

New Approaches to Visualising Learning Designs

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Overview

- Open Education
- LAMS Update
 - New LAMS International Partner in Singapore – NTU
 - New LAMS Foundation website
 - New Features in LAMS V2.2
 - Upcoming in 2009
- Ideas for new visualisations

Open Education

- The Cape Town Declaration provides a statement of principles of free sharing for open education
 - www.capetowndeclaration.org
 - You can sign up at the website to show your support
 - NB: Different meaning to distance/flexible education
- “everyone should have the freedom to use, customize, improve and redistribute educational resources without constraint”
 - Free to use (no cost)
 - Freedom to change



Cape Town Declaration: www.capetowndeclaration.org

Open Education & LAMS

- LAMS is an example of Open Education
 - LAMS software freely available as open source software
 - LAMS Community support free sharing of sequences under open content licenses (Creative Commons)
- Long before the Cape Town Declaration, I felt we needed a new approach to e-learning to allow us to:
 - Describe and capture good pedagogical approaches
 - Make these approaches (Learning Designs) shareable
 - Make it easy to adapt and improve shared approaches
 - ...while avoiding closed software and file formats

LAMS International Partners

- LAMS International is the services and support company for LAMS
 - Provides fee-based hosting, technical support, training, etc
 - NB: No one is required to pay for using LAMS – optional
 - www.lamsinternational.com
- LAMS International has official partners in several countries
 - Data Pacific – Japan
 - Huazhong University – China
 - Solution Grove – USA

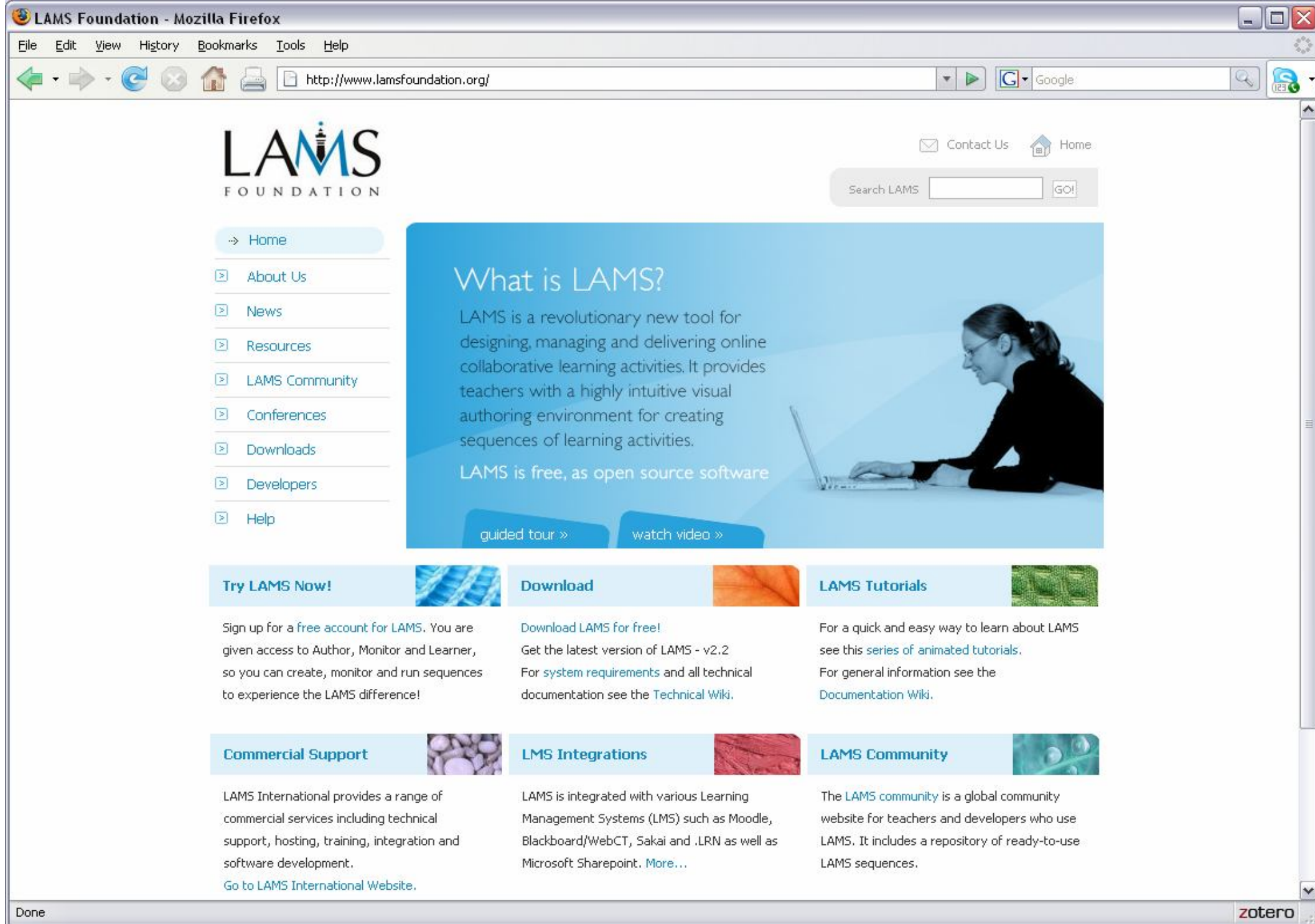
New LAMS International Partner: NTU

- I'm delighted to announce a new LAMS International partner for Singapore – Nanyang Technological University
- Builds on several years of collaboration on LAMS, especially integration with Blackboard (many thanks!)
- *“When I heard James Dalziel sharing about LAMS at an eAgenda event, I knew my eyes had seen the future. We have progressed together a long way from then. Today marks a partnership that history may well one day identify as an important milestone in the development of online courseware. We are excited that on that day, NTU and LAMS International forged a partnership.”*

Professor Daniel Tan, Director of the Centre for Educational Development (CED) at NTU.

New LAMS Foundation website

- The LAMS Foundation website has been looking a bit tired for some time
- Despite great work by the LAMS team some time ago (ahem), I hadn't finalised the new site until this week
- Better late than never...
 - www.lamsfoundation.org



New LAMS Foundation website: www.lamsfoundation.org

LAMS V2.2

- Today is the official release for LAMS V2.2
 - Will try for six monthly releases at conferences
- LAMS V2.0 provides foundations for many years of further LAMS development
 - New architecture, ground-up rewrite
 - LAMS Tools Contract
- LAMS V2.1 illustrates some of the powerful new features that can be built on the V2 foundations
 - Eg, Branching, Optional sequences

http://stinger.melcoe.mq.edu.au - LAMS :: Author - Mozilla Firefox

File Edit Tools Help

New Open Save Copy Paste Transition Optional Flow Group Preview

Activities Toolkit

Forum
Online threaded discussion tool (asynchronous).

Chat
Chat and Scribe
Forum
Forum and Scrib...
Multiple Choice
Notebook
Noticeboard
Q and A
Resources and F...
Share Resources
Submit Files
Survey
Voting

Interactive Whiteboards Role Play - Branching

```
graph LR; Start(( )) --> NotebookPro[Notebook - Pro]; Start --> NotebookCon[Notebook - Con]; Start --> NotebookMgt[Notebook - Mgt]; Start --> NotebookStudent[Notebook - Student]; NotebookPro --> QAPro[Q and A - Pro]; QAPro --> ForumPro[Forum - Pro]; NotebookCon --> QACon[Q and A - Con]; QACon --> ForumCon[Forum - Con]; NotebookMgt --> QAMgt[Q and A - Mgt]; QAMgt --> ForumMgt[Forum - Mgt]; NotebookStudent --> QAStudent[Q and A - Student]; QAStudent --> ForumStudent[Forum - Student]; ForumPro --> End(( )); ForumCon --> End; ForumMgt --> End; ForumStudent --> End;
```

Properties

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zotero

LAMS 2.1: Role play: Inside branching for role tasks

http://stinger.melcoe.mq.edu.au - LAMS :: Author - Mozilla Firefox

File Edit Tools Help

New Open Save Copy Paste Transition Optional Flow Group Preview

Activities Toolkit

Share Resources
Sharing resource with others.

Chat

Chat and Scribe

Forum

Forum and Scrib...

Multiple Choice

Notebook

Noticeboard

Q and A

Resources and F...

Share Resources

Submit Files

Survey

Voting

Untitled - 1

Noticeboard

Share Resources

Forum

Optional Sequences
3 - Sequences

Optional Sequences Properties

Title: Optional Sequences

Description: Choose one or more extension sequences

No of Sequences: 3

LAMS 2.1: New Optional Sequences - allows students to choose 1 or more sequences

LAMS V2.2

- New LAMS V2.2 features include:
 - Student selected groups
 - Text-based Conditions for Branching
 - Individual Gates (individual release & individual Conditions)
 - Learning Objective/Competency description and mapping to tools
- Four new activity tools:
 - Wiki
 - Data Collection
 - Google Maps
 - Online Spreadsheet

For more details on these and many more features, see
<http://wiki.lamsfoundation.org/display/lams/LAMS+2.2+Feature+List>

http://lamsv2.lamsfoundation.org - LAMS Learner - Mozilla Firefox

LAMS Resume Exit Export

Example

Grouping

Gate

Wiki

Gate

Gmap

Spreadsheet

Data Collection


Notebook

Done

Grouping

Please select a group. Some groups may not be available if they reached the maximum number of members.

Groups	
Group 1	Choose
Group 2	Choose



LAMS 2.2: Learner Selected Groups

Question(s) and Answer(s)

LAMS

Basic

Advanced

Instructions

Conditions

Conditions

Order

Name

There are no conditions

+ Add condition

Add condition

Name

Rainbow Colours

Answers that...

have all these words:

have this exact wording or phrase:

have one or more of these words:

have none of these unwanted words:

Red, Orange, Yellow, Green, Blue, Indigo, Vi

Search in these questions:

☒ Give an example of a colour of the rainb...

