

Integration with Moodle via LTI 2.0

Introduction

This guide utilises PebblePads LTI 2.0 integration and supports SSO, Memberships and Outcomes.

Known issues

- This document applies to Moodle versions post 3.8.3
- UK customers will only have the ATLAS tool registered for them via the tool proxy and will need to manually configure the Pebble+/Deep Linking tools following the LTI 1.0 documentation instructions
- The content item picker does not allow users to choose resources that have been shared with them
- Moodle only allows a single LTI 2.0 registration per - URL this means that you can only have a single ATLAS Tool and will need to decide between using LTI Express and the standard multi-tool flow

Links to external resources

- <https://docs.moodle.org/dev/Releases>

What can you do, what are the limitations of this implementation and what is not supported?

With this type of integration you **WILL** be able to:

- Single Sign On from Moodle to Pebble+
- Single Sign On from Moodle to ATLAS
- Create PebblePad accounts upon single sign on for new users
- Populate an ATLAS workspace members based on course enrolment
- Pass grades back to Moodle
- Create assets using Deep Linking and have them Auto Submitted to ATLAS.

The following limitations are in place:

- Register to use PebblePocket app if LTI is the only method of authentication
- Search for/share with users who haven't already logged into the system if LTI is the only method of authentication
- Synchronise to Sets
- Auto submit will pick the first workspace the learner is a member of when the content item has been added to multiple workspaces.

The membership's service takes into consideration the status of a user, the enrolment start date and the enrolment end date so only active and eligible users are synchronised.

Moodle will only accept grades passed back to it via the LTI link with a numeric value between 0 and 100.

Moodle's Grade Book will only show one grade per LTI link (Does not support multiple assignments in ATLAS) – the last grade released will be displayed. Multiple LTI links can be added to the one Moodle course, each linking to a different workspace.

Moodle follows the following rules for role mappings (MDL-40761):

- If a user is the Moodle site Administrator, their LTI Role is "Administrator"
- If a user is a teacher and can manage a course, their LTI Role is "Instructor"
- If none of the above, their LTI Role is "Learner". This role is typically a Student.

What's covered in this guide and what is not?

As with most systems there are a number of options that are visible to you but not all are used by our platform, therefore only those that are relevant to the tools configuration are referred to in this document.

The following tasks are covered in this guide

- Prerequisites
- Setting up Pebble+
- Setting up ATLAS
- Setting up Linking to Resources
- Testing the configuration

The following tasks are NOT covered in this guide

- Using the integration as an Instructor
- Using the integration as a Learner

Prerequisites

- Moodle 3.8.3 or above
- Your Moodle domain must be added to your PebblePads organisations content security policy
- A Pebble+ account with resources
- Administrative access to Moodle
- Global Admin access to PebblePad
- Creator level access on a Region in ATLAS

Notes on Membership Synchronisation

- Membership syncs will be carried out whenever an Administrator or Instructor connects to PebblePad via a Blackboard Ultra course
- Students connecting from Blackboard Ultra to PebblePad initiate a membership sync if no synchronisation has taken place in the preceding hour
- An automatic, overnight memberships sync takes place if there were no synchronisations during the preceding day

LTI Express

LTI Express is alternative workflow that has been designed by us to help streamline the process that an Instructor uses to provision a workspace and roll out resources to their Learners. LTI Express is ideal for both single and multiple assignment workflows and handles the direction of flow through the system for a user in the following ways:

- If a workspace doesn't exist and an instructor with the Creator role in ATLAS clicks on the link they will be taken to the workspace wizard screen.
- If the workspace exists then they'll be taken to that workspace.
- If a Learner clicks on the link and no resource is present on the workspace then they'll be taken to the Pebble+ dashboard
- If a resource is associated with the assignment then they'll be taken to Pebble+ and the resource will be loaded for them. The link will honour the usage capability of the resource as well as auto submit if needed.

Updating your organisation content security policy

1. Log into Moodle as an Administrator
2. Open a new tab within the same browser and log into PebblePad using your Global Admin account
3. Click the burger menu then click **Additional settings** then **Administration** to launch the PebblePad Administration portal
4. Click **Settings** and scroll down to the **General** section and tick the **Content Security Policy header append** checkbox
5. Add your Moodle URL to the **Content Security Policy header whitelist** input box
6. Scroll to the bottom and press the **Update** button
7. Return to Moodle and continue the next steps **Registration via Tool Proxy**

Registration via Tool Proxy

1. Click Site administration / Plugins / Activity modules / External tool / Manage tools

Manage tools

Add tool

Tool URL...	Add
-------------	------------

Alternatively, you can [configure a tool manually](#).

[Manage preconfigured tools](#)
[Manage external tool registrations](#)

1. In the Tool URL... input box enter the following URL:

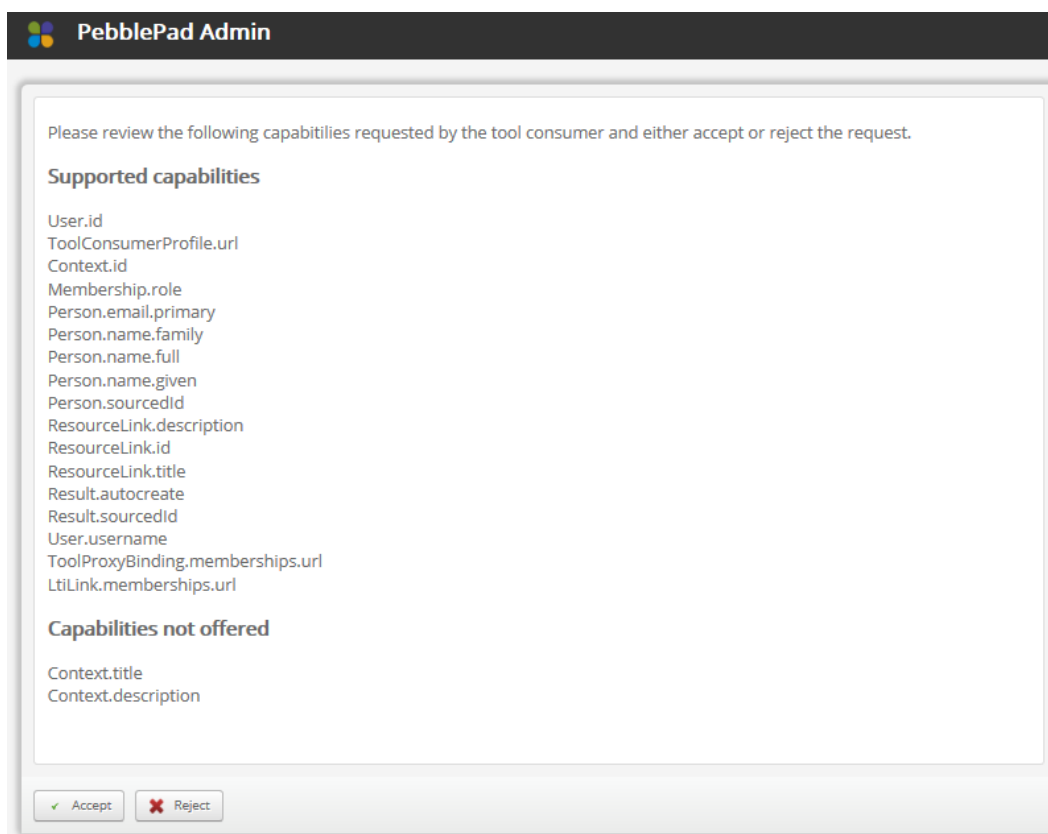
<https://apptest.pebblepad.com/admin/org-url/lti/registerlti>

