



Learning Activity Management System

TEACHER'S GUIDE

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Introduction

LAMS (“Learning Activity Management System”) is a system for creating and managing sequences of Learning Activities. It has four main areas:

- Author
- Monitor
- Learner
- Administration

This guide provides an introduction to **authoring** (where a teacher¹ can create and modify sequences of learning activities and store these in the sequence repository), and **monitoring** (where a teacher can select a sequence from the sequence repository, assign a group of learners, activate the sequence for learners, and then monitor their progress).

The **learner** area is where a group of learners participate in a sequence that has been activated for them by a teacher. A brief learner introduction to LAMS is provided in the document linked to the word “Help” on the top right of all Learner pages in LAMS (see Figure 17).

The **administration** area is for system administrators to set up LAMS users (including teachers and learners), manage user groups and other system administration functions. This is dealt with in a separate guide available to system administrators.

As the main purpose of this guide is practical instruction in the use of the authoring and monitoring areas of the system, it does not focus on theoretical issues in detail. For an introduction to the concept of Learning Design and discussion of the development of LAMS, see the paper in Appendix A.

Outline of LAMS Teacher Guide

The LAMS Teacher Guide has three sections:

- (1) Walkthrough: Viewing a prepared sequence in **authoring**, modifying and saving it, activating it in **monitoring**, and previewing it in the **learner** area
- (2) Authoring sequences: How to create new sequences, and adapt existing sequences, based on sequence and tool features in the authoring area
- (3) Monitoring sequences: How to start, monitor and manager sequences for use by learners

We hope you find this guide helpful. We welcome feedback – please email any comments, suggestions or problems to info@lamsinternational.com – Thanks!

¹ In this guide the term “teacher” should be understood in its broadest sense to include school teachers, lecturers, trainers, professors, etc. While there is no ideal word to cover this role across all education and training sectors, “teacher” is chosen here as the complement to “learner”.

Section 1: Walkthrough

This section is designed for new users of LAMS who are not familiar with the basic features of the system, and hence would value a simple walkthrough before examining the more detailed information provided in Section 2 (**authoring**) and 3 (**monitoring**). Experienced users can skip this section and start with Section 2.

This section presents a number of common steps in using LAMS, starting with login, followed by viewing a sequence in **authoring**, modifying and saving it, activating it in **monitoring**, and finally viewing it as a learner in the **learner** area. A one-page summary of these steps is provided at the end of this section for your reference.

Step 1: Access LAMS Server

To access the LAMS server, open your Browser and type your LAMS server's URL into your browser address/URL area and hit return. *NB: The address must be exact.*

For example, a trial LAMS server at Macquarie University could have the following URL:

<http://lams1.melcoe.mq.edu.au/lams/>

LAMS runs through current web browsers such as Internet Explorer V5 or above on Mac and PC, Firefox on Mac and PC, and Safari on Mac. LAMS also requires the Flash 7 plug-in. When you first access LAMS, the system will check to see that you have the required plug-in, and if not, it will try to download this for you. If this happens, you will see a pop-up box to accept the Flash 7 plug-in – you must click OK at this point. After Flash 7 has self-installed, LAMS should run normally. If not, try closing all browser windows and quitting your browser, then loading the browser again and accessing LAMS. If it still does not work, check your other browser settings, try a different browser, try a different computer, or consult your sysadmin.

Step 2: Login

Once you have accessed the LAMS server (and installed the Flash 7 plug-in if required), you will be presented with a login screen (see Figure 1 – NB: All screenshots in this guide are based on Firefox for PC). Type in your name and password, and you will then be taken to the “**Welcome**” page.

The “**Welcome**” page is the central point of the LAMS system once you have logged on. From here you are able to access all areas you are entitled to view via the buttons on the right (see Figure 2). Note that LAMS will open a number of “pop-up” windows from here as part of its normal operation – if your browser is set to block pop-up windows, you will need to unblock it for the LAMS system.

NB: The “**Welcome**” screen should be kept open at all times until you quit using LAMS. If you close this screen by accident, you will need to login to LAMS again to access other areas (e.g. **author**, **monitor**, etc). Also note that once you are logged in, if you wish to log in as a different user, you must close all browser windows, quit your browser, and start the process of opening your browser again.

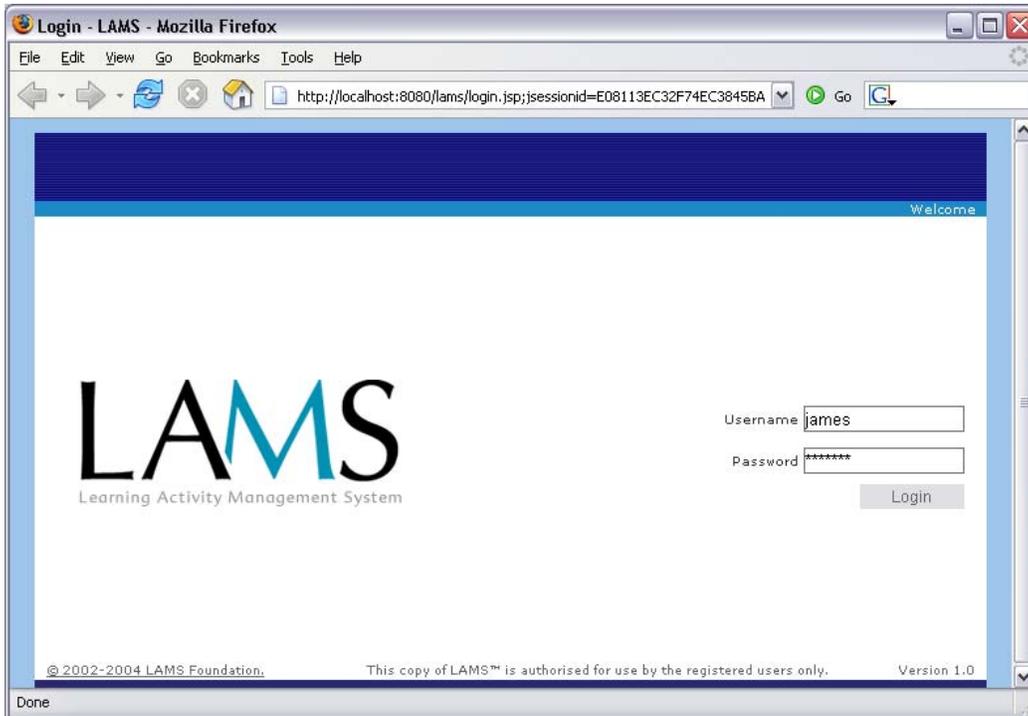


Figure 1: LAMS Login screen.

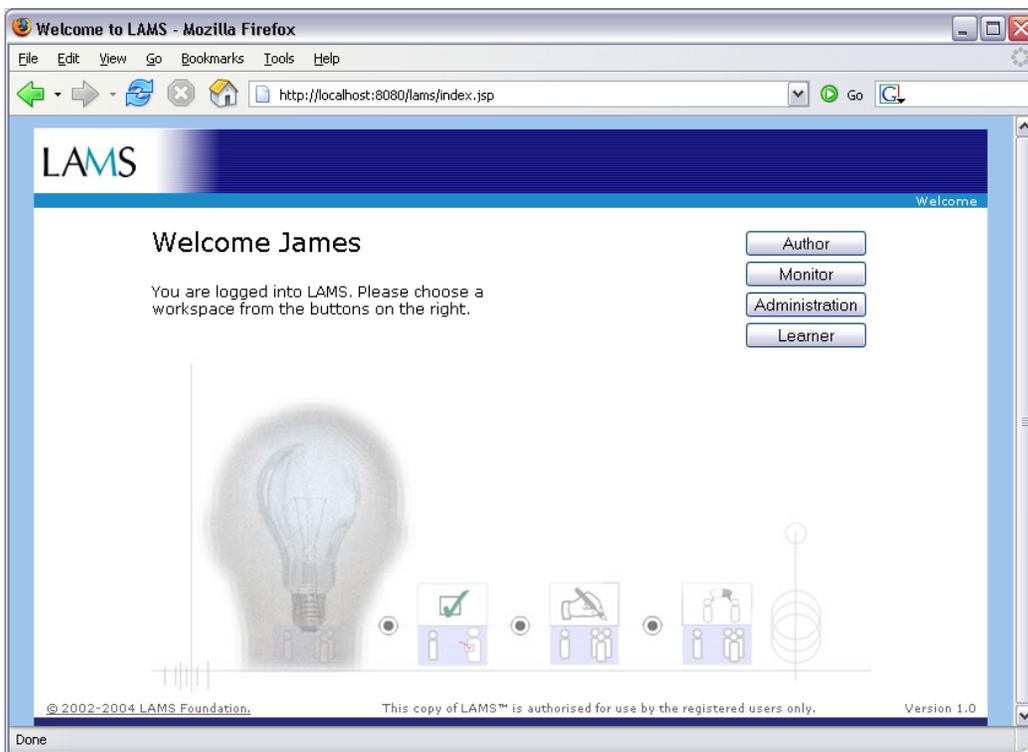


Figure 2: LAMS Welcome page after successful login, with buttons to access areas.

NB: Do not close the Welcome screen until you are ready to quit using LAMS.

Step 3: Access Author area

To access the **authoring** area, click on the “Author” button on the **Welcome** page (Figure 2). This will open the **authoring** area in a new window (see Figure 3).

The **authoring** area is made up of three main parts:

- (1) Create/Edit sequences work area (main central panel)
- (2) Sequence management tools (across the top of the screen)
- (3) Activity tools (down the left side of the screen)

Each of these parts is explained in detail in Section 2. For this Walkthrough, we will view an existing sequence, modify it, activate it in the **monitoring** area, and then view it as a **learner**. Section 2 describes creating a new sequence.

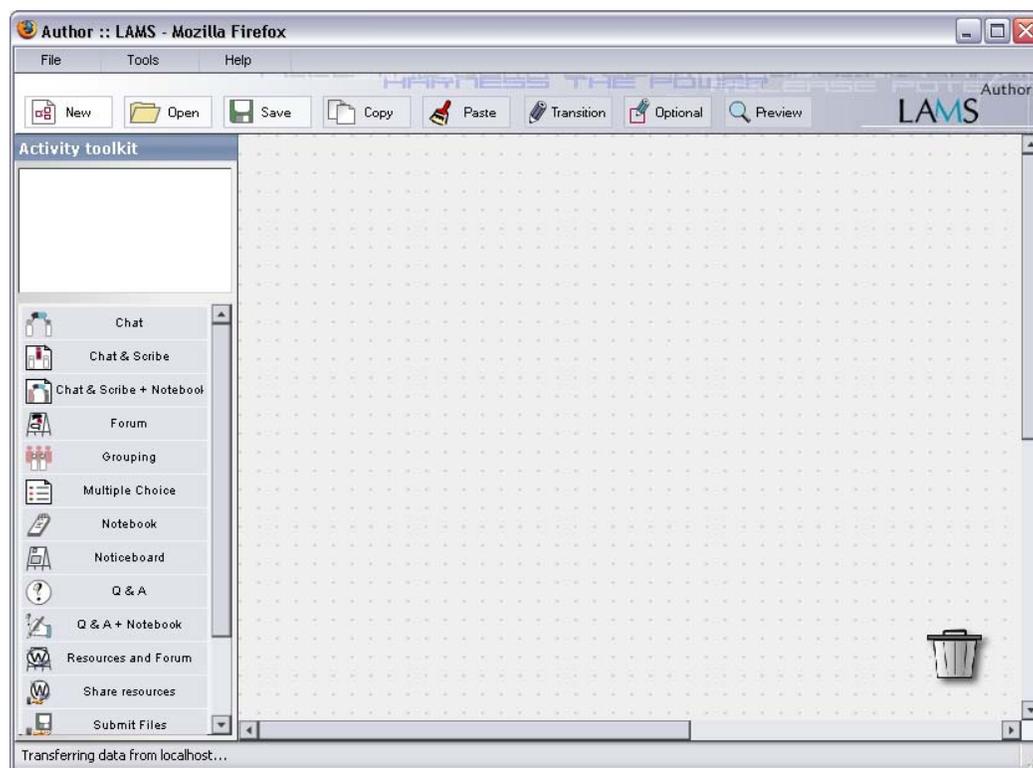


Figure 3: LAMS Authoring Area

Step 4: Open an existing sequence

To open an existing sequence, click on the “Open” button on the top left of the screen. This will open a window in the middle of the screen allowing you to select the sequence from the sequence repository that you wish to view. When you open this window, it defaults to the “Private” area of the sequence repository (that is, your own private area that only you can see). When you first use LAMS, this will be empty. For the purpose of this Walkthrough, click on “Private”, and other areas that you can access will become visible (see Figure 4). Click on “Public” to see existing publicly accessible sequences, and click on “Greatness”, then on the “Open” button at the bottom right of the Open window (see Figure 5 & Figure 6).

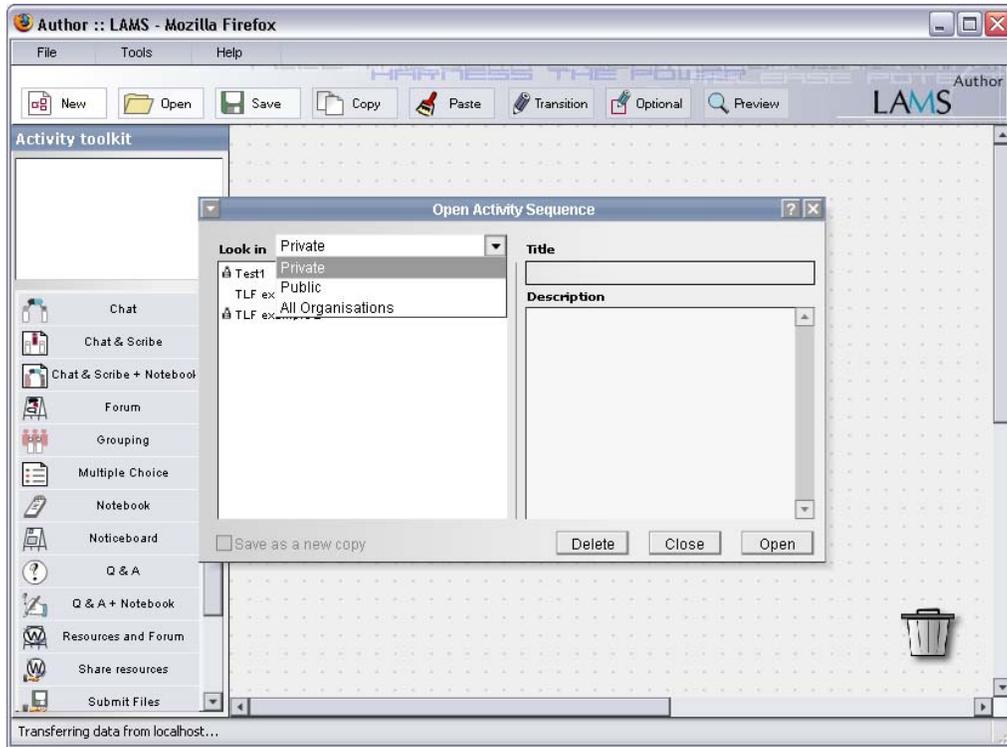


Figure 4: Authoring area showing “Open” window currently showing Private view.

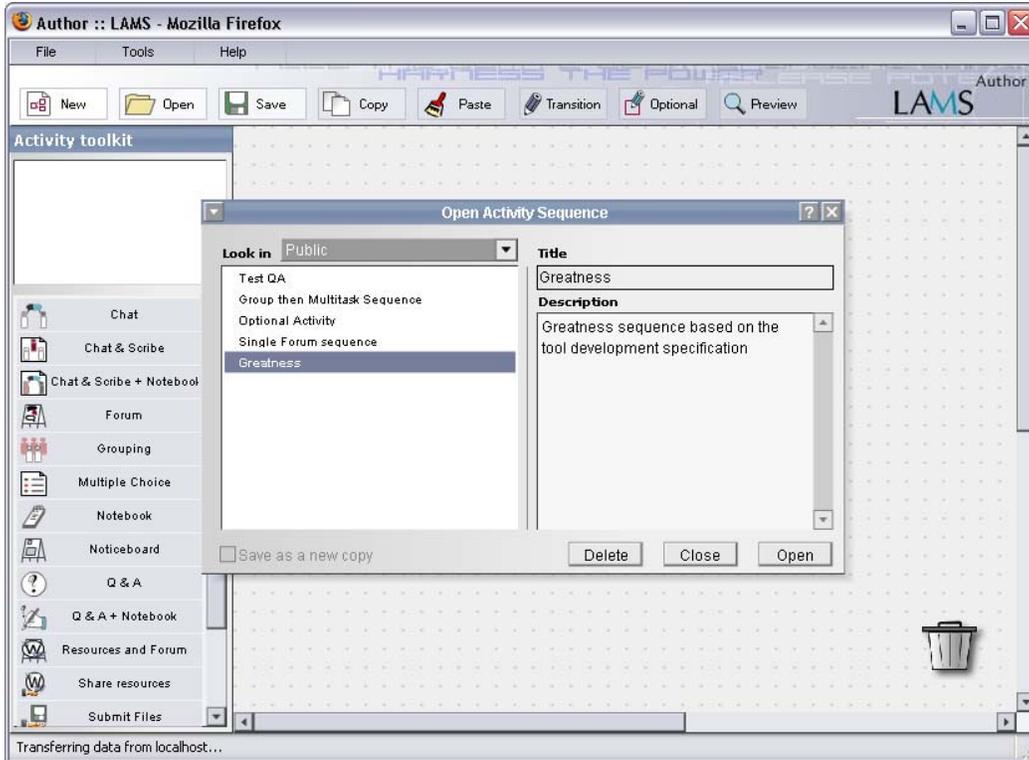


Figure 5: Authoring area showing “Open” window, Public view, with “Greatness” selected. Clicking “Open” on the bottom right will open this sequence in the main authoring work area.

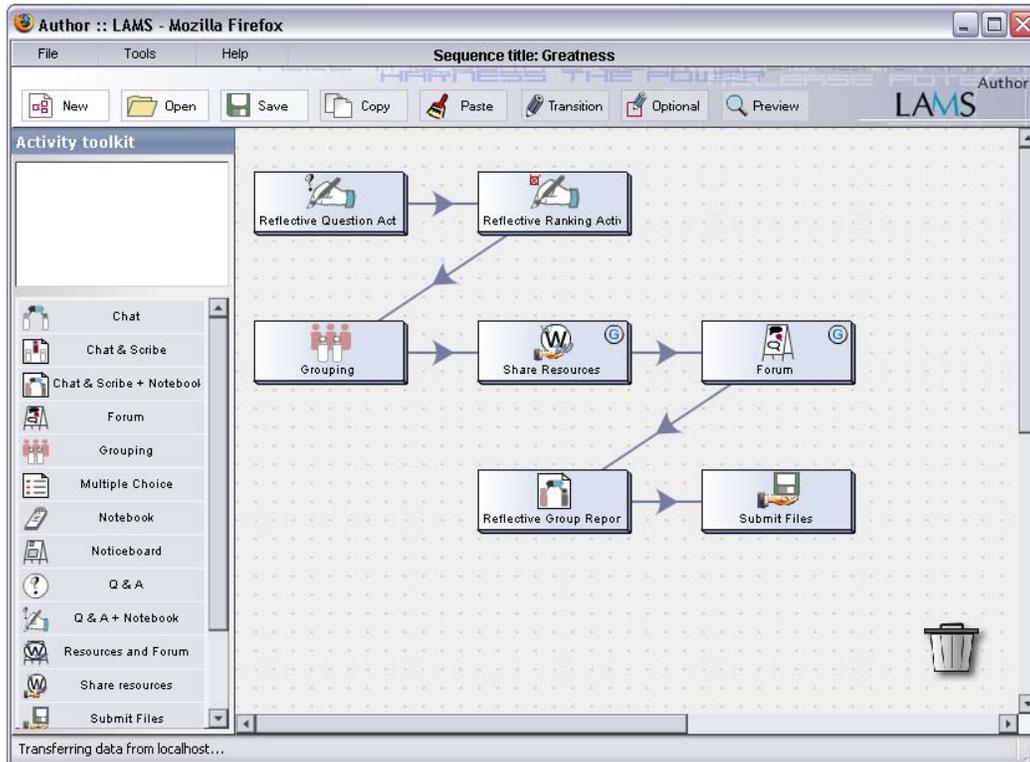


Figure 6: View of the “Greatness” sequence in the authoring work area.