+ Add

Cancel

Permission Gate

2 out of 3 are waiting in front of the gate.

Open

You may open the gate for the whole class



You may allow a single learner to pass the gate

Forbidden to pass

Dalziel James
Moloney Glenn
Carter Sue

Allow to pass

Waiting in front of the gate

Dalziel James
Moloney Glenn

Allow to pass

Allowed to pass

http://lamsv2.lamsfoundation.org - LAMS :: Author - Mozilla Firefox

File Edit Tools Help

New Open Save Copy Paste Transition Optional Flow Group Preview

Activities Toolkit

Data Collection
Collecting data with custom structure.

- Chat
- Chat and Scribe
- Data Collection**
- Dimdim
- Forum
- Forum & Scribe
- Gmap
- Multiple Choice
- Notebook
- Noticeboard
- Q & A
- Resources&Forum
- Share Resources
- Spreadsheet

Example

```
graph TD; Grouping[Grouping] --> Stop1[STOP]; Stop1 --> Wiki[Wiki]; Wiki --> Stop2[STOP]; Stop2 --> Gmap[Gmap]; Gmap --> Spreadsheet[Spreadsheet]; Spreadsheet --> DataCollection[Data Collection];
```

Properties - Gate Activity

Title	Gate	Create Conditions
Type	Condition	Map Gate Conditions
Input (Tool)	Wiki	

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LAMS 2.2: Condition-based Gates

http://lamsv2.lamsfoundation.org - LAMS :: Author - Mozilla Firefox

File Edit Tools Help

+ New Open Save Copy Paste Transition Optional Flow Group Preview

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Spreadsheet

Example

Create Output Conditions

output learner number of edits (range) ?
[Options]
+ Add

Name	Condition
2 or more edits	Greater than or eq 2
Less then 2 edits	Range 0 to 1

Clear All - Remove
Cancel Done

Properties - Gate Activity

Title Gate
Type Condition
Input (Tool) Wiki

Create Conditions
Map Gate Conditions

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LAMS 2.2: Condition-based Gates – Creating Condition using Wiki output (number of edits)

http://lamsv2.lamsfoundation.org - LAMS :: Author - Mozilla Firefox

File Edit Tools Help

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Share Resources

Spreadsheet

Map Gate Conditions

Condition	Gate	Mappings				
Less then 2 edits	open					
	closed (default)					
		<table border="1"> <thead> <tr> <th>Condition</th> <th>Gate</th> </tr> </thead> <tbody> <tr> <td>2 or more edits</td> <td>open</td> </tr> </tbody> </table>	Condition	Gate	2 or more edits	open
Condition	Gate					
2 or more edits	open					

Close

Properties - Gate Activity

Title	Gate	Create Conditions
Type	Condition	Map Gate Conditions
Input (Tool)	Wiki	

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LAMS 2.2: Condition-based Gates – Mapping Condition to Gate Open/Closed

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Competence Editor

Competencies

Title	Critical Thinking	
Description	Display evidence of critical thinking skills	Edit Delete
Title	Domain Knowledge	
Description	Show evidence of understanding relevant domain knowledge for this sequence	Edit Delete
Title	Teamwork	
Description	Display evidence of ability to work effectively in teams	Edit Delete

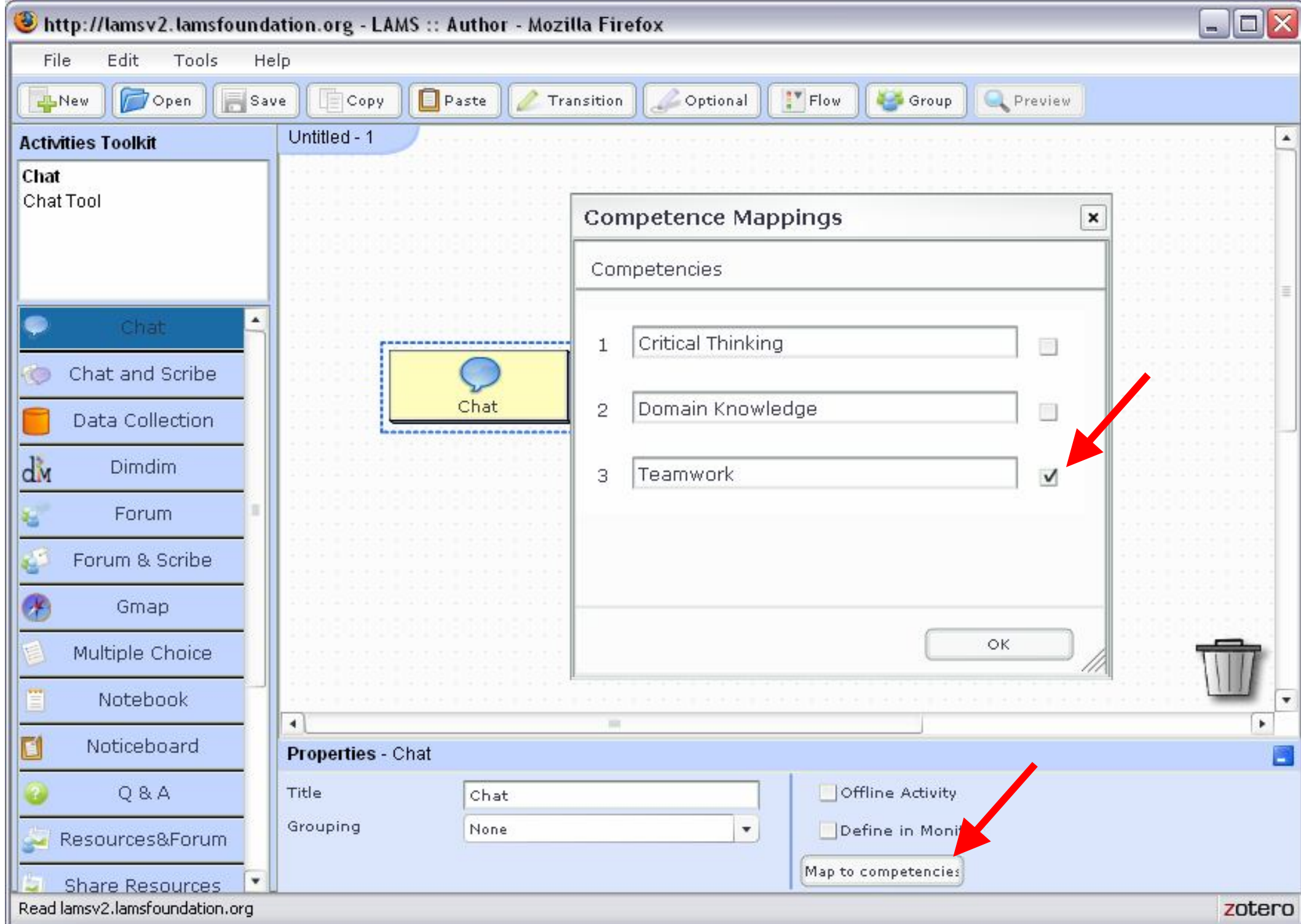
Add Close

Properties

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LAMS 2.2: Creating Competencies/Learning Objectives for a sequence



LAMS 2.2: Mapping specific competencies to individual activities

Upcoming in 2009

- LAMS Activity Planner (aka Pedagogic Planner)
 - Prepared templates based on good pedagogical approaches combined with easy authoring
 - May be combined with “Cloud LAMS”
- Integrating LMS tools inside LAMS sequencing
 - Moodle & .LRN Forum examples so far, more to come
- LAMS V2.3 (proposed – but no promises!)
 - Instant Messaging
 - Export activity results to Gradebooks
 - Floating activities
 - Multiple conditions for branching
 - Tools inputs and outputs (passing data between tools)
 - New Image gallery tool & SCORM player for Share Resources

Mozilla Firefox

File Edit View History Bookmarks Tools Help

file:///C:/Documents%20and%20Settings/James%20Dalziel/Desktop/Ped_planner.htm

Google

LAMS

My Profile Author Planner My Groups

Welcome Teacher Refresh Logout

Activity Planner :: Teaching Style Close

The emphasis of the learning design is interacting and collaborating with peers to facilitate the discovery of differing perspectives...

Exploring Alternative Perspectives - (Why would I use this?)

Provides students with an balanced view of a controversial topic

Problem-based Learning - (Why would I use this?)

Problem-based learning builds a lesson around a central question that requires the students to either solve a problem or make a decision.

Project/Case Study Focus - (Why would I use this?)

The emphasis of the learning design is to create a product or artifact.

Role Play Focus - (Why would I use this?)

The emphasis of the learning design is subrogation: "walking in the shoes of others"

Version 2.1 2002-2007 LAMS Foundation.

