

Aspect

Adopting Standards and Specifications for Educational Content

How teachers responded to using content specifications such as SCORM and Common Cartridge

Results of the ASPECT work with 40+ teachers from Belgium, Lithuania, Portugal and Romania.

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Tests with teachers (in real contexts) to check implementation of **standards and specifications on LRE content** leads to greater interoperability and cross-border re-use of the content.



Tests: why / how / who

Discovery:

- Resource in LRE and Google – found? time?
- Search: Use of tagging, keywords, favourites
- ...

Test 1

Reuse:

- Trust: tagging, favourites, colleagues
- National resources found?
- ...

Test 2

Packaging:

- Use of “Non packaged”, SCORM and Common Cartridge content (Moodle)
- ...

Test 3

- 1_LRE_vs_Google_tests
- 2_questionnaire_1
- 3_lesson_plan
- 4_questionnaire_2
- 5_exercises
- 6_questionnaire_3
- 7_open_questions

Tests - Discovery

Tests - Reuse

Tests - Packaging

Google form - test

Moodle test

Test 1

Test 2

Test 3

Aspect LRE (1st ed)

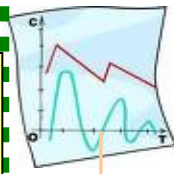
- National Workshops:
- Gent, Sat 3 Oct 2009
 - Lisbon, Sat 10 Oct 2009
 - Vilnius, Sat 24 Oct 2009
 - Bucharest, Sat 31 Oct 2009

Aspect LRE (winter edition)

Online testing (Mar 2010)

Aspect LRE (spring edition)

Summer workshop (May 8 2010)



Final reports

ASPECT

The Learning Resource Exchange Repository (LRE):

- <http://lreforchools.eun.org>
- open educational resources and assets from many different countries and providers, including 16 Ministries of Education
- Many ~ 140 000 resources + assets open to all.

Aspect version of the LRE

1. closed portal
2. contains content from 30 providers and contains > 200 k resources and assets
3. it has been adapted to support the LREv4.0 application profile
4. automatically translated metadata available in 6 languages
5. integrated SCORM player and Common Cartridge platform

Find resources

Language

Subject

GO

Age range:

 -

Find by tags *

angol animals efl **english**
 földrajz games geschiedenis
 grammar hardver IKT
 informatika **interactive**
 interaktív kémia koolielu Latijn
melt **selection**
 promethean quiz Rome
 Romein Romeinen SDT
 travelwell vocabulary

>> See more tags

>> Jump to tag:

aspectUL-ws3

GO

Search results

You searched for "aspectUL-ws3" the system found 1 result(s).

Sort results by **Popularity / Rating**

Refine your search

Resource type

Language

Age range

Provider



Thermodynamics [en]

Rate
Edit
Remove
Report

View

-as web

-in player

-Common Cartridge

-SCORM

Download

-Common Cartridge / zip

-SCORM /zip

Tags: aspectDRM aspectUL-ws3

Keywords: physics, thermodynamics, temperature, ideal gas, pressur (...)

Age: 14-18 **Resource type:** course

Description: Course on Thermodynamics for Secondary School. It includ (...)

Creative Commons Licence:  