Step 4a: Making a copy of a locked sequence

If a sequence in the sequence repository has been activated in the **monitoring** area for use by learners, or is someone else’s sequence stored in areas such as “Public”, then it will be “locked” to ensure this sequence is not inadvertently changed by an author. A small padlock icon next to the sequence name in the “Open” window shows a “locked” sequence.

All sequences in areas other than Private are locked (unless you were the original author), so for “Greatness” it is necessary to save a copy of the sequence into your Private area so you can modify it. Figure 7 shows the “locked” dialogue box message. To save a copy of the sequence into your Private area (so that you can make changes to it), click the “make copy” button on the bottom right. This will then bring up a “Save” window (see Figure 8) in which you can give the sequence a new name (eg, Copy of Greatness), and save it in your Private area.

You are now ready to edit your sequence!

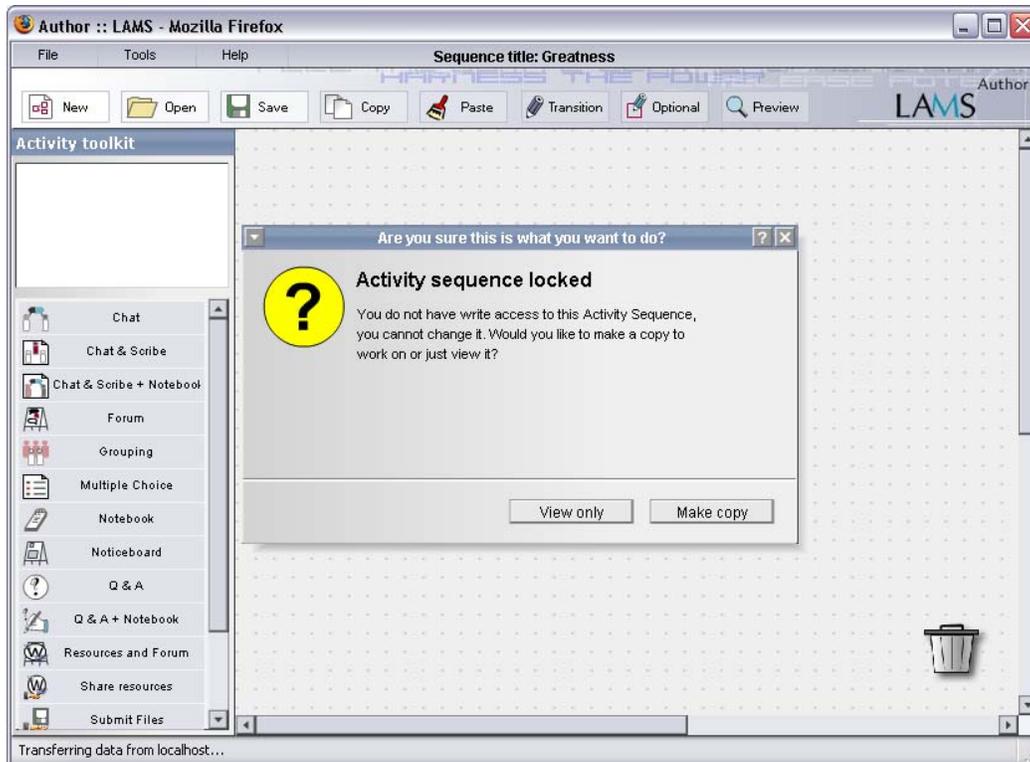


Figure 7: “Activity sequence locked” message

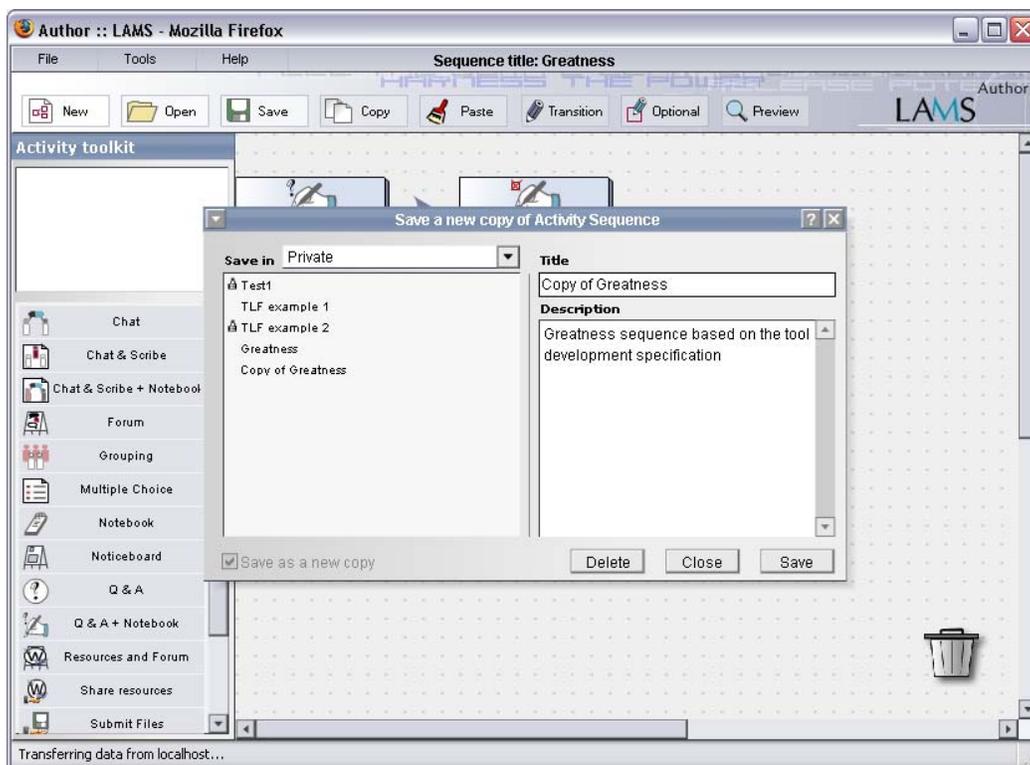


Figure 8: Saving a copy of a locked activity sequence under a new name. Once saved successfully, a “Saved” dialogue box message (with “Smiley” face) will be shown – click “OK” to close.

Step 5: Editing a sequence

The ability to edit a sequence (or create a new sequence from scratch) is one of the most important features of LAMS. Detailed information about editing is provided in Section 2.

For this Walkthrough, we will make some small changes, save them, and then move on to activate the sequence. The sequence is made up of a number of tools in a specified order. To make this sequence shorter, we will delete the last two tools (“Reflective Chat & Scribe” and “Submission”). This is achieved by clicking on each relevant tool icon in the sequence, holding down the (left) mouse button, and dragging the box onto the “trash” icon (bottom right) – see Figure 9. Any relevant “transitions” (lines between individual activities) will be deleted when the activity is deleted.

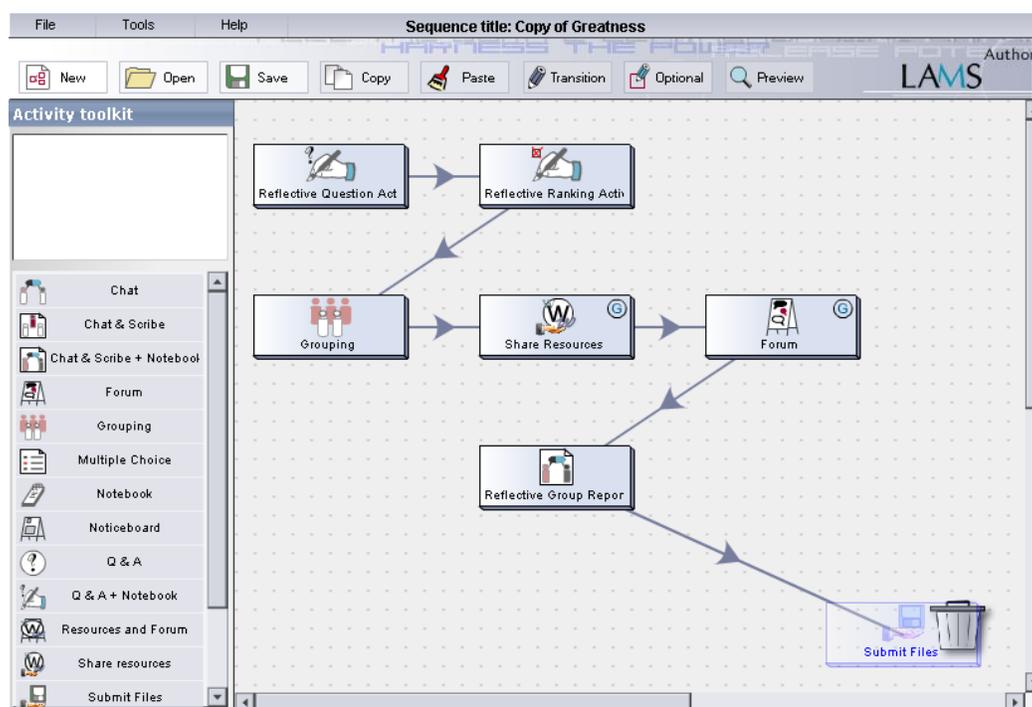


Figure 9: Deleting the “Submit Files” activity by dragging it onto the trash. Repeat the same activity for the “Reflective Group Report” activity. NB: Relevant transition lines are also deleted.

Step 6: Saving a sequence

To save a modified sequence, click on “File” on the very top left of the screen, then choose the “Save as...” command from the drop down menu. This will allow you to save the modified sequence under a new name (so as not to delete any previous version of this sequence). This is illustrated in Figure 10.

Save the sequence as “Copy of Greatness1”. You are now ready to move on to the **monitoring** area to activate this sequence. For details about the many other features of the **authoring** area of LAMS, see Section 2 of this Guide.

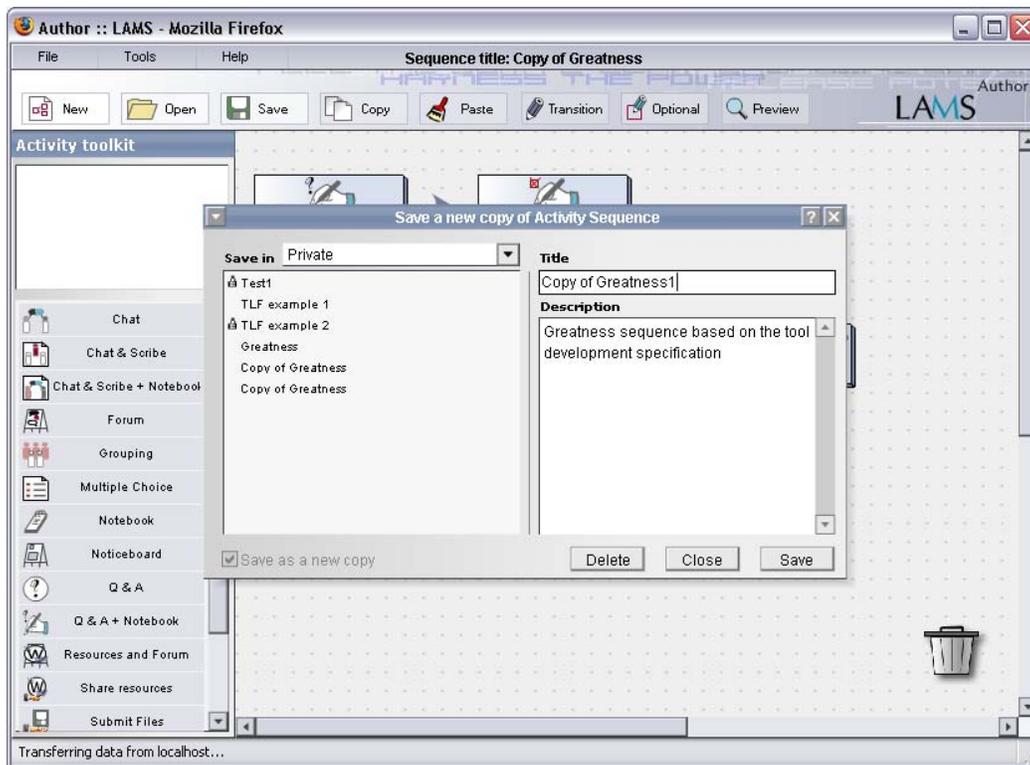


Figure 10: Saving a copy of a sequence using the “File - Save as...” function (top left of screen), followed by typing in a new sequence title (Copy of Greatness1), then click “Save” (bottom right).

Step 7: Access sequence in Monitor

Having saved a sequence at the end of Step 6, you can now activate this sequence in the **monitoring** area, and preview it using the **learner** area.

First, go back to the “Welcome” page (see Step 2 for details). This should be available as a separate Browser window from your desktop. Then click on the “Monitor” button, and the **monitor** area will open in a new Browser window (see Figure 11).

The **monitor** screen has two main parts:

- (1) The session management area (left side narrow column)
- (2) The individual sequence area (main part covering centre and right side)

The session management area allows you to manage all the sequences you currently have active with your various learner groups (including an area for archiving old sequences). This is the place where you can create new sessions based on your authored sequences.

The main part of the window covering the centre and right sides is for managing a single session. By clicking on a sequence in the session management area on the left, the details for running this session are shown on the right. The four tabs across the top right of the window provide different information to help monitor a “running” sequence (ie, session).

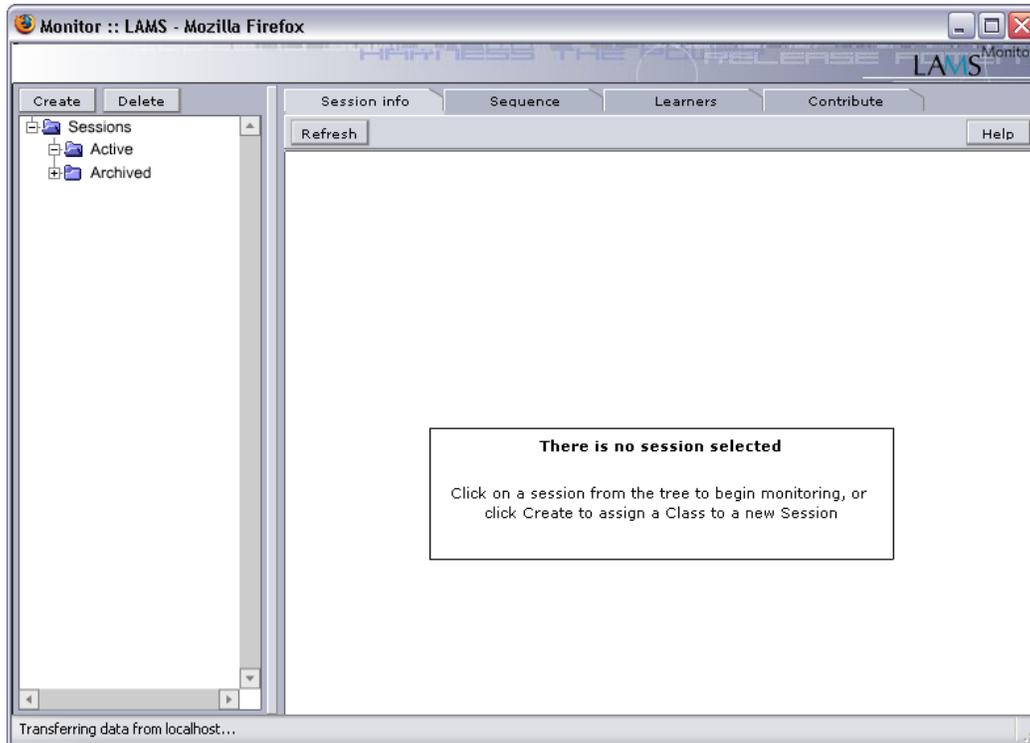


Figure 11: Monitor area when first opened with no active sequence sessions.

Step 8: Create a new session in monitoring for a sequence

To create a new monitoring session for a sequence from the sequence repository, click on the “Create” button on the top left, and click on the name of the sequence you wish to monitor from the window (see Figure 12), and then click open. You will then see the new session highlighted in the session management area on the left, and the “Session info” details for this session on the right side (see Figure 13).

In this case, choose the “Copy of Greatness1” sequence that you edited earlier.

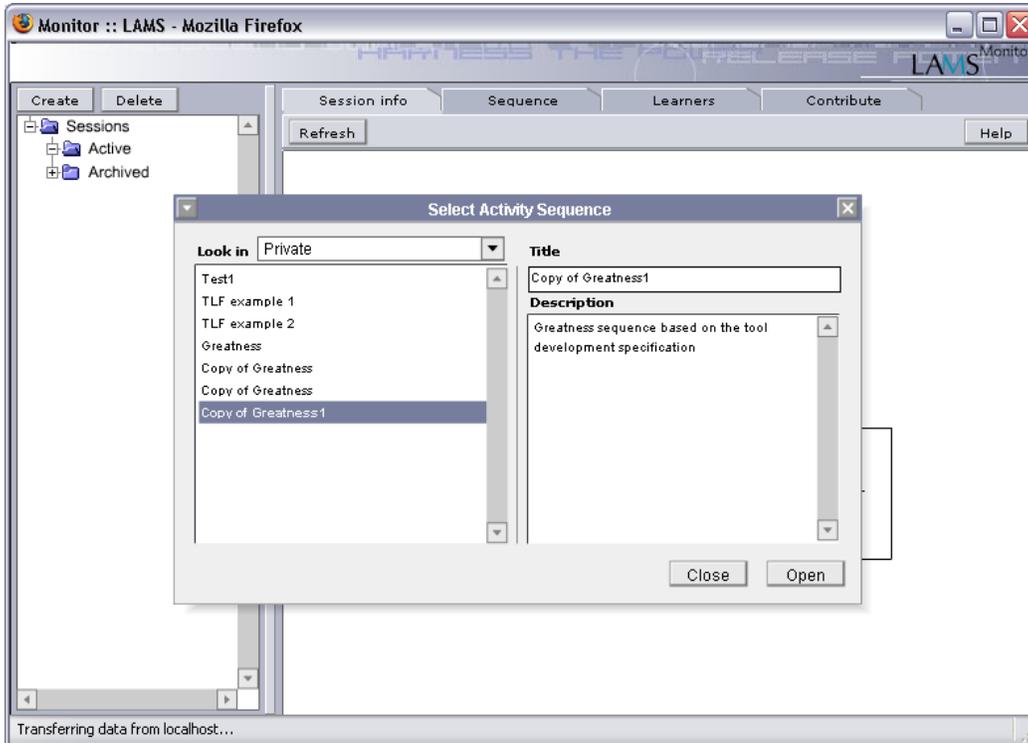


Figure 12: After clicking “Create” on the top left, a dialogue box opens to allow the monitor to select a sequence from the sequence repository to be run as a session in monitoring.

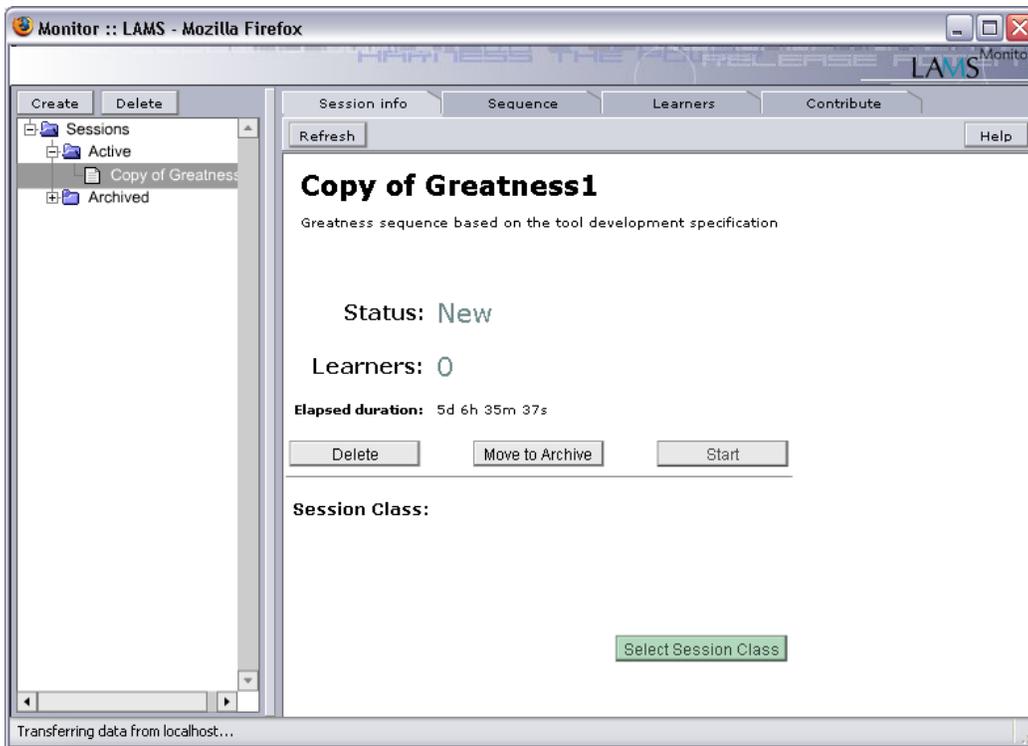


Figure 13: A newly created monitoring session for “Copy of Greatness1”

Step 9: Select session class

Once the relevant sequence has been selected and opened as a session in monitoring, the next step is to assign a class to the session. This is achieved by clicking the “Select session class” button on the bottom right, which will open a window showing the class groups for your LAMS account on the left (NB: groups and users are setup in the administration section). Click on the text of the relevant class in this dialogue box, and the members of this group will be shown on the right of the window (see Figure 14). To assign this class to this session, click “OK”.

