
SCAFFOLDING STUDENT LEARNING ACTIVITIES USING LAMS

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Synopsis

The concept of learning designs is nothing new to you – it is what you do each time you prepare for a class. LAMS, the Learning Activity Management System, is a learning design system used for designing, managing and delivering online collaborative learning activities. This highly intuitive and visual authoring environment provides instructors with an easy access to creating, structuring learning activities. These activities can include a range of individual tasks, small group work and/or class activities based on both content and collaboration.

In this session, we will explore methods of using LAMS to quickly and effortlessly design learning activities and collaborative tasks, and ways to easily monitor student progress. You will then discover how you can easily share those sequences and templates with fellow colleagues to foster the sharing of good teaching practices.

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What is LAMS?

The Learning Activity Management System (LAMS) allows academic staff to design, manage and deliver online learning. Its unique drag-and-drop interface transforms lesson planning into a simple, visual experience allowing the creation of learning activity sequences.

Instructors can use LAMS to design a sequence of learning activities for students that includes content (Learning Objects) and collaborative tasks. The activities include a range of individual tasks, small group projects and whole class work, based on both content and collaboration. LAMS then “runs” the sequence of tasks for students, and provides instructors with a monitoring environment to track student progress. A lesson plan can be designed and run in under 10 minutes using LAMS. The lesson plans can also be shared, so that other instructors can adapt and use LAMS sequences.

Overview of Learning Design

Learning Design is based on the concept of using a standard language or framework to describe educational learning activities. The focus is mainly on processes that involve group tasks, moving away from activities that involve individual students interacting with content on a screen towards students interacting with each other over a structured series of activities. For example: an educator forms small class groups within his/her seminar or tutorial class to get students to discuss an idea; then each group reporting back to the whole class. The whole class then discusses on ideas tabled by each of the groups. After which the class can then relate it to a research article or reading posed by the instructor.

Some key elements of the learning design is that it fosters active consideration of the topic by students, construction of students’ own understanding of the issues; collaboration and conversation with peers and other experts; enables use of authentic assessments, negotiation of learning pathways. Thus a Learning Design can be thought of as having a number of activities – and for each activity, it is important to identify who is involved, what they do, and how the task is to be conducted. These individual activities are then combined to create a sequence of activities, which may incorporate stop points that allow the educator to control the progress of students through the activities. The concept of Learning Design is not just applicable to e-learning; rather, it can be used to describe both online and face-to-face contexts (Dalziel, 2007).

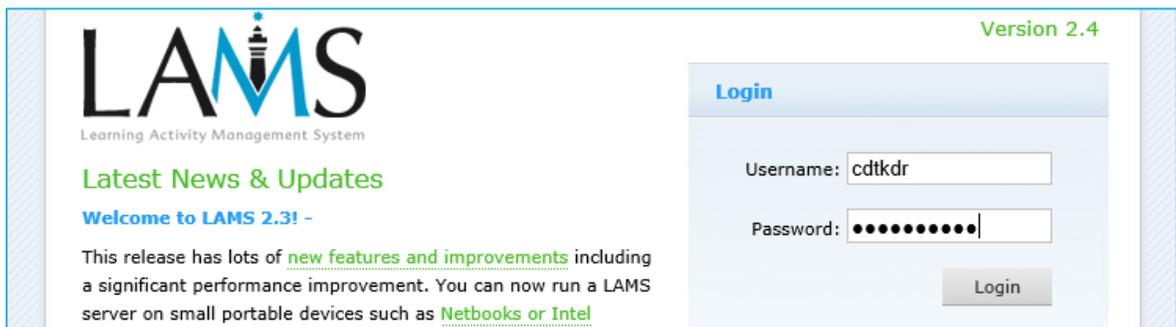
Why use LAMS?

