Comparing Educational Modelling Languages on a case study: IMS LD

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Structure

• Step 1
  – Modelling, operationalisation, execution

• Step 2
  – Observation, trails, re-use/adaptation

• Notation vs tools implementing the notation
Step 1
Modelling (1)

• Three roles
  – Learner
    • Team A
    • Team B
  – Staff - teacher

• Two acts
  – First: team-based, collaborative
  – Second: individual
Modelling (2)

• Environments
• Services
  – Conference (asynchronous/synchronous)
  – Monitor
• Properties, Global elements, imsldcontent
• Level B
Team A
- Cooperate to name and order planets

Team B
- Cooperate to name and order planets

Teacher
- Monitor student activity
  - Monitor student questionnaire completion

Learner
- Complete questionnaire
Operationalisation

- Reload
- XML Spy
- CopperCore
- SLED
- Moodle forums
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Execution: to make life easy …

- Team A
  - Aaron
  - Alan
  - Andrew

- Team B
  - Bill
  - Bob
  - Brian

- Teacher
  - CTA
Service Based Learning Design Player (Sled)

Please use the form below to login

Username: aaron
Password: 

login >>

Admin Pages

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Name and order the planets

Learning Objectives | Prerequisites | Feedback | Metadata

Your task is to figure out the naming and the ordering of the planets. You can use the forum to exchange information with the other team and you can use the chat facility to chat within your team. The teacher participates in the forum exchanges. The teacher will close down this part of the exercise when s/he sees fit, and you will then individually fill in a questionnaire about the planets. The activity finishes when someone has the correct associations.
Please use the form below to login

Username: bob
Password: 

login >>
Your task is to figure out the naming and the ordering of the planets. You can use the forum to exchange information with the other team and you can use the chat facility to chat within your team. The teacher participates in the forum exchanges. The teacher will close down this part of the exercise when s/he sees fit, and you will then individually fill in a questionnaire about the planets. The activity finishes when someone has the correct associations.
A shared forum
Name and order the planets

Learning Objectives | Prerequisites | Feedback | Metadata

Your task is to figure out the naming and the ordering of the planets. You can use the forum to exchange information with the other team and you can use the chat facility to chat within your team. The teacher participates in the forum exchanges. The teacher will close down this part of the exercise when s/he sees fit, and you will then individually fill in a questionnaire about the planets. The activity finishes when someone has the correct associations.
Create a new thread

Title: Planet second closest to

Subject: Hello Team B,

I'm in Team A and I was wondering whether you could say which planet is second closest to the sun. We known that Mercury is closest, but
Service Based Learning Design Player (Sled)

Forum application

Return to Activity / Create new thread / View all threads

- Planet second closest to the sun - aaron (Friday, 30 June 2006, 04:33 PM)
Logged in as: bob

**Reply to message**

Return to Activity / Create new thread / View all threads

**Title:** RE: Planet second closest to the sun

**Subject:** Hi Aaron this is Bob. Pluto is the second closest planet to the sun honest
Forum application

RE: Planet second closest to the sun - bob (Friday, 30 June 2006, 04:36 PM)
Hi Aaron this is Bob Pluto is the second closest planet to the sun honest
reply

- Planet second closest to the sun - aaron (Friday, 30 June 2006, 04:33 PM)
  - RE: Planet second closest to the sun - bob (Friday, 30 June 2006, 04:36 PM)
Interview text
Chat facility
Name and order the planets

Learning Objectives | Prerequisites | Feedback | Metadata

Your task is to figure out the naming and the ordering of the planets. You can use the forum to exchange information with the other team and you can use the chat facility to chat within your team. The teacher participates in the forum exchanges. The teacher will close down this part of the exercise when s/he sees fit, and you will then individually fill in a questionnaire about the planets. The activity finishes when someone has the correct associations.
Vapourware alert! Jabber integration planned in TENCompetence
Teacher monitors activity
Learning about astronomy

Welcome to the course, please use the links in the menu to navigate through this course.
Monitor the student activity

Learning Objectives | Prerequisites | Feedback | Metadata

Peek into the forums and chats and you decide when to move on!

Add clues to Expert Interview A here:

Add clues to Expert Interview B here:

- Format shared between team A and B
- Link to the interview text for team A
- Chat for team A only
- Link to the interview text for team B
- Chat for team B only
Teacher updates interview
The planet closet to the sun has a name which is also the name of a God.
Monitor the student activity

Learning Objectives | Prerequisites | Feedback | Metadata

Peek into the forums and chats and you decide when to move on!

Add clues to Expert Interview A here:

C:\Documents and Settings

Add clues to Expert Interview B here:

Browse... OK
Service Based Learning Design Player (Sled)

Logged in as: aaron

Menu
- Learning about astronomy
  - A unit of learning on astronomy
  - Learning together about astronomy
    - Team A’s Learning Situation
    - Name and order the planets
      - Forum shared between team A and B
      - Link to the interview text for team A
      - Chat for team A only

Link to the interview text for team A

Click here for some info! TeamA.doc

More clues appearing here ....TeamA.doc
Teacher decides when to move on ...
Monitor the student activity

Learning Objectives | Prerequisites | Feedback | Metadata

Peek into the forums and chats and you decide when to move on!

Add clues to Expert Interview A here:

[Field] [Browse] [ok]

Add clues to Expert Interview B here:

[Field] [Browse] [ok]
Logged in as: aaron

Learning about astronomy

Welcome to the course, please use the links in the menu to navigate through this course.

- Learning about astromony
- A unit of learning on astromony
- Learning together about astromony
- Answering the questions
- ***Now fill in the questionnaire***
Students fill in the questionnaire
***Now fill in the questionnaire***

Go on then...

1-2-3-4-5-6-7-8-9-
Service Based Learning Design Player (Sled)

Menu
- Learning about astronomy
- A unit of learning on astronomy
- Learning together about astronomy
- Answering the questions
  - ***Now fill in the questionnaire***

***Now fill in the questionnaire***

Go on then ....

1-Mercury-2-Pluto-3-Venus-4-
Jupiter-5-6-7-8-9-
Teacher monitors and ends
Monitor the student answering of the questions

The correct answer is

1-Mercury-2-Venus-3-Earth-4-Mars-5-Jupiter-6-Saturn-7-Uranus-8-Neptune-9-Pluto.

This learner’s answer was

1-Mercury-2-Pluto-3-Venus-4-Jupiter-5- -6- -7- -8- -9-
Monitor the student answering of the questions

The correct answer is

1-Mercury-2-Venus-3-Earth-4-Mars-5-Jupiter-6-Saturn-7-Uranus-8-Neptune-9-Pluto.

This learner's answer was

1-Mercury-2-Pluto-3-Venus-4-Jupiter-5-6-7-8-9-
If I’d had more time ...

- QTI 2.0 integration using the APIS engine on the QTI planets example

Place the text markers inside the relevant boxes to identify the planets of our solar system.

A point will be awarded for every correct answer.
Step 2
Observation

- Forum participation
- Monitoring
  - Can be as simple or complex as needed, but requires definition
Traces

• This example perhaps limited
  – interested in others’ approaches
• Active area of R&D at OUNL and in TENCompetence
  – Routes through curricula
  – Navigation systems
  – Ant trail algorithms
Re-use/adaptation

• Template through use of different ‘interview’ documents, question, instructions

• Structure can be adapted in various ways (additional activities, different conditions for flow to move on)
  – To do: generalise to n teams
Some reflections

• Notation copes well
  – Able to represent scenario for execution
• Significant effort involved
  – Programming vs modelling
  – Need for different type(s?) of tool