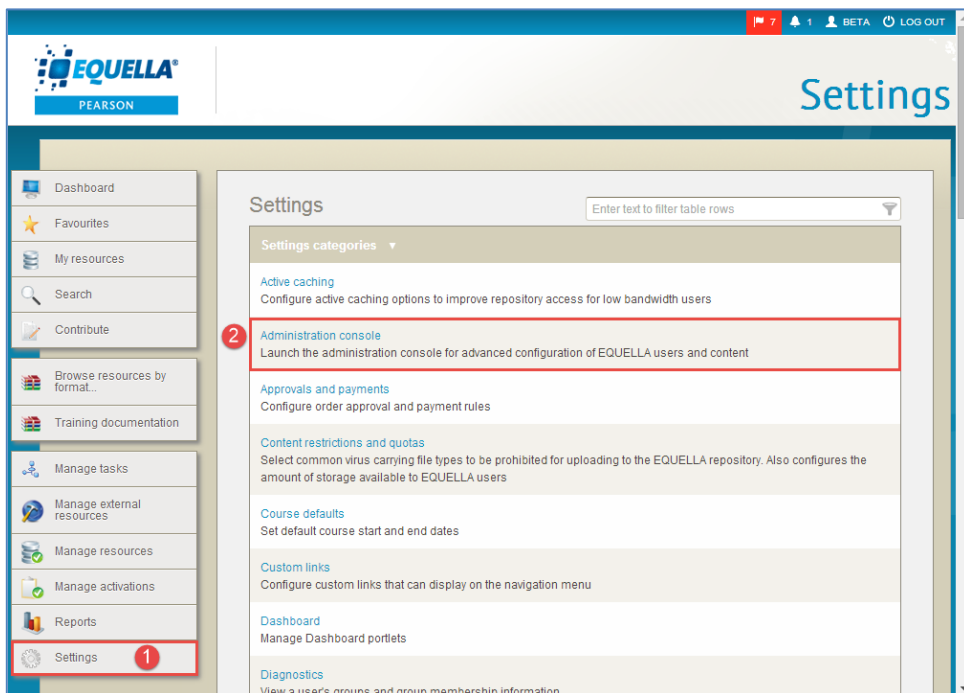


Figure 15 Open Administration console

3. The Administration console displays. Select **User Management** to display a list of plug-ins, as shown in Figure 16.

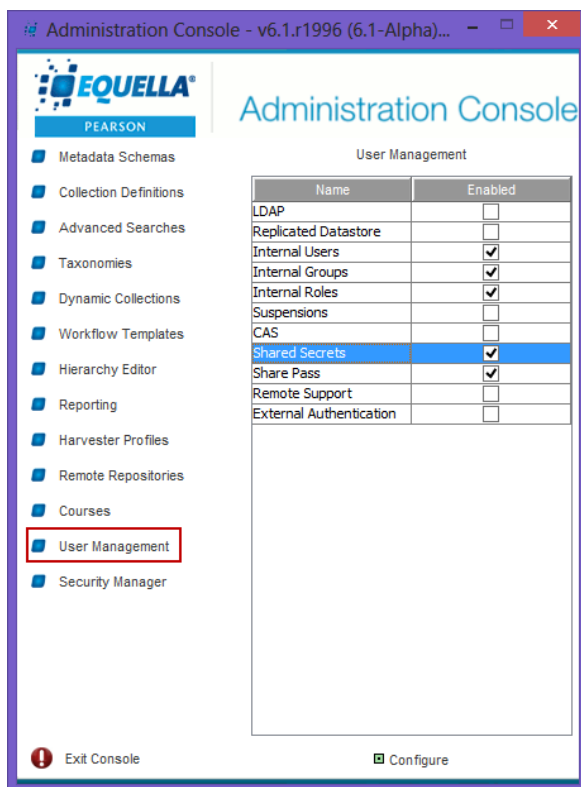


Figure 16 Administration Console—Shared Secrets

4. Highlight the **Shared Secrets** user management plug-in, then click **Configure**. The **Shared Secrets** dialog displays. An example is shown in Figure 17.

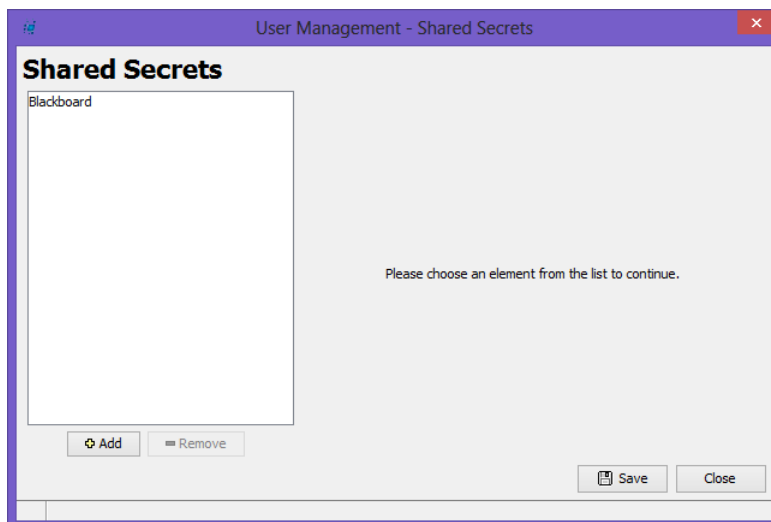


Figure 17 Shared Secrets dialog

5. Click **Add** to create a new shared secret. The Shared Secrets dialog now displays a new shared secret named 'DEFAULT' in the left-hand pane, and the configuration elements to the right of the pane. An example is shown in Figure 18.

Figure 18 New Shared Secret

6. Enter a unique **Identifier (ID)** (e.g. *moodle*).
7. Enter a **shared secret** (e.g. *mS3cr3t*). The secret may be any combination of characters and numbers, but strings longer than eight characters consisting of upper and lower case alphanumeric characters are recommended. An example is shown in Figure 19.

Figure 19 User Management—Shared Secrets configuration dialog


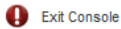
8. Make a note of the identifier and shared secret as they will be needed to complete the [Activate the EQUELLA Resource module](#) section on page 16.

Other options can be enabled as required. Further information on shared secrets is provided in the *EQUELLA User Management Configuration Guide*.

9. Click .

10. Click  to close the dialog.

The **Shared Secrets** plug-in must be enabled (checked). If not already, enable the plug-in:

1. Check the **Enabled** checkbox for the **Shared Secret** plug-in as shown in Figure 16.
2. Click  to confirm.
3. Click  to close the Administration Console.

(NOTE: Only trusted users should be able to see the shared secret, as this information can be used to impersonate any user within EQUELLA.)

The next step in the integration process is to download the EQUELLA Moodle Module.

Configure Moodle

This section describes the required configuration changes to Moodle to support the integration. EQUELLA provides a module that allows Moodle users to easily contribute, search and select EQUELLA items, and link them to a course.

Download and install the EQUELLA Moodle Modules

The **Moodle Modules** are available from the **Downloads** page in the EQUELLA **Institution Manager**.

To open the Institution Manager

1. Open a browser and enter the complete EQUELLA **admin.url** URL (as set in the **mandatory-config.properties** file in the **learningedge-config** folder of your EQUELLA install) with `'/institutions.do?method=admin'` appended. (e.g. where your **admin.url** URL is set as `'http://equella.myinstitution.edu/'` the Institution Manager URL would become `'http://equella.myinstitution.edu/institutions.do?method=admin'`).
2. Enter the password used by the EQUELLA server administrator (this is set during installation) to display the **Institution management** page as shown in Figure 20.

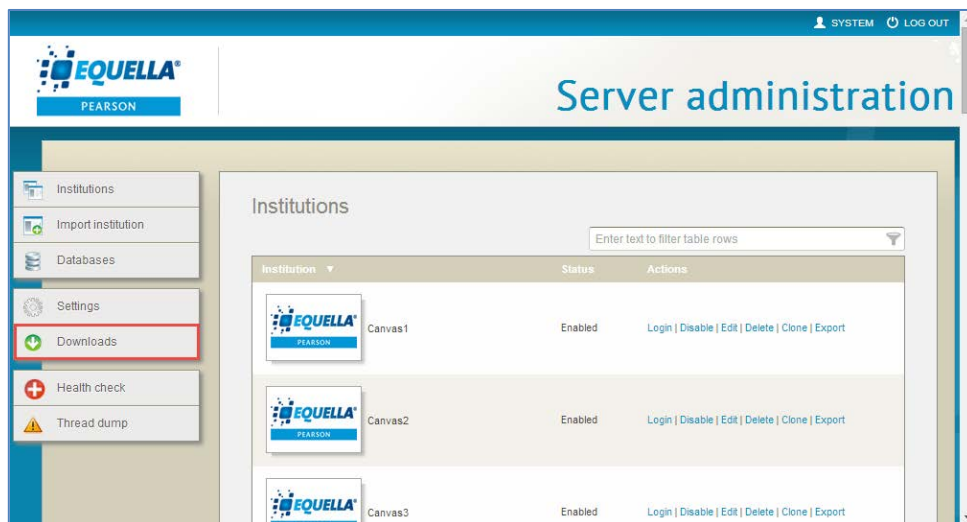


Figure 20 Institution management page

To download the Moodle Modules

1. Select the **Downloads** tab to display the **Downloads** page with **Moodle Module** options, as shown in Figure 21.

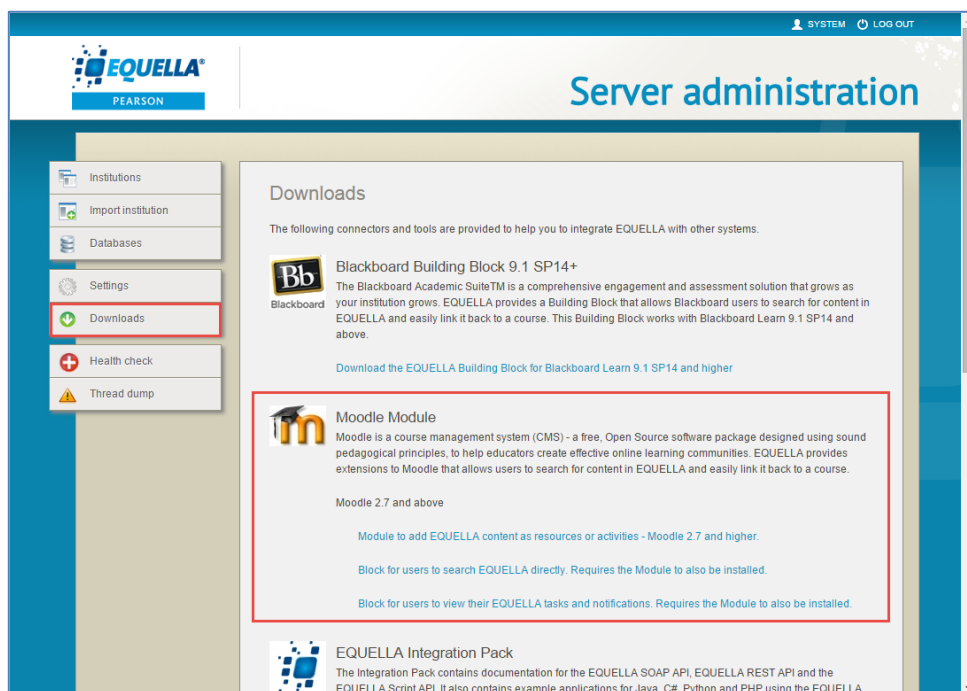


Figure 21 Downloads tab—Moodle Module

(NOTE: When upgrading your Moodle system, complete the relevant procedure outlined in the [Upgrade the EQUELLA Moodle Module](#) section on page 38, before installing the EQUELLA Moodle Module.)