ensuring that you replace the **org-url** part of the above URL with your own org code. Your org code can be seen in the URL from the main login page, for example

<https://apptest.pebblepad.com/login/org-url>

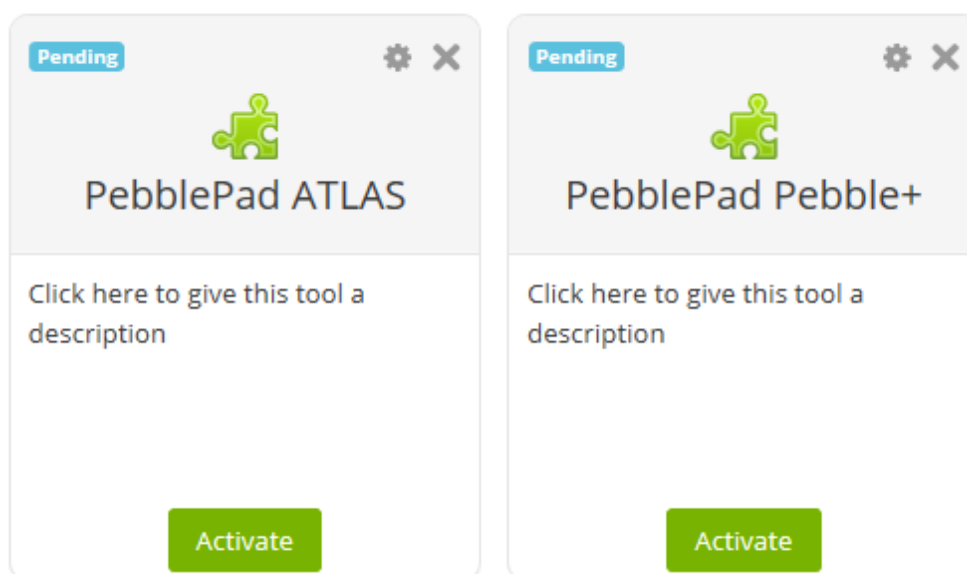
2. Press the **Add** button

3. Click on the **Accept** button and you will be redirected back to Moodle's **Manage external tool registrations** page.



4. Navigate to **Site administration / Plugins / Activity modules / External tool / Manage tools** and you will see the newly created tools in a pending state.

Tools



5. Click on each of the **Activate** buttons to activate the tools.
6. Edit each of the tools and change the follow settings.

Tool settings	
Default launch container	New window

Setting up LTI Express

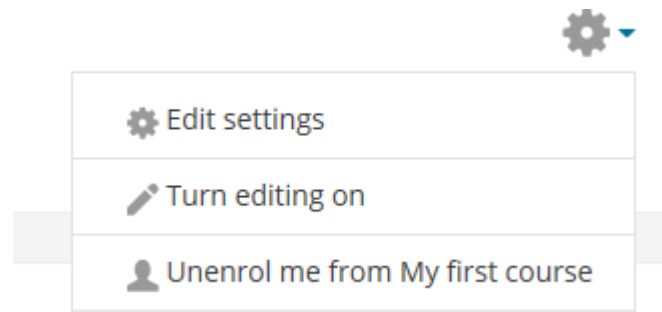
1. Log into Moodle as an Administrator
2. Click **Site administration / Plugins / Activity modules / External tool / Manage tools**
3. Click on the cog icon for the **PebblePad ATLAS** tool
4. Change the following settings:

Tool name	PebblePad ATLAS (LTI Express)
Custom parameters	pebble_forward_learner_to_plus=true

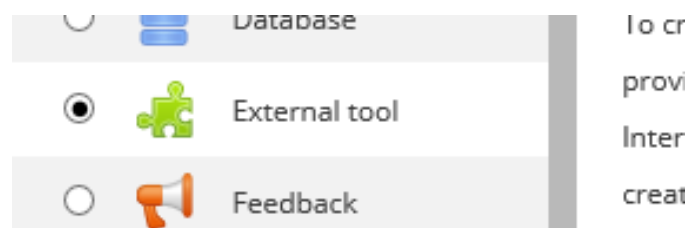
Testing the configuration (multi-tool flow)