LAMS Activity Planner: Selecting a template

Mozilla Firefox

File Edit View History Bookmarks Tools Help

file:///C:/Documents%20and%20Settings/James%20Dalziel/Desktop/Ped_plannerv2.htm

Google

LAMS

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Welcome Teacher [Refresh](#) | [Logout](#)

Activity Planner :: Teaching Style

Exploring Alternative Perspectives

☒ General Overview

☐ *Outline task

☐ *Commit to view

☐ *Share Resources

Introduction to the activity

Add text here outlining the activity

Students give their opinion on the following question here:

Provide students with up to 4 websites providing alternate and opposing points of view:

[Browse...](#)

☐ URL ☐ File ☐ IMS CP package

[Need Help?](#)

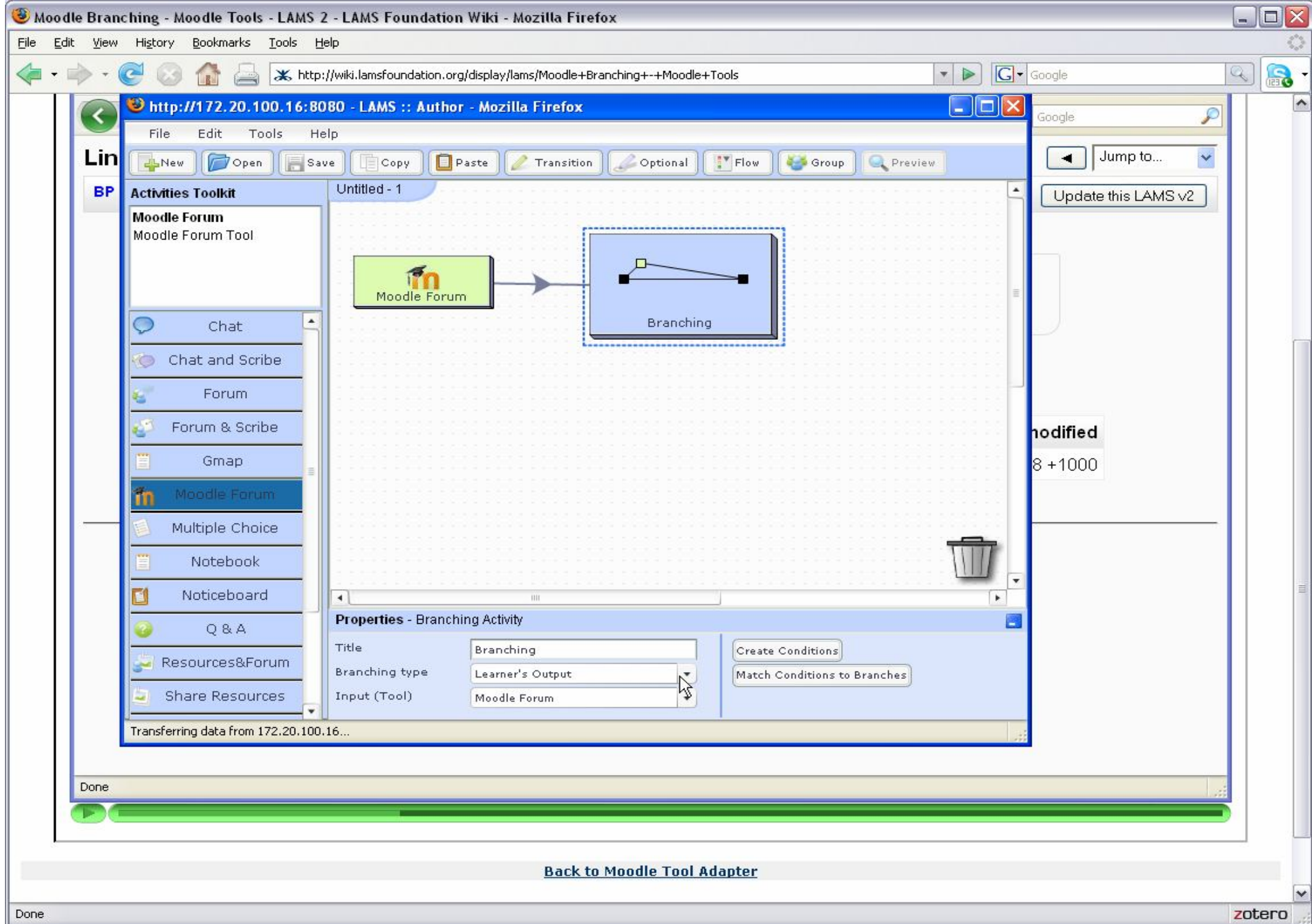
Close

Select an open-ended question on the topic of your choice for general discussion. Ensure it is broad enough to encourage wide-ranging discussion and is not biased in any way.

Eg. "Is delivering your entire course online an educationally sound thing to do?"

[Help?](#)

LAMS Activity Planner: Filling out the key content for a selected template



Moodle Forum Integrated with LAMS Authoring – including Branching Condition

New Visualisation Ideas

- One of the most important dimensions of LAMS is its visual authoring environment
 - The drag and drop approach to modelling activities has helped educators build engaging sequences of student activities
 - But even more important, it helps educators reflect on their pedagogical approaches to teaching and learning
 - For some educators, the experience of visualising Learning Designs appears to help make educational planning more explicit (rather than existing just below consciousness)
- So where did LAMS authoring come from?
 - “Creating Next Generation Interoperable Learning Tools”
Donna Gibbs and James Dalziel, MQ e-Academy, 19th July 2002!
<http://www.lamsinternational.com/CD/html/resources/presentations/MQ.e-cademy.ppt>

Learning Tool Editor

Question
Tool

Self-reflect
Tool

Ranking
Tool

Discussion
Tool

Content
Tool

Chat
Tool

Report
Tool

Marking
Tool

Other
Tool

Other
Tool

Learning Activity Sequence Builder

Question
Tool



Self-reflect
Tool



Ranking
Tool



New Visualisation Ideas

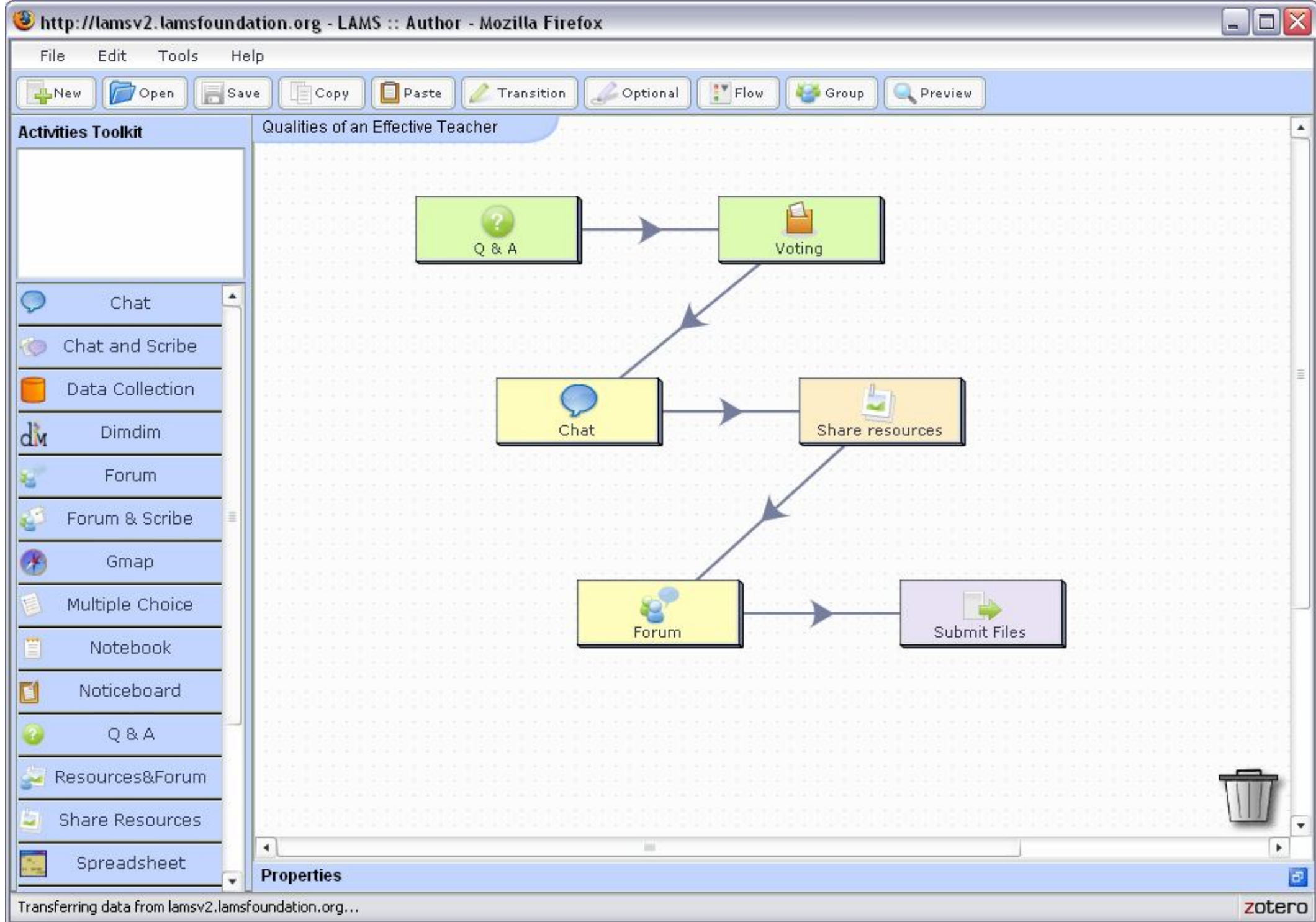
- I used drawings in Powerpoint to imagine a new type of e-learning system
 - I didn't know it couldn't be done, so I just drew what I wanted
- The “box and lines” diagrams have proved very useful for LAMS authors ever since
 - ... but what other visualisations might be useful?
- Every visualisation is a simplification of the total possible information that could be conveyed
 - Draws more attention to some aspects, less to others

New Visualisation Ideas

- In computer programming, there is an approach called “Unified Modelling Language” which use several different visualisations of how software works
 - Some people have even wanted to use UML for Learning Design, but I feel it is too complex for most educators, but the idea from UML of different visualisations is intriguing
- Can we imagine new kinds of Learning Design visualisations to complement the “box and lines” diagrams?
 - Each could draw attention to different aspects of a Learning Design
- NB: Very early, new ideas – seeking feedback and creativity (I may be the worst person to imagine new visualisations!)

New Visualisation Ideas

- Some possible new visualisations:
 - Key content view
 - Annotation view
 - Resizable boxes view
 - Alternative shapes view
 - Competencies view
 - Data flow view
 - Individualised Learners view
 - Time view
 - ??