The EQUELLA Moodle components are made up of three zip files. Each zip contains files relevant to specific sections of the Moodle site.

Inside the **Module to add EQUELLA content as resources or activities** zip are the files for the standard module functionality to integrate Moodle with EQUELLA (referred to in this guide as the *EQUELLA Resource module*).

Inside the **Block for users to search EQUELLA directly** and **Block for users to view their EQUELLA tasks and notifications** zips are the files to add portlets to the Moodle front and course pages, allowing direct EQUELLA access (*EQUELLA Blocks*).

For complete installation the contents of each zip file need to be extracted to the corresponding folder in the Moodle filesystem.

Install the EQUELLA Resource Module

1. To install the EQUELLA Resource module, download the relevant module version of **Module to add EQUELLA content as resources or activities** and unzip into a newly created `<path-to-moodle>/mod/equilla` directory.

(NOTE: If installing the Moodle Module on UNIX, ensure the ownership and file permissions match those of the `/var/www/moodledirectory/directory`.)

Install the EQUELLA Blocks

1. To install the EQUELLA Blocks, download the two blocks zips (**Block for users to search EQUELLA directly** and **Block for users to view their EQUELLA tasks and notifications**) and unzip them into a newly created `<path-to-moodle>/blocks/equilla_search` and `<path-to-moodle>/blocks/equilla_tasks` directories respectively.

Activate the EQUELLA Resource module

To access Moodle

1. Open a browser and enter your Moodle URL (e.g. `'http://moodle.myequellainstitution.edu'`).
2. Log in to Moodle as an administrative user.
3. Select **Site administration** from the **Settings** menu. Then click **Notifications**, as shown in Figure 22.

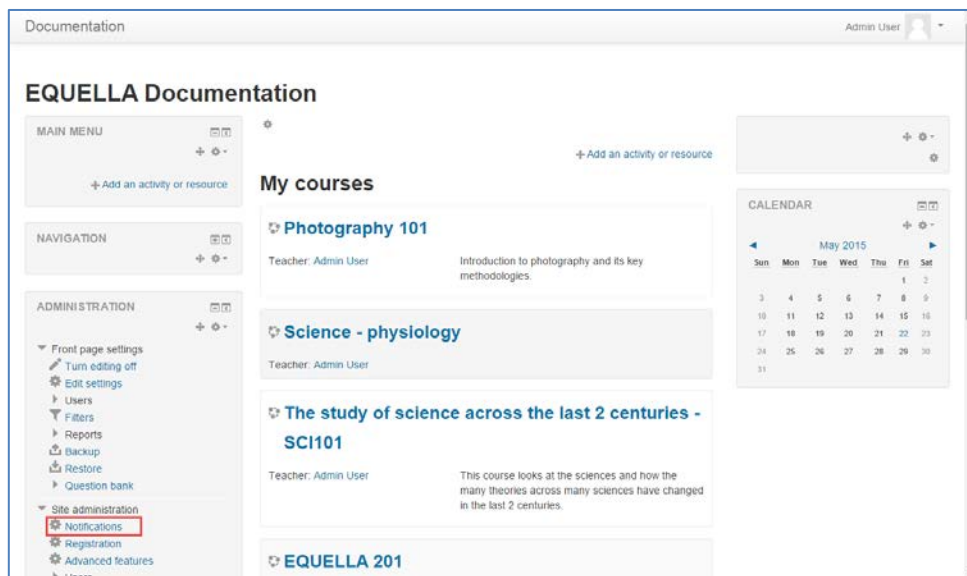


Figure 22 Moodle Site administration

- Look over the Plugins list, as shown in Figure 23. Note the presence of the EQUELLA modules.

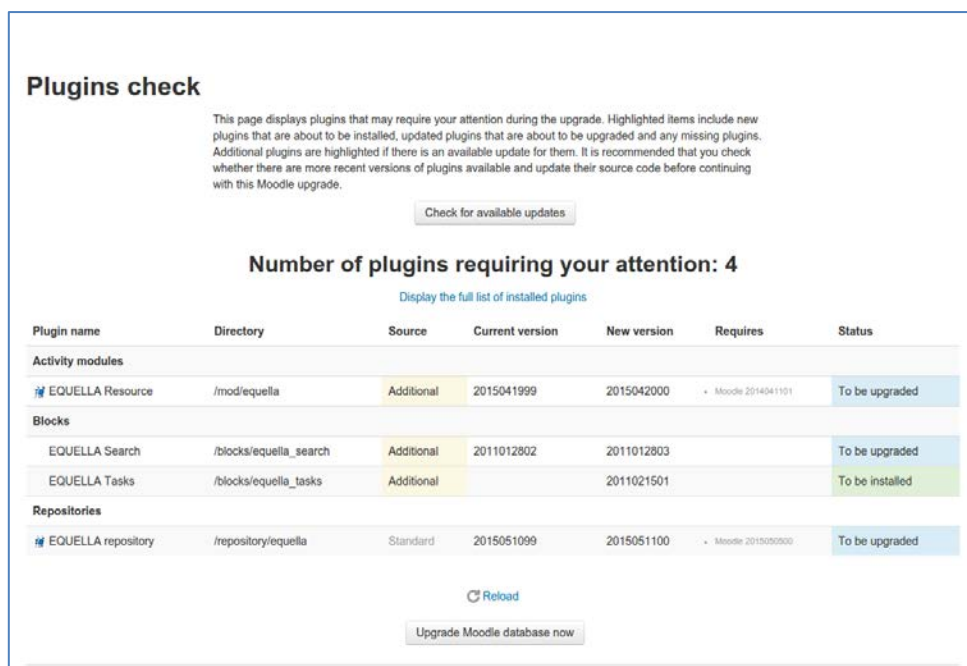


Figure 23 Moodle Plugins check

- Click **Upgrade Moodle database now**. The initialising of the EQUELLA module will commence.
- When completed, you will see confirmation of successful initialisation of the EQUELLA module, as shown in Figure 24.

Upgrading to new version

mod_equilla

Success

block_equilla_search

Success

block_equilla_tasks


Success

repository_equilla

Success

Continue

Figure 24 Setup the EQUELLA module tables

7. Click  to move onto the EQUELLA resource configuration page.

moodle29

The settings shown below were added during your last Moodle upgrade. Make any changes necessary to the defaults and then click the "Save changes" button at the bottom of this page.

New settings - EQUELLA Resource

EQUELLA URL
 Default: Empty
The URL to EQUELLA. Should end with /signon.do (e.g. http://forms.institution.edu.au/signon.do)

EQUELLA action
 Default: Empty
The action string for EQUELLA. Please note: 1. Use "selectOrAdd" for EQUELLA 6.0 and older, for EQUELLA 6.1 onward please use "structured" 2. There should not be a / or a & at the start or end of the string.

Restrict selections
 Default: No restrictions
Choose whether course editors should only be able to select items, attachments, packages or anything. Please note that the restrictions only working for EQUELLA 6.0 and higher.

EQUELLA options
 Default: Empty
The options string for EQUELLA (e.g. allPowerSearches=true&collectionId=uuid1.uuid2). Please note that there should not be a / or a & at the start or end of the string. This field is optional.

EQUELLA administrator username
 Default: Empty
The username of an administrative account in EQUELLA. This account is used by high-level admin functions such as the Backup Course To EQUELLA block, and also for background tasks that don't have a user session such as EQUELLA Resource Checker. When an activity requires an session with this user, they will be logged in using the Default shared secret values configured below.

Open EQUELLA resource in new window
☒ Default: Yes

Default window width
 Default: 800

Default window height
 Default: 450

Enable LTI
☒ Default: No
When LTI is enabled, Shared secrets are disabled for EQUELLA selection sessions. LTI must be enabled to store QTI quiz scores in the Moodle gradebook when QTI 2.1 quizzes linked to courses from EQUELLA are launched. If this functionality is not required, LTI doesn't have to be enabled, and shared secrets can still be used. Shared secrets are stored regardless, as they are still used for the Moodle blocks and Drag and Drop functions.

Client ID
 Default: Empty
Client ID is required if LTI is enabled.

Client secret
 Default: Empty
Client secret is required if LTI is enabled.