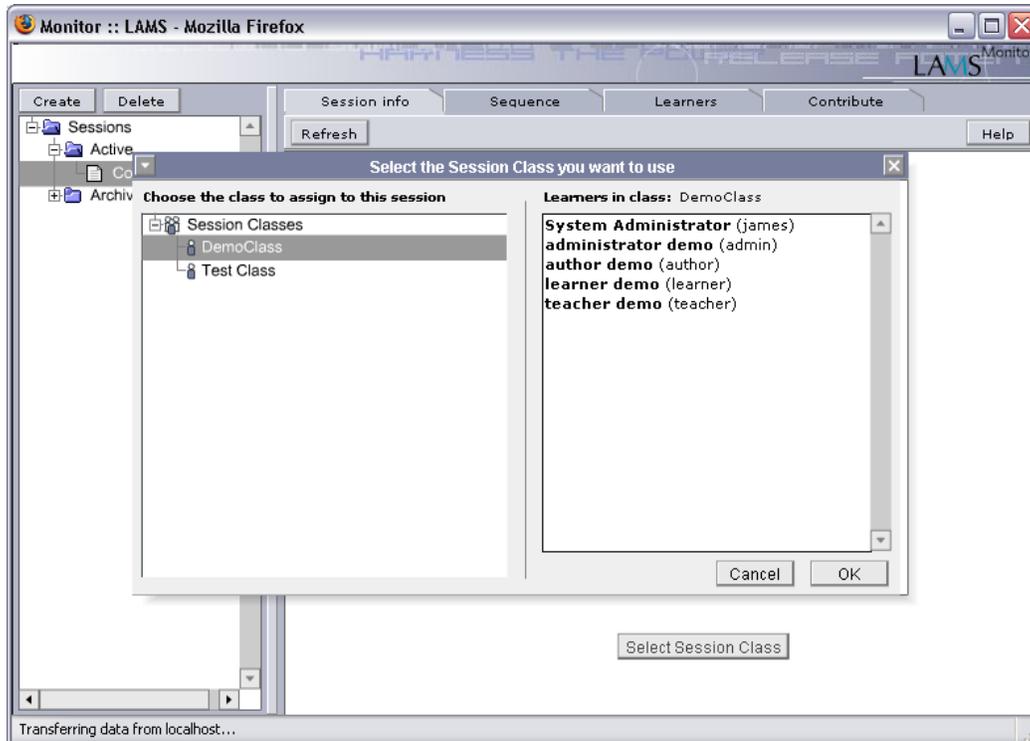


Figure 14: Selecting a class to assign to a monitoring session. Your available classes are show on the left of the dialogue box. Clicking on the text of a particular class group will show the relevant individual members of the group on the right.

Step 10: Start sequence session

Once you have created a session for your chosen sequence (Step 8) and selected a class of learners for this session (Step 9), you can officially “start” a sequence session. Starting a sequence session makes it available to all learners in the relevant group immediately after you click the “Start” button (middle right). After clicking the “Start” button, the “Status” (middle right) of the session will change from “New” to “Started”, indicating that it is now viewable by learners (see Figure 15).

Now you are ready to view this session as a learner via the **learner** area.

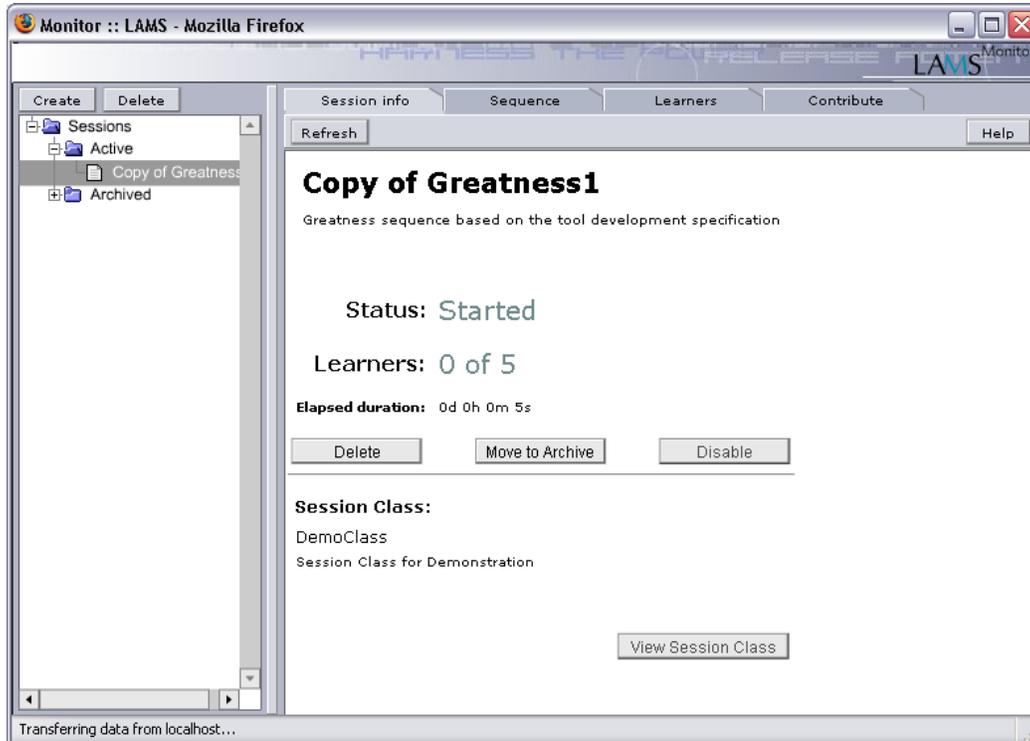


Figure 15: A session that has been “Started” (ie, made available to learners). The “0 of 5” next to “Learners” indicates that no learners have joined this session to date.

Step 11: View monitor session (of authored sequence) as a learner

Having used **authoring** to edit a sequence and started a session of this sequence in the **monitor** area, this sequence can now be viewed in the **learner** area. Return to the “Welcome” page (see Step 2 for details) and click the “Learner” button. This will open the learner area in a new window, with you in the role of learner. All available sequence sessions for the learner are shown on the top left in the window called “Available sequences” (see Figure 16). To enter a given sequence session, click on the text of the session. After a brief animation, the session will begin with the relevant tool in the main area (see Figure 17). If you have previously accessed this sequence, it will pick up from the tool where you left off.

From this point onwards, the system behaves according to the functions of the learner interface, which are described in the Learner overview, which is linked to the word “Help” at the top right of all Learner screens in LAMS, and illustrated in Figure 17.

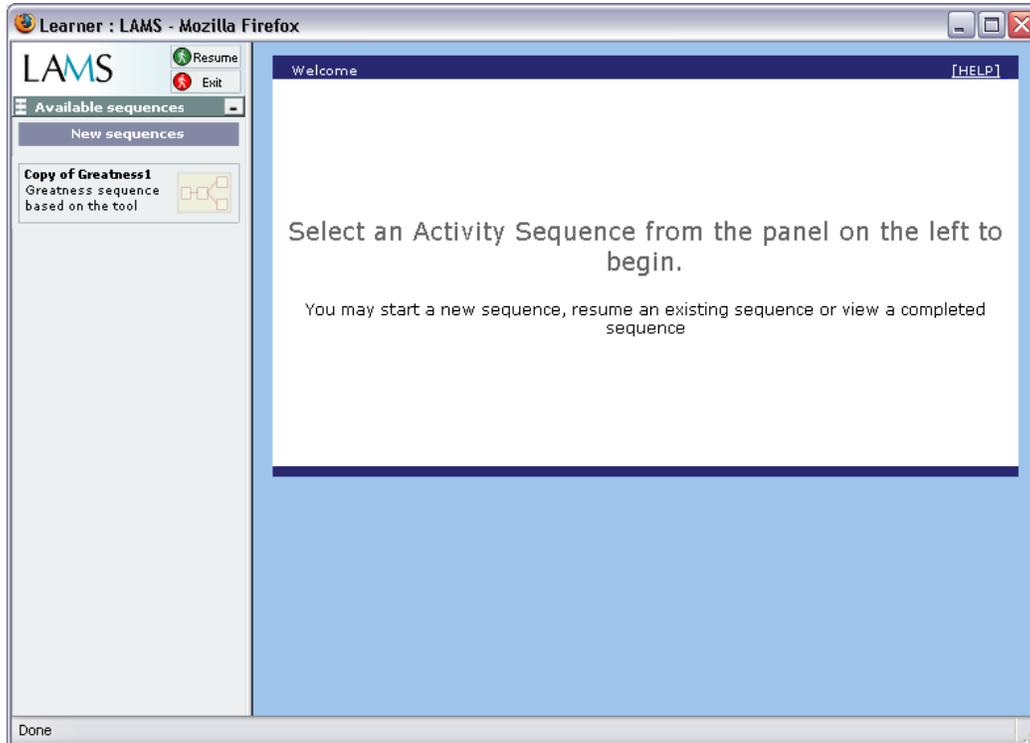


Figure 16: Initial learner area page showing currently available sequences (top left).

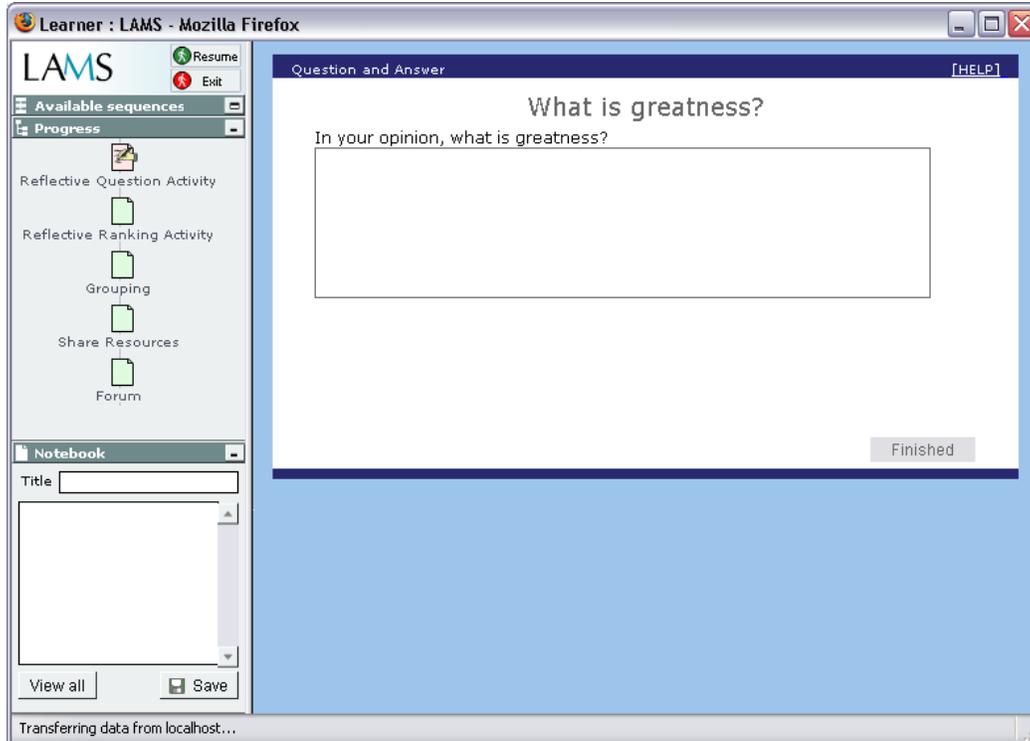


Figure 17: Learner view of “inside” a given sequence, with the relevant activity shown in the main window. Further details about the learner area are provided in the Learner overview, which can be accessed by clicking the word “Help” at the top left of learner screens – see above.

Alternative to Steps 7 to 11: Step 7a – Preview in authoring

Once you have saved a sequence in **authoring**, an alternative to creating a session in **monitoring** and viewing it as a learner in the **learner** area is to use the “Preview” function in authoring to allow you to immediately see what a learner would see when accessing the sequence.

Preview is based on the most recently saved version of your sequence. It creates a “dummy session” to allow you to see it from the learner’s perspective, but without the process required in Steps 7 to 11. It also avoids the problem of “locking” your authored sequence when it is run in monitor. However, the Preview session is deleted as soon as Preview ends. In addition, you do not have access to any monitoring features (such as releasing a stop point) while in Preview.

To use Preview, you must always save your sequence first (see Step 6), then click on the Preview button (top right in **authoring**). This opens a dialogue box indicating that you are in Preview mode, and at the same time it will dim the authoring window (see Figure 18). After a few seconds, a new window will open over the top of authoring showing the learner view of this specific sequence (see Figure 19).

NB: If you already have the learner window open in the background before clicking Preview, then this window may not come to the front (ie, over the top of author). In this case, you need to click on the learner window to bring it to the front to view the Preview session.

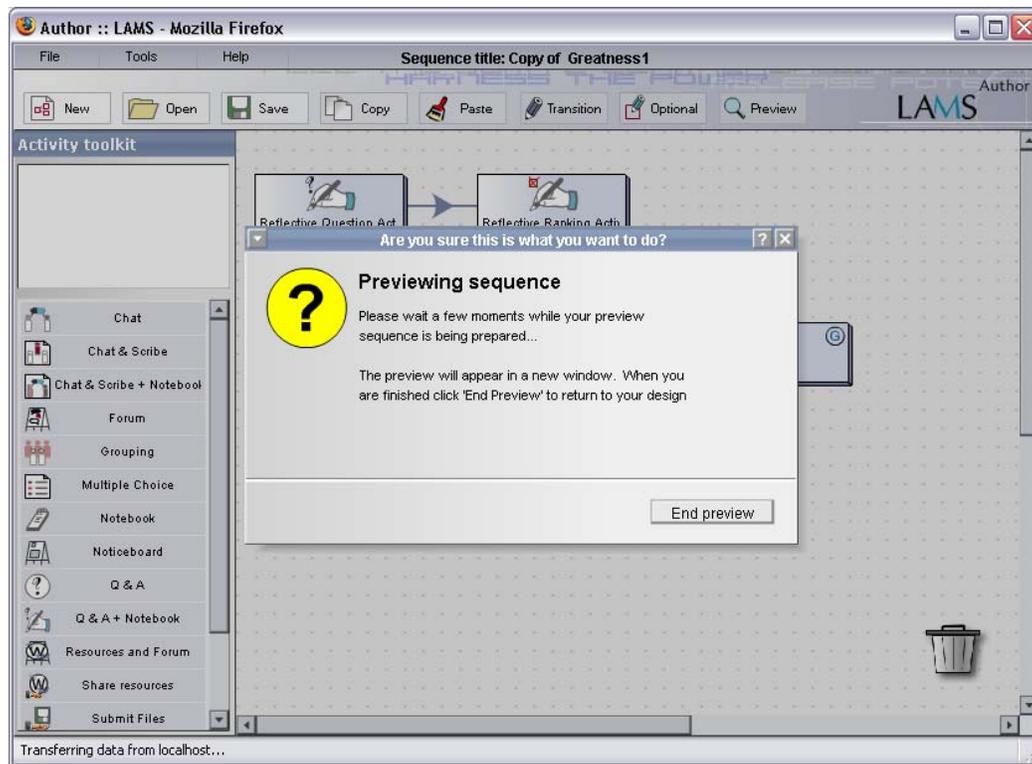


Figure 18: Authoring environment following clicking “Preview” button (top right)

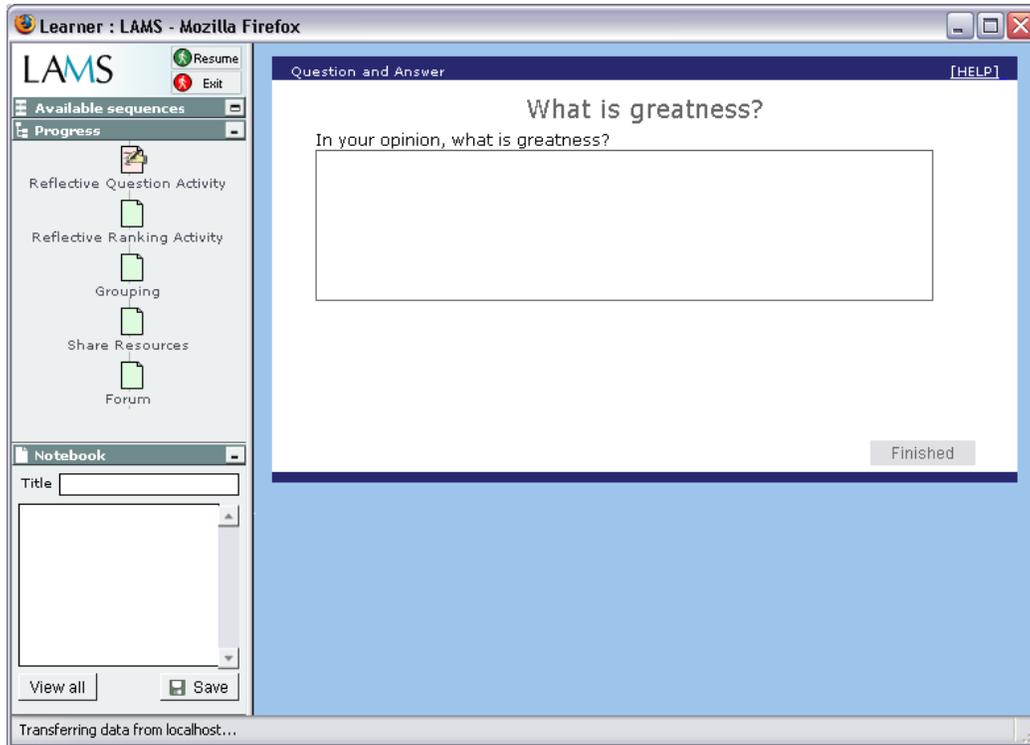


Figure 19: Learner window that opens on top of authoring during Preview. NB: This window opens directly to the first activity of the relevant sequence, rather than the initial available sequences view (as shown in Figure 16).

Summary of LAMS Walkthrough

The complete steps for this walkthrough are:

- Step 1: Access LAMS Server
- Step 2: Login
- Step 3: Access Author area
- Step 4: Open an existing sequence
(Step 4a: Making a copy of a locked sequence)
- Step 5: Editing a sequence
- Step 6: Saving a sequence
- Step 7: Access sequence in Monitor
(Step 7a: Preview in Author)
- Step 8: Create a new session in monitoring for a sequence
- Step 9: Select session class
- Step 10: Start sequence session
- Step 11: View monitor session (of authored sequence) in Learner

If you are only interested in creating or editing a sequence in authoring, the key steps are:

- Step 3: Access Author area
- Step 4: Open an existing sequence (or create a new sequence from scratch)
(Step 4a: Making a copy of a locked sequence)
- Step 5: Editing a sequence
- Step 6: Saving a sequence

If you are only interested in activating a sequence in monitor and view it as a learner, the key steps are:

- Step 7: Access sequence in Monitor
- Step 8: Create a new session in monitoring for a sequence
- Step 9: Select session class
- Step 10: Start sequence session
- Step 11: View monitor session (of authored sequence) in Learner

If you wish to quickly preview your sequence after saving it in authoring (Step 6), replace steps 7 to 11 with:

- Step 7a: Preview in Author

Section 2: Authoring Sequences

This section describes the process of authoring sequences, and the tools and features available to sequence authors. It should be read in conjunction with the walkthrough described in Section 1.

This section is divided into three parts:

- (1) Create/Edit Sequences
- (2) Sequence Management Tools
- (3) Activity Tools

These parts correspond to the areas noted in Figure 20.