LAMS has received appreciation from e-learning experts around the world. Listed below are some key benefits of using LAMS:

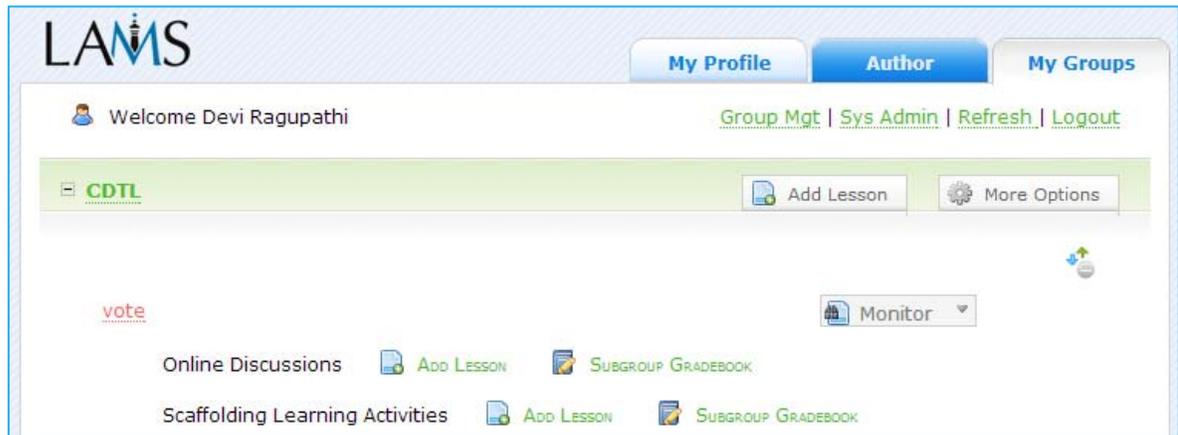
- Provides an intuitive visual authoring environment for creating sequences of learning activities (digital lesson plan). This also allows instructors to easily identify the learning styles addressed with the activities employed.
- An easy to use tool that saves time and allows instructors to reflect on their teaching practice. The preview feature allows the instructors to rapidly change and preview their strategies and also to review and refine their digital lesson plan.
- Incorporates both single-learner content (e.g. learning objects) and collaborative tasks(e.g. discussion, voting and debate)
- Enables instructors to share LAMS good practices and designs with its large community of teachers, educators and technical developers. Once a digital lesson plan is designed in LAMS, this can be shared with other instructors, who can also use it, or adapt it to their own context. This unique feature of LAMS allows instructors to collaborate with each other via a community website to share libraries of good practice digital lesson plans.
- Enables students to generate a portfolio record of their activities. LAMS allows students to capture a rich record of their online activities and store these in a portfolio. This provides the potential for later reflection on past activities across a lifetime of learning, as well as automated reporting of activities and outcomes to parents, administrators and government agencies.
- Provides rich, real-time monitoring and tracking of student learning