Shared secret ID
 Default: Empty

Shared secret
 Default: Empty

Shared secret ID
 Default: Empty

Shared secret
 Default: Empty

Shared secret ID
 Default: Empty

Shared secret
 Default: Empty

Intercept drag and drop files
 Default: Don't intercept files
Select the action required when dragging and dropping files onto the course page

Save changes

Figure 25 EQUELLA Resource—EQUELLA configuration page

8. Enter the details of your EQUELLA server into the configuration pane. An example is shown in Figure 25.

- a. Enter the complete **EQUELLA URL** to your institution with `/signon.do` appended to the URL (e.g. `'http://equella.myinstitution.edu/logon.do'` would become `'http://equella.myinstitution.edu/signon.do'`).
- b. Enter the **EQUELLA Action** (e.g. *structured*). The *'structured'* action activates the latest **EQUELLA Integration** page where users can search the EQUELLA Digital Repository for existing content, contribute new items and select EQUELLA content to link to a course. Figure 28 shows the user's view of the EQUELLA Integration page.
- c. Select a **Restrict selections** option from the following:
 - **No restrictions—to not restrict the types of resources course editors can select.**
 - **Items only—to restrict to only items as the type of resources that course editors can select.**
 - **Attachments only—to restrict to only attachments as the type of resources that course editors can select.**
 - **Packages only – this restriction will still allow attachments that aren't IMS packages to be selected, but they will always display using the IMS package player.**
- d. Enter the **EQUELLA Options** (optional). This string is used to specifically override some built-in actions to restrict the search and contribution options available in the Selection EQUELLA Home page. Available options include:
 - **powerSearchIds=" <UUID>" (this option restricts advanced searching to just these advanced searches),**
 - **contributionCollectionIds=" <UUID>" (this option restricts contribution to just these collections),**
 where " <UUID>" is the Universally Unique Identifier of the given entity.
 The full list of options is available by contacting EQUELLA Support.
- e. Enter an **EQUELLA administrator username**. This must be the username of an existing administrator user in EQUELLA who has the VIEW_ITEM privilege granted. This is required for EQUELLA to perform high-level, background functions that don't have a user session. More information on granting privileges can be found in the *EQUELLA Security Administration Guide*.
- f. If required, change **Default window width** and **Default window height**.
- g. Select **Enable LTI** and in the **Client ID** field, enter the **Consumer ID** for the LTI consumer (e.g. *moodleint*) and in the **Client Secret** field, enter the **Consumer secret** (e.g. *44a1bd760-8371-4155-9bc6-ae632b907a06*) created in the [Register an LTI consumer](#) section on page 5. *NOTE: When LTI is enabled, Shared secrets are disabled for EQUELLA selection sessions. LTI must be enabled to store QTI quiz scores in the Moodle gradebook when QTI 2.1 quizzes linked to courses from EQUELLA are launched. If this functionality is not required, LTI doesn't have to be enabled, and shared secrets can still be used. Shared secrets (Default Role settings at minimum) are stored regardless, as they are still used for the Moodle blocks and Drag and Drop functions.*

h. Enter **EQUELLA Shared Secret** details. These must exist in EQUELLA. In this case they are the same as previously configured in the [Configure a shared secret](#) section on page 11. As shown in Figure 25, shared secrets can be configured for different types of users, including:

- **Default role**—used for general (read) usage. Typically assigned to students.
 - a. Enter EQUELLA Shared Secret ID (e.g. *moodle*).
 - b. Enter EQUELLA Shared Secret (e.g. *mS3cr3t*).
- Each write role in your Moodle site. In this case **Teacher role** (typically assigned to course contributors) or **Manager role** (typically assigned to administrators).
 - a. Enter EQUELLA Shared Secret ID.
 - b. Enter EQUELLA Shared Secret.

For information on the Drag and drop function, see [Enable Moodle drag and drop/auto add to EQUELLA function](#) on page 33.

9. Click **Save changes** to save the configuration details and complete the EQUELLA Moodle Module setup.

Test the module installation

To access Moodle

1. Open a browser and enter your Moodle URL (e.g. *'http://moodle.myequellainstitution.edu'*).
2. Log in to Moodle as an administrator user.
3. Select a course (e.g. *EQ101 – EQUELLA 101*) from the **My Courses** pane to display the Course **Weekly outline** page.
4. Click **Turn editing on** to display the **Add an activity or a resource** link, as shown in Figure 26.

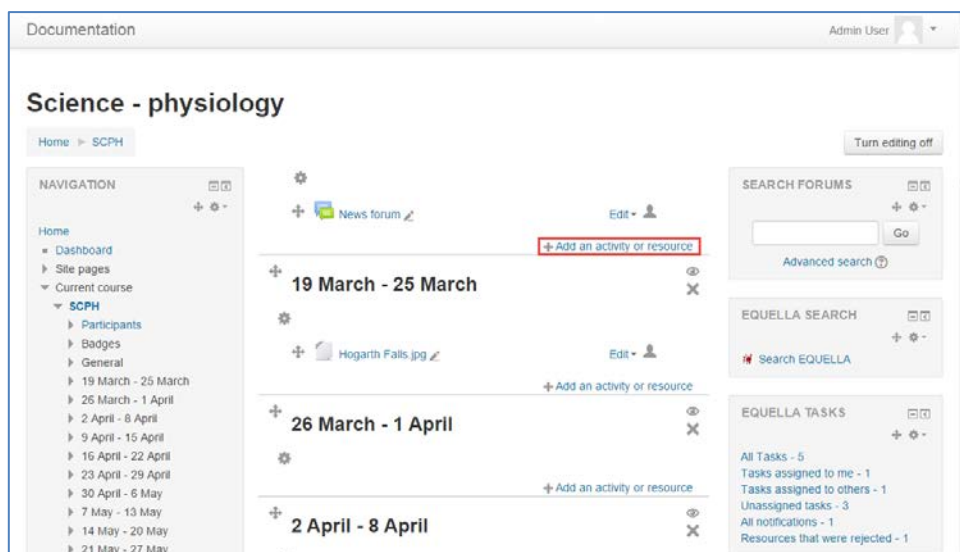


Figure 26 Add an activity or resource link

The **Add an activity or resource** dialog displays, as shown in Figure 27.

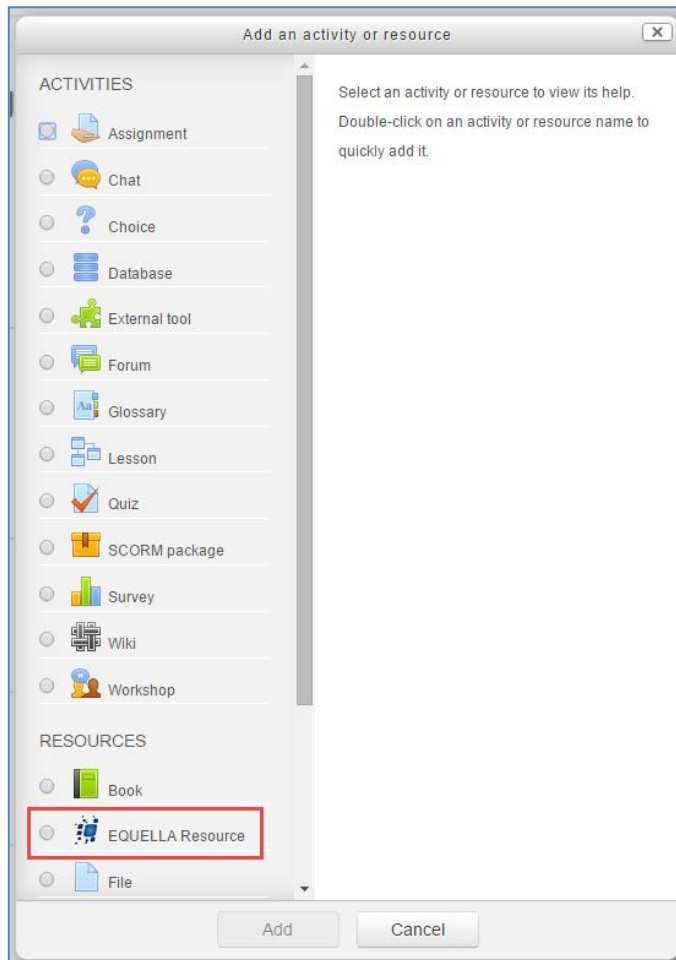


Figure 27 Add an activity or resource dialog

5. Select **EQUELLA Resource** then click to display the **EQUELLA Integration** page. An example is shown in Figure 28.

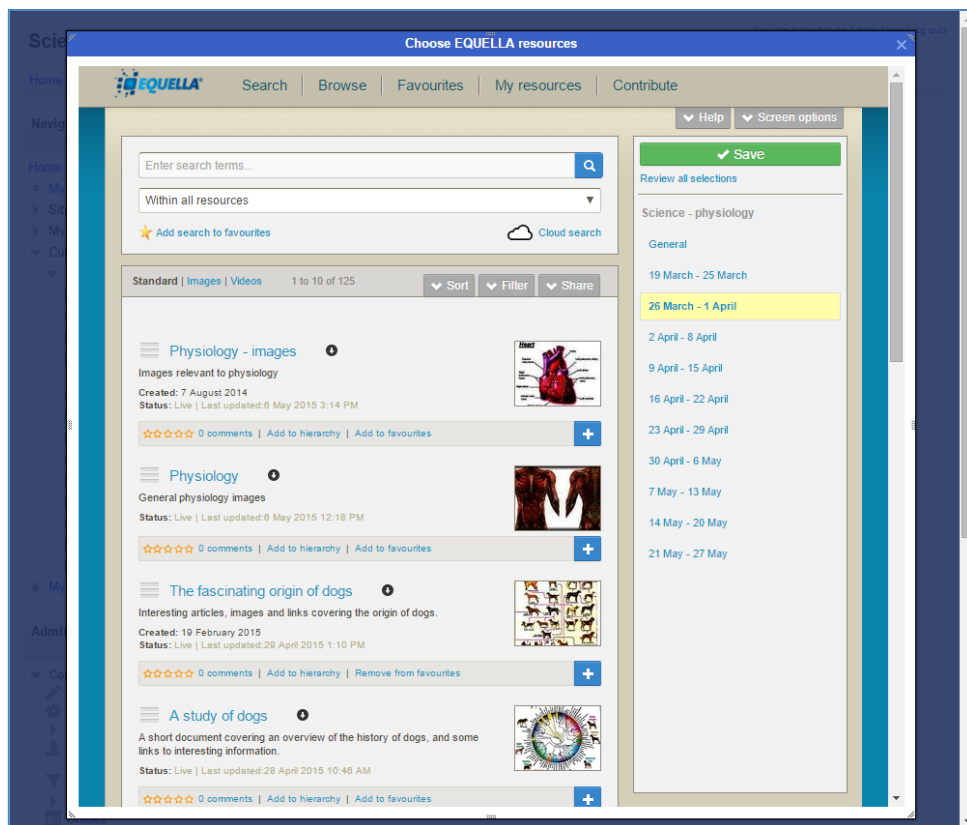


Figure 28 EQUELLA Integration page

Activate the EQUELLA blocks

There are two blocks to add as part of the EQUELLA integration. The first is a search block that will allow users to search the EQUELLA repository from inside Moodle and view the results. The other provides users with a summary of their EQUELLA task list from inside Moodle. Access to the tasks in EQUELLA can be made by simply clicking the relevant link.

To access Moodle

1. Open a browser and enter your Moodle URL (e.g. `'http://moodle.myequellainstitution.edu'`).
2. Log in to Moodle as an administrator user.
3. Select a course (e.g. *Science - Physiology*) from the **My Courses** pane to display the course **Weekly outline** page.
4. Click **Turn editing on** to display the **Add a block** drop-down list, as shown in Figure 29.