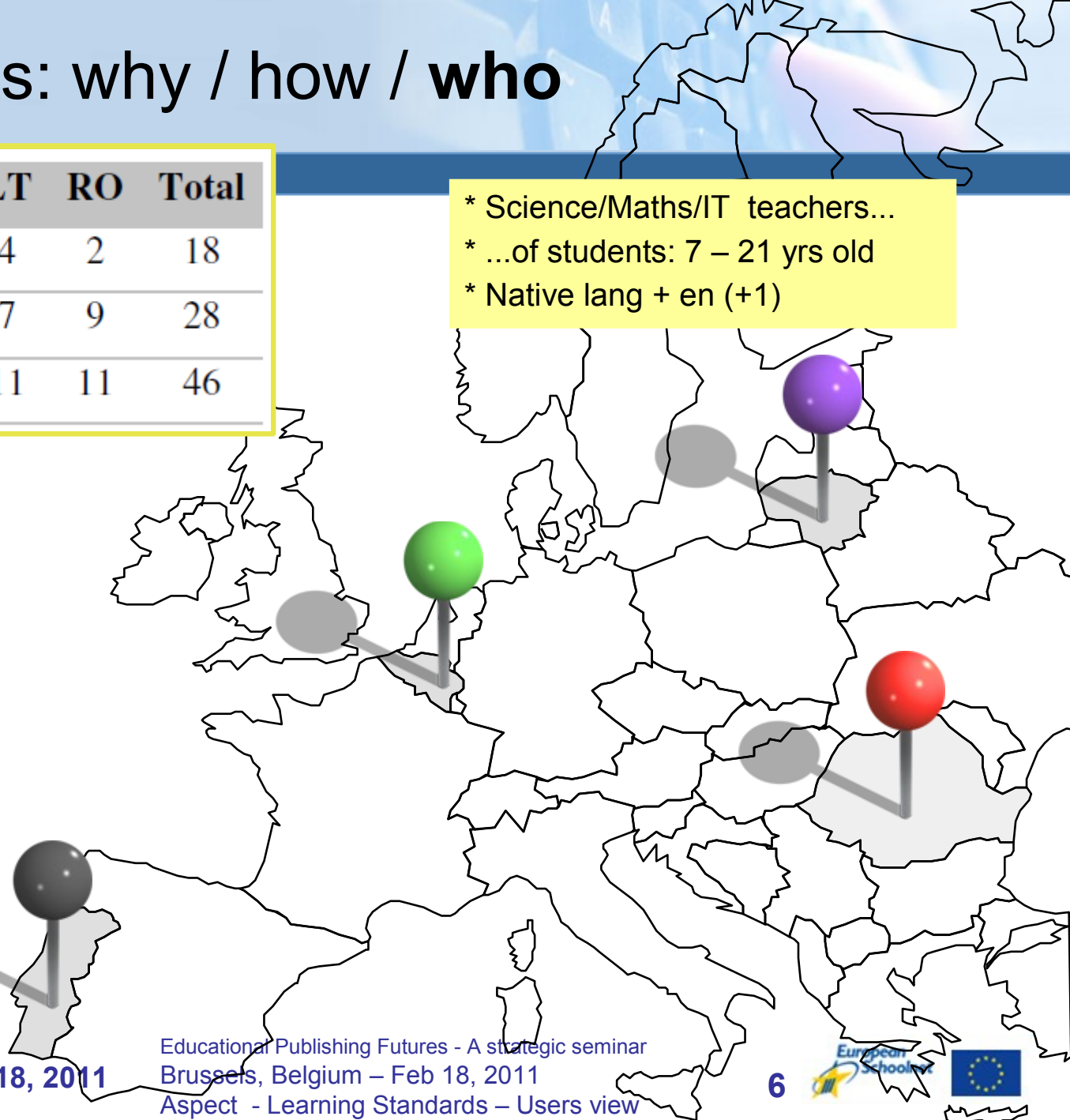
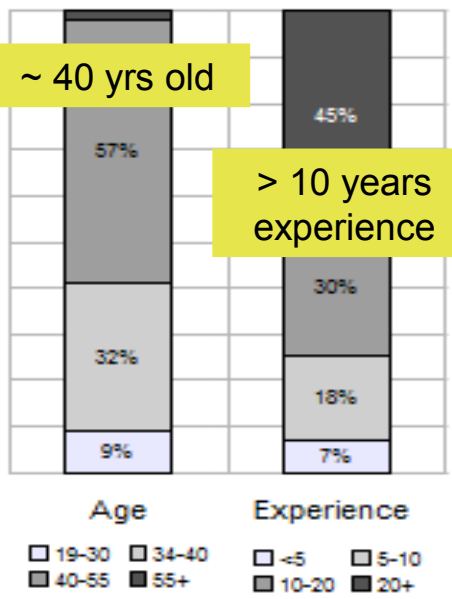
View this in:

[de] [el] [es] [fr] [it] [pt] [sl]

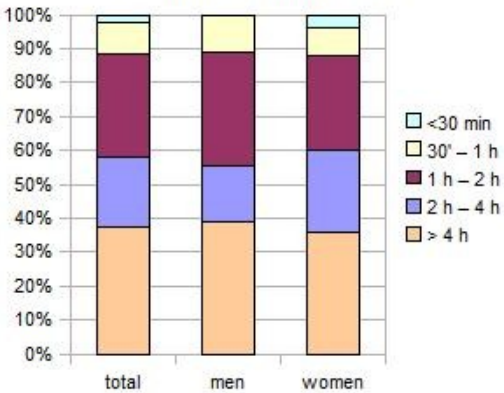
Tests: why / how / who

	BE	PT	LT	RO	Total
Men	7	5	4	2	18
Women	6	6	7	9	28
Total	13	11	11	11	46

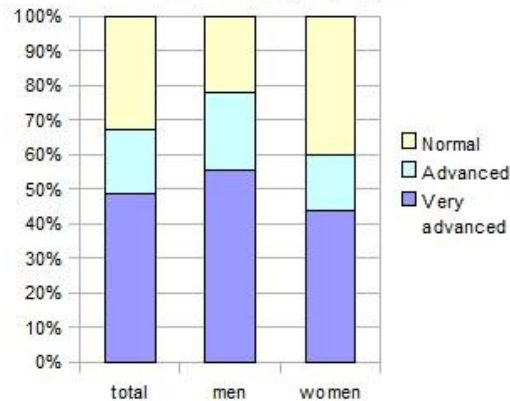
- * Science/Maths/IT teachers...
- * ...of students: 7 – 21 yrs old
- * Native lang + en (+1)