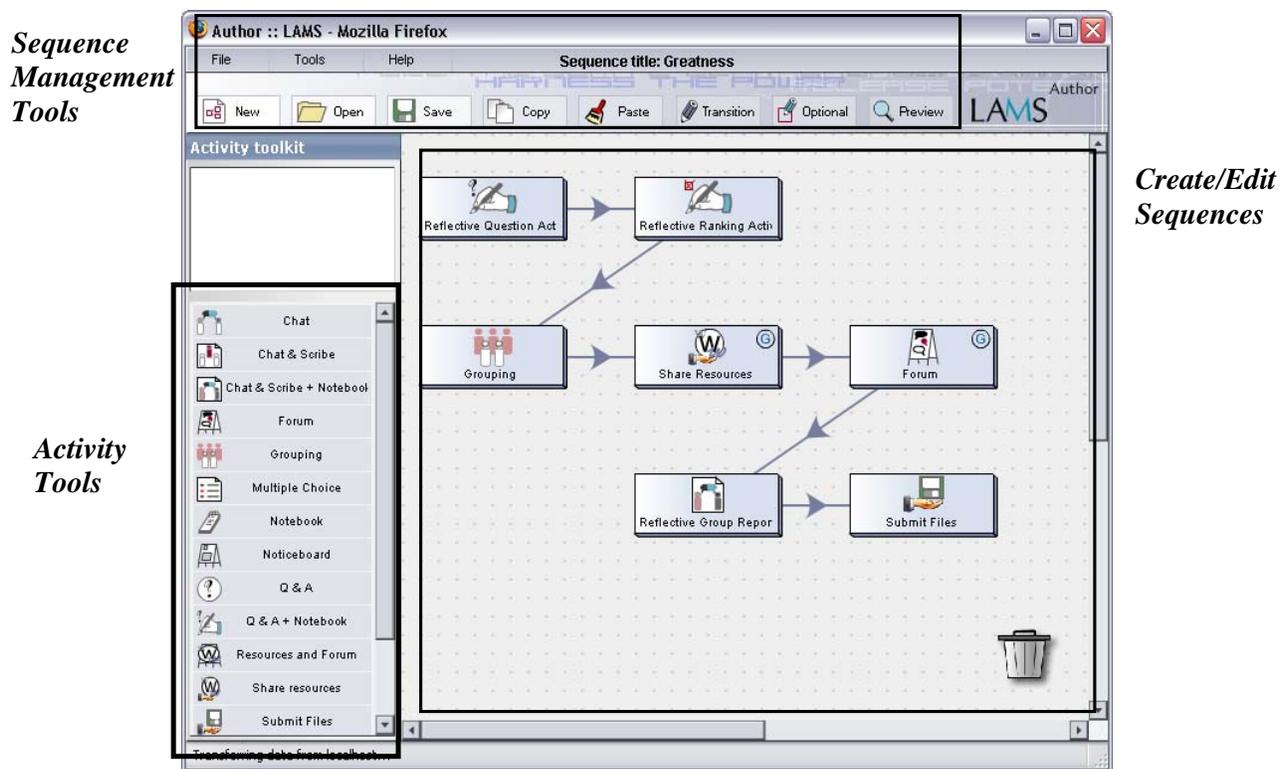


Figure 20: Authoring environment showing authoring components

(1) Create/Edit Sequences

The main central area is where sequences are created or edited. The other two areas (Sequence management and Activity tools) are dealt with in the next two sections – these two areas contain the majority of sequence authoring tools. However, the main central area has some specific features of its own as follows:

- (a) Edit tool properties: Double click on a tool to bring up the properties panel for editing

- (b) Edit transition properties: Double click on the arrow in the middle of a transition line to bring up the properties panel for editing
- (c) Edit optional activities properties: Double click on a green optional activities box (but not the activities inside it) to bring up the properties panel for editing
- (d) Delete tool/transition/optional box: Click, hold and drag the item to the Trash to delete. NB: Deleting a tool will delete any related transitions. Deleting an optional box will not delete the tools contained within it.
- (e) Move tool/optional box: Click, hold and drag the item to a different location. NB: Transitions are not affected by moving items (although the line will redraw as needed).
- (f) Scroll down/right: Use the scroll bars on the right and bottom to expand the work area if needed. A sequence can be larger than the visible screen area.

(2) Sequence Management Tools

While individual activity tools are dealt with in the next section, features that go beyond an individual tool (e.g., transition, optional box) or apply to a whole sequence (e.g., open, save) are dealt with in the sequence management tools area.

There are two sections to this area: (i) drop-down menus (i.e., File, Tools and Help menus) and (ii) the eight frequent task buttons below this (i.e., New, Open, Save, Copy, Paste, Transition, Optional and Preview). The features of drop down menus, then frequent task buttons, are dealt with below.

(i) Drop-down menus - File menu (see Figure 21)

- (a) New: Clears any existing sequence from the work area and provides a blank work area for creating a new sequence. NB: New immediately clears anything in the work area (for good) without a warning.
- (b) Open: Provides access to the “Open sequence” window, where you click on the text of the sequence you wish to open, then click “Open” on the bottom right of the window.
- (c) Revert: Revert allows you to revert to the last saved version of a sequence and discard all subsequent changes (which would be currently shown in the work area) provided the sequence has been saved. NB: Revert immediately replaces anything in the work area with the last saved version of the sequence (for good) without a warning.
- (d) Close: Close the current sequence by clearing it from the main work area (without saving it).
- (e) Save: Saves the current version of the sequence. If this has been saved before, this command will over-write the old version with the current version (ie, delete the old version and replace it with the new version under the same name). If the sequence has not been saved before, this command provides access to the “Save sequence” window, where you can provide a sequence name and text description of the sequence, and then save it. Sequences can be saved in three areas – your individual “Private” account, a whole of server “Public” area, or into a shared group area (eg, your Department or Faculty; your school if your server is shared with other schools, etc).

- (f) **Save as:** Allows you to save a sequence under a different name using the “Save sequence” dialogue box (see Save above). This is useful if you would like to keep a copy of both your original sequence and the newly modified version (if you just wish to keep the most recent version but not the original, then the Save command will over-write the old version with the latest version, hence deleting the old version). When you choose Save as, it will place the text “Copy of...” in front of your previous sequence title – you should change the name to a new appropriate name. For example, if you click Save as for a sequence called “Greatness”, it will open in the Save dialogue box as “Copy of Greatness” – you could retain this new name, or change it to, say, “Greatness1”.
- (g) **Import sequence:** Imports a LAMS sequence file by uploading it from your desktop into LAMS. Once successfully uploaded, the sequence is shown in the main work area, and saved in the Private section of your account. NB: In LAMS V1.0, imported and exported sequences do not include any accompanying files which may have been incorporated using the Share Resources tool (such as zipped websites, PDFs, PPTs, etc) – but the references to these items remain in any Share Resources tool(s) at their original point. There are three options for dealing with this issue – (1) only use URLs in Share Resources (which have no problem when imported/exported), (2) only share your sequences using the Public and Department/Faculty/School sharing areas on your LAMS server, or (3) if you need to import/export sequences which incorporate other files, you will need to provide these separately when you export sequences, and each item will need to be reloaded into the relevant location in Share Resources after import. NB: In future versions of LAMS, all incorporated files will be included with the sequence in a single zipped LAMS file.
- (h) **Export sequence:** Exports the current sequence from LAMS as a file by saving it to your desktop. This allows LAMS sequences to be stored separate from your server. NB: Files uploaded into Share Resources are not exported (see above).



Figure 21: File Menu

(i) Drop-down menus – Tools (see Figure 22)

- (a) **Draw Transition:** This tool changes the pointer into transition mode (indicated by the pointer changing into a pen) for drawing “transition” lines between two activities. Place the transition tool over the activity you wish to transition “from”, click and hold the mouse, and draw a line to the activity you wish to transition

“to”. Let go of the mouse, and the transition confirmation window will appear. Click OK to confirm transition, or Cancel to abort this command.

You can click the “wait for staff release” checkbox on the transition window if you wish to stop learners progressing to the next activity until you release it in the monitoring screen (under the “Sequence” tab – by double clicking on the stop icon, and then clicking the “Release” option). Leaving this unchecked will allow learners to progress to the next activity once they complete the previous task.

Transition lines can be deleted by clicking once on the arrow, holding down the (left) mouse button, and dragging the line to the trash. The “wait for staff release” setting can also be changed at a later stage by double clicking on the arrow to open the transition window.

To turn off the transition mode (and return to normal pointer mode), simply click again on the Draw Transition menu/button.

You can also turn on transition mode by holding down the “Control” key while in authoring – you will see the pointer change immediately into a pen. To return to normal pointer mode, simply release the “Control” key.

- (b) Draw Optional: This tool changes the pointer into optional mode (indicated by the pointer changing into a pen with a box next to it) for drawing boxes around two or more activities. Place the drawing tool near the activities you wish to place in an optional box, and click and hold the mouse, and drag to create a dotted square around the relevant activities. The dotted square must completely surround all relevant activities. Let go of the mouse, and the optional confirmation window will appear. Add a name for the optional box to the “Title” area (required), and you may also add an Instruction about the purpose of the optional box (not required). NB: Optional boxes can be used on individual tools, but not on other existing optional boxes (i.e., optional boxes cannot contain other optional boxes).

You can set the minimum number of activities to complete in an optional box by using the drop down menu on the bottom left. This can range from zero to the number of activities in the box. Setting this number will require learners to complete at least this number of tasks before the system will allow them to move on to the next activity. NB: In LAMS V1.0, after learners have clicked “Finished” for a set of optional tasks, they can only return to those tasks they completed while in the optional area – it is not possible to return later and complete new tasks from the optional area.

To turn off the optional tool mode (and return to normal pointer mode), simply click on the Draw Optional menu/button a second time.

You can also turn on optional mode by holding down the “Control” and “Shift” keys at the same time while in authoring – you will see the pointer change immediately into a pen with a box next to it. To return to normal pointer mode, simply release the “Control” and “Shift” keys.



Figure 22: Tools Menu

(i) Drop-down menus – Help (Figure 23)

The help menu provides access to this “Teacher’s Guide”.

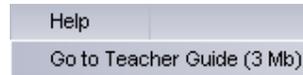


Figure 23: Help Menu

(ii) Frequent task buttons

These eight buttons provide easy access to frequently conducted tasks, ie, New, Save, Open, Copy, Paste, Transition, Optional and Preview. The functioning of New, Save, Open, Transition and Optional is described above.

NB: To turn on either the transition or optional box modes, click the relevant button once. To turn off these modes once they are enabled, click the button a second time.

To use Copy and Paste, simply click on an activity (or an optional box containing two or more activities), click Copy, and then click Paste. This will create a duplicate of the original activity/optional box. The duplicates will contain all of the same text and settings as the original, except that the Name of the tool is changed to “Copy of...” One exception to this rule is for Share Resources – any files that have been incorporated into this activity will not be copied when the activity is Pasted. You will receive a warning when this happens, and will then need to upload any relevant files again into the copied Share Resources activity. This will be changed in future versions of LAMS.

NB: The Save command works according to the “Save” description (i.e., over-write), rather than the “Save as” description. To Save as, use the file menu.

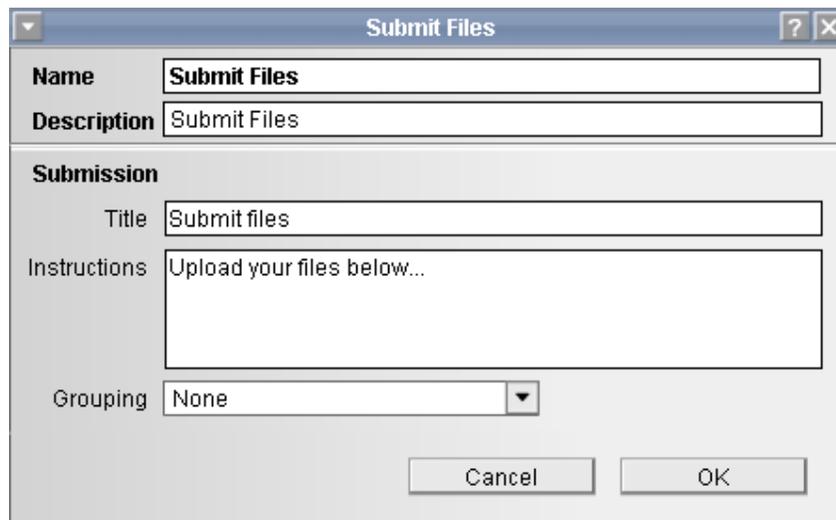
(3) Activity Tools

The main components of any sequence are the activity tools. Each tool has a set of features specific to that tool, as well as some features that are found in all tools. This section describes the features found in all tools first, followed by the specific tool features for each tool.

NB: Some tools have more than one properties screen – additional screens are accessible from the main properties screen for that tool, which is accessed by double-clicking the activity box. Further details contained below for relevant tools.

General tool features

Figure 24 illustrates general tool features using a simple activity tool – the “Submit Files” tool. This tool allows teachers to provide instructions on an assessment task, such as an essay or report, as well as providing a file upload tool for learners.



The screenshot shows a dialog box titled "Submit Files". It has a standard Windows-style title bar with a question mark icon and a close button. The dialog is divided into several sections. The first section has two text input fields: "Name" with the value "Submit Files" and "Description" with the value "Submit Files". Below this is a section titled "Submission" which contains two more text input fields: "Title" with the value "Submit files" and "Instructions" with the value "Upload your files below...". At the bottom of the "Submission" section is a dropdown menu for "Grouping" with the value "None". At the very bottom of the dialog are two buttons: "Cancel" and "OK".

Figure 24: Submit Files properties

Submit Files is used here to illustrate the features common to all tools as follows:

Name: This is the name of the activity. It is shown on the activity box in the main work area of the authoring screen, as well as on various monitor screens, and on the progress bar on the learner screen. This should be as short as possible (no more than 20 characters including spaces). Name is not the same as the title of the web page for this activity that learners see when they view the web page – this is dealt with separately under “Title” (below).

Description: This is a text description of the activity for authors. This is only viewable within authoring when viewing the properties of a tool. It can be used to provide advice about how to use this tool, description of the purpose of this tool, and any other notes to authors about this tool.

Title: All tools have a web page title that is presented at the top of the page presented to learners (ie, in the central learner area at the top) – this is different from “Name”, which is the description of this activity shown to learners in the Progress Bar. Any other specific features of a given tool are normally shown below Title in the tool authoring window (e.g., Submit Files has an area for Instructions, which is text content shown under the title on the web page).

Instructions: This is a text area that is presented under Title. This is where the main text to be displayed to learners as part of this activity is entered. NB: For other tools, there is always a section for text instructions/content, although it may have a different description to Instructions – such as Content, Question, etc – depending on the tool.

Grouping: All tools can be set to operate in whole class mode (i.e., “None”) or in small group mode. For small group mode to operate, the “Grouping” tool must have been included in the sequence. Once grouping is included, any tool may be set to operate in whole class mode (i.e., one instantiation of the tool for all learners) or in small group mode (i.e., multiple instantiations of each tool according to the mode setting and the number of groups specified within “grouping”). NB: It is possible to have several different groupings within a sequence, and then to choose different grouping structures for each tool as desired.

One feature that is only available on some tools (Noticeboard, Q & A and Voting) is “Define in Monitor”. This feature allows the teacher to change the text of a tool while the sequence is running. While a teacher can add text while authoring the sequence, this function provides extra flexibility as it allows changing the text while the sequence is running (in Monitor via the “Contribute” button for the relevant tool in the Sequence tab). This can be useful in scenarios where the teacher wants to be able to adapt text as a result of prior discussion, etc.

One final general feature of properties screens (not shown above) is “Multitask activity”. This feature allows two tools to be shown at once on a single learner page (using a split screen with one tool above the other). This feature is a fixed setting of certain activity tools (e.g., Q & A + Notebook, Voting + Notebook) and cannot be changed – it is just noted here for completeness. In authoring, “Multitask activity” tools contain a green band at the top of the tool properties window, just under Name and Description, indicating that it is a multitask activity. The use of a plus symbol “+” in the initial tool Name (eg, Q & A + Notebook) also denotes a Multitask activity.

Specific tool features

Submit Files

This tool is described above in the General tool features section.

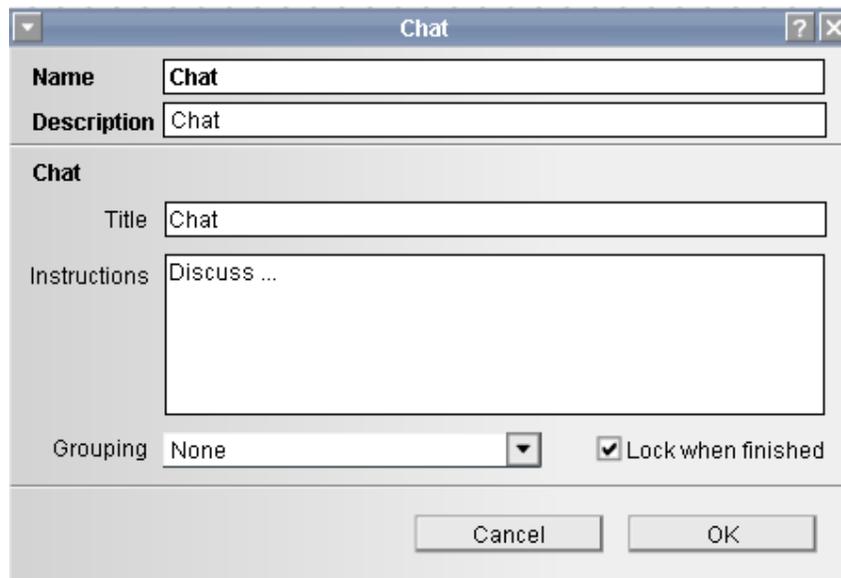
NB: Apart from the learner view, the Submit Files tool provides additional features to assist teachers with the marking process – these are available in **monitoring** once a submission has been uploaded (double click on the Submit Files tool in the Sequence tab in Monitor, then click on the Contribute button to open marking process).

Chat

See Figure 25 for the Chat properties screen. This tool runs a live chat session for learners. Its properties are similar to Submit Files, with two exceptions:

Instructions: The “Instructions” field here should be used to provide learners with instructions on what to discuss within the chat session, and any other instructions about using this tool.

Lock when finished: This setting controls whether learners can continue to use the chat tool after they click “Finished”. If the box here is checked, it means the chat session will only run “live” until the learner clicks “Finished”. After this, if they return to the chat, they will see a historical record of the chat session, but will not be able to continue chatting. If the box here is unchecked, clicking “Finished” will allow learners to proceed to the next activity, but they will be able to return to this chat later (via the Progress Bar) and continue chatting.



The image shows a dialog box titled "Chat" with a standard Windows-style title bar (minimize, maximize, close buttons). The dialog contains the following fields and controls:

- Name:** A text box containing the word "Chat".
- Description:** A text box containing the word "Chat".
- Chat Section:** A shaded area containing:
 - Title:** A text box containing the word "Chat".
 - Instructions:** A large text area containing the text "Discuss ...".
- Grouping:** A dropdown menu currently set to "None".
- Lock when finished:** A checked checkbox.
- Buttons:** "Cancel" and "OK" buttons at the bottom.

Figure 25: Chat properties

Noticeboard

See Figure 26 for Noticeboard properties. This tool allows a teacher to present text to learners. Noticeboard's properties are similar to Submit Files, except:

Content: This field allows content text to be entered. This text can be instructions, objectives, educational content, etc.

Define in Monitor: The feature, if enabled, allows the teacher to change the text of this page while a sequence is running. When learners reach this activity, they are stopped before proceeding. The teacher then can finalise text via the "Contribute" button for the Noticeboard tool in the Sequence tab in Monitor. Once finalised, learners are able to view this text. NB: Checking the Define in Monitor box will permanently delete all text in the Content field without warning.

Rich Text Editor: In LAMS Version 1.0, a Rich Text Editor set of features was added to Noticeboard to allow more control over the format, layout, etc, of Noticeboard text. Buttons include Bold, Italics and Underline; Font type and size; Font colour; Left, Centre and Right justified text; and bullet lists.

Also, a link tool allows authors to add links to other sites (which open in a new window) within the text of Noticeboard. To use this feature, select the text that you wish to become a link, type the link location into the link field, then click the "link" button (first button to the right of the link field) to create the link. To remove an existing link, select the linked text, and then click the "break link" button (second button to the right of the link field).

The Rich Text Editor allows optional access to an HTML code view of the page by choosing the "Code" option from the drop down menu to the right of the bullets button. It is possible to edit page code directly if desired, and to add extra HTML features such as images, etc, so long as the edits conform directly to HTML requirements. It is also possible to copy and paste HTML into the HTML code view of this tool, again provided that the pasted HTML conforms to HTML requirements.