Normal Authoring View

http://lamsv2.lamsfoundation.org - LAMS :: Author - Mozilla Firefox

File Edit Tools Help

+ New Open Save Copy Paste Transition Optional Flow Group Preview

Activities Toolkit

- Chat
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- Resources&Forum
- Share Resources
- Spreadsheet

Qualities of an Effective Teacher

Annotation View Data Flow View Time View

```
graph TD; QA[Q & A] --> Voting[Voting]; Voting --> Chat[Chat]; Chat --> Share[Share resources]; Share --> Forum[Forum]; Forum --> Submit[Submit Files]
```

Properties

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Suggested Tabs for Alternative View of Authored Sequences

Mozilla Firefox

File Edit View History Bookmarks Tools Help

file:///C:/Documents%20and%20Settings/James%20Dalziel/Desktop/Ped_plannerv2.htm

Google

LAMS

My Profile Author Planner My Groups

Welcome Teacher [Refresh](#) | [Logout](#)

Activity Planner :: Teaching Style

Exploring Alternative Perspectives

☒ General Overview

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☐ URL ☐ File ☐ IMS CP package

[Need Help?](#)

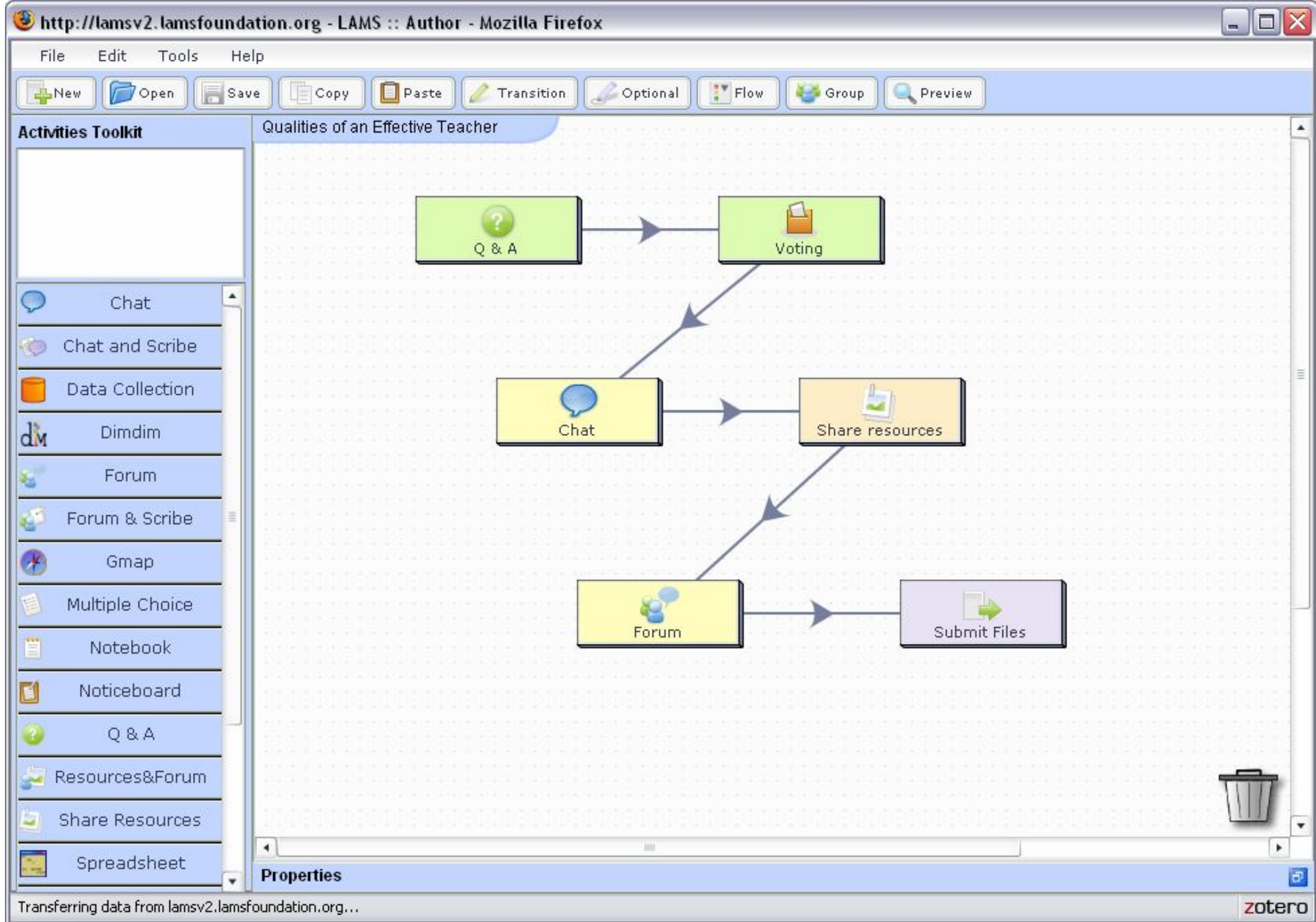
Close

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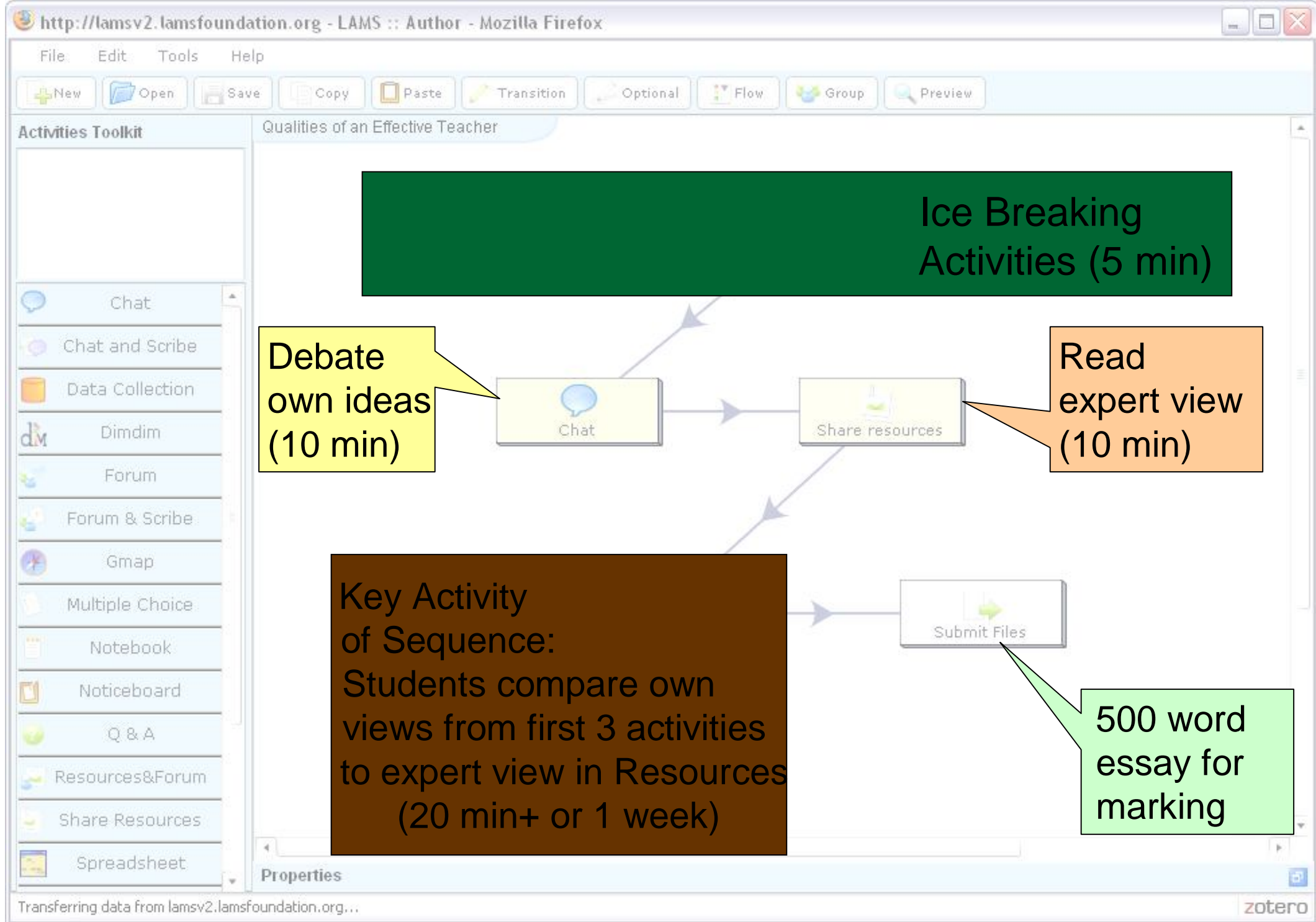
Eg. "Is delivering your entire course online an educationally sound thing to do?"