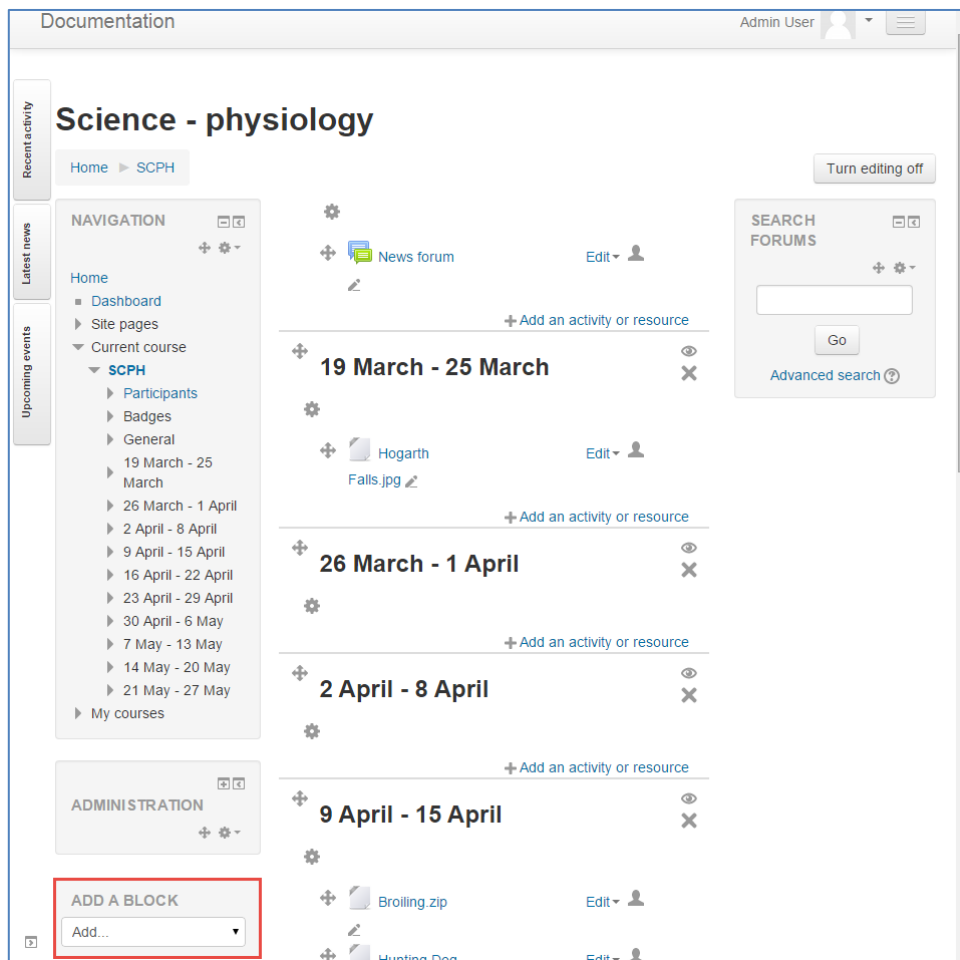


Figure 29 Moodle course Weekly outline page

5. Select the EQUELLA block options, as shown in Figure 30, one at a time.

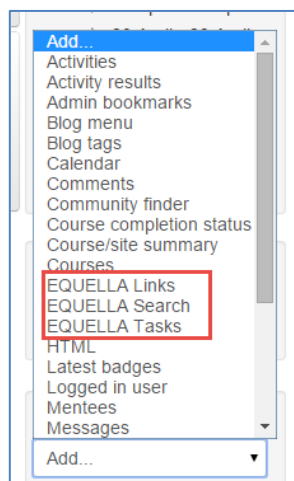


Figure 30 Select a block to add

6. Upon selecting an option, Moodle will recognise the selection and refresh the page, updating the layout, as shown in Figure 31.

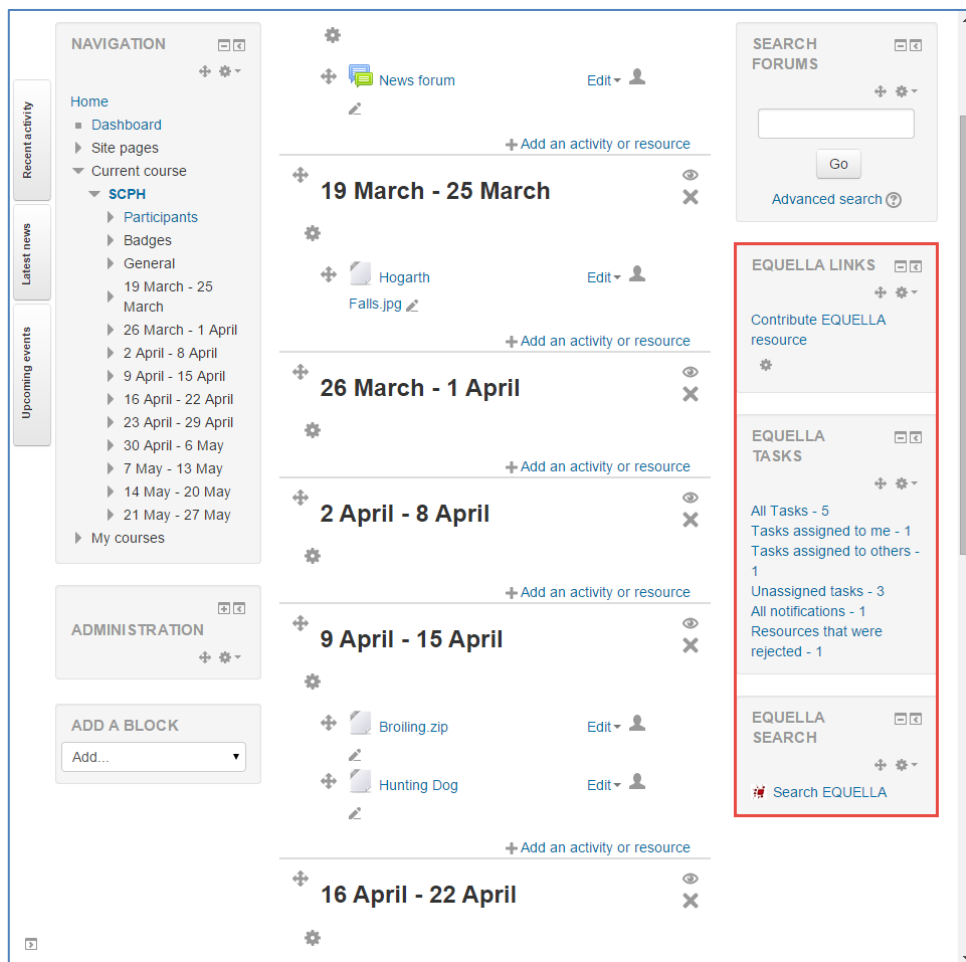


Figure 31 EQUELLA blocks added

Note that the EQUELLA Tasks block can also be added on the Moodle front page.

Test the blocks installation

To access Moodle

1. Open a browser and enter your Moodle URL (e.g. `'http://moodle.myequellainstitution.edu'`).
2. Log in to Moodle as an administrator user.
3. Select a course (e.g. *Science - Physiology*) from the **My Courses** pane to display the course **Weekly outline** page.
4. In the **EQUELLA Search** block, click the **Search EQUELLA** link, as seen in Figure 31.
5. Enter a search term into the search box and click **Search**.
6. All results matching the search query will be returned from the EQUELLA repository, as seen in Figure 32.

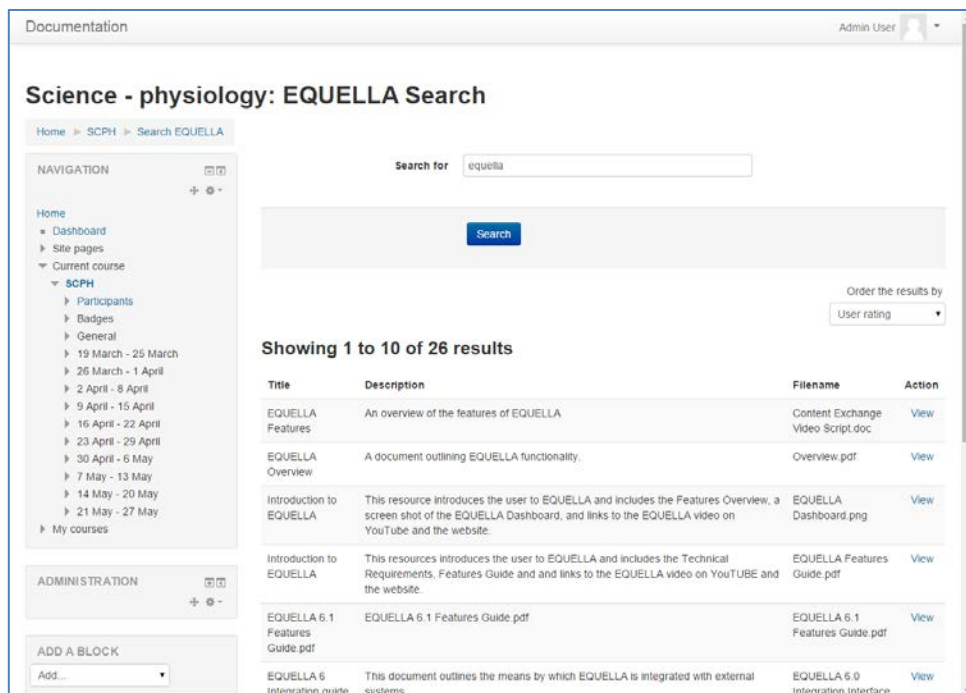


Figure 32 EQUELLA Search block—Search results

- Click the **View** link alongside a resource to open it.

Activate the EQUELLA repository

Activate the EQUELLA repository plug-in to enable searching of the EQUELLA repository to find and retrieve files from when using a file picker from inside Moodle.

- Open a browser and enter your Moodle URL (e.g. *'http://moodle.myequellainstitution.edu'*).
- Log in to Moodle as an administrator user.
- From the Moodle home page expand the **Site administration** menu folder, as shown in Figure 33.