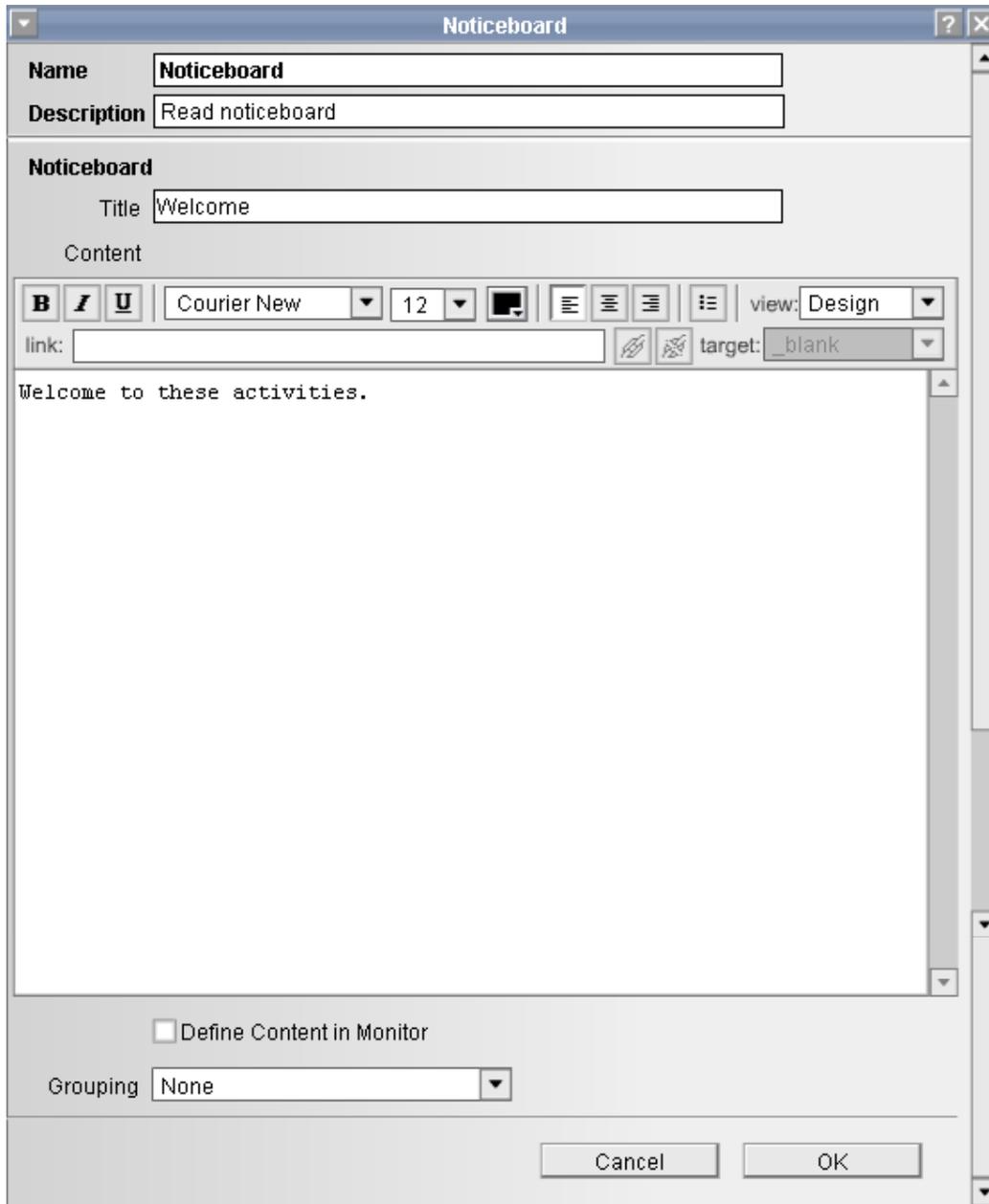


Figure 26: Noticeboard properties

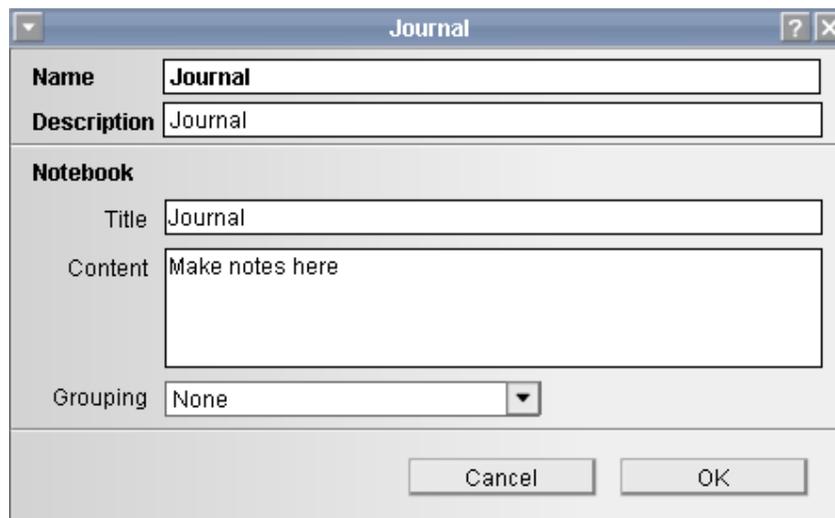
Journal

See Figure 27 for Journal properties. Journal is a tool for learners to record their thoughts during a sequence. The Journal tool allows the teacher to include a specific activity during a sequence that requires learners to write their thoughts into their Journal. As a result, the learner cannot progress to the next activity until they have used this tool. This is different to their private Notebook, which they can choose to use (or not) at any time separate from the sequence. Also, the input to the Journal tool is automatically recorded as a fixed entry that is viewable by the teacher.

Separate from Journal, a Notebook is normally present on the bottom left of the learner screen during a sequence, and learners may record private thoughts in this at any time. They can also click the “View All” button to open up their combined Notebook/Journal. In this area they can add new entries, edit past entries, etc. These entries are usually private to the learner (i.e., not viewable by the teacher), but learners may choose to convert any of these private “Notebook” entries into teacher viewable “Journal” entries. NB: Learners may edit private entries at any stage but once an entry is made viewable to the teacher as a Journal entry, it becomes a fixed and can no longer be changed. Teachers can view Journal entries in monitor.

Separate from the “always available” Notebook on the bottom left of the learner screen, the Journal tool can be used as a stand-alone activity within a sequence. It is also frequently used in combination with other tools, such as Q&A and Voting. In these cases, Journal becomes part of a “Multitask” screen, with the other tool at the top, and the Journal entry at the bottom. These combination tools are called “X + Journal” (eg, Q&A + Journal) to indicate that learners are asked to write in the Journal about their experience of the other activity, in addition to completing the other activity itself.

The properties of the Journal tool are very similar to Submit Files, with the exception that the “Content” section is used to provide instructions on what learners should write in the Journal.



Journal	
Name	Journal
Description	Journal
Notebook	
Title	Journal
Content	Make notes here
Grouping	None
Cancel OK	

Figure 27: Journal properties

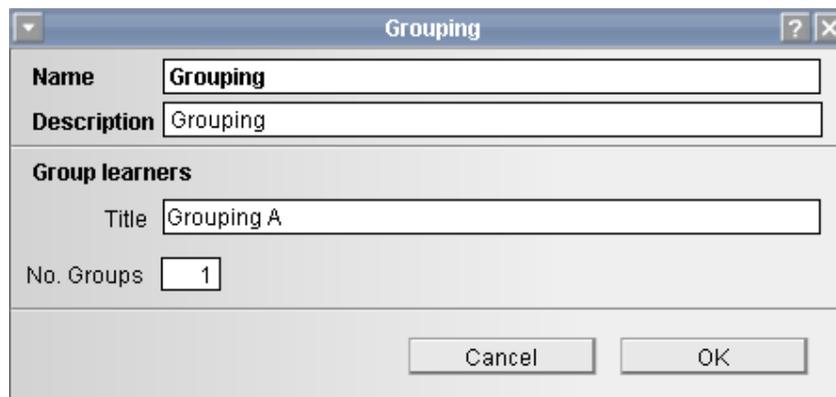
Grouping

See Figure 28 for Grouping properties. Grouping is a different kind of tool to others in that its role is to modify the behaviour of other tools rather than conduct a learner activity in its own right. The addition of a grouping activity to a sequence allows other activities to run in small group mode (rather than whole class mode) via the use of the “Grouping” option at the bottom of all tools (see General tool features section above for further details). When learners reach the Grouping activity within a sequence, they will see a list of learners allocated to the various groups. This random allocation is based on the number of learners who have so far started this sequence, allocated across the number of groups selected by the author.

Grouping randomly allocates learners to small groups based on the number of groups specified in the “No. Groups” box. The name of this grouping is specified by “Title” – this is the text that will be shown in the “Grouping” drop-down menu in all other tools.

It is possible to have more than one Grouping per sequence, and to have different activity tools use different Groupings.

NB: While this tool currently only provides random grouping options, two additional options are planned for the future: teacher-allocated grouping, and learner-selected grouping.



Grouping	
Name	Grouping
Description	Grouping
Group learners	
Title	Grouping A
No. Groups	1
Cancel OK	

Figure 28: Grouping properties

Q & A (Question and Answer)

See Figure 29 for Q & A properties. Q & A allows teachers to pose a question to learners individually, and after they have entered their response, to see the responses of all their peers presented on a single answer screen. Comparison between answers can then provide a basis for further activities. The main properties are:

Question: This is the field in which the teacher types the question to be considered, and any other instructions about answering it.

Show learner's name with answer: With this box unchecked, a learner's answer is presented anonymously to the group (although it is possible for learners to type their name in at the end of their answer text if they wish!). If this box is checked, then the learner's name is presented next to their answer. Regardless of the choice here, the teacher can view all answers together with learner names in the monitoring area (in the Sequence tab, double click on the Q & A tool, then click on the "Contribute" button).

Define Question in Monitor: As with Noticeboard above, this option allows the teacher to type in the question to be answered while the sequence is running – learners are stopped before they reach this task while the teacher completes the question text in monitor (in the Sequence tab, double click on the Q & A tool, then click on the "Contribute" button – if Define in Monitor is available, the question editing page will be shown; once this is finalized, learners will be able to see the question, and the teacher can view the normal "Contribute" view of all learner answers with associated names). Clicking this option does not delete the text in the Question field (unlike Noticeboard).

NB: The Q & A activity illustrates a special type of LAMS activity, in which learners view two screens, first the question, then the collated answers. The collation of answers is conducted by LAMS, so the "Content" of this second screen is not editable by the author. This is designated by the grayed out box, and the dark gray oval containing the words "Content from: Question".

Q & A

Name

Description

Question and answer

Title

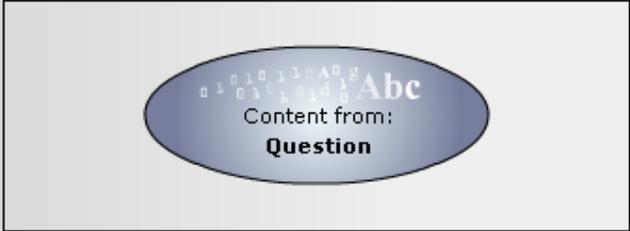
Question

Options Show student's name with answer
 Define Question in Monitor

Grouping

Noticeboard

Title

Content 

Grouping

Figure 29: Q & A Properties

Voting

See Figure 30 for Voting properties. The Voting tool allows teachers to provide learners with a list of options to “vote” on. It is similar to the Q & A tool in that Voting is presented over more than one screen, first a list of voting options, followed by a screen showing the individual learner’s selection, then a screen showing “progressive” voting results (that is, a screen where learners can see the results coming in from other learners over time), and a final summary screen of group results.

Voting properties are:

Introduction: Instructions on the purpose of the vote and how to vote.

Nominations: The categories to be voted on. Each category is typed into the box next to “Nominations” and then the plus symbol on the right is clicked to add the nomination to the list. To delete nominations, click on the text of the nomination and then click on the minus symbol on the right (this is how the sample text “Put nominations here” can be deleted).

Allow text entry: This allows learners to enter their own nomination as a vote, rather than just selecting from the teacher list.

Max votes: The maximum number of votes a learner can contribute.

Define Nominations in Monitor: As described above, this feature allows the teacher to define the Nominations while the sequence is running from the “Contribute” button for the Voting tool in the Sequence tab in monitor. Learners wait while the teacher finalises the nominations and then releases these to the learners. NB: While the text and number of nominations can be changed in monitor, the number of votes is fixed during authoring, so if a teacher wishes to allow a large number of votes, then a large number of nominations must be entered during authoring and the max votes set accordingly. The text and number of nominations can be changed later in monitor.

NB: Like the answer screen in Q & A, the results screen is generated by LAMS, so it is not editable by authors.

Voting [?] [X]

Name

Description

Polling

Title

Instructions

Nominations +

-

Allow Text Entry Define Nominations in Monitor

Max votes ▾

Grouping ▾

Noticeboard

Title

Content

Grouping ▾

Cancel OK

Figure 30: Polling properties

Forum

See Figure 31 and Figure 32 for Forum properties. Forum provides an asynchronous discussion environment for learners, with discussion threads initially created by the teacher. Notice that Forum has an additional option called “Lock when finished”. This option, if checked, will stop learners from returning to post more messages once the activity has been finished (ie, posting is only permitted during this activity). If this option is not selected, a learner can continue to add to the discussion throughout the rest of the sequence.

The Forum authoring environment has two properties screens – a main screen (see Figure 31), and an “Edit topics” sub-screen (see Figure 32), which is reached by clicking the “Edit topics” button on the main screen.

Forum properties are:

Instructions: Instructions to learners about the purpose of the Forum, etc. These are displayed at the top of the main Forum page for learners, as opposed to specific discussion threads that are shown on separate pages. This distinction allows general instructions to be displayed here, but specific topic instructions to be displayed in the “Edit topics” fields.

Topics: This area shows the Titles of the current topics. To edit these, click the “Edit Topics” option, and make the relevant changes in the Edit Topics sub-screen. Topics can be both added and deleted.

Edit Topics: Opens the edit topics sub-screen (see below for properties).

Lock when finished: Checking the “Lock when finished” checkbox will stop learners from contributing to the Forum after they click “Finished”. To allow for discussion to continue throughout a sequence, uncheck this box. The default setting is unchecked.

The screenshot shows a dialog box titled "Forum". It has a standard Windows-style title bar with a help icon and a close button. The dialog is organized into several sections:

- Name:** A text box containing the word "Forum".
- Description:** A text box containing the word "Forum".
- Forum Section:**
 - Title:** A text box containing "Forum Title".
 - Instructions:** A larger text area containing "Forum Instructions".
 - Topics:** A list box containing two entries: "First Topic Title" and "Second Topic Title". Below this list is an "Edit topics" button.
- Grouping:** A dropdown menu currently set to "None".
- Lock when finished:** An unchecked checkbox.

At the bottom of the dialog are two buttons: "Cancel" and "OK".

Figure 31: Forum properties – Main screen

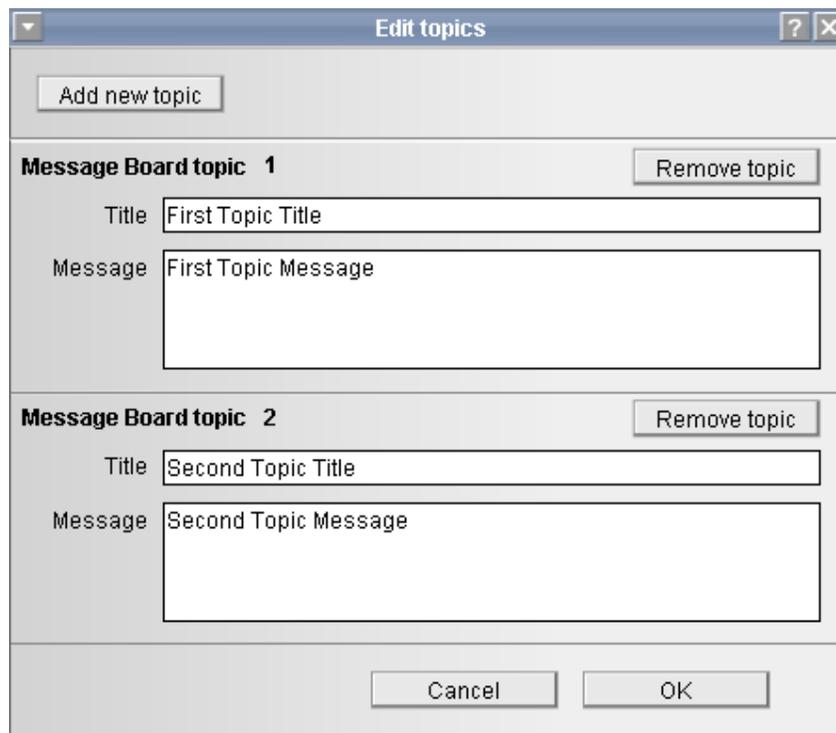
Edit Topics sub-screen

Add new topic: Clicking this button will add a new topic thread, including a new title and new message box.

Remove topic: Clicking this button will delete the whole topic (i.e., title, initial thread and initial message box).

Title: This is the title given to this Topic. Initially, Topics can only be entered by teachers, but once a Forum is active, learners may add new Topics if desired.

Message: This is the text provided by the teacher to begin discussion within Topic. Learners respond to this initial text, and can then begin various threads of discussion.



The screenshot shows a window titled "Edit topics" with a standard Windows-style title bar. At the top left is a dropdown arrow, and at the top right are help (?) and close (X) icons. Below the title bar is a button labeled "Add new topic". The main area contains two sections, each representing a "Message Board topic". The first section is labeled "Message Board topic 1" and has a "Remove topic" button to its right. It contains a "Title" label followed by a text input field containing "First Topic Title", and a "Message" label followed by a larger text area containing "First Topic Message". The second section is labeled "Message Board topic 2" and also has a "Remove topic" button to its right. It contains a "Title" label followed by a text input field containing "Second Topic Title", and a "Message" label followed by a larger text area containing "Second Topic Message". At the bottom of the window are two buttons: "Cancel" and "OK".

Figure 32: Forum properties – Edit topics sub-screen

Multiple Choice

See Figure 33 and Figure 34 for Multiple Choice properties. Multiple choice allows teachers to create simple automated assessment questions, including multiple choice and true/false questions. These questions can be used for summative assessment with scores, or formative assessment with feedback. The monitoring area includes additional tools for managing learner marks arising from the multiple choice tool (eg, download marks in text format).

Multiple choice properties are:

Instructions: These are general instructions to learners about the purpose of the activity, etc.

Question text: This area shows the current questions – they are edited by clicking the “Edit questions” button, and changing the relevant questions on the Edit questions sub-screen.

Edit questions: Opens the edit questions sub-screen (see below for properties).

Options: These check boxes allow the teacher to set whether learners only get one attempt at the questions or can try again (re-tries can be linked to a pass mark); whether the system shows the names of the “top scoring” users or not at the completion of the questions; and whether the test includes feedback text on completion (for formative assessment purposes) or not (for summative assessment purposes). The pass mark option is only available if “Allow re-tries” is enabled.

Multiple Choice [?] [X]

Name

Description

Multiple choice

Title

Instructions

Question text

Options Allow re-tries Show top users Show feedback

Pass mark

Grouping

Figure 33: Multiple Choice – Main screen

Edit Questions sub-screen

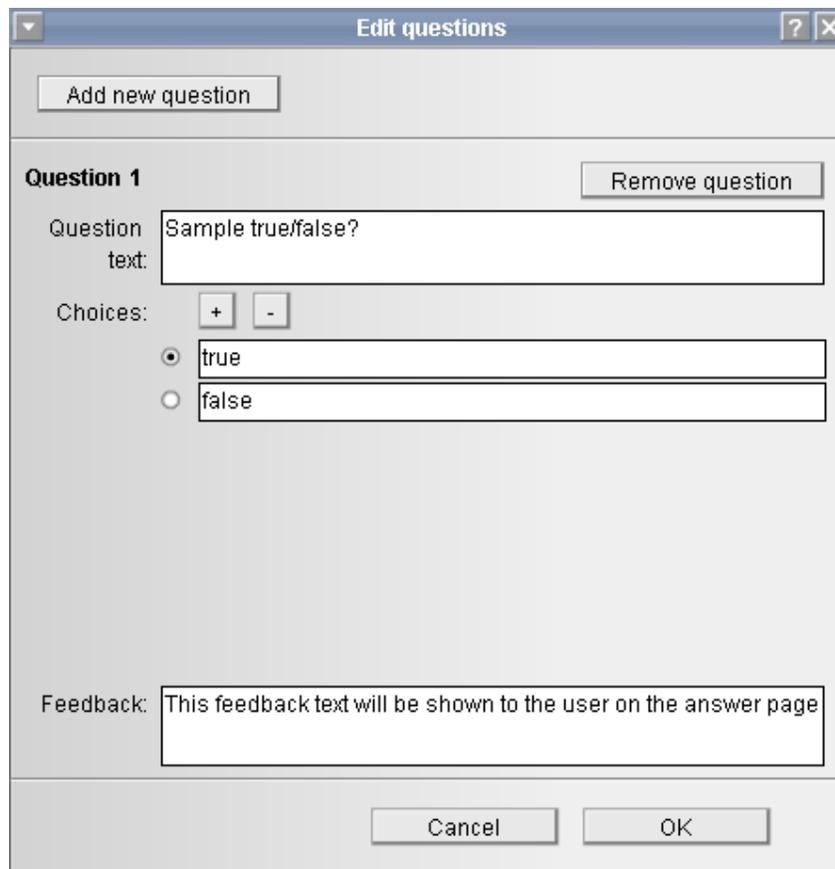
Add new question: Adds a new question after the current last question in the set.