[Help?](#)

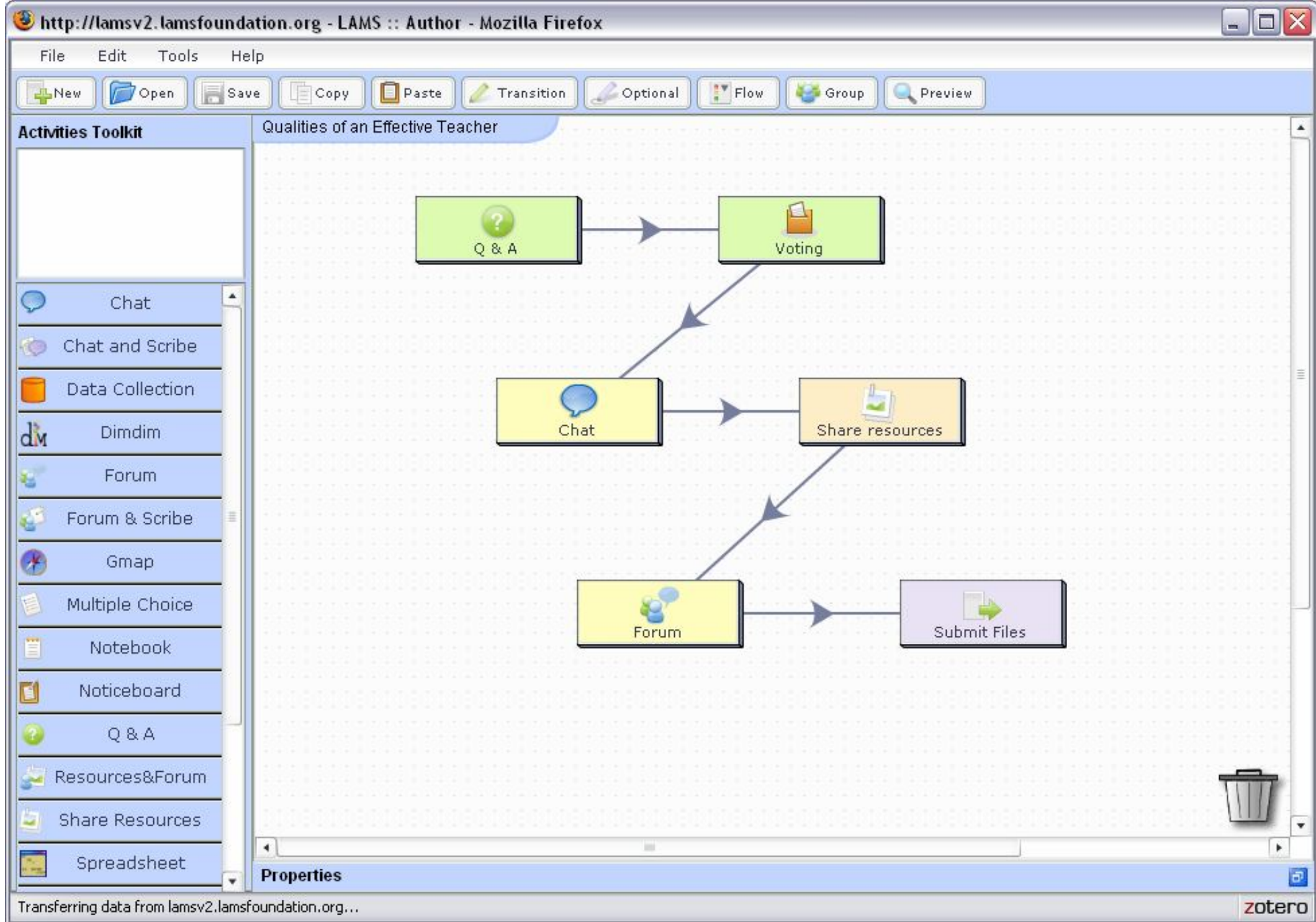
LAMS Activity Planner as example of visualisation: Key content view



Normal Authoring View



Suggested Annotation View: Free form drawing and text overlays



Normal Authoring View

http://lamsv2.lamsfoundation.org - LAMS :: Author - Mozilla Firefox

File Edit Tools Help

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Activities Toolkit

Q & A
Each learner answers question(s) and then sees answers from all learners collated on the next page.

- Chat
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- Gmap
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- Notebook
- Noticeboard
- Q & A**
- Resources&Forum
- Share Resources
- Spreadsheet

Qualities of an Effective Teacher

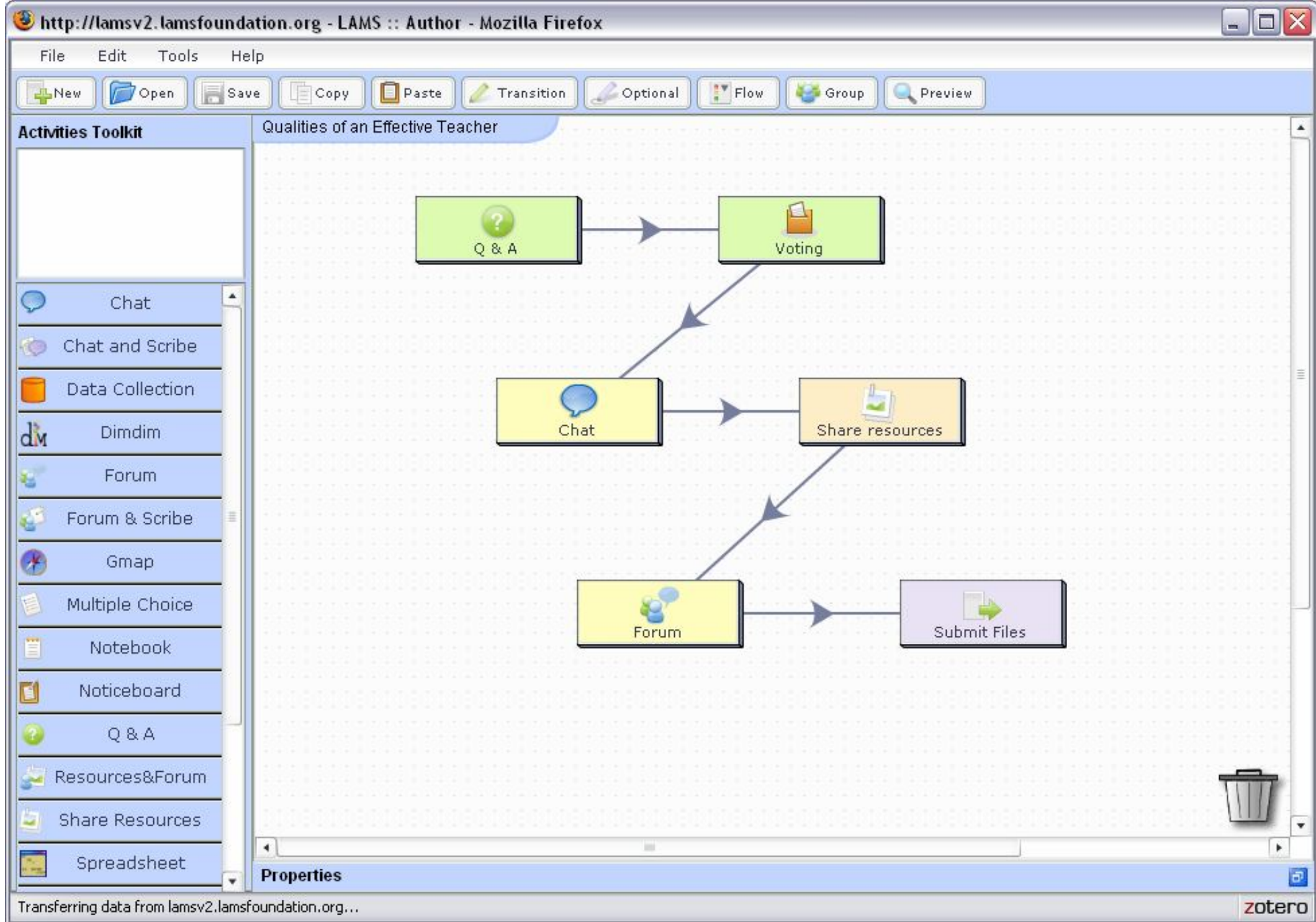
```
graph LR; QA[Q & A] --> Voting[Voting]; Voting --> Chat[Chat]; Chat --> Share[Share resources]; Share --> Forum[Forum]; Forum --> Submit[Submit Files];
```