Pebble+

1. Navigate to a course from your **My courses** menu
2. Click on the cog icon and click **Turn editing on**



3. Click **Add an activity or resource**
4. Click **External tool** then **Add**

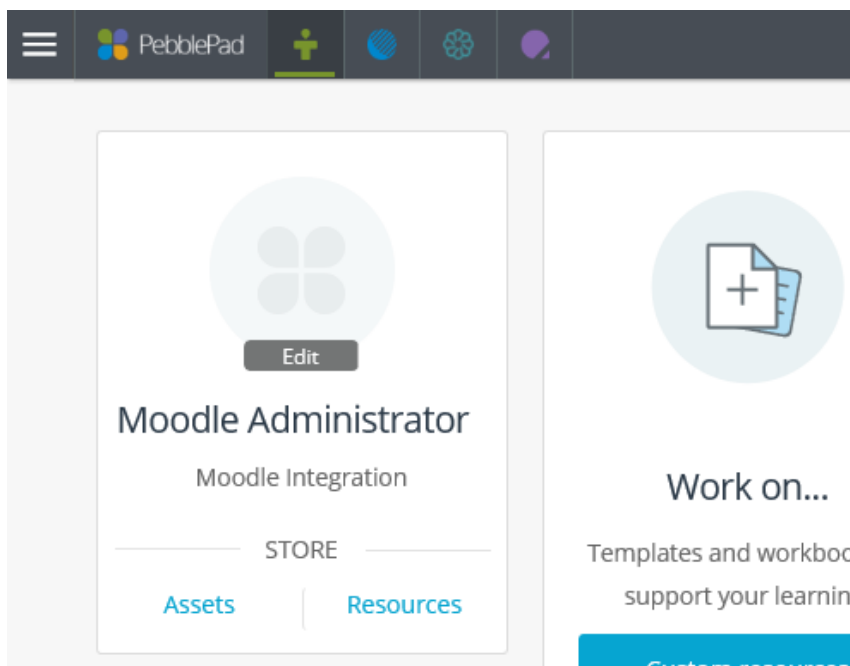



5. Complete the **Adding a new External tool** as follows

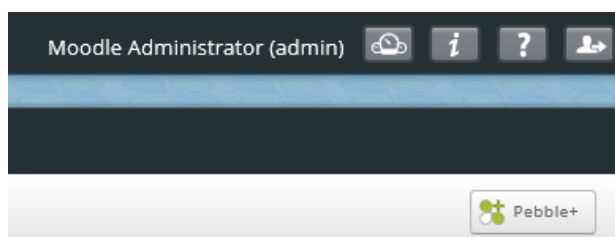
General	
Activity name	SSO
Preconfigured tool	PebblePad Pebble+

6. Click **Save and return to course**

7. Click on the newly create **SSO** activity link and you should be signed into Pebble+, if the tool has been configured successfully you should see your Moodle Forename and Surname on the profile tile.

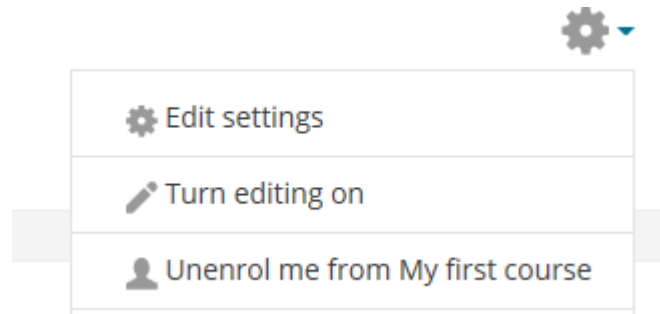


8. Finally click on the ATLAS  icon to launch ATLAS and check that your username is correct. If you see your Moodle username then the tool has been configured successfully. If you see a number then you are missing the custom launch parameter.

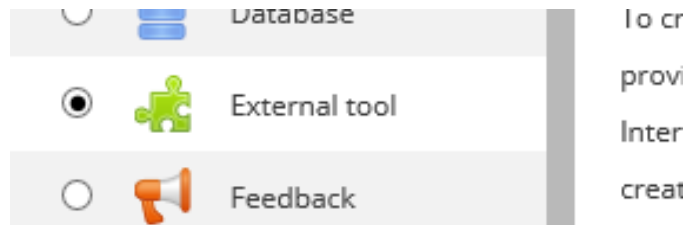


ATLAS

1. Navigate to a course from your **My courses** menu
2. Click on the cog icon and click **Turn editing on**



3. Click **Add an activity or resource**
4. Click **External tool** then **Add**



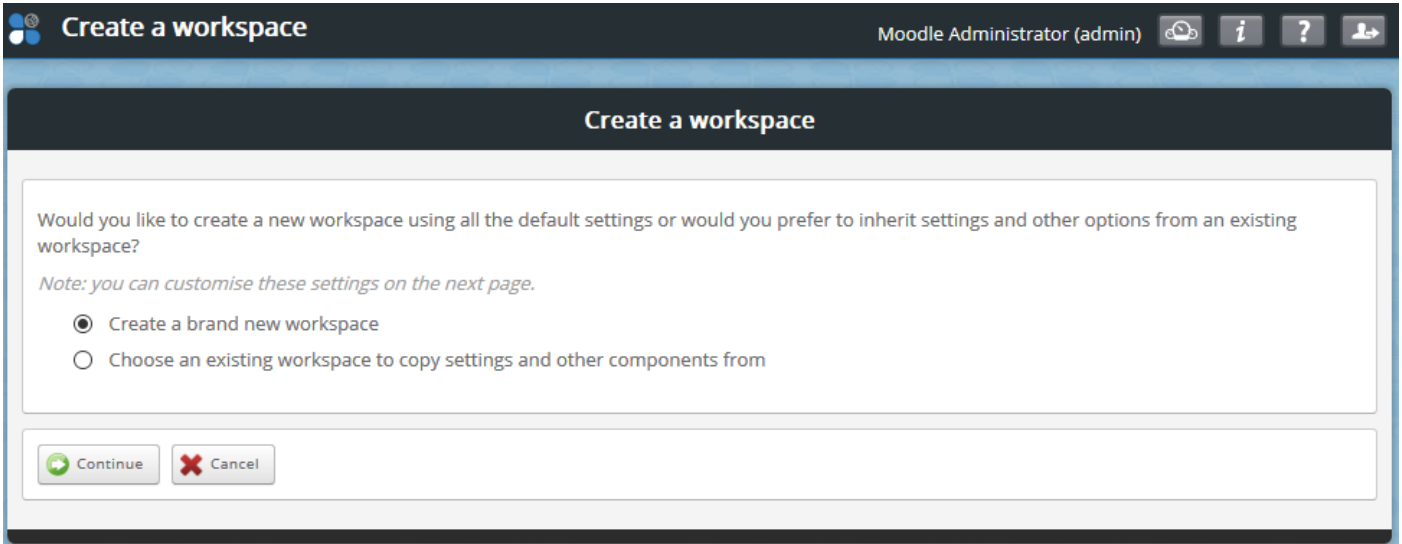
5. Complete the **Adding a new External tool** as follows