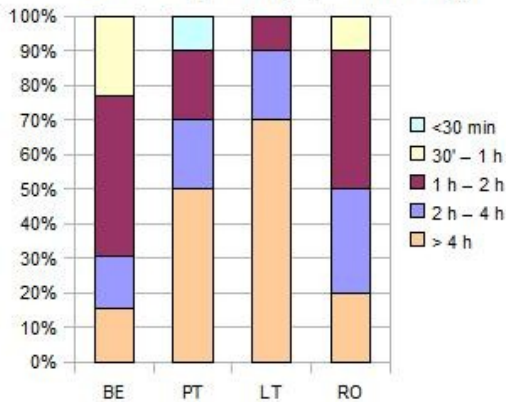
Use of PC per day (EU)



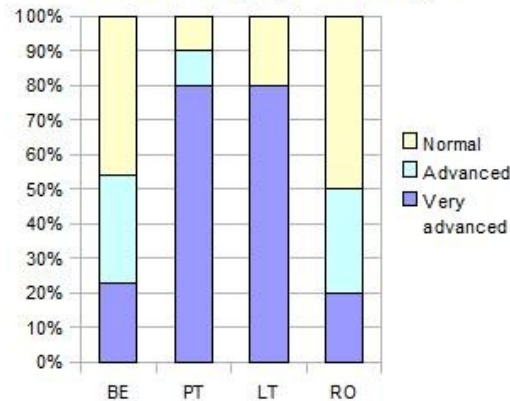
IT knowledge (EU)



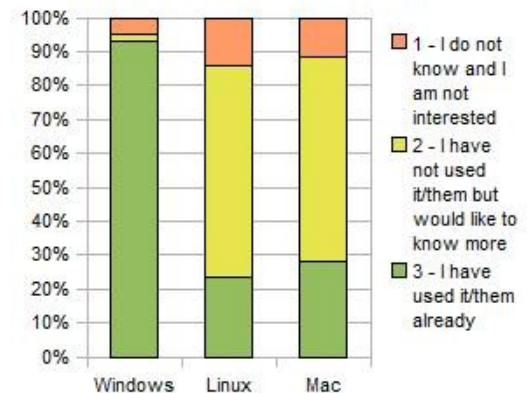
Use of PC per day (EU/country)



IT knowledge (EU/country)



Knowledge/Interest in OS (EU)



Use of PC:

- * 90% > 1h, 60% > 2h
- * men ~ women
- * LT > PT > RO > BE

IT knowledge:

- * 65% advanced, ~ 50% v. advanced
- * men ≥ women
- * LT ~ PT > RO ~ BE

OS:

- * ~ 90% Know / Want to know

Materials used:

- * > 80% texts, pictures, tests, presentations
- * simulations: 65% + 35% ~ 100%
- * lesson plans: 75% + 15% ~ 90%

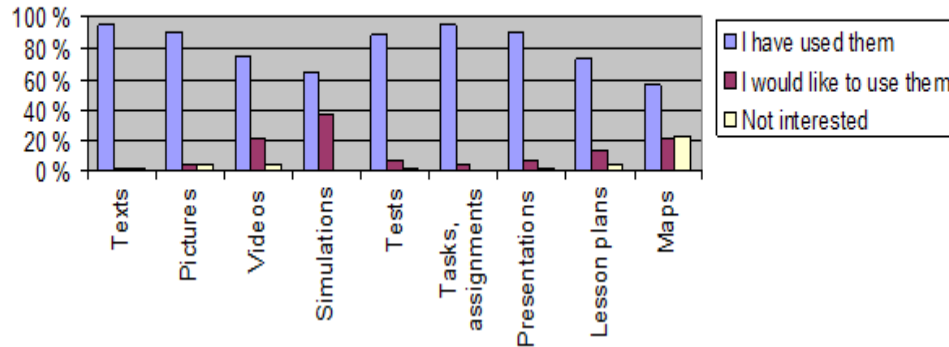
Interaction:

- * > 60% feedback yes, 95% sometimes
- * 95% shared materials
- * 90% made materials form scratch,
- * 100% used materials from web
- * 95% edited materials from web