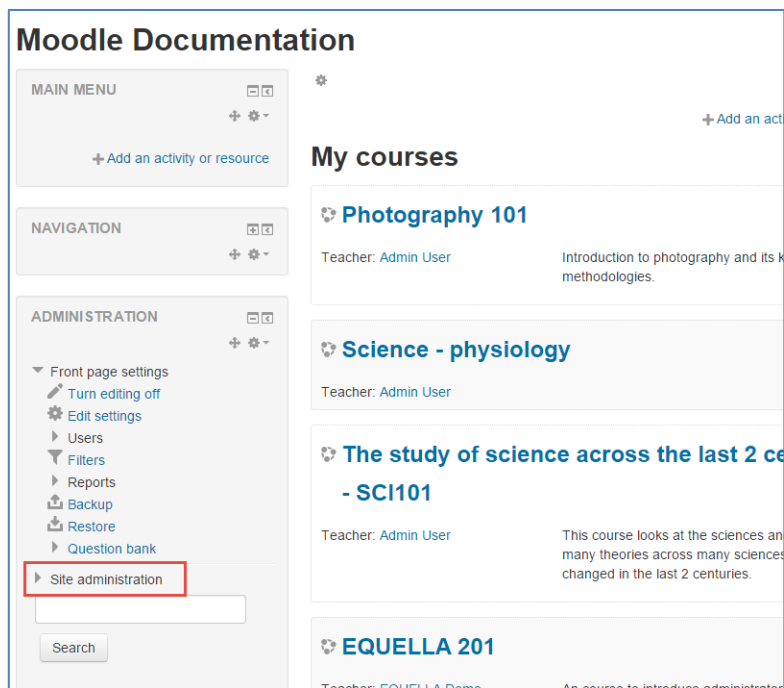


Figure 33 Moodle home page—Site Administration folder

- Expand the **Plugins** menu folder, and then the **Repositories** menu folder, as shown in Figure 34.

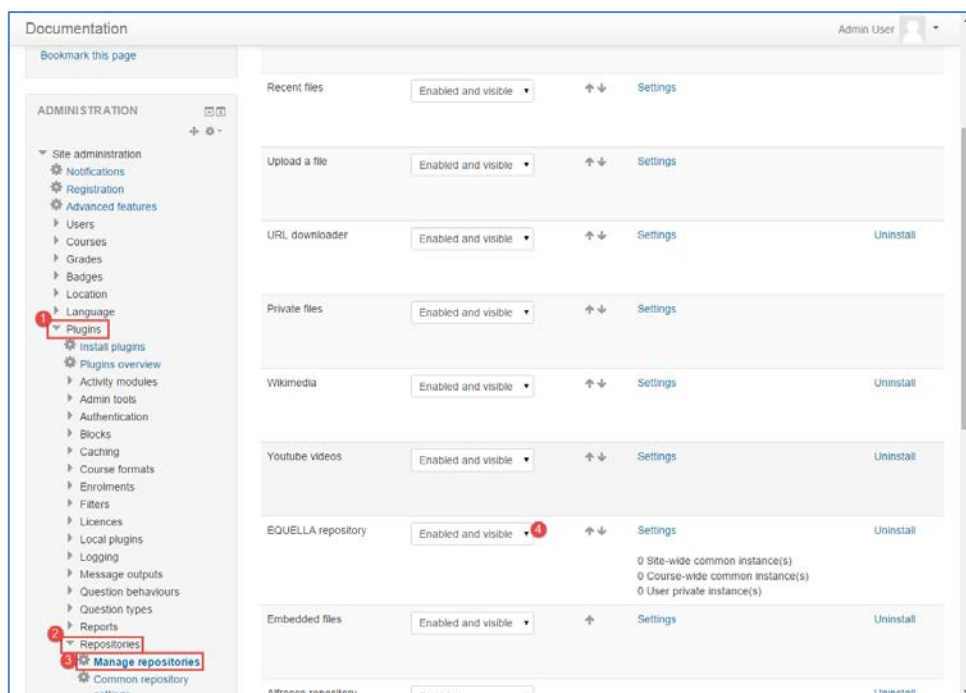


Figure 34 Moodle Site administration Repositories folder

- Click the **Manage repositories** link to open the configuration pane.
- Find the **EQUELLA repository** drop-down menu, and expand it to reveal the options, as shown in Figure 35.

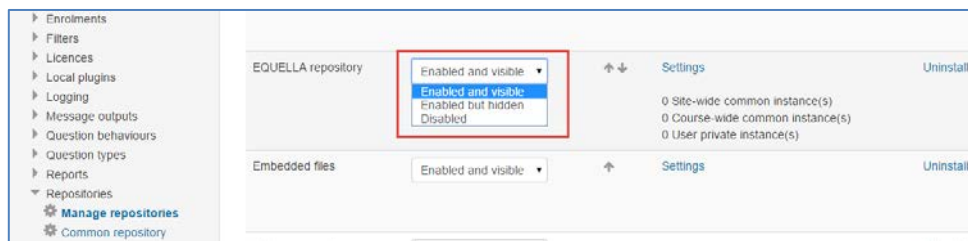


Figure 35 Manage repositories

7. Select **Enabled and visible** to make the EQUELLA repository a selectable option in a file picker. The **Configuration for EQUELLA repository** page displays as shown in Figure 36.

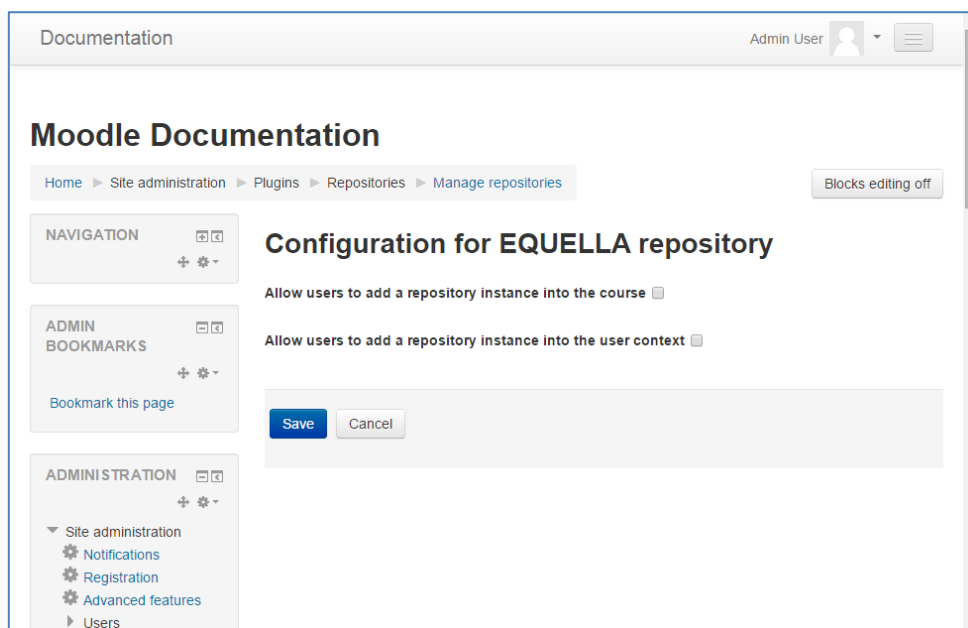


Figure 36 Configuration for EQUELLA repository page

8. Click **Save**.
9. Scroll down to **EQUELLA Repository** once again, and select the **Settings** link. An example is shown in Figure 37.

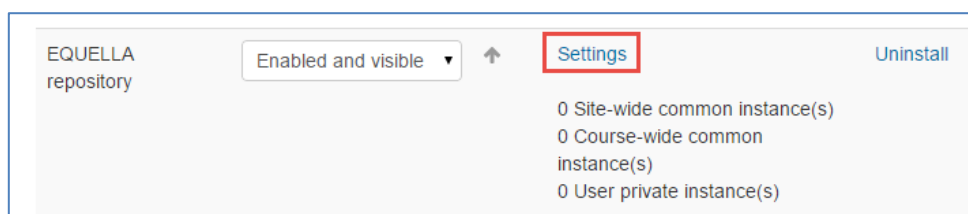


Figure 37 EQUELLA Repository settings

The **Configuration for EQUELLA repository** page displays, as shown in Figure 38.

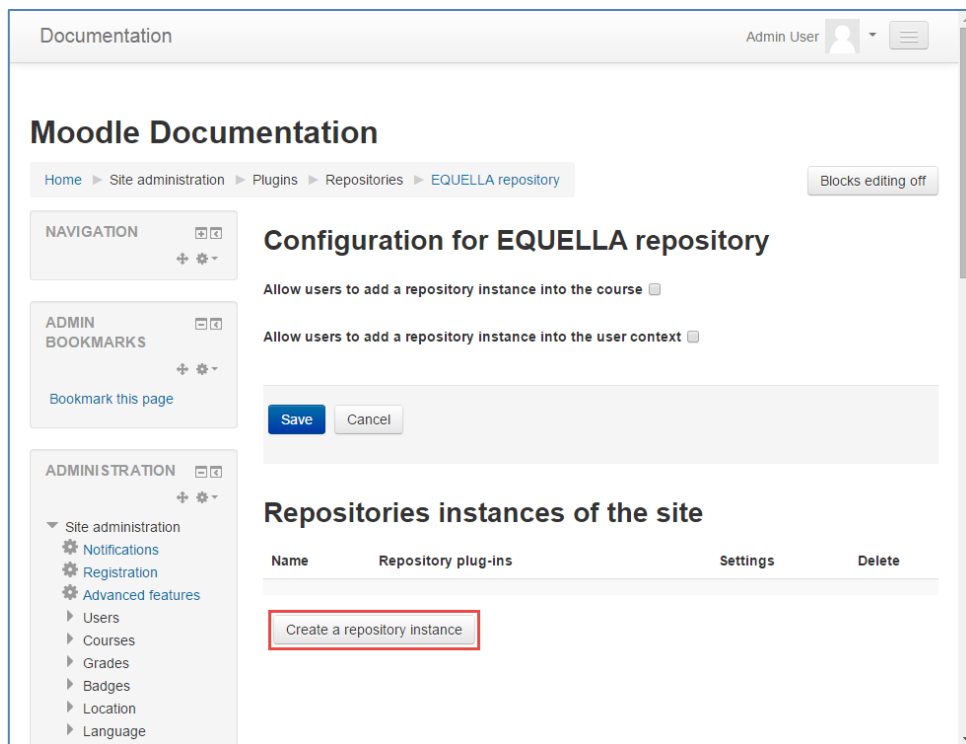


Figure 38 EQUELLA Repository page

10. Click [Create a repository instance](#). The **Create a repository instance** page displays, as shown in Figure 39.

Documentation Admin User

Moodle Documentation

Home > Site administration > Plugins > Repositories > Create a repository instance

Blocks editing off

Configuration for EQUELLA repository

Expand all

Name*

EQUELLA

EQUELLA URL*

http://equella.myinstitution.edu/si

EQUELLA options

Restrict selection

No restriction

Default role settings

Shared secret ID*

moodle

Shared secret*

mS3cr3t

Manager role settings

Teacher role settings

EQUELLA Web Service Role role settings

Save Cancel

There are required fields in this form marked *.