General	
Activity name	My first assignment
Preconfigured tool	PebblePad ATLAS

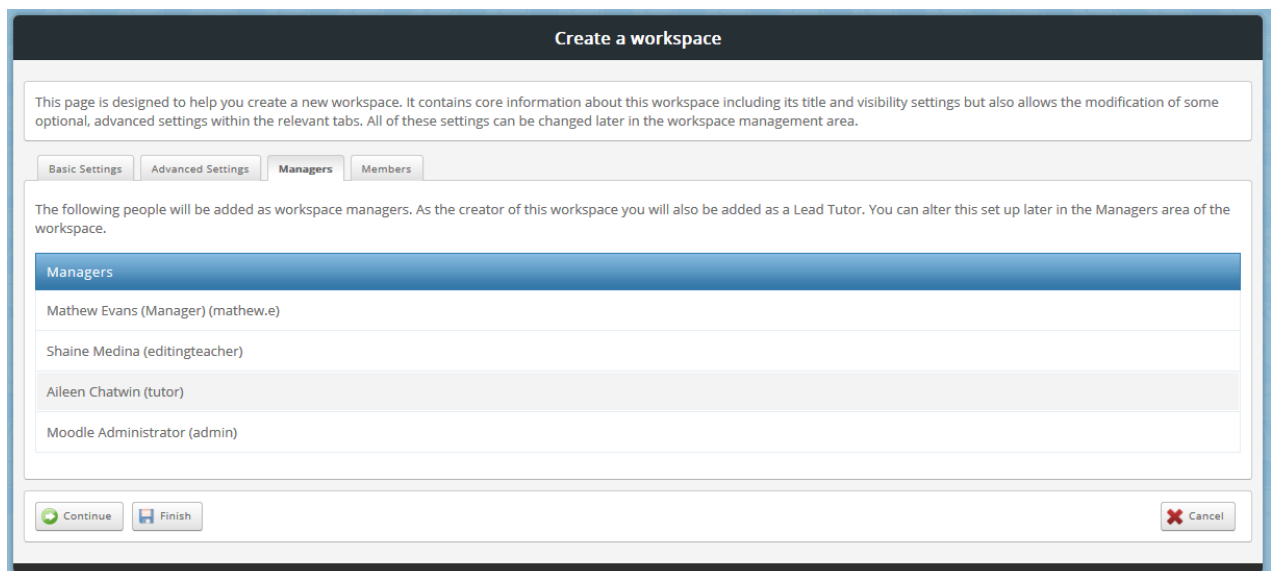
6. Click **Save and return to course**

- Click on the newly created **My first assignment** activity link and you should be signed into ATLAS, if the tool has been configured successfully you should see your Moodle username at the top right of the screen and be presented with **Create a workspace** wizard.

As per the prerequisites you need to have at least Creator level access on a Region or be a Region Manager in ATLAS. If not you will be redirected to the ATLAS dashboard instead of seeing the wizard.

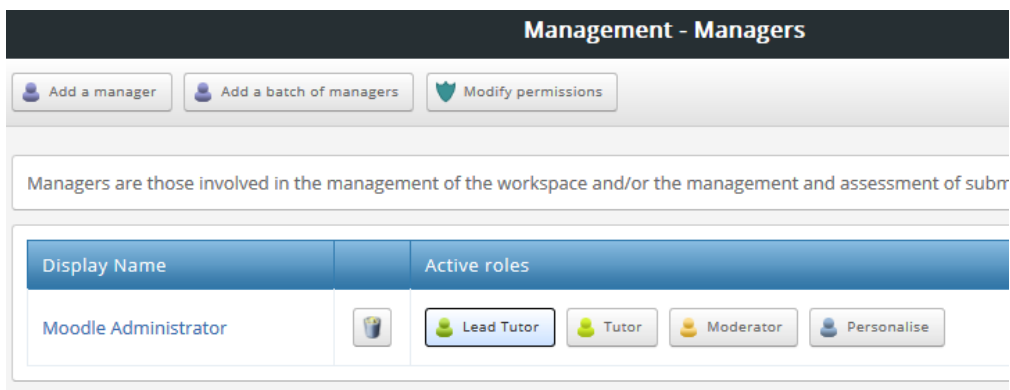


- Click **Continue** to create a brand new workspace.
- Notice that there is a **Managers** tab and a **Members** tab. If you can see these then you know that the membership's service connection is working. If you don't see these tabs then ensure that your Moodle install is publically accessible and you are not running on a localhost.
- Click the **Managers** tab and check that you can see your course instructors.
- Click the **Members** tab and check that you can see your course learners.

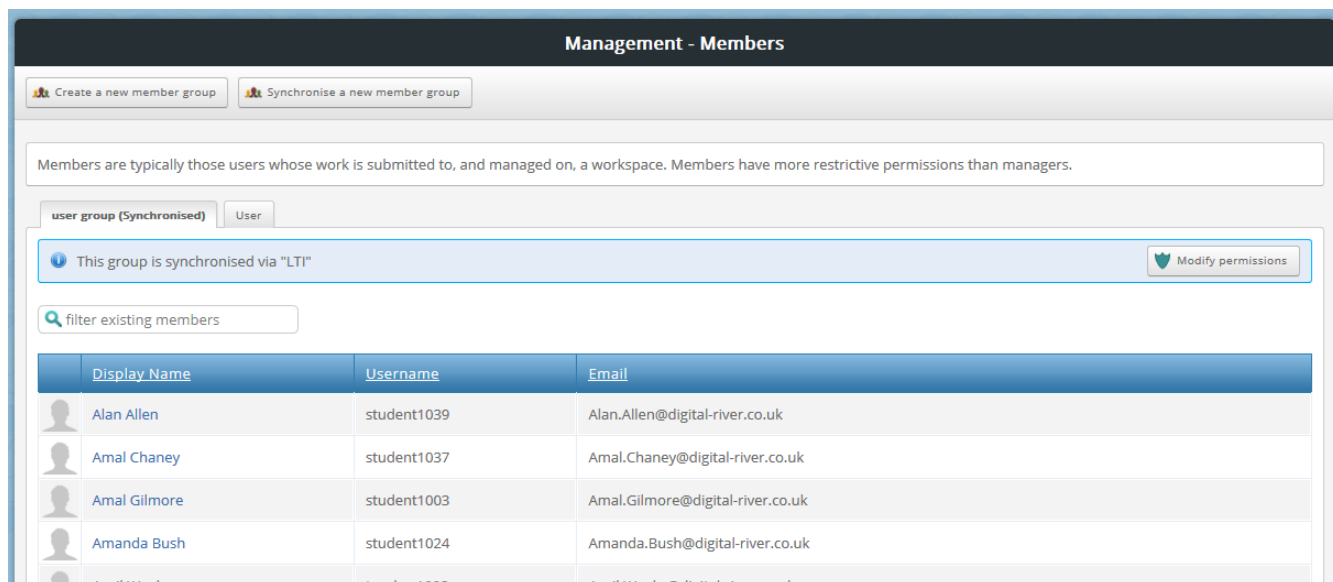


- From the **Basic Settings** tab change the workspace to start in **Active mode** and Click **Finish**.

Click the **Managers** tab under **Management** and check that the instructor accounts have been added as a **Lead Tutor**.

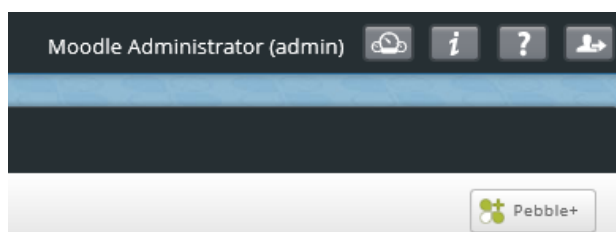


13. Click the **Members** tab under **Management** and check that a synchronised group has been created and all of the student accounts have been added.



Please note that the synchronisation of members will occur each time an Instructor (and only an Instructor) clicks the ATLAS link.