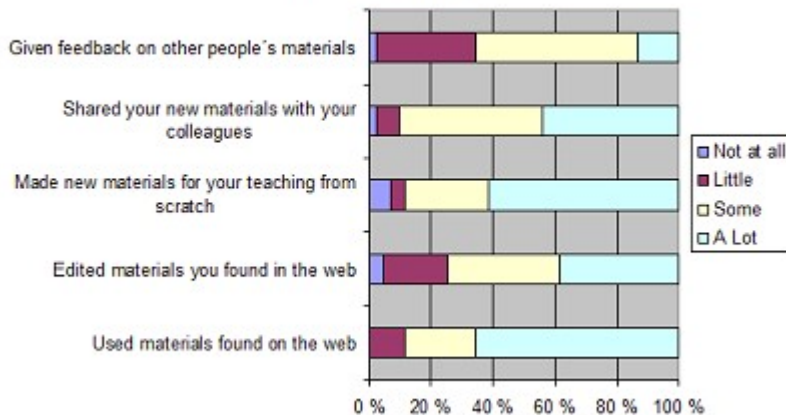
Materials from web:

- * ~ 90% weekly at least!

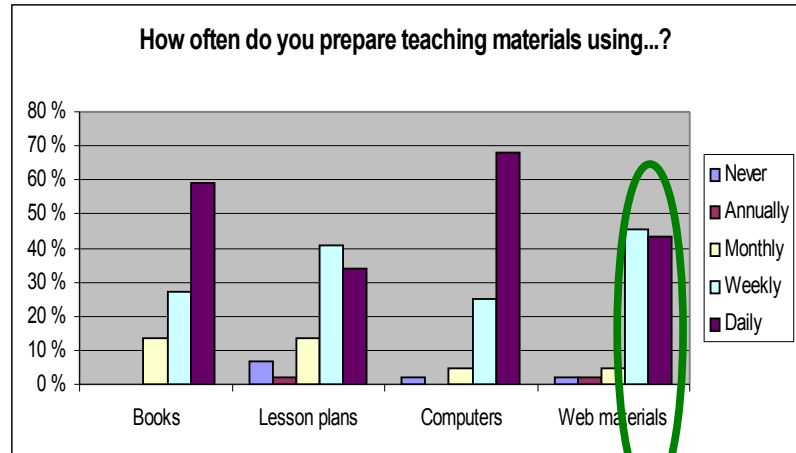
What sort of materials have you used when teaching / would like to use?

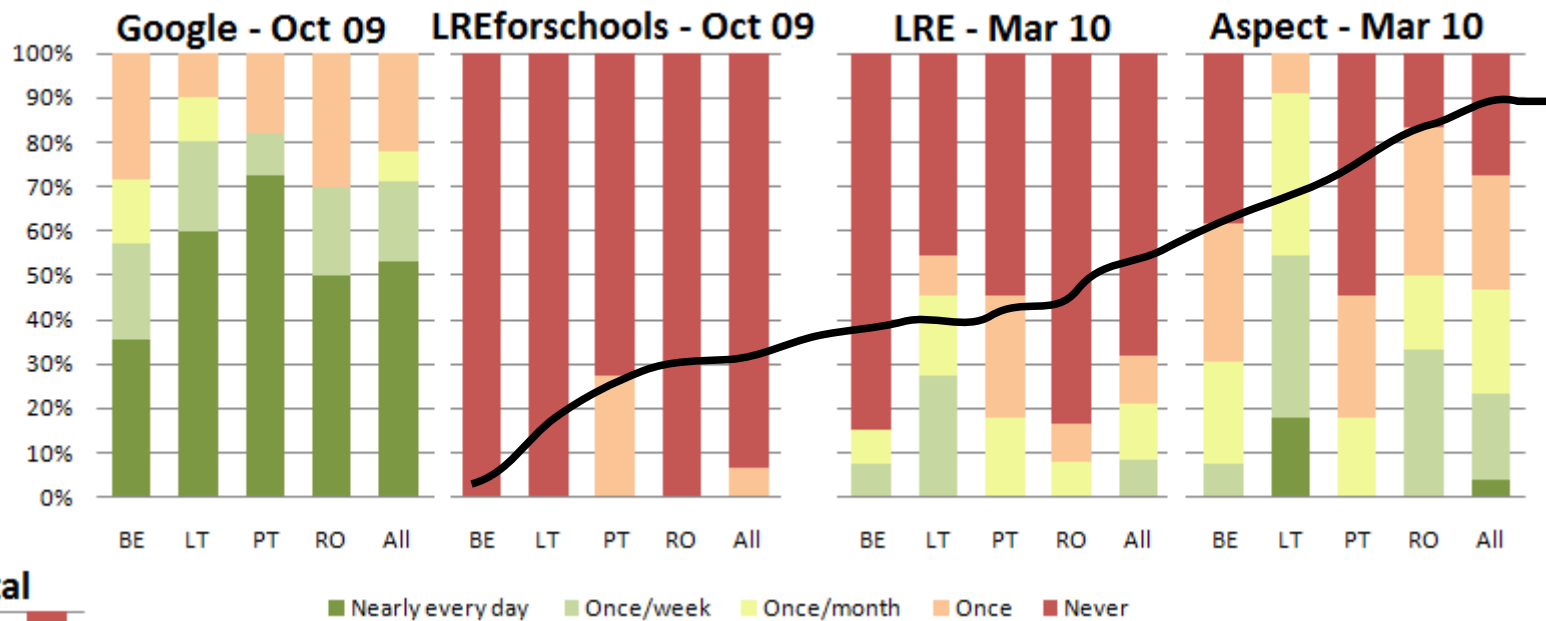


How much have you...?