Login to LAMS

To login to the LAMS, use <https://lams.nus.edu.sg/>



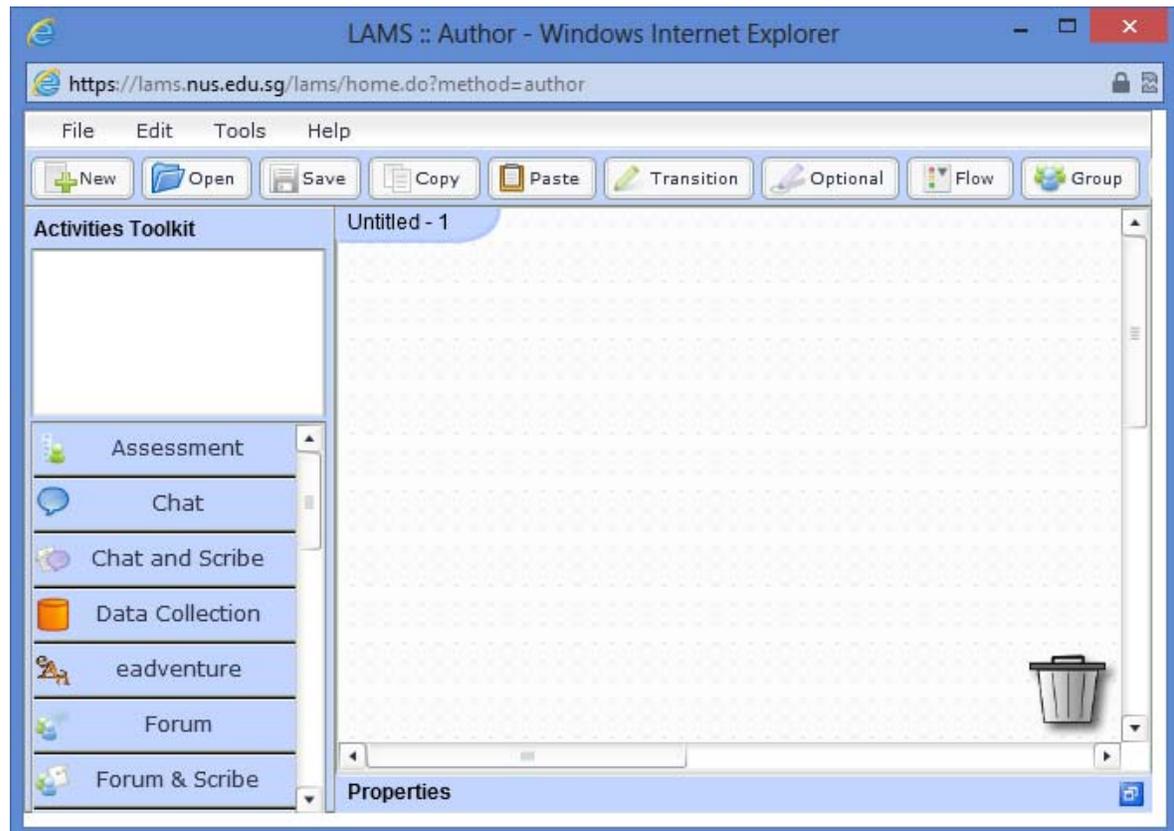
LAMS has 3 main environments: (1) **Author** for instructors to create the learning activities (2) **Learner** for students to participate in the learning activities and (3) **Monitor** for instructors to monitor the progress of the sequences



To start creating new sequences use the LAMS authoring environment. You can access the Author environment by clicking on the Blue **Author** Author tab at the top of the screen.

Creating Sequences in LAMS

The **LAMS Authoring Environment** is a visual interface where you create, store, modify and re-use the sequences of learning activities.



To create sequences, you drag-and-drop activities onto the learning space, and then create transitions to specify the path that learners take through the sequences. A graphic workflow model is generated which provides a high level of interactivity and collaboration.

There are three main areas in the Authoring Environment:

- **Authoring space:** This large whitespace with a grid of dots is where sequences can be created and edited. To **Delete** an activity from the Authoring Space, click and drag the activity to the trashcan in the lower right corner.
- **Activity tools:** The set of activity tools are located on the left-side and can be used to creating sequences.
- **Sequence management tools:** These are located across the top of the screen and help in:
 - Managing file operations (e.g., opening and saving)
 - Sequence linking operations (e.g., branching and gates)
 - Previewing the sequences.

Sequence Management Tools

The sequence management toolbar is located on the top section of the authoring environment.



Three main types of tools are available:

1. File Operation Tools

New: To open a blank work area for creating a new sequence.

Open: To open previously saved sequences either from your own workspace or from the public folder.

Save: To save the current file.

2. Editing Tools

Copy: To copy the selected Activity on the Authoring space.

Paste: To paste a copied Activity back to the Authoring space.

3. Sequence Tools

Transition: To create and drawing transition lines (green coloured) between two activities. Optional: To place the Optional box and then drag existing activities from the authoring space or new activities from the Toolkit into the box.

Flow: provides options for controlling the progress of Learners through the sequence.

- Gates: temporarily halt learner's progress at specified point.
- Branch: to enable learners to either select a particular path through the sequence, or automatically chooses a path based on certain conditions.

Scaffolding Student Learning Activities Using LAMS

Group: To arrange learners into groups for particular activities. (e.g., instead of a whole class of learners participating in one chat or forum, the class is divided into groups of five learners in independent chats or forums.)

Preview: allows the sequence to be run from the Authoring Environment, allowing Authors to check their design before use.