14. Check that you can see your Moodle username at the top right of the screen.



15. Click **Assignments** under **Management** and **Allow direct file uploads** and click the **Save** button

Allow direct file uploads

Submissions will be accepted by file upload and may be restricted to specific file types

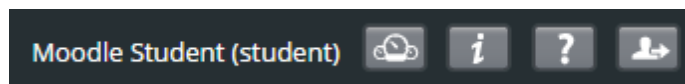
 File uploads are limited to 500MB per submission and may require downloading before being viewed

Accept all types of file

Restrict submissions to specific file types

Please note that enabling file uploads is a step that you will be taking as the Moodle Administrator to test the integration is working correctly and isn't a requirement of the integration.

16. Now log into Moodle as a student and click on the **My first assignment** activity link. You should be logged into ATLAS and land on the **About** page. You should be able to see your Moodle username at the top right of the screen.



17. Click the **Submissions** tab and click **Upload a file**

18. Press the **Continue** button

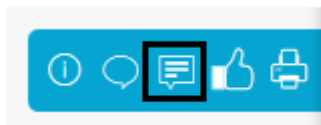
19. Click **Select file**, browse and select a file for upload

20. Enter a **Title**, check the **I am entitled to upload this file...** disclaimer and press the **Confirm** button

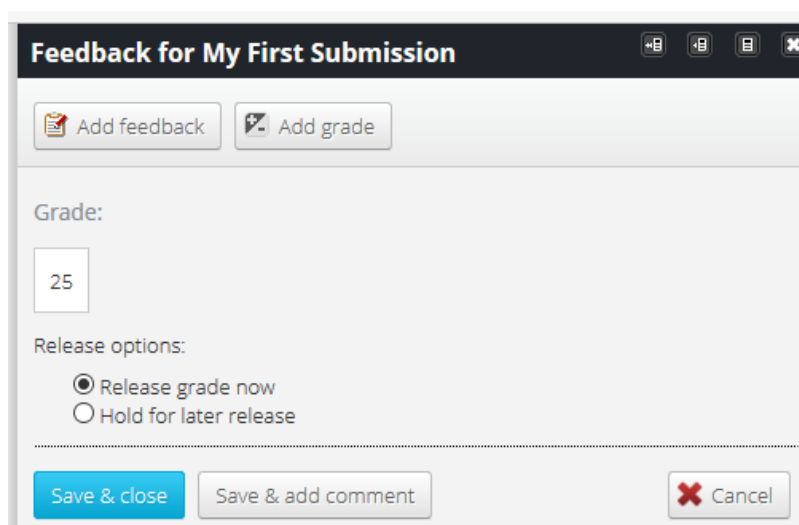
21. Once the file has uploaded switch back to your Admin account and log back into ATLAS.

22. Click the **Submissions** tab and open up the file submission.

23. Click on the leave Feedback button and click **Add grade**



24. Enter a grade into the **Grade** textbox. Notice that you can only enter a numeric value between 0 and 100.

A dialog box titled 'Feedback for My First Submission' with a dark header. Below the title are two buttons: 'Add feedback' and 'Add grade'. The 'Add grade' button is active. Below these buttons is a 'Grade:' label followed by a text input field containing the number '25'. Underneath is the 'Release options:' section with two radio buttons: 'Release grade now' (selected) and 'Hold for later release'. At the bottom are three buttons: 'Save & close' (blue), 'Save & add comment' (grey), and 'Cancel' (red with an X).

25. Click the **Save & close** button to release the grade back to Moodle.

26. From Moodle click on the **Grades** tab. Notice that the grade you entered in ATLAS is now in the corresponding activity link column.

Grader report

View Setup Scales Letters Import Export

Grader report Grade history Outcomes report Overview report Single view User report

All participants: 1/1

First name : **All** A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

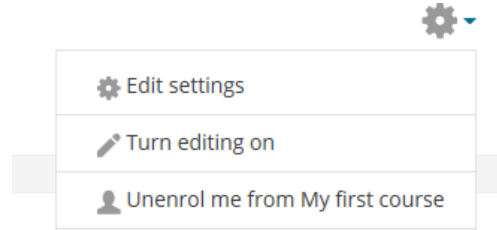
Surname : **All** A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

			My first course 	
Surname 	First name	Email address	 My First Assignment  	Σ Course total  
 Moodle Student	 	moodle_student@digital-river.co.uk	25	-
Overall average			-	-

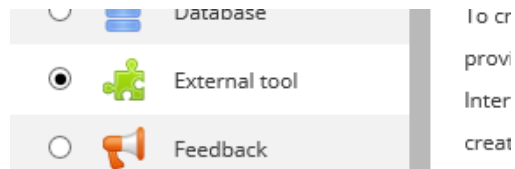
Content Item

Choosing a resource

1. Navigate to a course from your **My courses** menu
2. Click on the cog icon and click **Turn editing on**



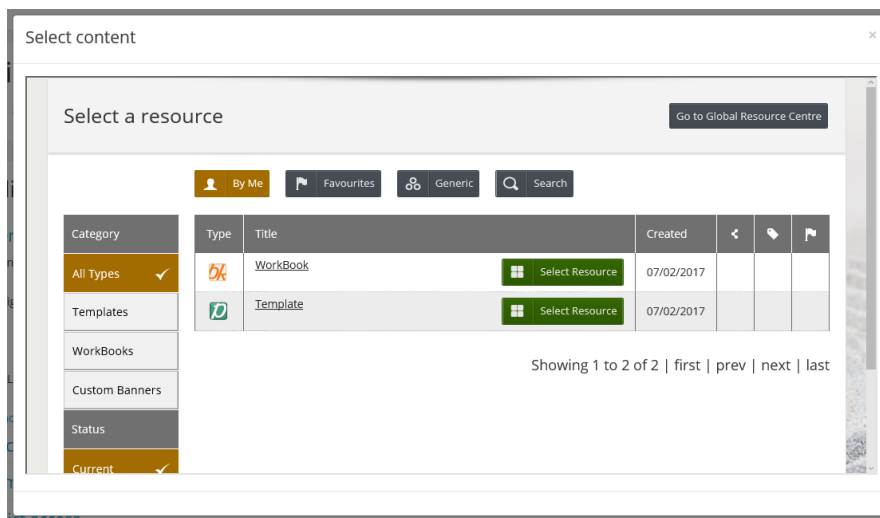
3. Click **Add an activity or resource**
4. Click **External tool** then **Add**