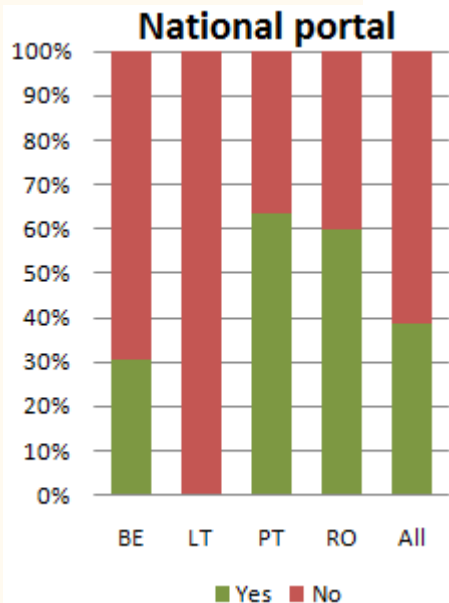


How often do you prepare teaching materials using...?





- * Google > 70% once/month, 55% once/week
- * LRE in Oct 09: Only ~30% PT once.
- * LRE in Mar 10: ~ 50% Once/month
- * LT ~ 90% 1/month, >50% 1/week
- * LT >> RO > BE > PT



Feb 18, 2011

Test 3: Content packaging

- Task 1: lesson plan in Moodle x 4:
 - 1) Using non-packaged content
 - 2) Using the entire SCORM
 - 3) Using an entire IMS CC package
 - 4) Picking up parts from the IMS CC package


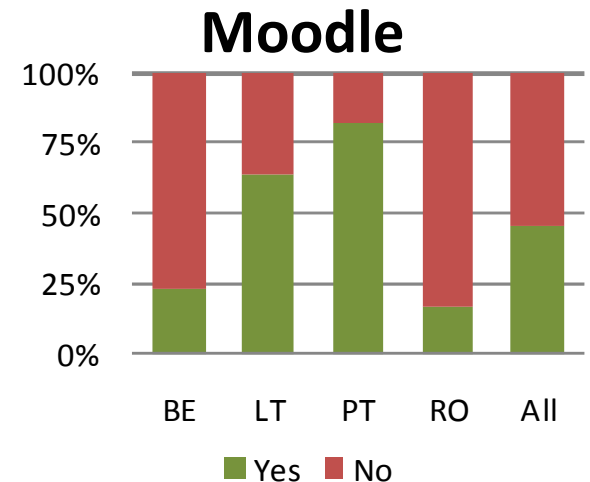
- Task 2: digital rights management – non-free resources.

- Task 3: Benefits of SCORM and IMS CC packages

Topic outline

Thermodynamics

- News forum
- Lesson 1
 - Teachers Notes for Lesson 1
 - Some Examples from Everyday Life
 - Global Warming Movie
 - Introduction
 - Pressure
 - Temperature
 - Temperature - Test Your Knowledge
 - Internal Energy
 - Internal Energy - Test Your Knowledge
 - Heat
 - Heat - Test Your Knowledge

Non-packaged

- Backup
- Restore
- Import
- Export
- Reports
- Questions
- Files
- Profile

Course categories +

Thermodynamics is involved with the study of the macroscopic properties of matter arising from the fact that it is made of a very large number of particles. The basic concepts in THERMODYNAMICS will be introduced through a simulation of the simplest system: an IDEAL GAS that occupies a region of volume V .

An ideal gas is composed of a large number of particles that move continuously, suffering elastic collisions between them and with the container walls.