Properties

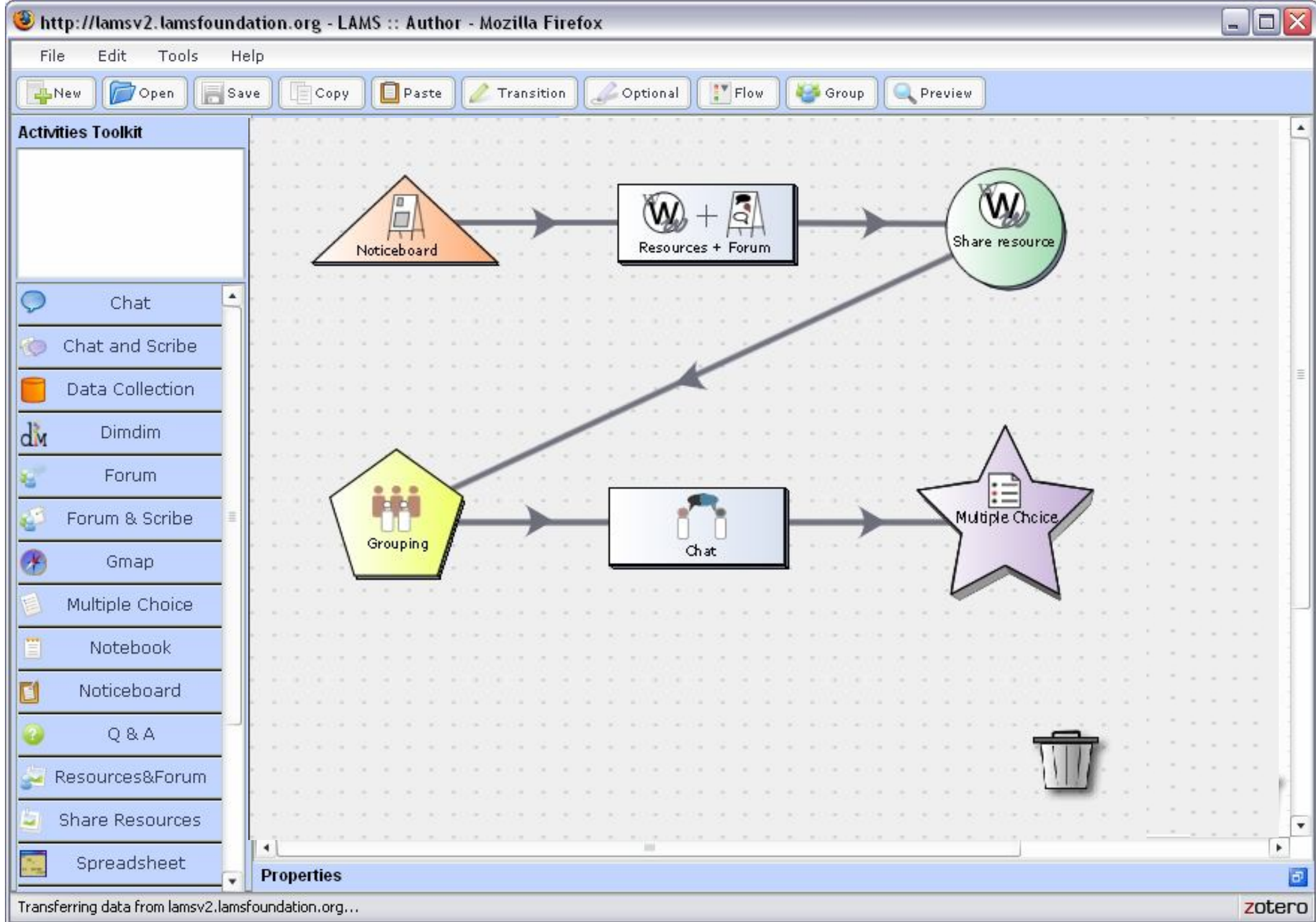
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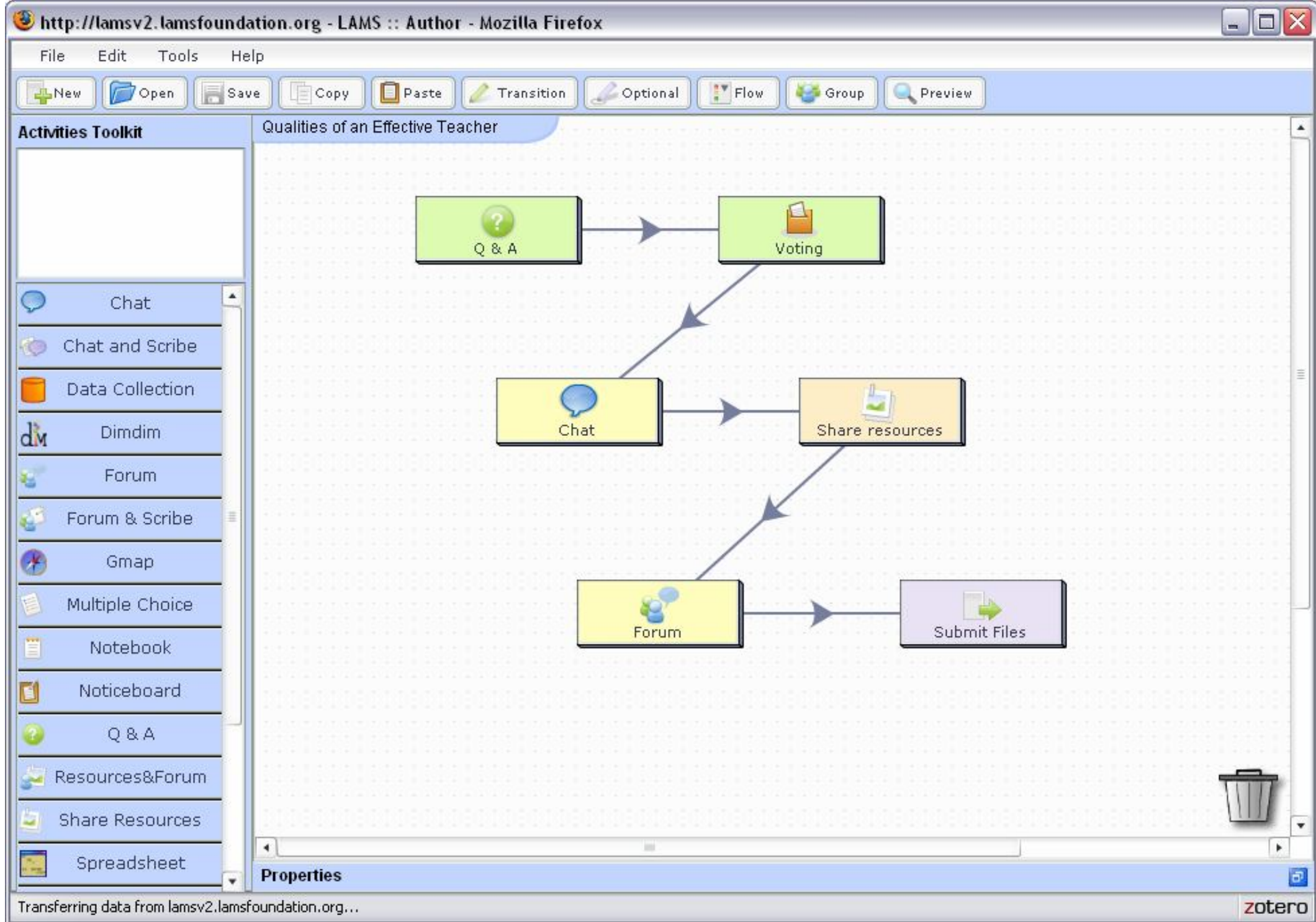
Suggested Resizable Boxes View (could be combined with Annotations)



Normal Authoring View



Alternative Shapes View (from old V1 mock-ups)



Normal Authoring View

http://lamsv2.lamsfoundation.org - LAMS :: Author - Mozilla Firefox

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Activities Toolkit

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- Share Resources
- Spreadsheet

Qualities of an Effective Teacher

Competencies
(A) Critical Thinking
(B) Teamwork
(C) Domain Knowledge

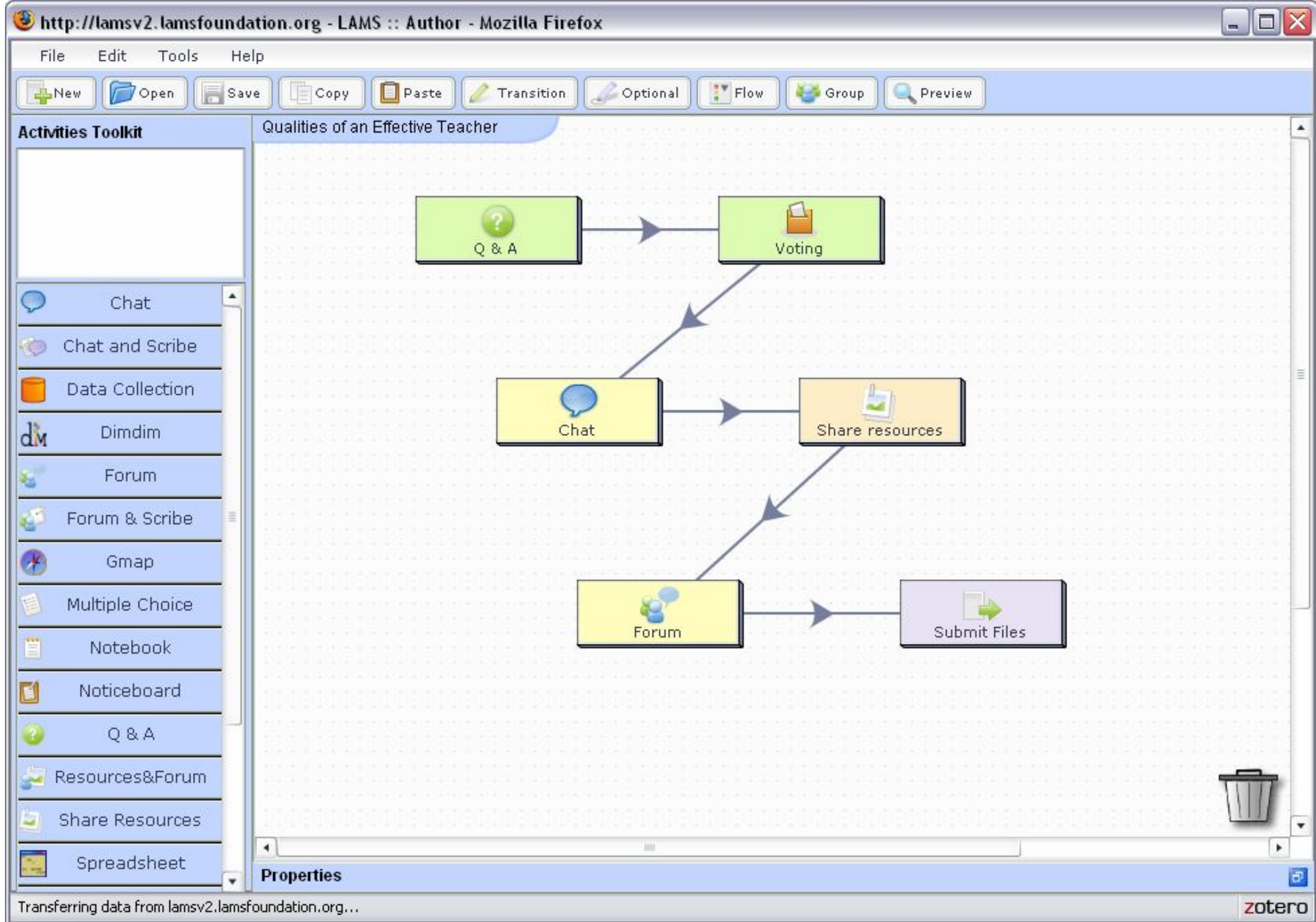
```
graph TD; A1["Q & A (A)"] --> A2["Voting (A)"]; A2 --> B1["Chat (B)"]; B1 --> C1["Share resources (C)"]; C1 --> A3["Forum (A, B)"]; A3 --> C2["Submit Files (A, C)"];
```