NAVIGATION

ADMIN BOOKMARKS

Bookmark this page

ADMINISTRATION

- Site administration
 - Notifications
 - Registration
 - Advanced features
 - Users
 - Courses
 - Grades
 - Badges
 - Location
 - Language
 - Plugins
 - Install plugins
 - Plugins overview
 - Activity modules
 - Admin tools
 - Authentication
 - Blocks
 - Caching
 - Course formats
 - Enrolments
 - Filters
 - Licences
 - Local plugins
 - Logging
 - Message outputs
 - Question behaviours
 - Question types
 - Reports
 - Repositories
 - Manage repositories
 - Common repository

Figure 39 Create a repository instance page

11. Enter a **Name** for the EQUELLA repository (e.g. *EQUELLA*). This name displays in the file picker. If multiple EQUELLA repositories are to be configured, using a descriptive name is useful (e.g. University of Tas, RMIT etc.).
12. Enter the complete **EQUELLA URL** for the relevant institution with *'/signon.do'* appended to the URL (e.g. *'http://equella.myinstitution.edu/logon.do'* would become *'http://equella.myinstitution.edu/signon.do'*).
13. Enter the **EQUELLA Options** (optional). This string is used to specifically override some built-in actions to restrict the search and contribution options available on the EQUELLA Integration page. The full list of options is available by contacting EQUELLA Support.

14. Enter the **Default role settings**, **Shared secret ID** and **Shared secret** that have been set in the EQUELLA instance (see the [Configure a shared secret](#) section on page 11).
15. Enter the **Shared secret IDs** and **Shared secrets** for *Manager role settings*, *Teacher role settings* and/or *EQUELLA Web Service Role settings* if relevant.
16. Click **Save**. The repository instance displays on the EQUELLA repository page. An example is shown in Figure 40.

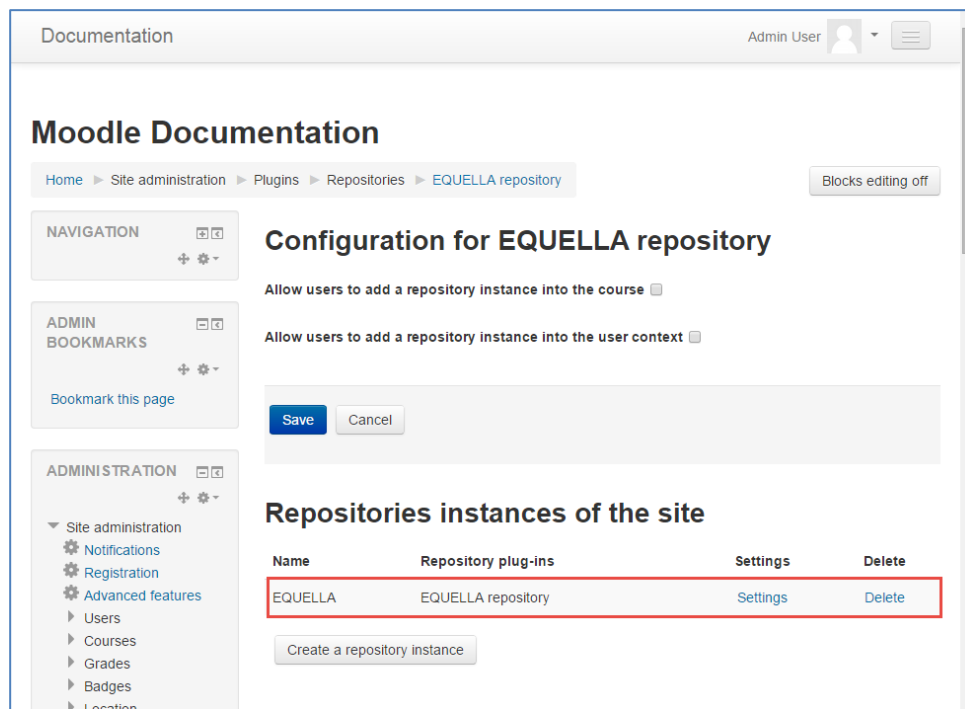


Figure 40 EQUELLA Repository instance displayed on list

Test the Repository installation

To access Moodle

1. Open a browser and enter your Moodle URL (e.g. `'http://moodle.myequellainstitution.edu'`).
2. Log in to Moodle as an administrator user.
3. Select a course (e.g. DOC1 - *Documentation*) from the **My Courses** pane to display the course **Weekly outline** page.
4. Click **Turn editing on** to enable the editing options, as shown in Figure 41.

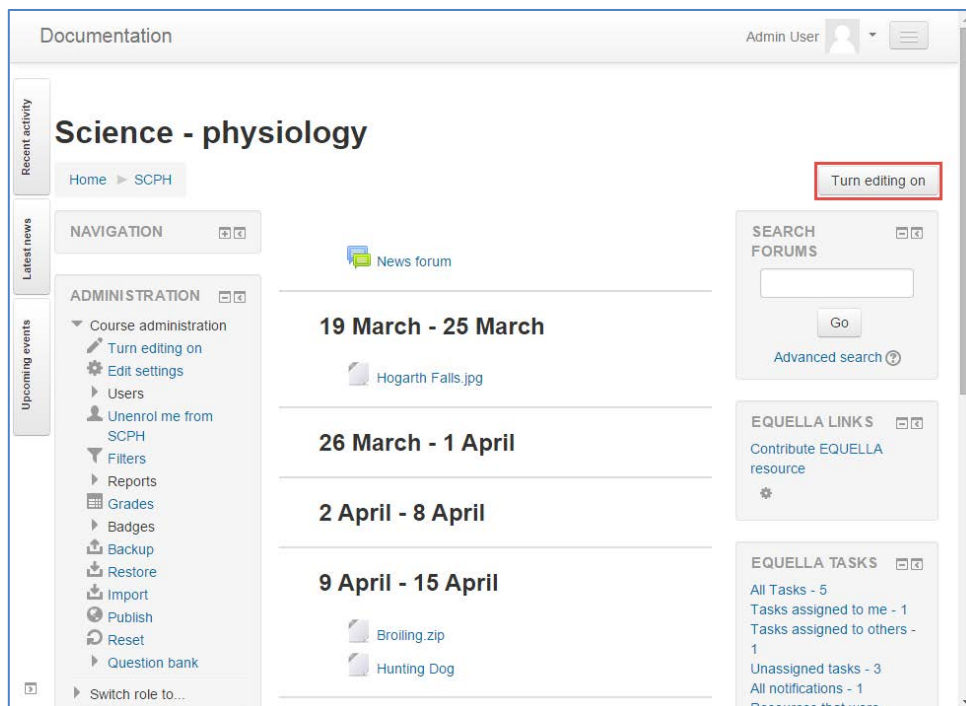


Figure 41 Moodle course Weekly outline page—Enable editing options

5. With a resource already present in your course, select the **Edit** link, then **Edit settings** from the menu. An example is shown in Figure 42.

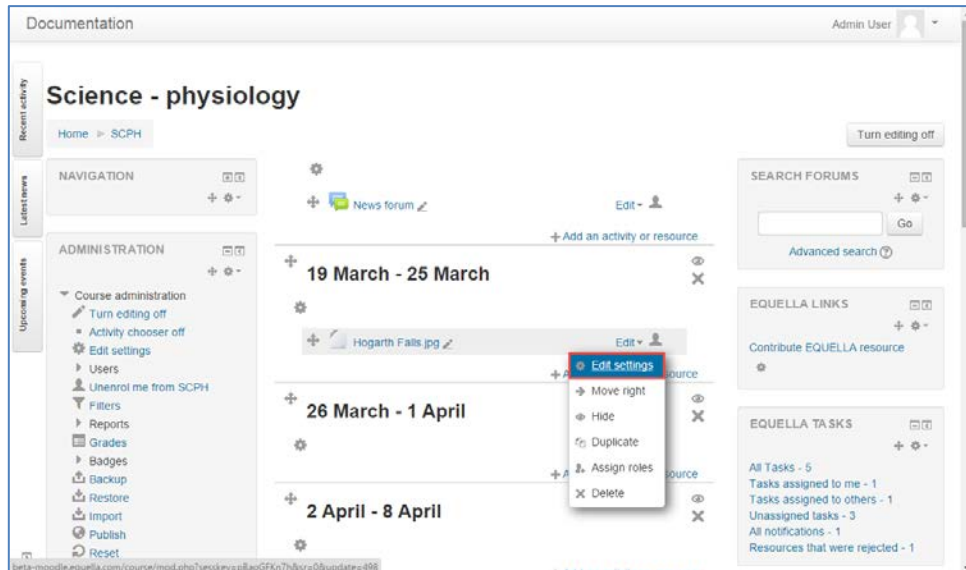



Figure 42 Moodle course Weekly outline page—Update resource

6. On the **Updating EQUELLA Resource** page, click the **Insert/Edit image**  button in the editor, as shown in Figure 43.

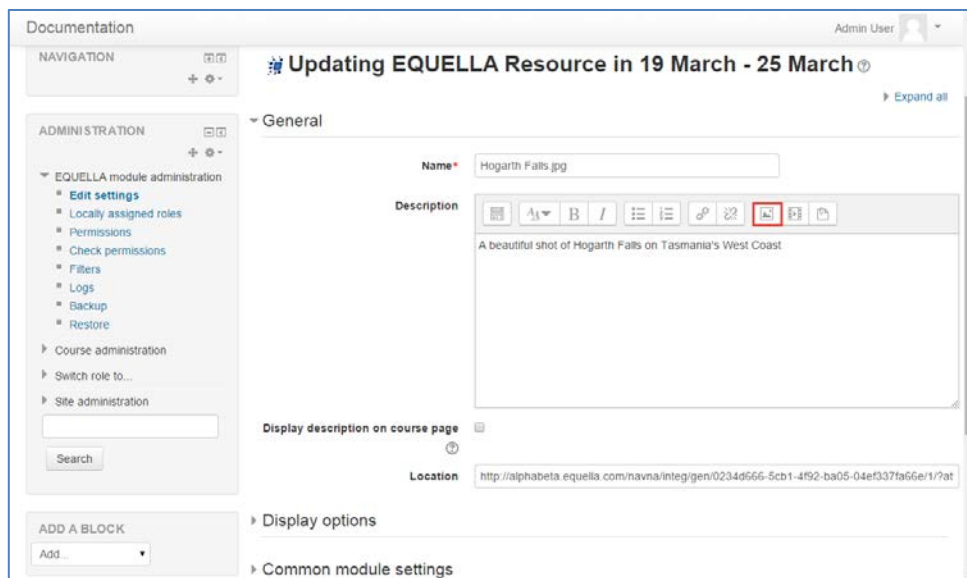


Figure 43 Updating resource page—Insert/Edit image

The image properties dialog displays, as shown in Figure 44.