- [Questões de termodinâmica](#)
- [Teste sobre Termodinâmica](#)

2 SCORM content (Task 1) □

- [Termodinâmica Scorm](#)

Termodinâmica Scorm

qwertyuio

SCORM

Contents

- Thermodynamics
 - Introduction
 - Pressure
 - Temperature
 - Internal Energy
 - Heat
 - Work
 - First Law
 - Entropy
 - Velocity Distribution
 - Specific Heat

Topic outline

Thermodynamics

 News forum

Lesson 1

 Teachers Notes for Lesson 1


 Some Examples from Everyday Life

 Global Warming Movie

 Introduction

 Pressure

 Temperature

 Temperature - Test Your Knowledge

 Internal Energy

 Internal Energy - Test Your Knowledge

 Heat

 Heat - Test Your Knowledge

**IMS Common
Cartridge**

- Thermodynamics
- Lesson 1
 - Teachers Notes for Lesson 1
 - Some Examples from Everyday Life
 - Global Warming Movie
 - Introduction
 - Pressure
 - Temperature
 - Temperature - Test Your Knowledge
 - Internal Energy
 - Internal Energy - Test Your Knowledge
 - Heat
 - Heat - Test Your Knowledge
 - Additional Reading
- Lesson 2
- Lesson 3

HEAT - QUESTION 1

Consider two systems A and B made of the same material respectively. System A possesses a certain amount of internal energy. System B has zero internal energy. We put systems A and B in thermal contact. What happens?

- The final energy of system A is less than the initial energy of system A.
- The sum of the final energies of systems A and B is less than the initial energy of system A.
- The energy lost by A is less than the energy gained by B.

Reset Submit

Embed in Remote Site [X]

API Key:

Thumbnail:

URL:

Info Results Preview Edit

Preview Entropy - Test Your Knowledge

Start again

1

Marks: -/1

The entropy of a system:

Choose one answer.

- a. Depends only on the number of particles of the system.
- b. Is directly related with the number of ways of distributing the particles according to the specifications on the system.
- c. It is independent of the energy of the system.

Submit

2

Marks: -/1

Integrated into VLE

aspect > JM-2 > Resources > test Update this Resource

ENTROPY - QUESTION 1

The entropy of a system:

- Depends only on the number of particles of the system.
- Is directly related with the number of ways of distributing the particles according to the specifications on the system.
- It is independent of the energy of the system.

< Back Submit Next >

Embedded in VLE

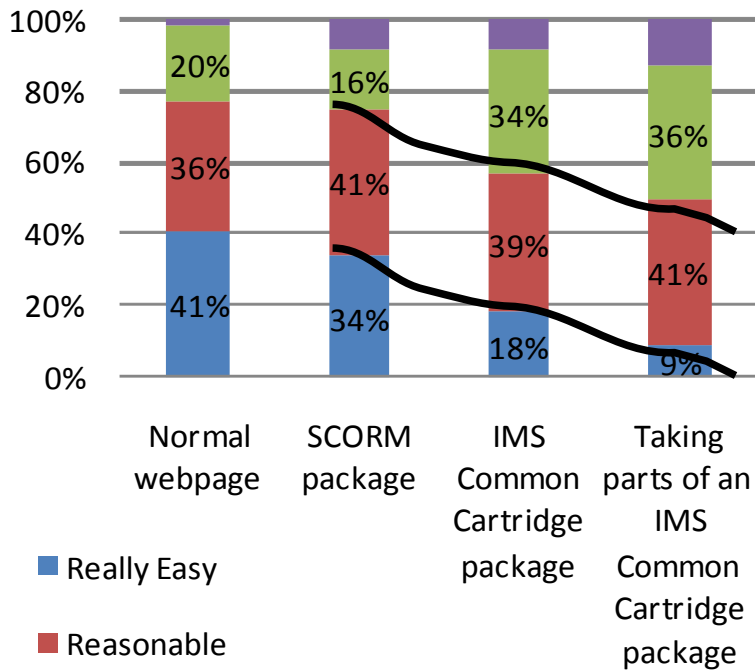
- Data gathered with mix-method approach, so results would complement each other.
 - Online Surveys after each task
 - Interviews with teachers
 - Observation

Caveats:

sample of teachers small (n=46), above average ICT users, highly motivated and influence of chosen VLE on results.