Properties

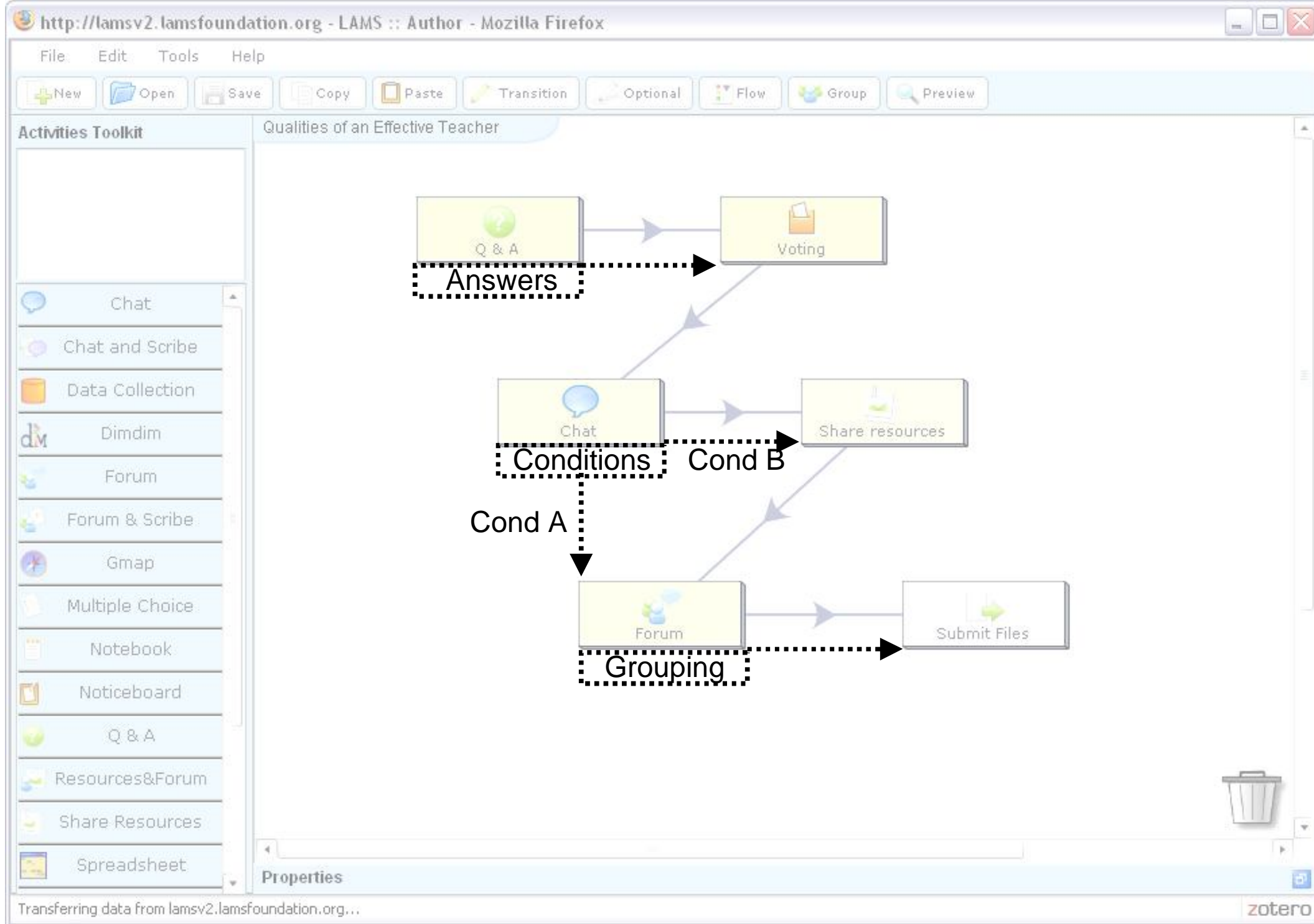
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zotero

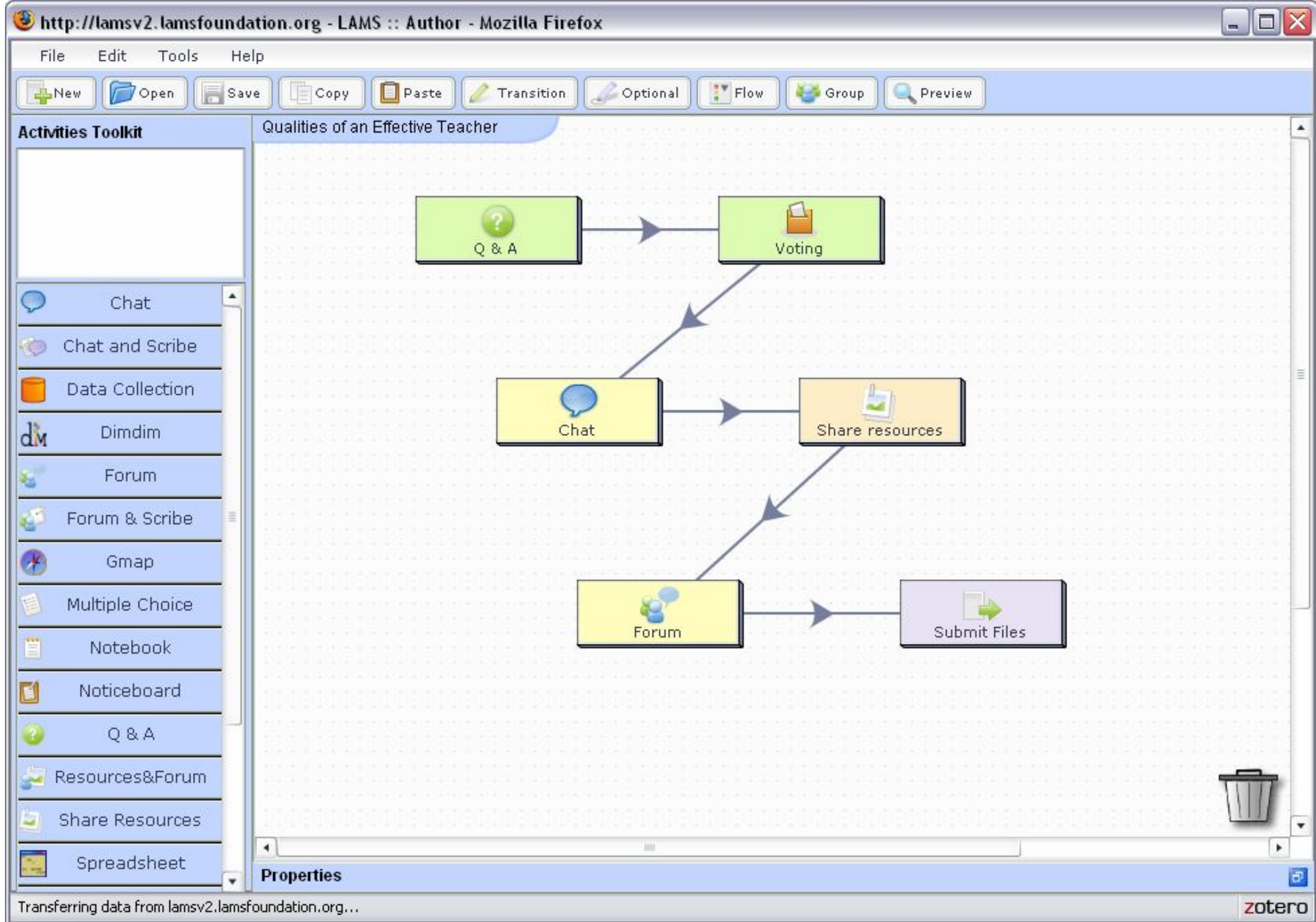
Competency Overlay



Normal Authoring View



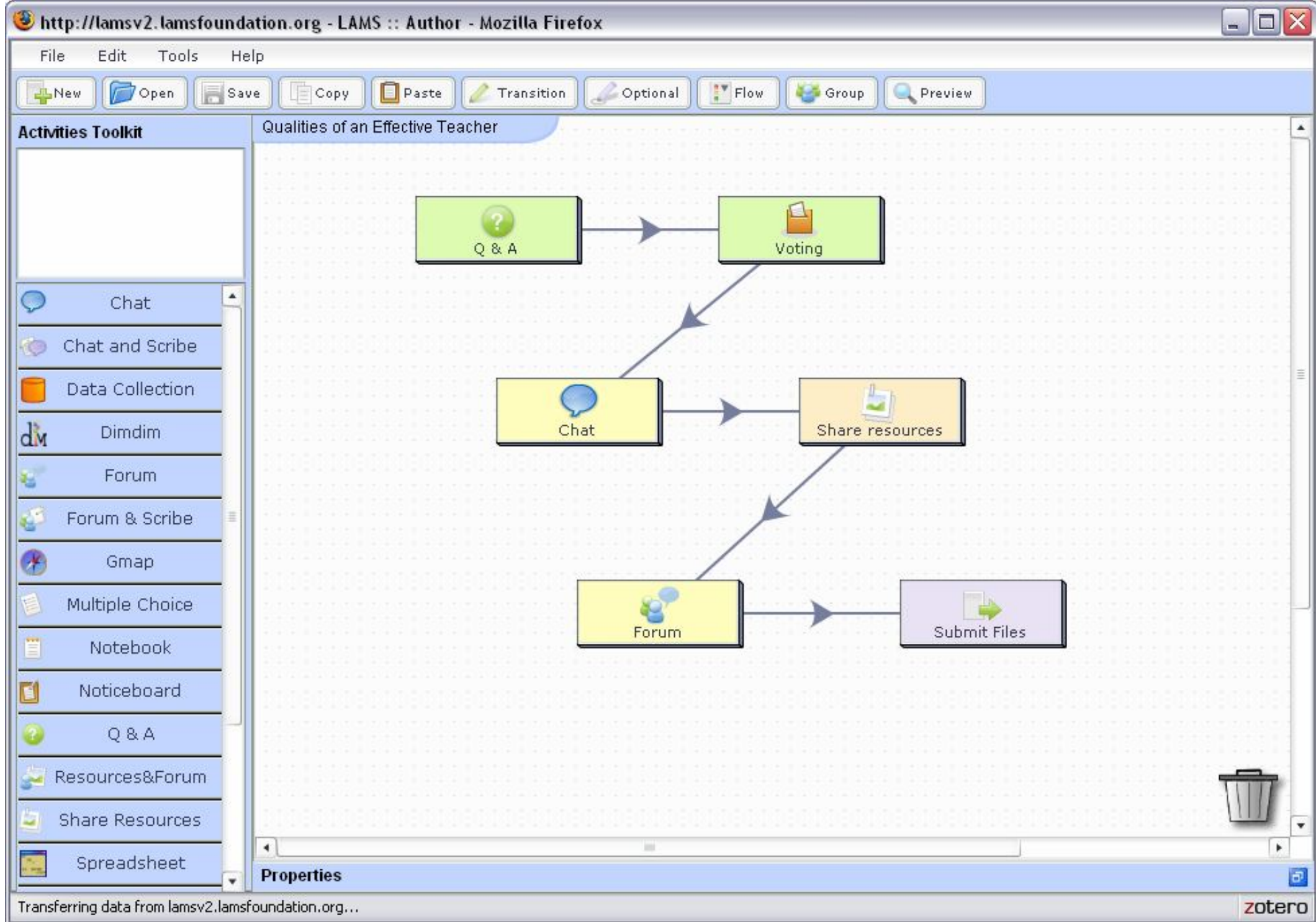
Suggested Data Flow View (with imagined data, condition/branch & group flows)