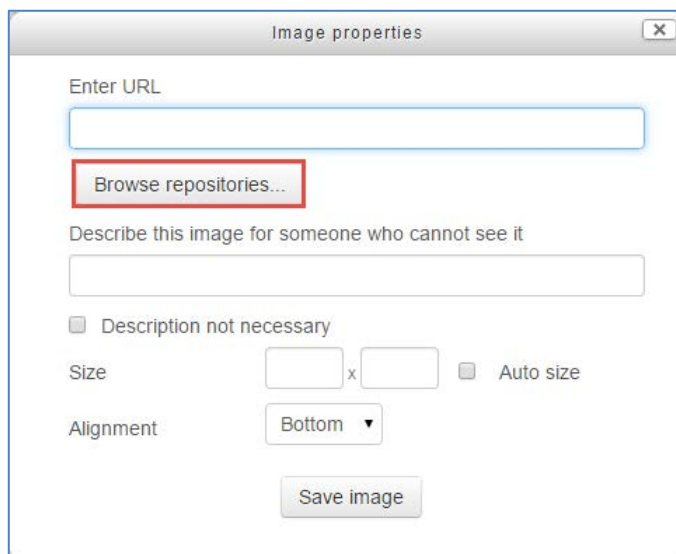


Figure 44 Image properties dialog

7. Click **Browse repositories...** to open the **File picker** window.
8. **EQUELLA** (or the name entered for the repository instance) displays in the left-hand menu, as shown in Figure 45. Click the **EQUELLA** link to search the repository.

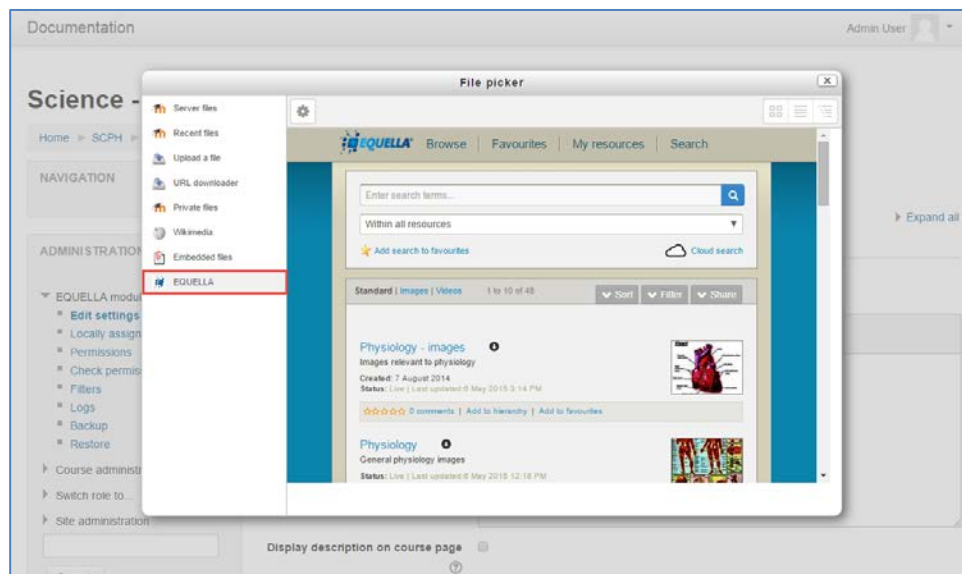


Figure 45 Moodle file picker with EQUELLA repository enabled

More information on how to use the EQUELLA Moodle Module Repository tool is provided in the *EQUELLA Moodle User Guide*.

Enable Moodle drag and drop/auto add to EQUELLA function

Files can be automatically contributed to EQUELLA when dragging and dropping onto a Moodle course page, or onto the **Content, Select files** panel from the **Adding a new File** page in Moodle. The system first checks to see if the file already exists in EQUELLA. If so, it creates a link to the file, otherwise it contributes the file into the collection allocated for the 'Quick contribute' function.

In versions prior to EQUELLA 6.2, the drag and drop/auto add function used an OAuth client, but in order to pass through the correct user details to EQUELLA, all subsequent releases use a Shared secret, which is already set up when the integration is configured.

Configure Moodle for drag and drop/auto add to EQUELLA

To configure Moodle for drag and drop/auto add to EQUELLA

1. Log in to Moodle as an administrator.
2. From the Moodle home page expand the **Site administration** menu folder, then select **Plugins, Activity modules, EQUELLA Resource** as shown in Figure 46.

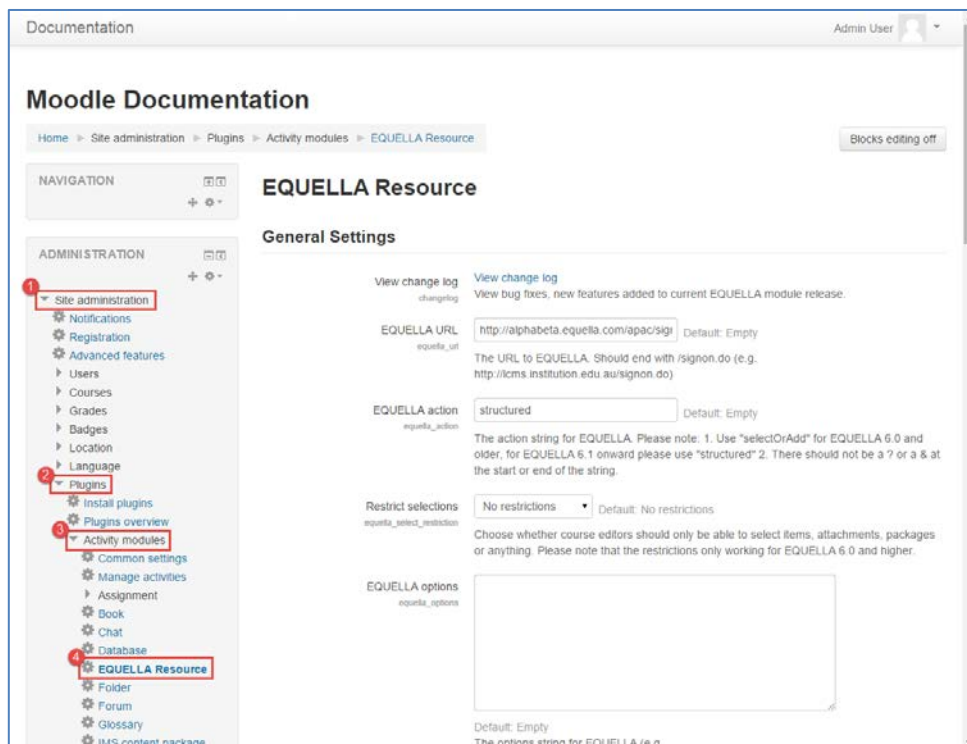


Figure 46 EQUELLA Resource page in Moodle

3. Scroll to the bottom of the page, where the **Shared Secret Settings** section is visible. An example is shown in Figure 47.

Shared Secret Settings

Below you can set a default EQUELLA shared secret for single signing-on users. You can configure different shared secrets for general (read) usage, and a specialised role based shared secret for each *write* role in your Moodle site. If a shared secret ID is not configured for a role then the default shared secret ID and shared secret are used.

All shared secret IDs and shared secrets must also be configured within EQUELLA and the shared secret module enabled. This configuration is found in the EQUELLA Administration Console under User Management > Shared Secrets.

Default role settings

Shared secret ID
equella_shareid

Default: Empty

Shared secret
equella_sharedsecret

Default: Empty

Manager role settings

Shared secret ID
equella_manager_shareid

Default: Empty

Shared secret
equella_manager_sharedsecret

Default: Empty

Editing teacher role settings

Shared secret ID
equella_editingteacher_shareid

Default: Empty

Shared secret
equella_editingteacher_sharedsecret

Default: Empty

EQUELLA Web Service Role role settings

Shared secret ID
equella_eqweb_shareid

Default: Empty

Shared secret
equella_eqweb_sharedsecret

Default: Empty

Drag and drop options

Intercept drag and drop files
equella_intercept_files

Display file destination dialog ▾

Don't intercept files

Display file destination dialog

Default: Don't intercept files
gging and dropping files onto the course page

Save changes

Figure 47 EQUELLA Shared secret options section

- Make sure there is a **Shared secret ID** and **Shared secret** for *Default role settings*. This would have been configured during the initial integration configuration process.
- Select the required **Intercept drag and drop files** option:
 - Don't intercept files** – always adds files as file resources locally in Moodle.
 - Display file destination dialog** – displays a confirmation dialog asking the user to select where the file should be saved. Options are:
 - ✦ **Contribute to EQUELLA** – automatically contributes the file to EQUELLA, with the file name as the Title and Description, and adds a link to that EQUELLA record in Moodle.

- ✦ **Add image to course page** - shows the full sized image on the course page instead of a link. This option only displays for image files.
- ✦ **Create file resource** – saves the file locally in Moodle as a file resource.

6. Click [Save changes](#).

For further information on the Moodle drag and drop/add to EQUELLA feature, see the *EQUELLA 6.4 Moodle User Guide*.

QTI 2.1 with Moodle/EQUELLA integrations

QTI 2.1 quizzes can be linked to Moodle courses from EQUELLA, then launched and submitted. Quiz answers are stored in the EQUELLA database, and a score is calculated on submitting the quiz. The score is passed back to the Moodle gradebook, and can be viewed by users with the appropriate permissions.

An example of the **Grader report** showing the score for a submitted QTI package called *TheMeaningOfLife* is shown in Figure 48.