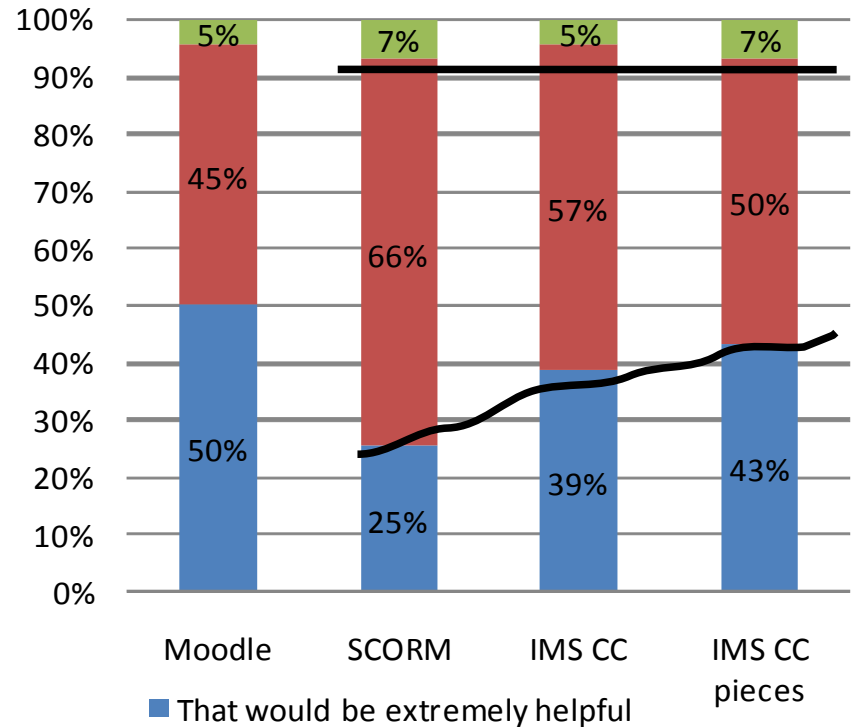
Packaged content

Level of difficulty



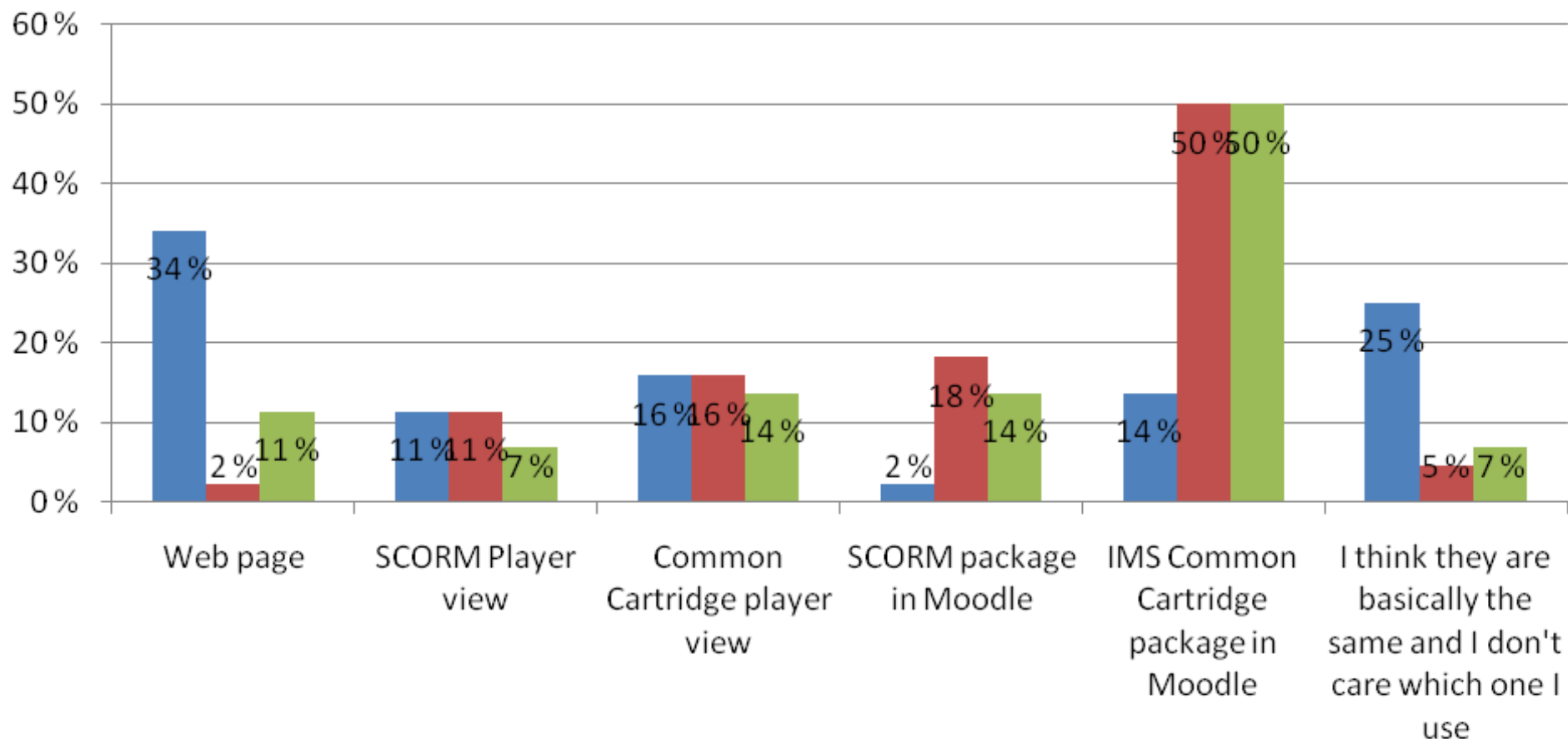
* LT > PT ~ RO > BE
 * > 75% even BE IMS CC pieces
 * > 90% IMS CC & SCORM

Benefits



* > 90% IMS CC & SCORM

What is your interface preference if...