Remove question: Delete this question.

Question text: This is the text of the question (the “stem”).

Choices: The “plus” and “minus” symbols add or delete answer boxes respectively. The text of each answer should be entered into an answer box. The correct answer is designated by clicking the circle next to the correct answer text.

Feedback: This is the text that will be shown with this question after the “test” is completed and the answers are shown – provided that the “Show feedback” box has been checked on the main multiple choice properties screen (see above).



The screenshot shows a window titled "Edit questions" with a standard Windows-style title bar. At the top left is a dropdown arrow, and at the top right are help and close buttons. Below the title bar is a button labeled "Add new question". The main area is divided into sections. The first section is labeled "Question 1" and contains a "Remove question" button on the right. Below this is a text input field for "Question text:" containing the text "Sample true/false?". Underneath is a "Choices:" section with two buttons, "+" and "-", and two radio button options: "true" (which is selected) and "false". At the bottom of the main area is a "Feedback:" section with a text input field containing the text "This feedback text will be shown to the user on the answer page". At the very bottom of the window are two buttons: "Cancel" and "OK".

Figure 34: Multiple Choice – Edit Questions sub-screen

Share Resources

See Figure 35, Figure 36, Figure 37 and Figure 38 for Share Resources properties. This tool allows teachers to add content into a sequence, such as URLs, zipped websites and/or individual files (PDF, PPT, etc). The tool can also be set to allow teachers and/or learners to add URLs or individual files at “run-time” (i.e., during a sequence session – via the Contribute button for the Share Resources tool in the Sequence tab in monitoring).

Share resources properties include:

Introduction: Text about the purpose of the activity, instructions about using the resources, etc.

Resources: This shows the list of resources to be displayed to learners. To add a new resource to this list, click “Add new”, which will open the “Edit Resources” sub-screen (see below). To edit an existing resource, click this resource, and then click “Edit” to open the “Edit Resources” sub-screen. Resource URLs are represented by the circle icon, uploaded websites by a small circle icon in a vise (i.e., “compressed”), and individual files by a square disk

Add new: Opens the “Edit Resources” sub-screen to allow for adding of resources (see “Edit Resources” sub-screen below).

Edit: First click on the text of the resource to be edited, then click the “Edit” button to open the “Edit Resources” sub-screen to allow for editing of resources (see “Edit Resources” sub-screen below). Resources can be deleted by clicking on edit, then clicking the Delete button in the “Edit Resources” sub-screen.

Options: The share resources tool allows teachers and learners to contribute URLs and individual files during the “running” of a sequence session, rather than just by teachers loading resources at “authoring” time (via the Edit Resources sub-screen). Teachers can add files and/or Web pages at run-time if the relevant “Staff” boxes are checked (items are added at run-time via the Contribute button of the Share resources tool in the Sequence tab of the Monitoring environment). Learners can add files and/or Web pages at run-time if the relevant “Learner” boxes are checked (items are added by learners via the Resources tool in the Learner interface).

Minimum to complete: This allows the teacher to set a minimum number of resources to be viewed by learners before the whole activity can be finished (and hence allow learners to move on to another activity). Completion of viewing is recorded when the learner clicks the “Finished” button on the top right of the resource pop-up page (opened when the learner clicks the “View” button on the main Share Resources learner page), or if this button is not viewable (due to a website that opens its own window), by clicking the “Completed” button on the main learner page (next to the “View” button). NB: “Minimum to complete” only applies to resources added by the teacher during authoring (not any additional resources added via the file and/or Web page Option at run-time).

Share resources [?] [X]

Name

Description

Share resources

Title

Instructions

Resources 

Options **User can add during Sequence:**

Files:	Web pages:
<input type="checkbox"/> Staff	<input type="checkbox"/> Staff
<input type="checkbox"/> Learner	<input type="checkbox"/> Learner

Minimum to complete

Grouping

Figure 35: Share Resources – Main screen

Edit Resources sub-screens

Resource type: This option chooses the type of resource to be provided by clicking on the relevant radio button (circle). The three choices are: (1) Shared URL (i.e., pointer to another web resource), (2) Shared Website (i.e., a zipped set of self-contained web pages and related assets, with a central web page named index.htm in the root folder), and (3) Shared File (i.e., an individual file, such as a PDF, Word document, PowerPoint file, etc). Once a resource type is selected, the screen changes to provide the relevant options for each resource type – see Figure 36, 37 and 38 below. The properties for each resource type are discussed separately.

Resource type: (1) Shared URL (Figure 36)

Remove Web page: Deletes the Shared URL.

NB: To delete the Sample URL that appears in the resource list when the “Share Resources” tool is first opened, click on the Sample URL and then Edit on the main screen, then click “Remove Web page” on the Edit Resources sub-screen. Alternatively, you can change the text of this URL to a relevant site for your activities.

Title: This is the title given to the resource on the main learner page, and in the resource list area on the main page of the Share Resources tool in authoring.

URL: This is the website to be opened when learners click on the “View” button in the Learner environment. In some cases, Learning Objects that are held in separate repositories can be reached via a URL (so long as the repository provides a “Public URL” for the resource), so this tool allows a teacher to incorporate a Learning Object from a separate repository into a LAMS sequence provided that the full URL to access the object is included here. NB: URLs must be exact.

Verify URL: This button will open a pop-up screen to load the URL entered above – this allows the teacher to verify that the URL is correct before running the sequence. Handy Hint: If at this point you are still searching for appropriate resources to use in your sequence, you can enter the Google URL here, and then click Verify, which will open Google in a new window. You can then use Google to search for appropriate content, and once found, copy the relevant URL, and then replace the Google URL with the pasted URL. You could also use other search engines (such as the EdNA Federated Search Engine at <http://www.edna.edu.au/edna/search>) instead of Google.

Instructions: This area allows for instructions to be placed over the top of the URL website by the teacher about how to use the resource. These instructions can be over several separate steps that are loaded one at a time (e.g., Step 1: Review Chapter 2 of this website; Step 2: Review Chapter 4 of this website; Step 3: Complete the test). When this tool is initially loaded, it provides boxes for entry of five separate instructions. To add or delete instruction boxes, click the “plus” or “minus” symbols. NB: If there is no text in a box, then this step will be ignored by LAMS – e.g., if instructions are only entered in the first box, then learners will only be presented with one step.

Question type: Shared URL Shared Website Shared File

Shared URL: 1 Remove Web page

Title:
(e.g. http://www.google.com)

URL:
Verify URL

Instructions:

1
2
3
4
5

Cancel OK

Figure 36: Edit Resources sub-screen - Shared URL screen shown

Resource type: (1) Shared Website (Figure 37)

Remove Shared Website: Deletes the Shared Website.

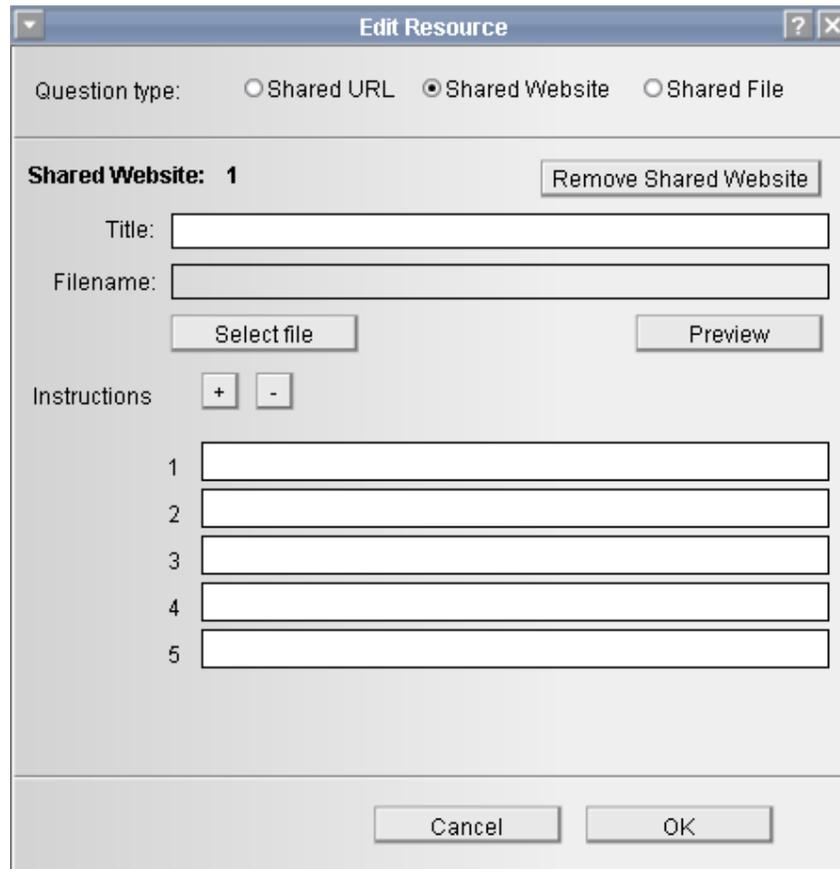
Title: This is the title given to the resource on the main learner page, and in the resource list area on the main page of the Share Resources tool.

Filename: This name is a system-generated name that is inserted by LAMS after a user has selected and imported a Shared Website from their desktop using the “Select File” button. Users should not change this filename.

Select File: This opens a dialogue box where the teacher can browse their desktop to import Shared Websites. NB: A Shared Website must be a single zipped file which contains a single main web page named “index.htm” (this is the file shown to users when they access a Shared Resource), with all relative links from this page to other web pages or assets in the zipped file intact. Web page authoring tools such as FrontPage and Dreamweaver can be used to create Shared Websites. NB: This tool can support IMS Content Packages, provided they conform to the details above.

Preview: This opens a pop-up screen to load the Shared Website (i.e., it loads index.htm) – this allows the teacher to view the Shared Website before running the sequence to check that all assets and related pages appear correctly.

Instructions: This area allows for instructions to be placed over the top of the Shared Website by the teacher about how to use the resource, etc. See Shared URL for further details.



The screenshot shows a window titled "Edit Resource" with a standard Windows-style title bar. At the top, there are three radio buttons for "Question type": "Shared URL", "Shared Website" (which is selected), and "Shared File". Below this, the text "Shared Website: 1" is displayed next to a "Remove Shared Website" button. There are two text input fields: "Title:" and "Filename:". Below the "Filename:" field are two buttons: "Select file" and "Preview". Underneath, there is an "Instructions" section with a "+" and "-" button. Below that are five numbered text input fields (1 through 5). At the bottom of the dialog are "Cancel" and "OK" buttons.

Figure 37: Edit Resources sub-screen – Shared Website screen shown

Resource type: (1) Shared File (Figure 37)

Remove Shared File: Deletes the Shared File.

Title: This is the title given to the resource on the main learner page, and in the resource list area on the main page of the Share Resources tool.

Filename: This name is a system-generated name that is inserted by LAMS after a user has selected and imported a Shared File from their desktop using the “Select File” button. Users should not change this filename.

Select File: This opens a dialogue box where the teacher can browse their desktop to import Shared File. NB: A Shared File must be a single file (eg, a single PDF or

Powerpoint). To upload multiple files, additional “Shared File” items should be added from the main screen.

Preview: This opens a pop-up screen to load the Shared File – this allows the teacher to view the Shared File before running the sequence.

Instructions: This area allows for instructions to be placed over the top of the Shared File by the teacher about how to use the resource, etc. See Shared URL for further details.

Options: If “Download file” is selected, LAMS will automatically present the learner with a screen to download the file to their desktop. If the “View online” option is selected, LAMS will attempt to open the file in the Browser, but if the Browser is not set up to open this file type within the Browser, it will then try to download the file to the learner’s desktop.

The screenshot shows a window titled "Edit Resource" with a standard Windows-style title bar. Inside the window, there are three radio buttons for "Question type": "Shared URL", "Shared Website", and "Shared File". The "Shared File" option is selected. Below this, there is a section for "Shared File: 1" with a "Remove Shared file" button. There are two text input fields for "Title:" and "Filename:". Below these are two buttons: "Select file" and "Preview". Underneath is an "Instructions" section with a "+" and "-" button and five numbered text input fields (1-5). At the bottom, there are two radio buttons for "Options": "Download file" and "View online", with "View online" selected. Finally, there are "Cancel" and "OK" buttons at the very bottom of the dialog.

Figure 38: Edit Resources sub-screen - Shared File screen shown

Chat & Scribe

See Figure 29 for Chat and Scribe properties. This tool combines a live chat (see chat tool description above) with a scribe tool for collating the chat group's view on questions created by the teacher. When used in small group mode, the tool creates parallel chat and scribe areas for each small group, and then shows the outcome of each group collated on a whole class page (viewable by all learners).

The properties for the Chat and Noticeboard parts of the tools are the same as for the individual tools described above.

The key Scribe tool property is:

Heading: This allows teachers to provide the group with questions/topics for discussion. Each Heading creates an area for the scribe to record text on behalf of the group (the group can either agree with the scribe text, or continue to debate the text using the chat area, then the scribe revises the text and updates it for the group, and then the cycle repeats). To add a new Heading, type text in the box next to Heading, and then click the "plus" symbol to add it to the list of Headings below. To delete a Heading, click on the text of the heading in the list, and then click the "minus" symbol (e.g., to delete the sample "Heading1" entry provided when this tool is first used, click on the text and then click "minus").

NB: It is very important to set the Grouping fields correctly for this tool. The most typical setting is where small groups debate using the chat and the scribe tool, then results from all small groups are reported to the whole class. To achieve this, a grouping must already have been set earlier in the sequence (eg, "Grouping A"). Grouping A should then be applied to both the Chat and Scribe areas, but not to the Noticeboard (which should be left as none). Failure to set groupings correctly for this tool may lead to unsatisfactory outcomes.

Chat & Scribe

Name

Description

Multitask activity
These two activities appear on screen at the same time

Chat

Title

Instructions

Grouping Lock when finished

Scribe

Title

Headings + -

Grouping

Noticeboard

Title

Content 

Grouping

Cancel OK

Figure 39: Chat & Scribe

Survey

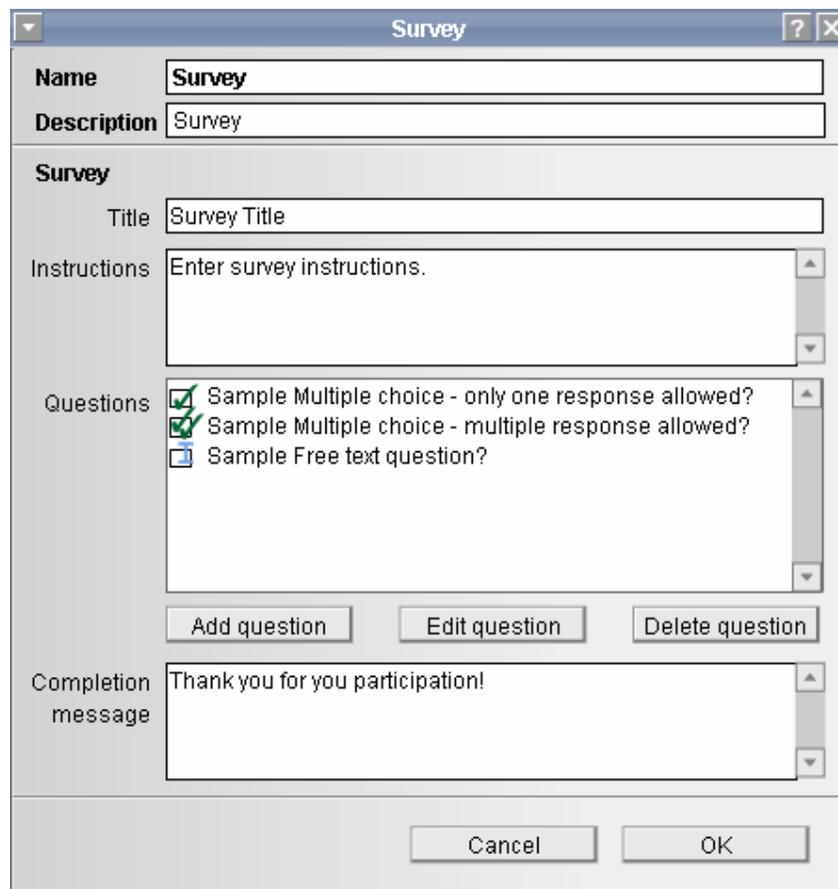
See Figures 40, 41 and 42 for Survey properties. Survey is a new tool for the LAMS V1.0 release. It is somewhat similar to Multiple Choice, in that it presents learners with a number of questions for responses, but unlike Multiple Choice, there are no right or wrong answers – the system just collates all answers for analysis by the teacher in the monitoring area. Question types include single response, multiple response and open text entry, and questions can be mandatory or optional.

Survey properties include:

Instructions: Instruction about the survey, such as its purpose, the use of the data, etc.

Questions: A list of questions in the survey – these are edited by clicking on the relevant question, then clicking the Edit Question button. Questions are deleted by clicking on the relevant question, then clicking the Delete Question button. New questions are added by clicking the Add Question button, which opens the Edit sub-screen (see below).

Completion message: This text is shown after the survey has been completed.



The image shows a dialog box titled "Survey" with a standard Windows-style title bar (minimize, maximize, close buttons). The dialog is organized into several sections:

- Name:** A text field containing "Survey".
- Description:** A text field containing "Survey".
- Survey Section:**
 - Title:** A text field containing "Survey Title".
 - Instructions:** A large text area containing "Enter survey instructions." with scroll bars.
 - Questions:** A list of three items:
 - Sample Multiple choice - only one response allowed?
 - Sample Multiple choice - multiple response allowed?
 - Sample Free text question?
- Buttons:** Three buttons are located below the Questions list: "Add question", "Edit question", and "Delete question".
- Completion message:** A text area containing "Thank you for you participation!" with scroll bars.
- Footer:** Two buttons, "Cancel" and "OK", are positioned at the bottom of the dialog.

Figure 40: Survey – Main screen

Edit Questions sub-screen – Single/Multiple Answer

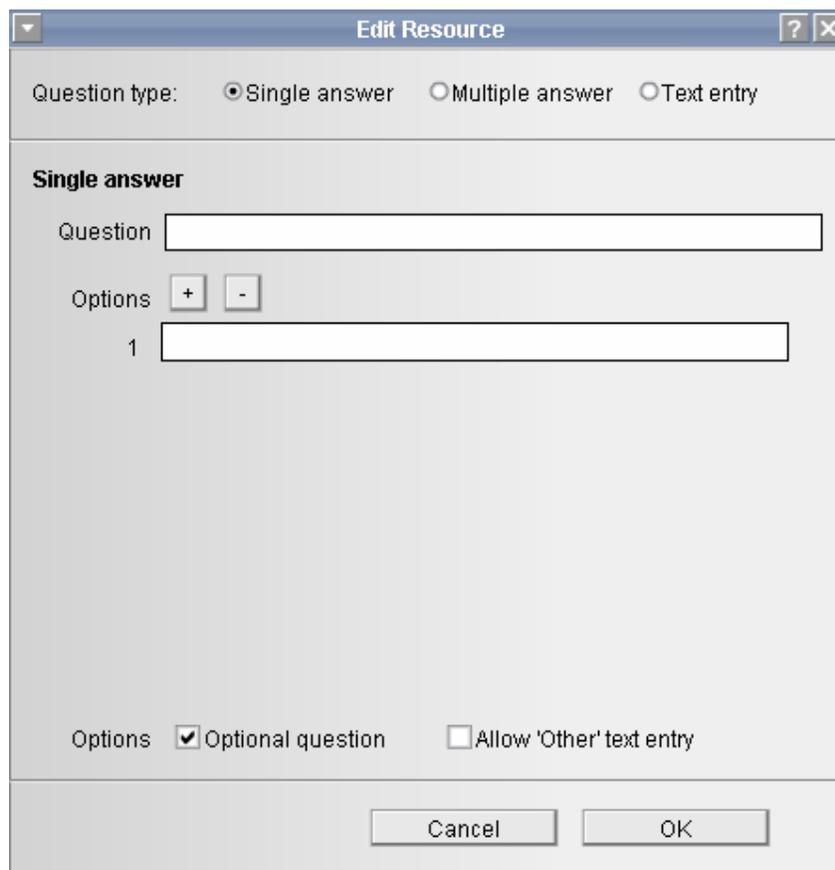
Question type: This choice allows the teacher to choose a question that allows only a single answer, a question that allows multiple answers, or a question that only accepts a text entry response. The sub-screen fields for Single Answer and Multiple Answer are the same, so these are only shown once. Following this, the sub-field screens for Text Entry are shown.