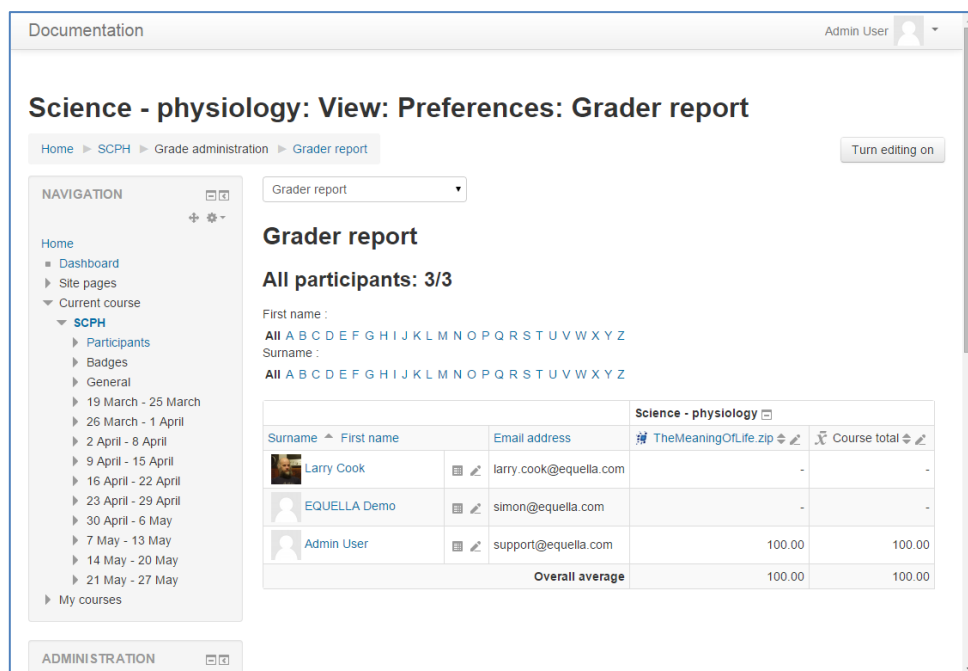


Figure 48 Example Grader report

Configuring an EQUELLA/Moodle integration for QTI 2.1 gradebook scoring

EQUELLA enables QTI quizzes to be linked to Moodle courses and launched and submitted from those courses. To enable the score to be stored in the Moodle gradebook, an LTI consumer must be configured.

To configure the LTI consumer

1. Create an LTI consumer record in EQUELLA. See [Register an LTI consumer](#) on page 5 for details.

2. Map the LTI roles. See [LTI/LIS Role Mappings](#) on page 7 for details.
3. Log in to Moodle as an administrator.
4. From the Moodle home page expand the **Site administration** menu folder, then select **Plugins, Activity modules, EQUELLA Resource** as shown in Figure 49.

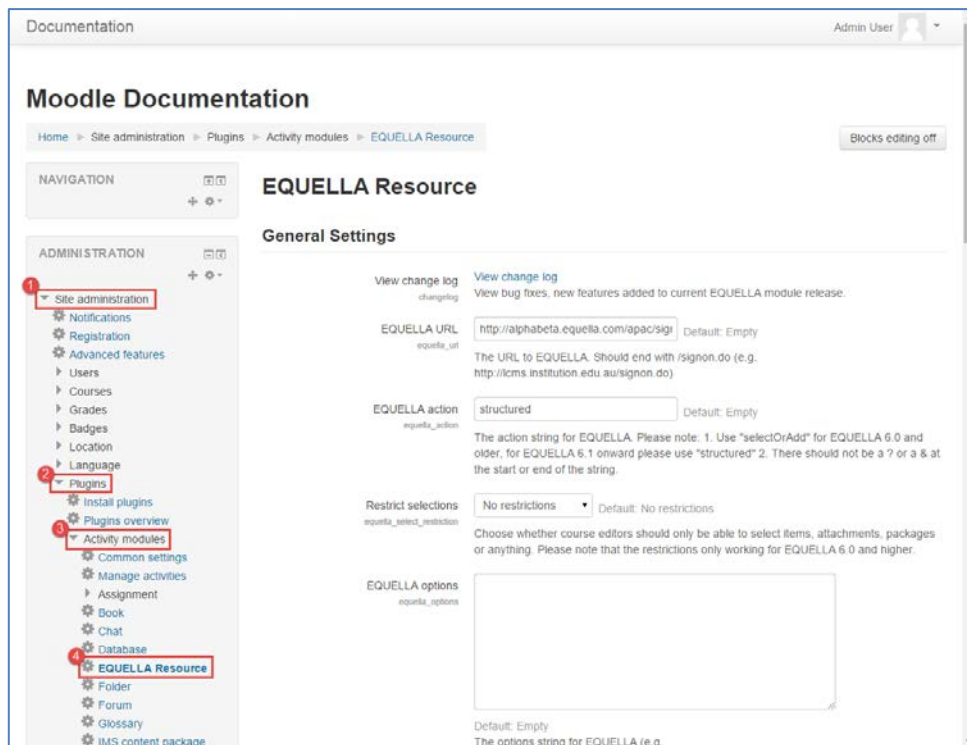


Figure 49 EQUELLA Resource page in Moodle

5. Scroll to the **LTI Settings** section. An example is shown in Figure 50.

LTI Settings

Enable LTI
equilla_enable_lti

☒ Default: No

When LTI is enabled, Shared secrets are disabled for EQUELLA selection sessions. LTI must be enabled to store QTI quiz scores in the Moodle gradebook when QTI 2.1 quizzes linked to courses from EQUELLA are launched. If this functionality is not required, LTI doesn't have to be enabled, and shared secrets can still be used. Shared secrets are stored regardless, as they are still used for the Moodle blocks and Drag and Drop functions.

Client ID
equilla_lti_oauth_key

b48581d7-8f9c-4371-bff2-c5f633616f
Default: Empty

Client ID is required if LTI is enabled.

Client secret
equilla_lti_oauth_secret

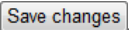
b99597aa-e7af-4467-84af-522191ffaf
Default: Empty

Client secret is required if LTI is enabled.

Figure 50 LTI Settings section

6. Select **Enable LTI** and enter the **Client (Consumer) ID** (e.g. *moodleint*) and **Client (Consumer) Secret** (e.g. *44a1bcd0-dea5-4976-90c3-80b1cd421144*) created in the [Register an LTI consumer](#) section on page 5.

NOTE: Once LTI has been enabled, Shared secrets are disabled for EQUELLA selection sessions. The Default role settings Shared secret is still used for the Moodle drag and drop/auto add to EQUELLA and Moodle blocks functions.

7. Click .

QTI 2.1 quizzes launched from Moodle courses will now automatically store the score in the user's Moodle gradebook.

Troubleshoot an unsuccessful integration

If the integration is unsuccessful, these are the points to check first:

1. Check that both the Moodle server and the EQUELLA server have the same UTC time.
2. Ensure the Shared Secret plug-in in the EQUELLA User Management tool is enabled.
3. Check the EQUELLA Moodle Module file is installed.
4. Check the configuration data in Moodle.

Upgrade the EQUELLA Moodle Module

To upgrade the EQUELLA Moodle Module

5. Remove the existing **equella** folder in the <path-to-moodle>\mod directory and replace it with the latest version of the **equella** folder. Refer to the [Download and install the EQUELLA Moodle Modules](#) section on page 14 for further information.

Viewing the EQUELLA Moodle Module change log

The EQUELLA Moodle Module change log enables administrators to view bug fixes and new features added to the current EQUELLA module release.

To view the EQUELLA Moodle Module change log

1. Log in to Moodle as an administrative user.
2. Select **Site administration** from the **Administration** menu.
3. Select **Plugins, Activity modules** then **EQUELLA Resource**. An example is shown in Figure 51.

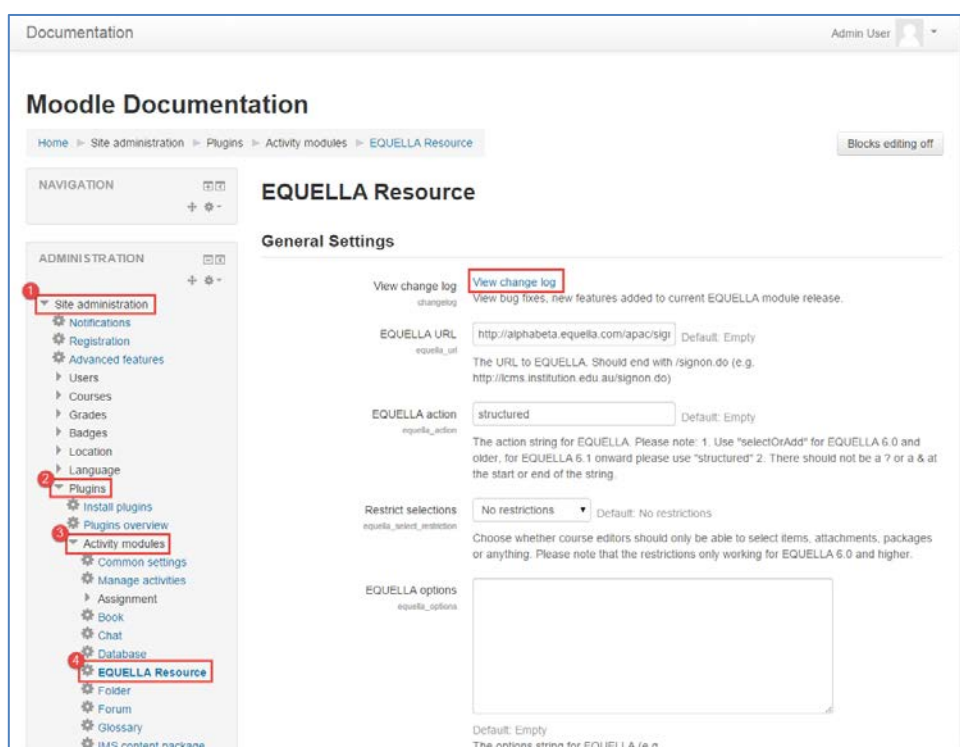


Figure 51 EQUELLA Resource configuration page

- Click the **View change log** link at the top of the page to open the change log in a new browser tab and view the Moodle Module information. An example is shown in Figure 52.

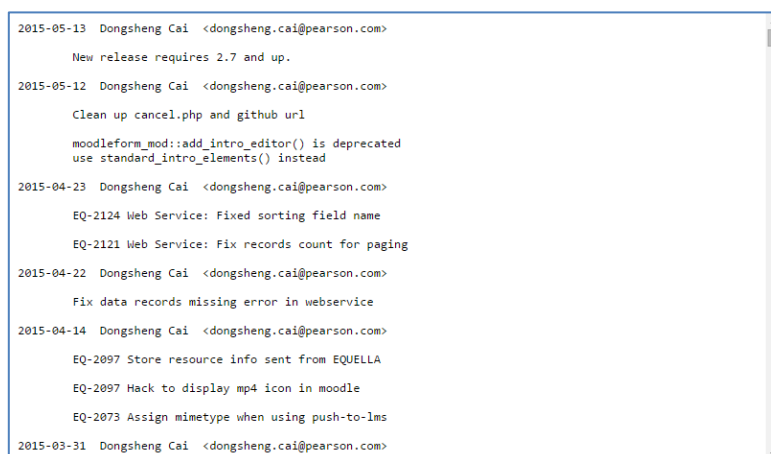


Figure 52 Example Moodle Module change log

Contact Client Support

We are always happy to help.

If your organisation has a support agreement with EQUELLA then help is available at <http://equella.custhelp.com>.