Saving Sequences

You can save the sequences in any of the following locations:

1. In your **profile folder** (default location), which means that only you can access them.
2. In your **group folder** for each group you are a member of.
3. In the **public folder**, which is then available to anyone who can log in to LAMS (and has authoring rights)

Creating learning activities

To create learning activities, do the following:

1. Assemble a learning sequence:
 - i. Drag an activity component from the activities toolkit to the main central panel.
 - ii. Connect these with the sequence tools on top (e.g. use the "transition" link").
 - iii. Double click on an instance of the tool to edit and configure each tool.
 - iv. Preview the sequence.
 - v. Save the sequence.
2. Assign learning sequences to groups of students, if necessary.

The **activities toolkit** contains all of the activities that can be added to your sequence. The Whitespace at the top of the toolkit gives a short description a tool when selected. To change the Content or Behaviour of an activity, simply double click a particular activity to bring up its Properties Page.

Each tool has a set of features specific to that tool, as well as some features that are found in all tools. Each of the activity tool contains three tabs:

1. Basic: to control the **Content** of the Activity.
2. Advanced: to control the **Behaviour** of the Activity.
3. Instructions: to upload online and offline resources (documents) for other co-teachers.

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LAMS :: Author - Google Chrome

https://lams.nus.edu.sg/lams/home.do?method=author

File Edit Tools Help

New Open Save Copy Paste Transition Optional Flow Group Preview

Activities Toolkit

Noticeboard
Tool for displaying HTML content including external sources such as images and other media.

Assessment
Chat
Chat and Scribe
Data Collection
eadventure
Forum
Forum & Scribe
Gmap
Image Gallery
Mindmap
Multiple Choice

Demo3

Noticeboard Voting
Q & A Grouping
Chat STOP Noticeboard

Properties - NoticeboardX

Title Noticeboard
Grouping None
Offline Activity
Define in Monitor
Map to competencies

Noticeboard

Basic Advanced Instructions

LAMS

Title:
Welcome to this eModule

Content:
Welcome to this module on "Designing Effective Online Discussions"

Save Cancel

The activities toolkit can be classified based on the various purposes:

- Tools for delivering and sharing resources

Scaffolding Student Learning Activities Using LAMS

- Tools for communication and collaboration
- Tools for assessment and evaluation of student submissions or contributions.
- Tools for reflection

Tools for delivering and sharing resources

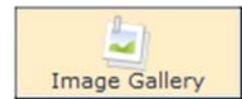
Noticeboard Tool:

This tool provides a simple way of providing information and content to the learners. It can incorporate text, images, links and other HTML content.



Image Gallery tool:

It allows instructors and learners to upload a series of images. Students can then review and rate them.



Share Resources tool:

This tool allows instructors to add content into a sequence, such as URLs or hyperlinks, websites, individual files (Adobe PDF's, PowerPoint files, Flash Files, Video files, audio files) and even complete learning objects. This will allow you to record a set of instructions for your students.



Tools for communication and collaboration

Learners generally enjoy online communication tools, and it also creates higher rates of participation by normally reticent and shy students with students generally enjoying the collaboration if assigned group activity. Forum and Chat sessions can be used for informal discussions to start their thinking process and to motivate them. They also provide instructors a good method for collecting formative data.

Online learning can happen at three levels: (1) between learner and content, (2) between learner and teacher, and (3) between learner and their peers. Such opportunities for interaction can be easily made possible through the use of LAMS. For example when learners type in their responses to a query posed by the teacher, they can get to see other learner responses only after they have completed the activity. This greatly helps in the students' knowledge construction process, as they can incorporate responses from their peers as well. A polling activity will allow learners to vote on an issue, after which students will be able to see the votes from their peers.

Chat Tool:

The Chat tool runs a live (synchronous) discussion for learners, quite similar to Instant Messaging (IM) software like the MSN chat, Google Talk etc.



Chat & Scribe Tool:

The Chat and Scribe Activity combines a Chat Activity with a Scribe Activity for collating the chat group's viewpoints on the questions posed by the instructor. This can be easily used for group activity where it creates independent Chat and Scribe areas for each small group, and then displays the outcome of each group collated on a whole class page.

Forum Tool:

The Forum tool provides an asynchronous discussion environment for learners. Forums can be 'locked' as an activity which is only available for a limited period.