5. Complete the **Adding a new External tool** as follows

General	
Activity name	My Pebble+ resource
Preconfigured tool	Pebble+

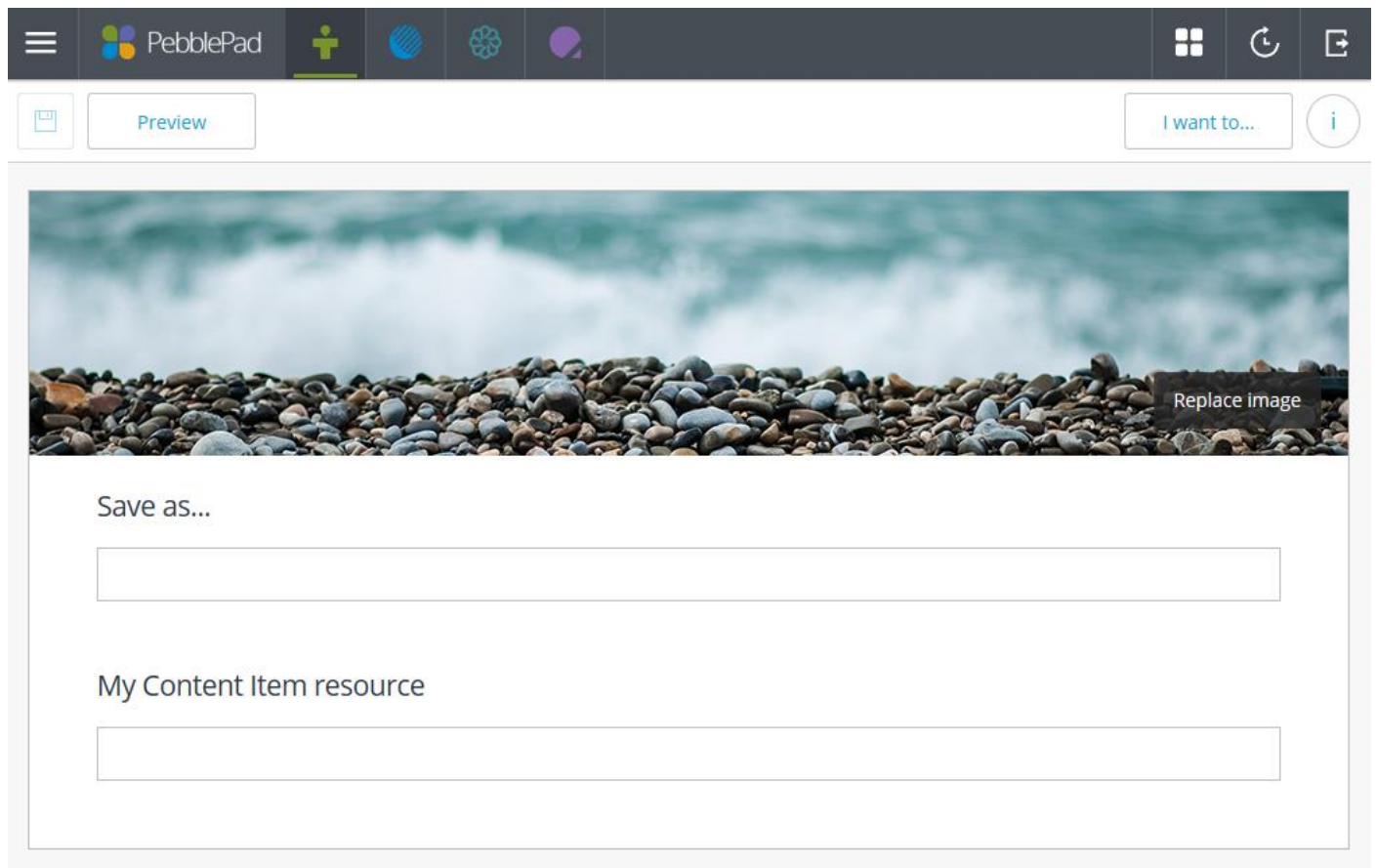
6. Click the **Select content** button and a popup modal will show you a list of all of your Pebble+ resources. Click on **Select Resource** for the resource you would like to test with and you will automatically be redirected back to Moodle.



7. Click **Save** and return to course

Using a resource

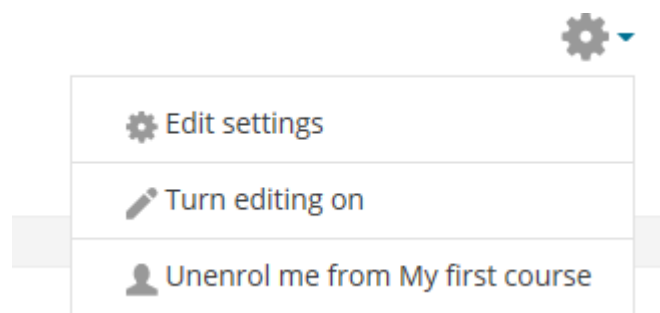
Log in as a student and click the **My Pebble+ resource** activity link and you should be logged into Pebble+ and presented with the selected resource in edit mode.



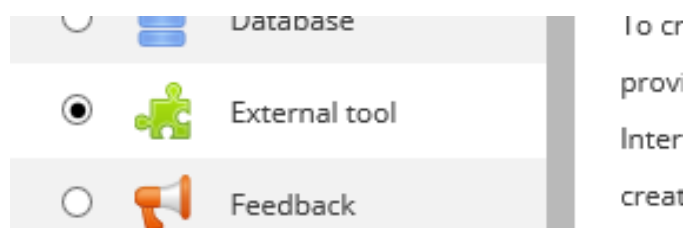
The screenshot shows the PebblePad user interface in edit mode. At the top is a dark navigation bar with the PebblePad logo and several icons. Below this is a light-colored toolbar containing a 'Preview' button, an 'I want to...' button, and an information icon. The main content area features a large image of a pebble beach with a 'Replace image' button overlaid on the right side. Below the image are two text input fields: the first is labeled 'Save as...' and the second is labeled 'My Content Item resource'.