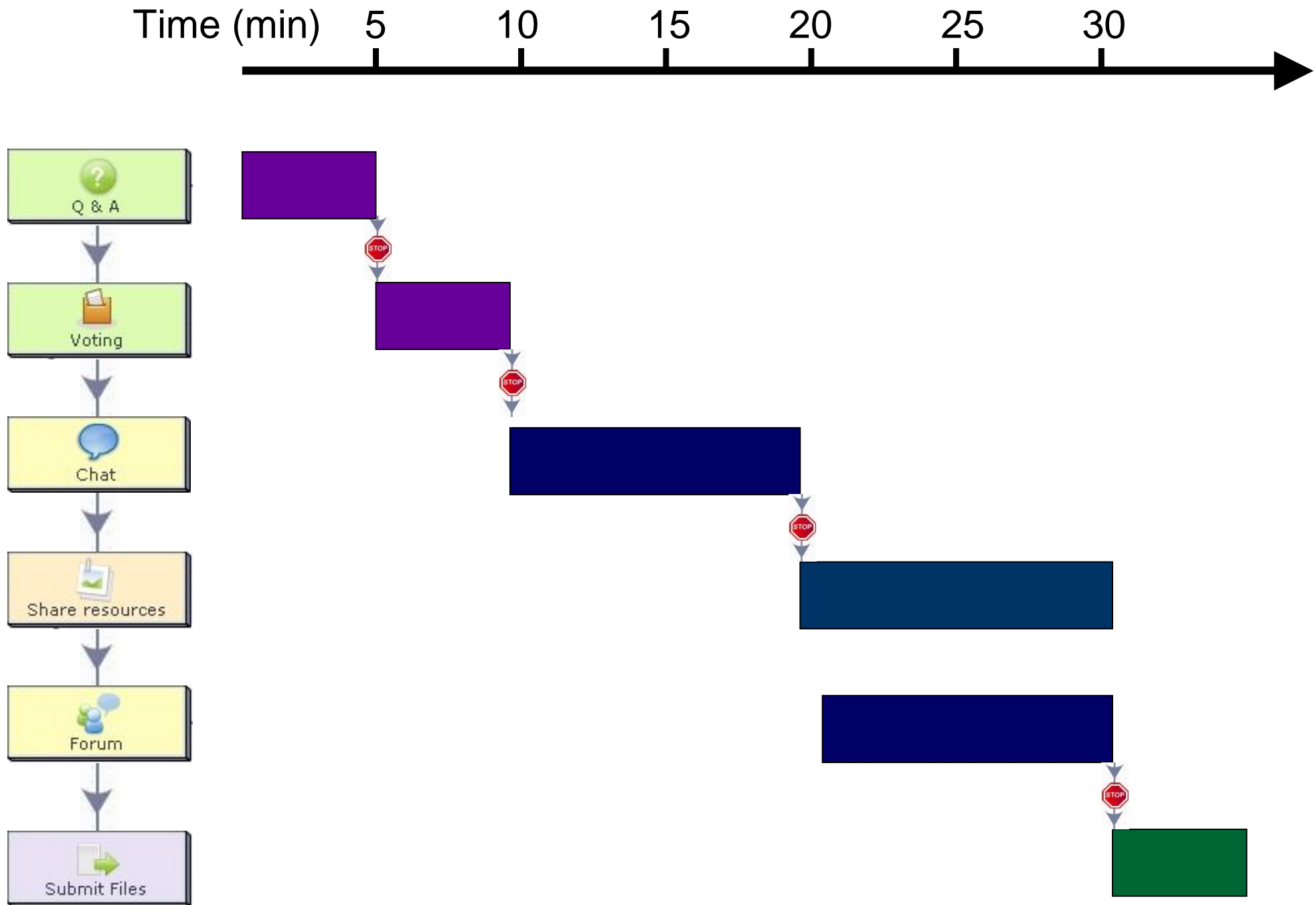
Normal Authoring View

Jason Bysouth					
● Q & A				● Hobby groups	
Sue Carter					
● Q & A				● Hobby groups	
Judith Coverdale					
● Q & A				● Hobby groups	
James Dalziel					
● Q & A				● Hobby groups	
Tim Danes					
● Q & A				● Hobby groups	
Julie Dawson					
● Q & A				● Hobby groups	
Jed Duff					
● Q & A				● Hobby groups	
Jane Messer					
● Q & A				● Hobby groups	

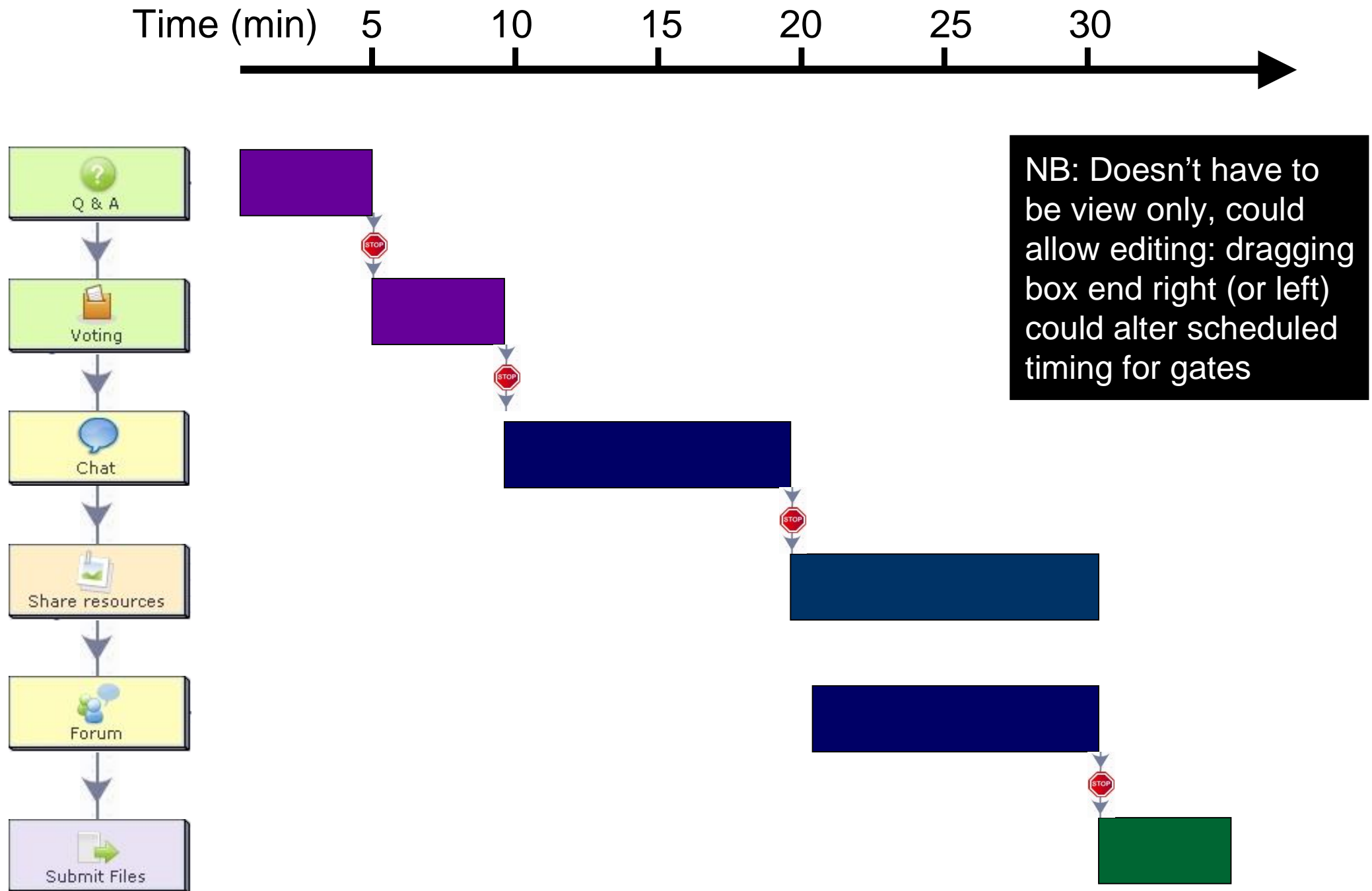
Suggested Individualised Learners View showing Individual, Group & Whole Class Tasks



Normal Authoring View



Time View (may only help for more synchronous sequences)



Time View (may only help for more synchronous sequences)

New Visualisation Ideas

- Some possible new visualisations:
 - Key content view
 - Annotation view
 - Resizable boxes view
 - Alternative shapes view
 - Competencies view
 - Data flow view
 - Individualised Learners view
 - Time view
- Just some ideas to spur new thinking and creativity
 - Can you help develop ideas for useful new visualisations?
 - You don't need to be a programmer – just imaginative
 - ... and need I say... no promises (yet) on ideas shown today!