Forum & Scribe Tool:

The Forum and Scribe Activity combines a Forum Activity with a Scribe Activity for collating Forum Postings into a written report. This can be easily used for group activity with independent Forums and Scribe areas for each small group, and then displays the outcome of each group collated on a whole class page.

Resources & Forum Tool:

This combines a Forum Activity with a Share Resources Activity that allows Learners to create Forum postings based on either the resources provided by the instructor, or from those added by students themselves. This can also be used for group activity.



Voting tool: A voting or a polling tool that provides learners with a list of options to "Vote" on. It is similar to the Q&A Activity in that Voting shows first one screen with all the available voting options, then a screen showing the individual learner's selection, then



a screen showing "progressive" voting results (i.e., a non-editable screen where learners can see results from themselves and other learners over time). Finally, there is Summary Screen of group results.

Tools for assessment and evaluation

Assessment tool:

This tool allows you to create a series of questions with a high degree flexibility in total weighting. Learners can re-attempt the assessment if they fail, and the tool allows for the customization of penalties for each successive re-try.



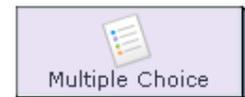
Submit Files tool:

This enables learners to make submissions of assignments/tasks by submitting one or more files for review by the instructor. It also allows the instructor to input grades for the submissions made, which can then be viewed by the learners.



Multiple Choice tool:

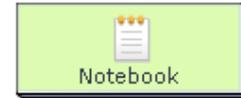
This tool is to create simple automated assessment questions, including multiple choice and true/false questions. The questions created can be used for summative assessment with scores, or formative assessment with feedback.



Tools for Reflection

The Notebook Tool:

A tool for learners to record their thoughts during a learning activity. As an instructor, you can include a specific activity during a sequence that requires Learners to write down their thoughts or opinions. This allows students to reflect upon and write down their thoughts and ideas before proceeding further. The input to the Notebook is automatically recorded as a fixed entry that is viewable by the teacher.



Q & A tool:

The Q & A Tool allows teachers to pose a question(s) to learners individually, and after they have entered their response, to see the responses of all their peers presented on a single answer screen.



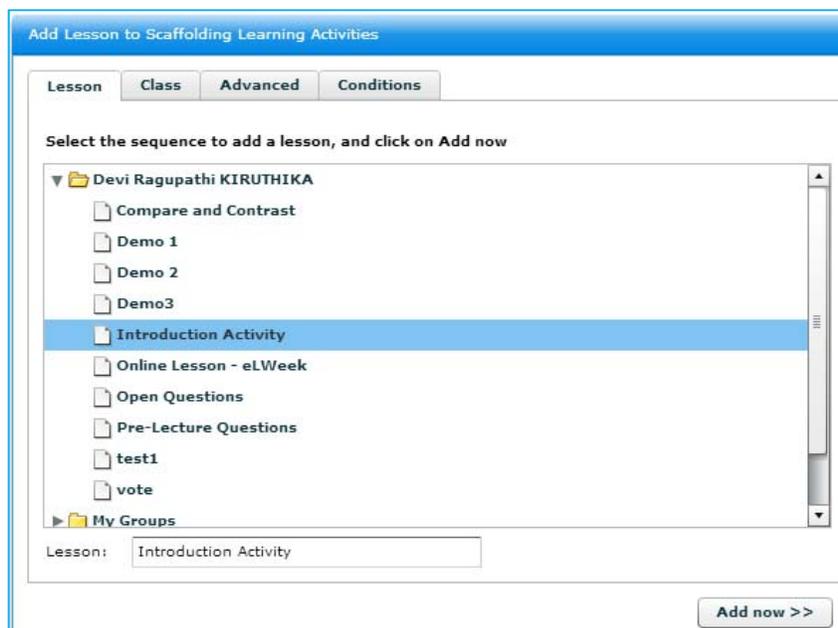
Survey tool

This polls users with either single, multiple, or free text responses, which can easily be collated and displayed to learners and the sequence monitors.