Testing the configuration (LTI Express)

1. Navigate to a course from your **My courses** menu
2. Click on the cog icon and click **Turn editing on**



3. Click **Add an activity or resource**
4. Click **External tool** then **Add**



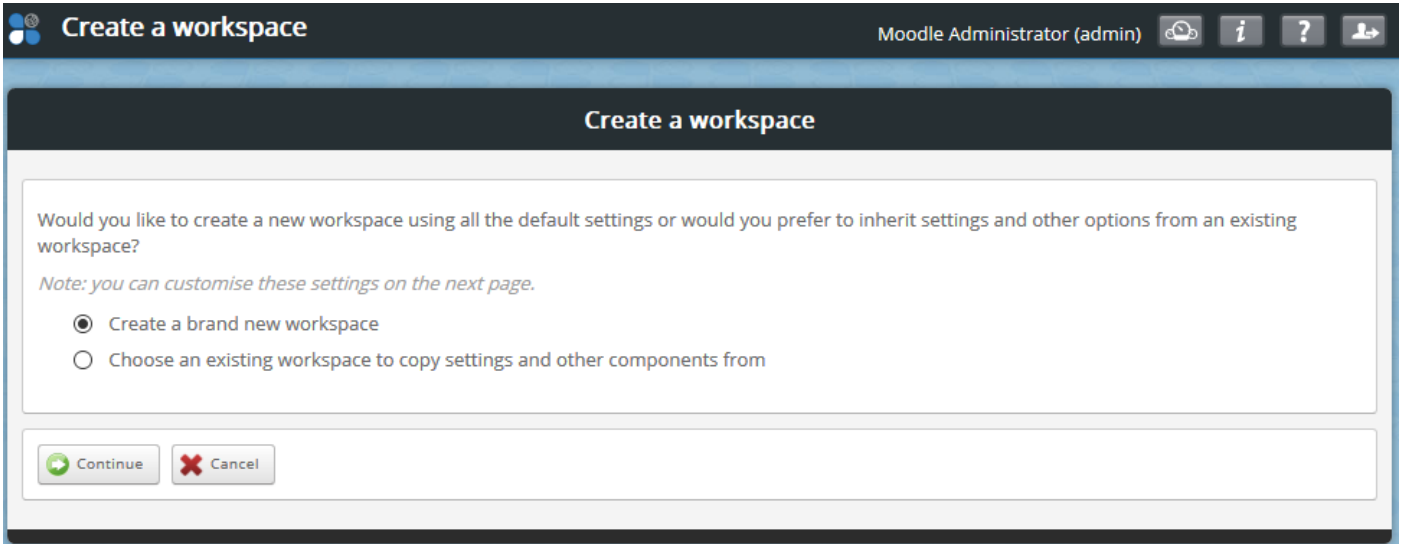
5. Complete the **Adding a new External tool** as follows

General	
Activity name	My first assignment
Preconfigured tool	PebblePad ATLAS (LTI Express)

6. Click **Save and return to course**

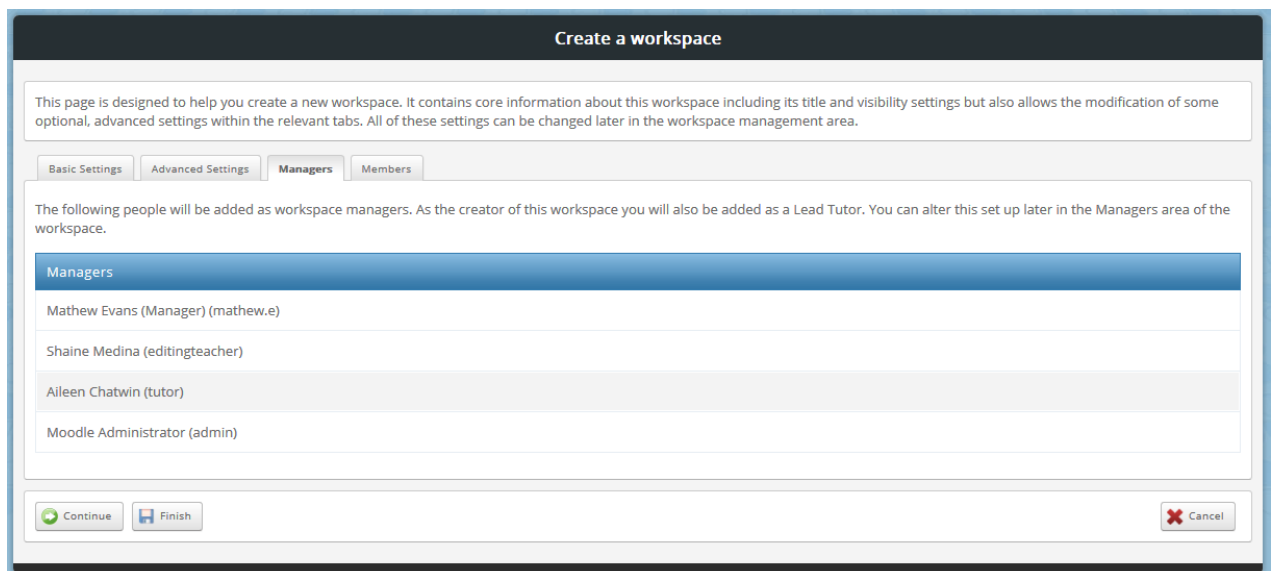
- Click on the newly created **My first assignment** activity link and you should be signed into ATLAS, if the tool has been configured successfully you should see your Moodle username at the top right of the screen and be presented with **Create a workspace** wizard.

As per the prerequisites you need to have at least Creator level access on a Region or be a Region Manager in ATLAS. If not you will be redirected to the ATLAS dashboard instead of seeing the wizard.



The screenshot shows the 'Create a workspace' wizard interface. At the top, it says 'Create a workspace' and 'Moodle Administrator (admin)'. The main heading is 'Create a workspace'. The question asks: 'Would you like to create a new workspace using all the default settings or would you prefer to inherit settings and other options from an existing workspace?'. A note says: 'Note: you can customise these settings on the next page.' There are two radio button options: 'Create a brand new workspace' (which is selected) and 'Choose an existing workspace to copy settings and other components from'. At the bottom, there are 'Continue' and 'Cancel' buttons.

- Click **Continue** to create a brand new workspace.
- Notice that there is a **Managers** tab and a **Members** tab. If you can see these then you know that the membership's service connection is working. If you don't see these tabs then ensure that your Moodle install is publically accessible and you are not running on a localhost.
- Click the **Managers** tab and check that you can see your course instructors.
- Click the **Members** tab and check that you can see your course learners.