Question: This is the text of the question to be answered.

Options: These are the options that can be chosen. The text of the option is typed in the open text field. To add or delete options, click the “plus” and “minus” buttons respectively.

Optional Question: Checking this box will allow learners to complete the survey without answering this question if they wish. If the box is unchecked, learners must answer this question before they can complete the survey.

Allow ‘Other’ text entry: Checking this box allows an extra text entry field to be presented below the answer options so that learners can provide a text response. If the box is unchecked, learners must select their answer from those provided under “Options” (above).



The screenshot shows a window titled "Edit Resource" with a standard Windows-style title bar (minimize, maximize, close buttons). The window content is organized into several sections:

- Question type:** Three radio buttons are present: "Single answer" (selected), "Multiple answer", and "Text entry".
- Single answer section:**
 - A text input field labeled "Question".
 - Below it, the word "Options" is followed by two small square buttons with "+" and "-" signs.
 - Underneath the buttons, the number "1" is displayed to the left of a text input field for the first option.
- Options section:** Two checkboxes are shown: "Optional question" (checked) and "Allow 'Other' text entry" (unchecked).
- Buttons:** At the bottom of the window, there are two buttons: "Cancel" and "OK".

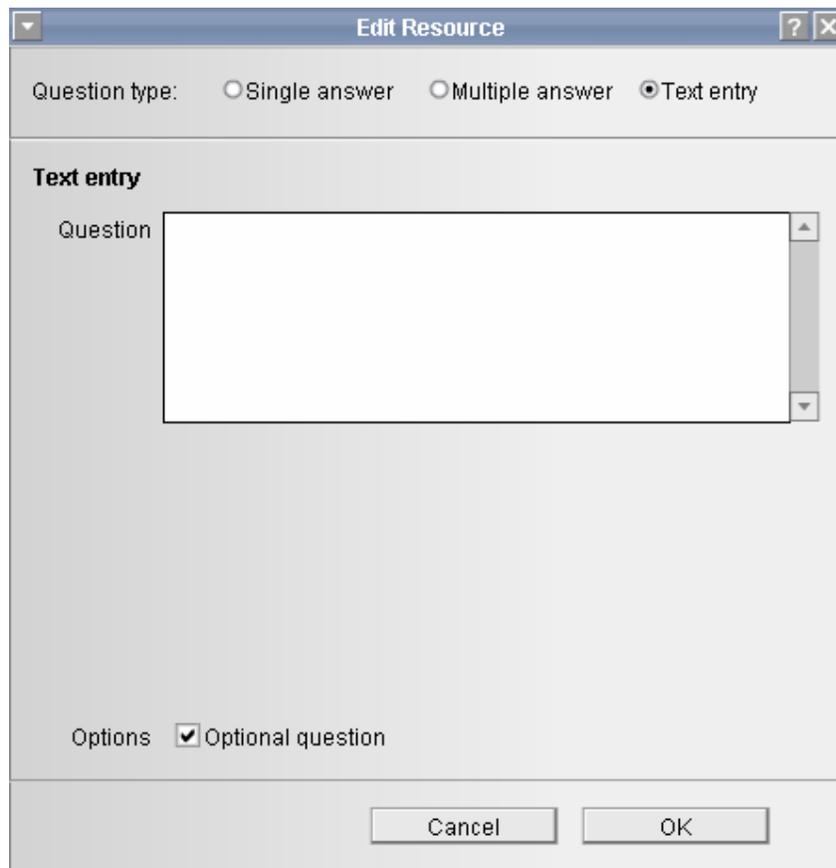
Figure 41: Edit Questions sub-screen – Single/Multiple Answer shown

Edit Questions sub-screen – Text Entry Answer

Question type: See above

Question: This is the text of the question to be answered.

Optional Question: Checking this box will allow learners to complete the survey without answering this question if they wish. If the box is unchecked, learners must answer this question before they can complete the survey.



The image shows a screenshot of a software window titled "Edit Resource". At the top, there are three radio buttons for "Question type": "Single answer", "Multiple answer", and "Text entry". The "Text entry" option is selected. Below this, the section is titled "Text entry". Underneath, there is a label "Question" followed by a large, empty text input box with a vertical scrollbar on the right side. At the bottom of the dialog, there is a label "Options" followed by a checked checkbox and the text "Optional question". At the very bottom, there are two buttons: "Cancel" and "OK".

Figure 42: Edit Questions sub-screen – Text Entry Answer

Resources and Forum

This tool is a combination of the Share resources and Forum tools presented on a single learner activity page. The function of each of these individual tools is the same as described above.

Q & A + Journal

This tool is a combination of Q & A and Journal presented on a single learner activity page. The function of each of these individual tools is the same as described above.

Voting + Journal

This tool is a combination of the Voting and Journal presented on a single learner activity page. The function of each of these individual tools is the same as described above.

Chat & Scribe + Journal

This tool is a combination of Chat & Scribe and Journal presented on a single learner activity page. The function of each of these individual tools is the same as described above.

LAMS Activity Tools Summary

Submit Files: This tool allows learners to submit a file for assessment by the teacher, such as an essay, report, etc. The monitoring area provides assistance to the teacher with managing the marking process for submissions.

Chat: This tool runs a live chat session (synchronous discussion) for learners.

Noticeboard: This tool provides a way of providing simple text to learners. This text can be content relevant to the sequence, or instructions about how the sequence operates.

Journal: This tool provides a task for learners to record their thoughts on aspects of a sequence. These thoughts are viewable by the teacher in the monitor area. Learners have their own private Notebook area that is available in the learner area (bottom left).

Grouping: This tool is different to others in that its role is to modify the behaviour of other tools rather than conduct an activity in its own right. The addition of grouping to a sequence allows other activities to run in small group mode (rather than just whole class mode).

Q & A: This tool allows teachers to pose a question to learners individually, and after they have entered their response, to see the collated responses of all learners.

Voting: This tool allows teachers to provide learners with a list of options to vote on, and then shows the collated learner responses.

Forum: This tool provides an asynchronous discussion environment for learners, with discussion threads initially created by the teacher. Forums can be “locked” as an activity, which is available only for the period of the specific activity, or they can be “unlocked”, in that learners can add to the Forum throughout the life of the whole sequence.

Multiple Choice: This tool allows teachers to create simple automated assessment questions, including multiple choice and true/false questions. These questions can be used for summative assessment with just scores, or formative assessment with feedback.

Share Resources: This tool allows teachers to present content to learners during the authoring process, such as URLs, zipped websites and/or individual files (PDF, PPT, etc). The tool can also be set to allow teachers and/or learners to add URLs or individual files at “run-time” (ie, during this activity within a sequence, rather than during authoring).

Chat & Scribe: This tool combines a live chat with a scribe tool for collating the chat group’s view on questions created by the teacher. When used in small group mode, the tool creates parallel chat and scribe areas for small groups, then shows the outcome of each group on a whole class page (viewable by all learners).

Survey: This tool can present a survey containing single answer, multiple answer and text entry answer questions. Question can be mandatory or optional. Data is collated for analysis by the teacher using tools in the monitoring area.

Resources and Forum: Combination of the Share resources and Forum tools on one page.

Q & A + Journal: Combination of Q & A and Journal.

Voting + Journal: Combination of Voting and Journal.

Chat & Scribe + Journal: Combination of Chat & Scribe and Journal.

Section 3: Monitoring

This section describes monitoring of sequence sessions, and the tools and functions available to monitors. It should be read in conjunction with the walkthrough described in Section 1, and activity tools described in Section 2.

This section is divided into two parts:

- (1) The session management area (left side narrow column)
- (2) The individual sequence session area (main window across centre/right side)

These parts correspond to the areas noted in Figure 43.

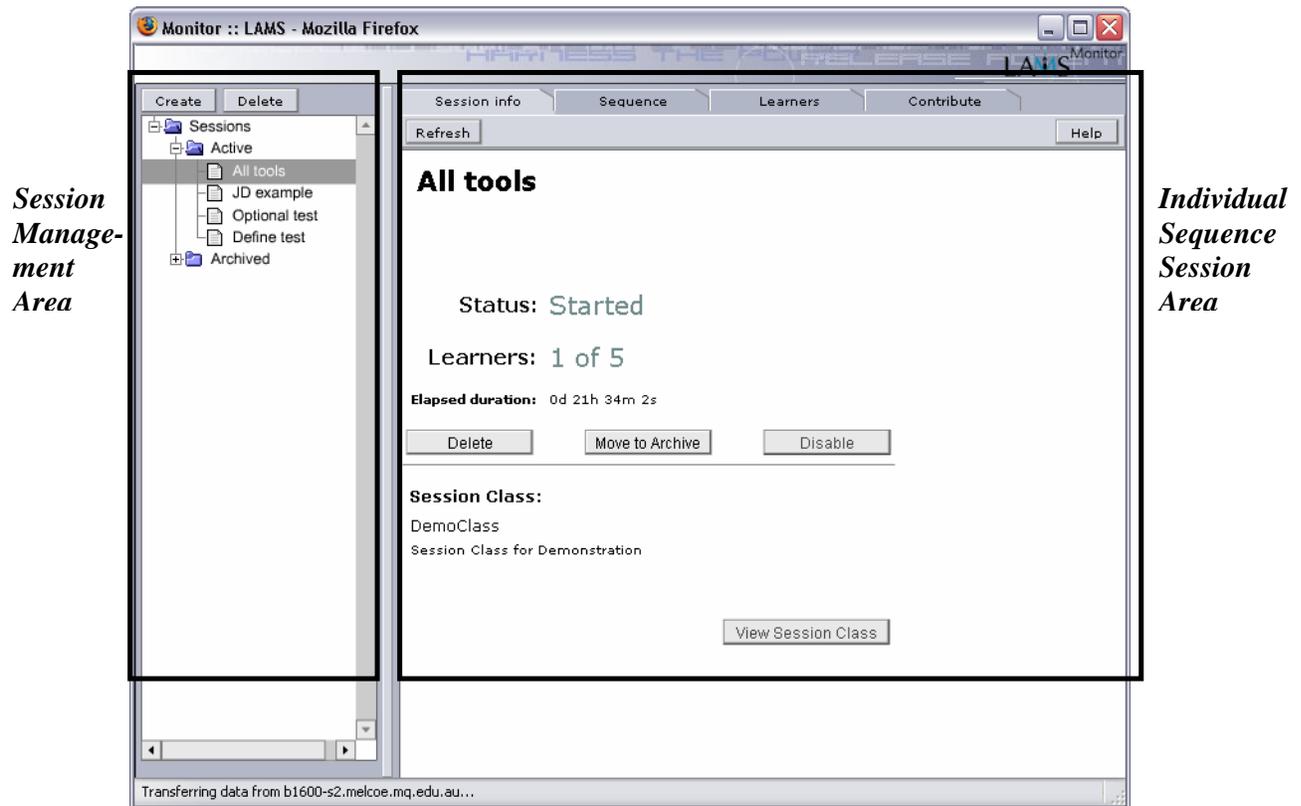


Figure 43: Monitoring environments showing main components

Session Management Area

The session management area allows you to manage all the sequences you currently have active with your various learner groups (including an area for archiving old sequences). Archived sequences can be viewed in the same way as viewing active sessions, except that learners are no longer active in an archived session (and hence the content of an archived session cannot change).

The properties for the Session Management area are:

Create: To create a new session; click on the “Create” button on the top left. This opens the “Select Activity Sequence” window that allows you to create a new session for monitoring by clicking on the text of the sequence and then clicking “Open” on the bottom right. Sequences are available from the sequence repository areas of Private, [Your Group Area], and Public. For a screenshot of the “Select Activity Sequence” window, see Figure 12 in Section 1.

Delete: The Delete and Archive features currently both move sequences to the Archive area – it is not currently possible to delete a sequence. To move a sequence to the archive, click on the text of the relevant sequence, and then click the Delete/Archive button.

Active: Click on the “plus” or “minus” symbol to open/close the Active sessions folder. The default setting is open – showing any current Active sessions.

Archived: Click on the “plus” or “minus” symbol to open/close the Archived sessions folder. The default setting is closed – click the “plus” symbol to show Archived sessions.

Individual Sequence Session Area

The individual sequence session area is for managing a single session. By clicking on a sequence in the session management area on the left, the details for running this session are shown on the right. The tabs across the top right of the window provide different information to help monitor a “running” sequence (ie, session). The properties of the tabs are discussed below.

Session Info tab

For an example of the Session Info tab properties, see Figure 43 above. The Session Info tab provides basic information on the sequence session. When a session is first created, the Session Info tab is shown, and the “View Session Class” button flashes to indicate that the next step in starting a session is to select a session class. Once a class is selected, the “Start” button will flash indicating that once this button is pressed, the session will start (and hence become immediately available to learners).

The properties of Session Info are:

Status: Indicates the current status of the sequence, e.g. “New” (created but not yet started, hence not available to learners) and “Started” (available to learners).

Learners: Indicates the number of learners from the selected Session Class who have joined this sequence so far (e.g., 2 of 9). NB: This does not indicate how many learners are online at this moment; just how many have joined the sequence at some point since it was started.

Delete: This has the same function as the Move to Archive button (below).

Move to Archive: This will permanently move a session to the Archive area. This will make the session unavailable to learners, but a record of learner activities will remain available to the teacher via the Archive area.

Start/Disable/Enable: This button starts a session running once it has been created and a Session Class is assigned. Starting a session makes it available to learners. Once started, this button changes to “Disable”. If Disable is clicked, then the sequence is no longer available to learners from the “Available sequences” area. NB: Any learner inside this sequence will be able to continue working until they leave this sequence or close their browser – after this, they cannot return to this sequence until it is “Enabled” again. “Enable” makes a Disabled sequence available to learners again.

Session Class: This area shows the currently selected Session Class. This is selected using the “View Session Class” button (see below). Only administrators are able to create new Session Class groupings and add new learners to these.

View Session Class: This button will open the “Select Session Class” window to allow a particular class to be assigned to a newly created sequence session. The classes that can be chosen from by a monitor are setup by the systems administrator. To select a class, the monitor opens this window, clicks on the text of the relevant class (which will display the class members on the right side of the window), and then click “OK” on the bottom right to assign the class. The assigned class will then be shown under the “Session Class” area above. To view a screenshot of the Select Session Class window, see Figure 14.

Sequence tab (was previously called “Monitor” tab)

The Sequence tab provides a “sequence-based” view of learner progression through a live session. Learners are represented as green dots, and their live progress across activities is viewable in this area in real-time. From LAMS V1.0 onwards, the Sequence tab is also the main area for any “Contribution” actions by monitors, such as editing text for “Define in Monitor” tasks, marking essay/reports, releasing stop points, etc.

The properties or Monitor are:

Show Learners: If this box is checked (this is the default for the Sequence tab), it shows a green circle for each learner in the session at their current location within the set of activities. The location of learners will update whenever the “Refresh” button is clicked. The person icon is shown at a learner’s current location in the sequence regardless of whether they are currently online in LAMS or offline.

Activity-monitoring screen: Monitors may double click on any activity to bring up an individual activity-monitoring screen. The features of this screen (e.g., Contribute) vary from tool to tool, depending on relevant tasks or information. The “View Learners” button allows the monitor to view learner activities.

A list of Contribute tasks/information is provided below:

Submit Files: This opens a main page for managing marks and comments on learner files such as essays and reports. A number of sub-screens allow for downloading of learner files, entry of marks and comments for individual learners, downloading of marks in spreadsheet format text file, overview of all learner marks, and the ability to release all marks to learners at once.

Chat: No Contribute task

Noticeboard: Define in Monitor task if set during authoring – this opens a page where the teacher can enter text while the sequence is running, and once this text is finalised, it becomes viewable by learners. Otherwise, Contribute just shows the noticeboard text page.

Journal: Allows teacher to view Journal entries for learners

Grouping: No Contribute task

Q & A: 2 features - (1) Define in Monitor task if set during authoring – this opens a page where the teacher can enter the question while the sequence is running, and once this text is finalised, it becomes viewable by learners; and (2) Presents a page with all learner answers to the question with accompanying names, regardless of whether learner view was anonymous or identified.

Voting: Define in Monitor task if set during authoring – this opens a page where the teacher can enter nominations for voting while the sequence is running, and once the nominations are finalised, they become viewable by learners.

Forum: No Contribute task

Multiple Choice: This tool provides all learner marks in a spreadsheet format text file for downloading.

Share Resources: If while in authoring, the teacher has set the option to allow contribution of web pages and/or files while the sequence is running, contribute opens a page where web pages and/or files (depending on the settings) can be added.

Chat & Scribe: The final noticeboard shows a page with the outcomes from the group reports back to the class.

Survey: A main page provides information and tools for analysing survey data. Sub-screens include graphing of data as pie and bar charts, and downloading of data in a spreadsheet format text file.

Combination tools: As above for each individual tool.

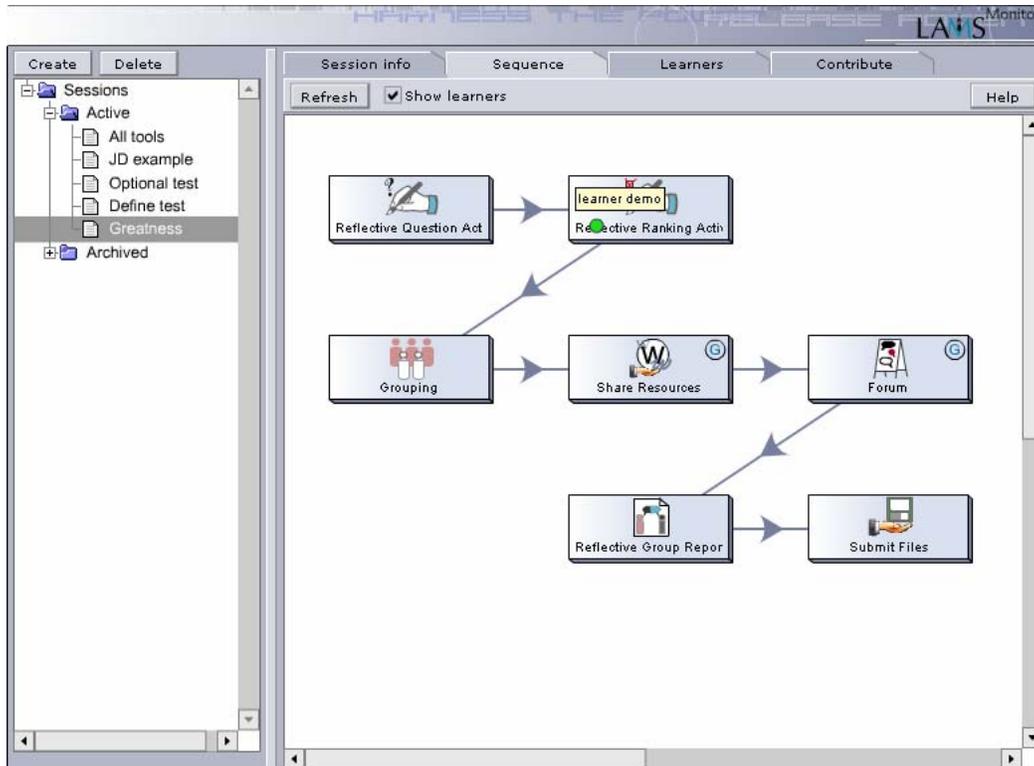


Figure 44: Sequence tab illustrating simple “What is Greatness” example (see Appendix A). The green circle (and popup text) for the “Reflective Ranking Activity” box represent a learner.