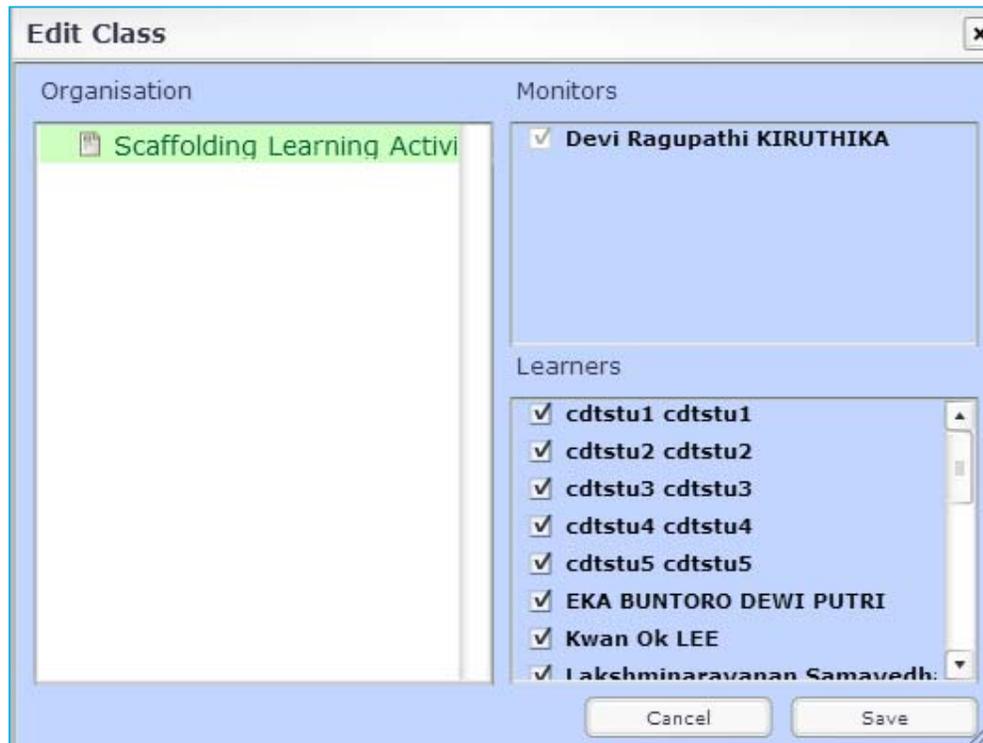
Monitoring learner progress

Once you created learning activities and saved them as a sequence, you can then run a sequence by adding the lesson to your class group.



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Once your activity is chosen, you can add in your learners. You could also do that using Group Management.



References

Readings

Dalziel, J. (2007) Setting Education Free: The Role of LAMS, LAMS Community

Technical Guides

<http://wiki.lamsfoundation.org/display/lamsdocs/Home>

<http://lessonlams.com>

Activities

1. Pre-lecture Survey

(Noticeboard + Voting + Q & A)

- Introduce what the pre-lecture survey question is about.
- Get participants to vote on an option
- Ask a question to get participants to post their thoughts and ideas.

2. Opening Activity

(Noticeboard + Forum + Notebook + 2 Q & A + Notebook)

- Please introduce yourself to the class. Also indicate your name and faculty
- Reflect your own thoughts and ideas on technology-enhanced or technology-blended teaching and learning
- What would be the ONE technology-enhanced teaching and learning idea you would like to implement?
- What are the major issues, challenges or concerns that prevent you from blending technology in meaningful ways into your module(s)?
- What do you hope to achieve at the end of this workshop?

3. Discussion Activity

(Noticeboard + Resources & Forum + Grouping + Chat + Q & A + Voting)

Debate on “**Does mid-semester feedback improve student learning?**”

- Noticeboard: You have been asked to prepare for a debate. The topic is “Does mid-semester feedback improve student learning?”
- Resources & Forum: Investigate the following websites by clicking on view to open the websites for reading. Jot down points **for and against** the debate topic on the forum below. Forum Activity can have three topics:
 - Your use:
 - Affirmative arguments:
 - Negative arguments:
- Grouping activity: To make the session highly collaborative, assign students into groups or can randomize the groups by setting the group size or number of groups
- Chat: Chat about the pros and cons of using mid-semester feedback
- Q & A Activity: List 3 arguments that could be used to support the affirmative case: “Mid-semester feedback improves student learning”
- Voting activity: Finally, do you think that you will use MSFB?