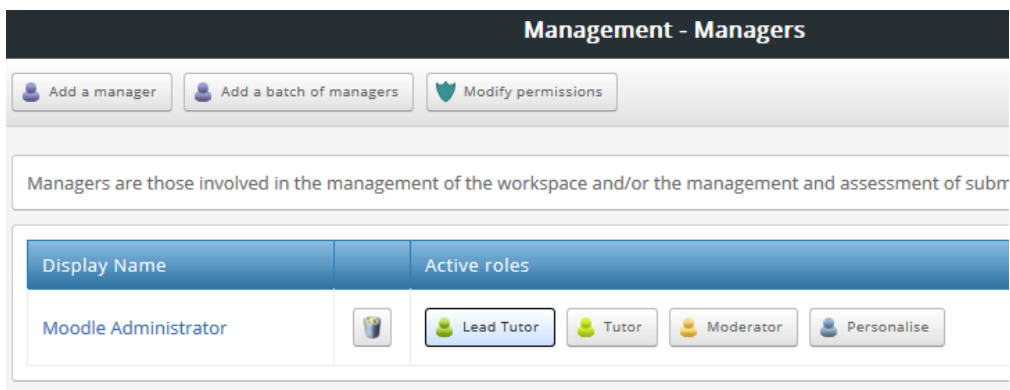
The screenshot shows the 'Create a workspace' wizard interface with the 'Managers' tab selected. The text says: 'This page is designed to help you create a new workspace. It contains core information about this workspace including its title and visibility settings but also allows the modification of some optional, advanced settings within the relevant tabs. All of these settings can be changed later in the workspace management area.' There are four tabs: 'Basic Settings', 'Advanced Settings', 'Managers', and 'Members'. Below the tabs, it says: 'The following people will be added as workspace managers. As the creator of this workspace you will also be added as a Lead Tutor. You can alter this set up later in the Managers area of the workspace.' A table lists the managers:

Managers
Mathew Evans (Manager) (mathew.e)
Shaine Medina (editingteacher)
Aileen Chatwin (tutor)
Moodle Administrator (admin)

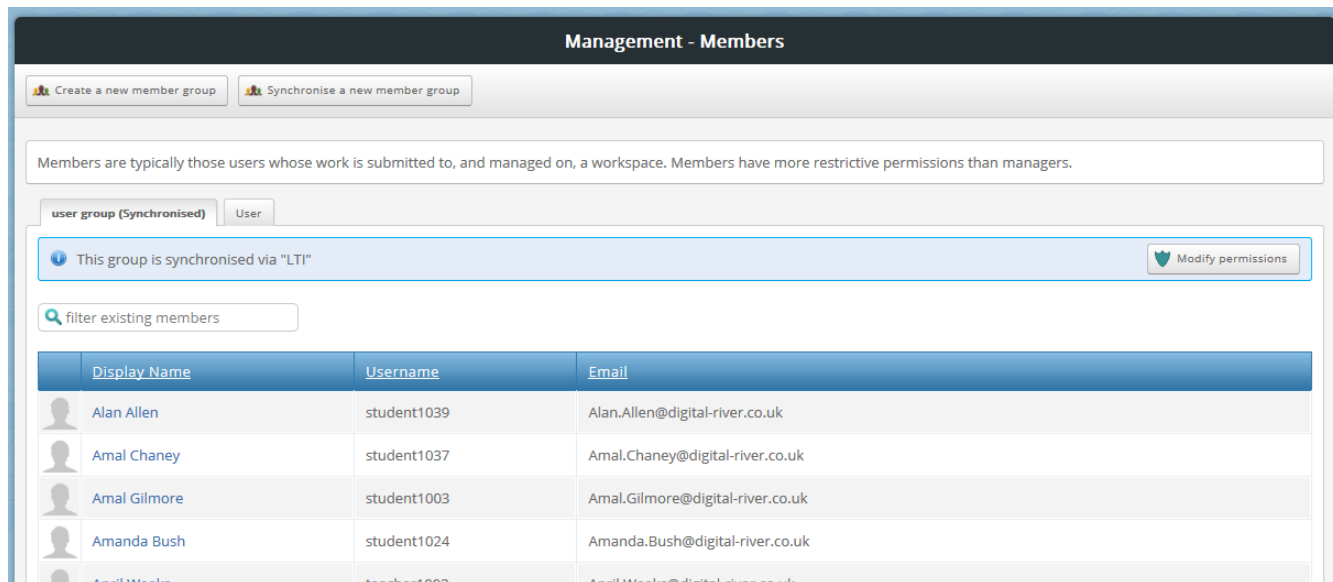
At the bottom, there are 'Continue', 'Finish', and 'Cancel' buttons.

- From the **Basic Settings** tab change the workspace to start in **Active mode** and Click **Finish**.

Click the **Managers** tab under **Management** and check that the instructor accounts have been added as a **Lead Tutor**.

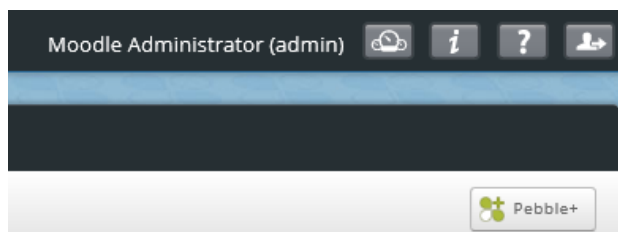


13. Click the **Members** tab under **Management** and check that a synchronised group has been created and all of the student accounts have been added.



Please note that the synchronisation of members will occur each time an Instructor (and only an Instructor) clicks the ATLAS link.

14. Check that you can see your Moodle username at the top right of the screen.



15. Now log into Moodle as a student and click on the **My first assignment** activity link. You should be logged into Pebble+ and be taken directly to the main dashboard.
16. Switch back to your Admin account and log back into ATLAS using the **My first assignment** activity link.
17. Click on the **Resources** tab.
18. Click on the **Add a resource** button.



19. Click on either **My Templates** or **My Workbooks** to select your resource.
20. Select the resource you want to use from the list and click the **Select item** button.
21. For the option **Would you like to prompt the user to auto-submit the form when saved?** Choose **Yes**, **Assignment #1** should be pre-selected.
22. Check the **I have read this information and wish to continue** box and press the **Continue** button.
23. Press the **Save** button to finish.
24. Now log into Moodle as a student and click on the **My first assignment** activity link. You should be logged into Pebble+ and be taken directly into your selected resource in placed in Edit mode. As the resource was set to auto-submit you should see a message confirming this. Complete the template and Save.
25. Switch back to your Admin account and log back into ATLAS using the **My first assignment** activity link.
26. Click the **Submissions** tab and open up the file submission.
27. Click on the leave Feedback button and click **Add grade**



28. Enter a grade into the **Grade** textbox. Notice that you can only enter a numeric value between 0 and 100.

 A screenshot of a Moodle dialog box titled "Feedback for My First Submission". At the top, there are two buttons: "Add feedback" and "Add grade". Below these, the "Grade:" label is followed by a text input field containing the number "25". Underneath, the "Release options:" section has two radio buttons: "Release grade now" (which is selected) and "Hold for later release". At the bottom, there are three buttons: "Save & close" (in blue), "Save & add comment", and "Cancel" (with a red X icon).

29. Click the **Save & close** button to release the grade back to Moodle.

30. From Moodle click on the **Grades** tab. Notice that the grade you entered in ATLAS is now in the corresponding activity link column.

Grader report

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First name : All A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Surname : All A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

			My first course	
Surname	First name	Email address	My First Assignment	Course total
Moodle Student		moodle_student@digital-river.co.uk	25	-
Overall average			-	-