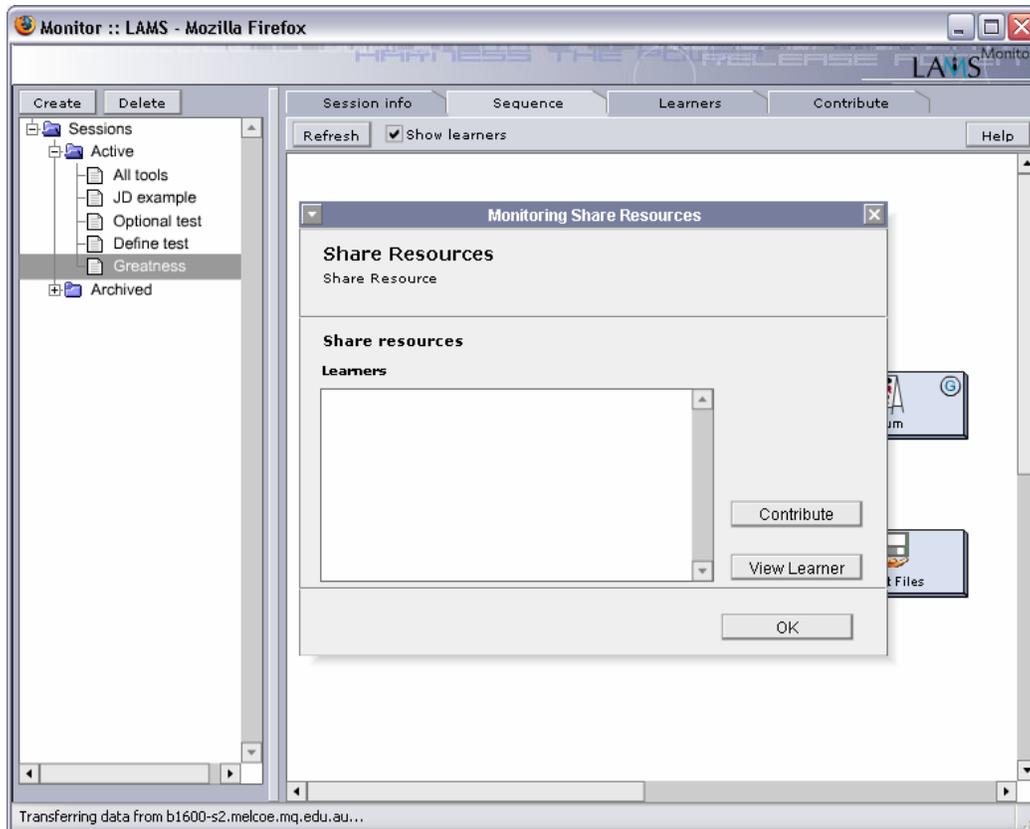


Figure 45: Sequence tab illustrating activity-monitoring screen for Share Resources tool (opened by double clicking on it). If the “Contribute” button is clicked, it will show any relevant tasks/information for this tool (see list above for details).

Learners tab

The Learners tab provides a “learner-based” view of learner progression through a live sequence session (see Figure 46). Learners are presented in a layered horizontal view of their progress through activities, with a blue square indicated a completed activity, a red square indicating the current location of the learner (i.e., their current activity), and a green square indicating activities yet to come (this is the same approach as that shown in the learner interface “Progress Bar”, except that the Progress Bar shows a vertical view the relevant learner’s progress).

The key property of the Learner tab is that for any learner activity, the monitor can click on the relevant square, which will then show the sub-activities within this task (each sub-activity is shown by a red circle – see Figure 47). By clicking on a red circle for a given learner, this will open the learner’s last view of this activity in a new window – this allows monitors to observe the progress of individual learners and groups within each activity.

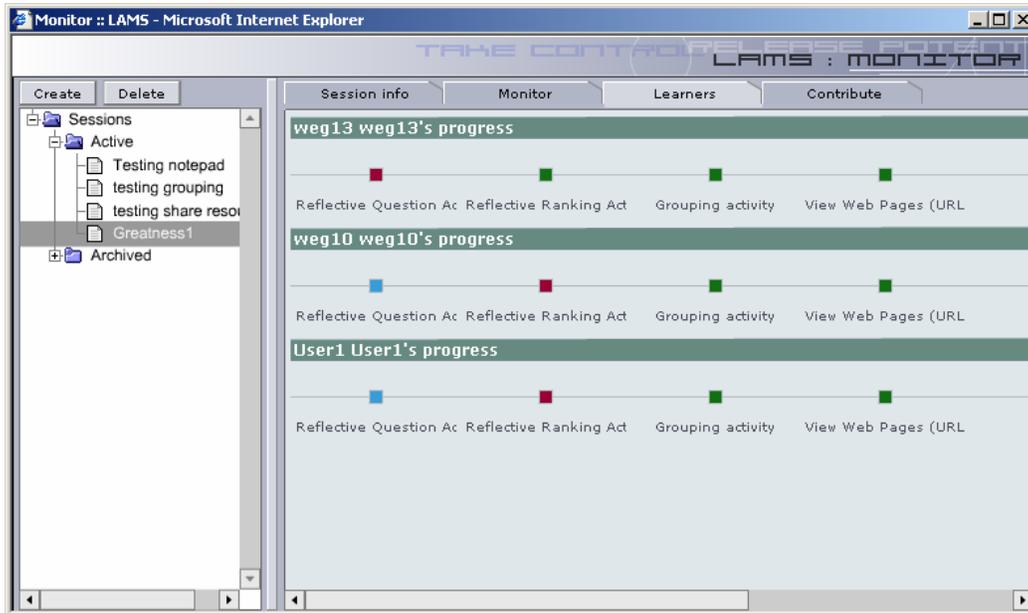


Figure 46: The Learners tab view showing the current progress of three learners through the “What is Greatness?” sequence.

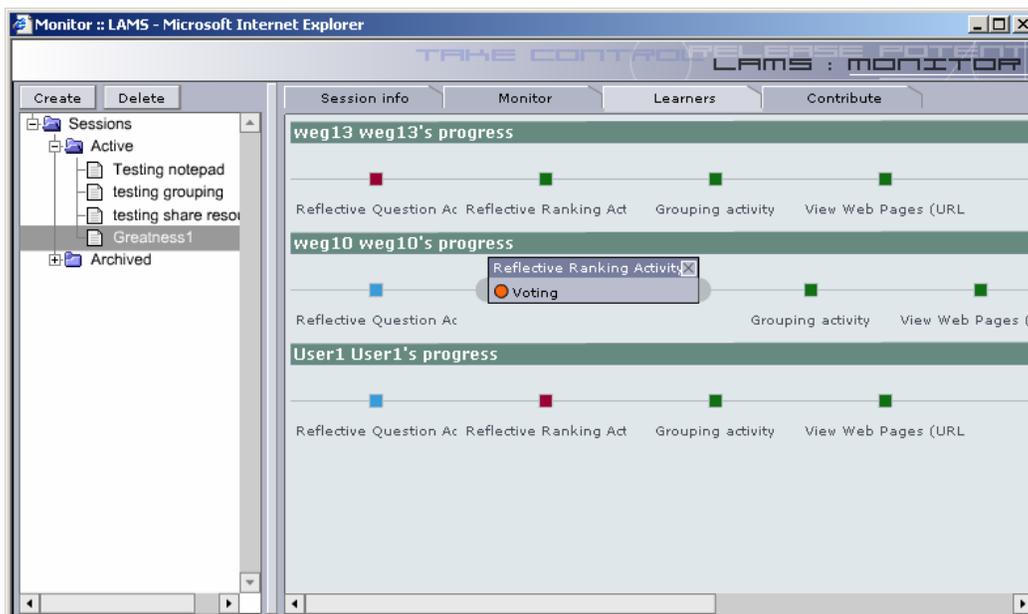


Figure 47: Learner tab view showing the detailed view of the middle learner’s tasks within the “Reflective Ranking Activity” tool. Clicking on the red dot will open the relevant learner contributions in a new window.

Contribute tab

This area is being redesigned for the upcoming V1.1 release of LAMS. All previous Contribute tasks are now managed from within the Sequence tab by double clicking on the relevant tool and then clicking on the Contribute button, or in the case of

releasing stop points, double clicking on the stop icon in the Sequence tab, and then clicking “Release” to release the stop point and allow learners to continue.

This completes the LAMS V1.0 Teacher guide. Please send any feedback to info@lamsinternational.com. We hope you enjoy using LAMS!

NB: The Learner Guide is no longer provided here as Appendix A – it is now provided separately from the Teacher Guide. It can be accessed by clicking the “Help” text at the top right of each Learner window in LAMS (see Figure 17). Other guides for Learners, Teachers and Administrators are available from the various LAMS websites.

Appendix A: LAMS Research Article

IMPLEMENTING LEARNING DESIGN: THE LEARNING ACTIVITY MANAGEMENT SYSTEM (LAMS)

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Abstract

Learning Design has the potential to revolutionise e-learning by capturing the “process” of education, rather than simply content. By describing sequences of collaborative learning activities, Learning Design offers a new approach to re-use in e-learning. This paper describes the Learning Design approach, a detailed example, and its implementation in the Learning Activity Management System.

Keywords

Learning Design, Learning Activities, Pedagogical Frameworks, Standards, LAMS

Beyond Content

E-learning has a well developed approach to the creation and sequencing of content-based, single learner, self-paced learning objects. However, there is little understanding of how to create sequences of learning activities which involve groups of learners interacting within a structured set of collaborative environments, or how teachers can make these sequences easily re-usable.

Given that a key dimension of education (particularly K-12 schools and Higher Education) is learning which arises from interacting with teachers and peers (rather than simply interacting with content), the lack of a mature approach to sequencing of multi-learner activities is a significant blind spot in e-learning today. This is surprising given that “lesson planning” – the process of determining the sequence of activities to be followed by a teacher and learners when studying a topic – is well understood in education, but is mainly absent from e-learning. However, there is a growing body of work addressing this topic, based on the concept of “Learning Design”. Learning Design provides a first glimpse at the ways of describing multi-learner activity sequences and the tools required to support these.

Introducing Learning Design

Learning Design has emerged as one of the most significant recent developments in e-learning. It was the focal topic of Professor Diana Laurillard’ September IMS (Kraan, 2002) and December 2002 ASCILITE Keynote addresses (Laurillard, 2002). It has been the subject of a major Australian University Teaching Committee project (Harper & Oliver, 2002) and conference (AUTC, 2002). It is a driving concept behind a growing number of UK initiatives (such as the CETIS Pedagogy Forum, CETIS, 2003a; the Department for Education and Skills “Towards a Unified E-learning Strategy: Consultation Document”, 2003; and the JISC X4L

“RELOAD” project, CETIS, 2003b) and it is the subject of discussion and/or implementation in a growing number of countries, such as Canada (eg, Downes, 2003) and Spain (eg, Griffiths, 2003).

From a standards/specifications perspective, IMS Global Learning Consortium has recently released the IMS Learning Design specification (IMS, 2003), based on the work of the Open University of the Netherlands (OUNL) on “Educational Modelling Language” (EML - Koper, 2001), a notational language to describe a “meta-model” of instructional design. The OUNL coordinates an international EML/IMS Learning Design implementation group known as the Valkenburg group (2003), and OUNL have recently stated their intention to no longer continue developing EML, but instead focus their energies of the new IMS Learning Design specification (Tattersall, 2003).

While definitions of Learning Design vary, the main elements tend to include greater focus on “context” dimensions of e-learning (rather than simply “content”), a more “activity” based view of e-learning (rather than “absorption”), and greater recognition of the role of “multi-learner” (rather than just single learner) environments. While Learning Design does not exclude single learner, self-paced modes of e-learning, it draws attention to a wider range of collaborative e-learning approaches in addition to single learner approaches. Much of the focus on Learning Design arises from a desire for re-use and adaptation at a level above simply re-using and adapting content objects.

This paper describes the implementation of a broad-reaching Learning Design system called the Learning Activity Management System or “LAMS”. LAMS includes environments for user administration, learner run-time delivery of sequences, teacher run-time monitoring of learner sequences and, most importantly, teacher authoring/adaptation of sequences (see Figure 1 below). LAMS is inspired by, and heavily based on, IMS Learning Design and EML. However, LAMS was not designed to be a reference implementation of either specification - it was primarily designed to illustrate examples such as the one described below. LAMS is expected to be IMS Learning Design conformant in the future as both LAMS and the specification evolve to address current IMS Learning Design implementation challenges.

Learning Activity Sequence Example

To illustrate the implementation of Learning Design, consider the following learning activity sequence example based on the question “What is Greatness (in a human being)?” This example was developed in conjunction with Dr Donna Gibbs of the School of Education, Macquarie University. While it can be used in many contexts in different ways, it was initially designed for history learners around the ages 14-16 in a K-12 school context. It is designed for use with an approximate group size of around 20-30 learners, potentially located in more than one physical location. The sequence is designed not only to help learners learn about great people from history, but more importantly to help learners articulate their own concept of greatness, and through a process of engaging with content and their peers, to “stretch” this concept. There are four major activities to the sequence (although there can be more than one “sub-activity” within each of these). The sequence lasts for four weeks, with one major activity per week as follows:

“What is Greatness?”

Week 1: Learners enter the environment via URL (either directly or from a LMS course page) and are presented with an asynchronous discussion environment in which to discuss and debate the concept “What is Greatness (in a human being)?” Learners are not given any other content or context to this question so as to encourage learners to articulate their views, and to engage directly with their peers.

Week 2: At the end of week 1, learners are given access to the second activity, which includes a range of content types about great people from history (narratives, speeches, biographies, etc). These are provided as content objects (eg, text documents, webpages, files, etc) and URL links to relevant internet websites. After reviewing the content, learners then use a search engine (eg, Google) to find an example of a website about a person they consider to be great. Learners then share this URL (and a comment about why they selected it) with the class, so that all learners are able to view each other's selected websites.

Week 3: At the end of week 2, learners are randomly allocated to four small groups, and each group is given a live chat environment to debate some specific questions about greatness from the teacher (eg, "Is greatness innate?"; "Can greatness be learned?" etc). One of the learners is assigned the role of "scribe", and is given a special scribe interface where they can record the small group's discussion of the specific questions. The scribe is able to send out their record in real-time, and for the other participants to agree with this record, or continue to debate the relevant questions and the scribe's record. This process typically iterates several times until the group agrees with the scribe's revised record. Once the record is agreed, it is sent to a whole class webpage, where all learners can see the outcomes of each of the four small groups. This allows all learners to compare and contrast the outcomes across the four groups.

Week 4: In the final week of this sequence, learners individually write up a report on the original question, based on their learning experience across the whole sequence. This report is submitted to the system, which then helps manage the workflow of marking and commenting for the teacher. The end of the sequence is reached when learners receive their marks and comments from the teacher.

From "What is Greatness?" to "What is jazz?"

One of the powerful features of the learning activity approach is that the content of a sequence can be easily changed to suit a different discipline, while leaving the activity structure unchanged. For example, the above sequence could be adapted for a music course by changing the initial question to "What is jazz?", then changing the content in week 2 to audio files of jazz music, followed in week 3 by small group debates on which jazz composition was best and why (rather than "Is greatness innate?" etc); and in week 4, the learners could be asked to write their own jazz composition, record it as an audio file, and upload it to the teacher for commentary as their assessable task (rather than submit a text report). The point is that the learning activity sequence can provide a "pedagogical template" which may be useful in many contexts by changing the "content" to suit different discipline areas. The focus on easy re-use with LAMS means that these changes can be implemented and ready to run with a new learner group in approximately 5 minutes (provided the jazz audio files have already been obtained).

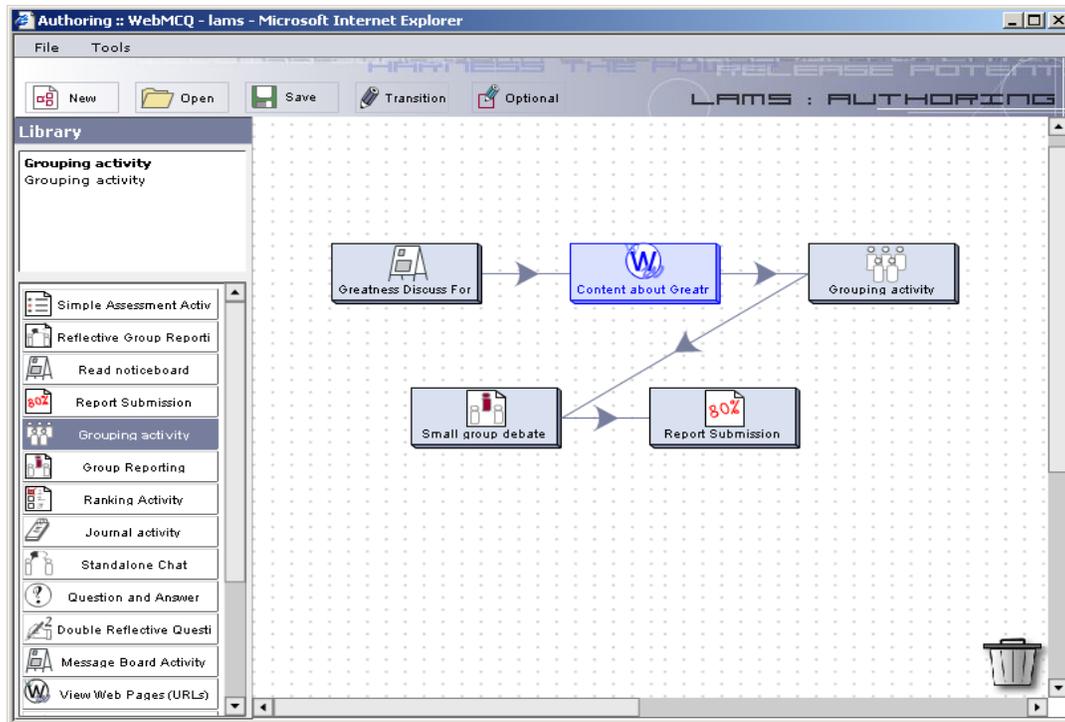


Figure 1: Screenshot of the LAMS authoring environment showing activity tools on the left, repository and sequence management tools across the top, and the “What is Greatness?” sequence in the middle.

Adapting the “What is Greatness?” template

Going further, the pedagogical template itself should be modifiable, so that if a teacher wishes to change the order of the tasks, or add/subtract activities from the template, this can be easily achieved. For example, a history teacher may want to use the “What is Greatness?” example, but due to the nature of her group of learners, would like to begin with a short live chat session for the whole class prior to the week-long asynchronous discussion forum. In LAMS, this is possible within the authoring environment using a simple drag-and-drop system which helps make explicit the teaching and learning processes as a series of discrete activities. Adding a chat session involves dragging and dropping the chat tool to the start of the sequence, and then drawing a connecting line from it to the discussion forum to link it to the beginning of the sequence. A teacher may also choose to change the sequence by removing the assessment at the end, and instead replacing it with a number of optional “extensions” activities which may be completed in any particular order. This is achieved in the same way as the chat example, with the addition of an “optional” box to surround these activities. These changes to the original sequence would take approximately 5 minutes to implement and be ready to run with a new learner group within LAMS.

Where to Next?

Current collaborative tools in LAMS include: question and answer (with learner answers shared with the group either anonymously or identified), polling (with total responses shared with the group), asynchronous discussion forum, synchronous chat, noticeboard (simple text content/instructions), resource presentation and sharing (URL/webpages/files), notebook/journal, assessment submission, MCQ and True/False (with options to display feedback, average class score and “high” score), and various combinations of tools, including

“chat and scribe” (see week 3 above). In addition, a grouping tool allows any tool to run in either whole class or small group modes. The flexibility of Learning Design indicates that many more collaborative tools can be developed to broaden the impact of the LAMS platform. Sequences created in LAMS can be shared among teachers either via email or the LAMS repository.

LAMS is a fully functioning system currently undergoing beta trials with a range of K-12 school and university partners across Australia, Canada and the UK, with full release planned for early 2004 (please email the author for further details). Initial evaluations of LAMS in K-12 school and university environments during 2003 have indicated LAMS has a profound impact on both learner learning and teachers’ conceptualisation of the learning process. Research into this impact is ongoing, but one striking early example is in learner willingness to engage in whole class discussion of ideas. In one K-12 school pilot evaluation, only 15% of learners were willing to discuss ideas in front of their peers in the classroom, but over 80% of the same learners were willing to discuss their ideas within LAMS.

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