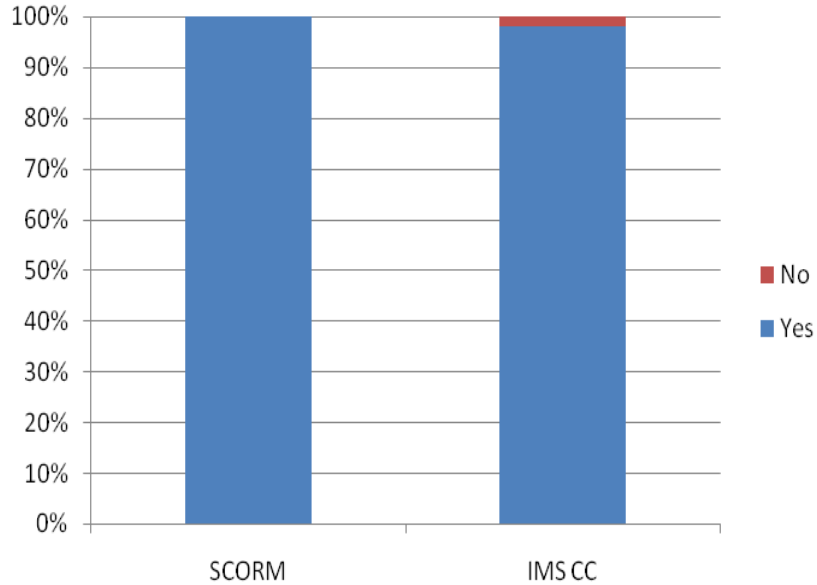
■ ...you are just showing the materials to the students in your class?

■ ...you are going to teach an entire online course?

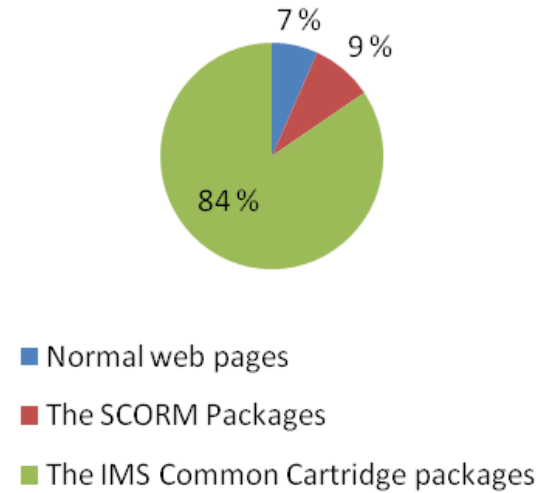
■ ...you are giving them online homework/extra credit work?

- Teachers were generally very excited about the *possibilities* of IMS Common Cartridge
- This was due to 2 issues:
 - Re-Use of materials in their on LMSs have become easier (In moodle, you can edit as you like, add, remove or alter)
 - Icodeon CC platform's functionality of being able to embed parts of the package into blogs, social media, web pages...

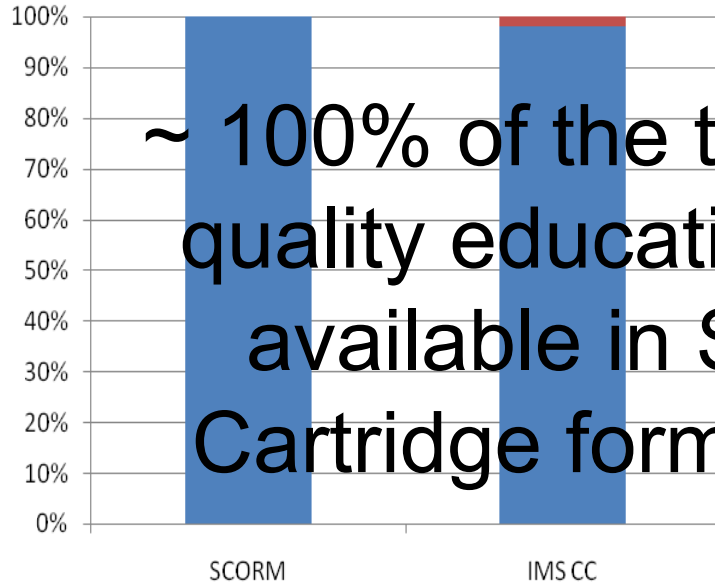
Would you use it?



would you prefer?

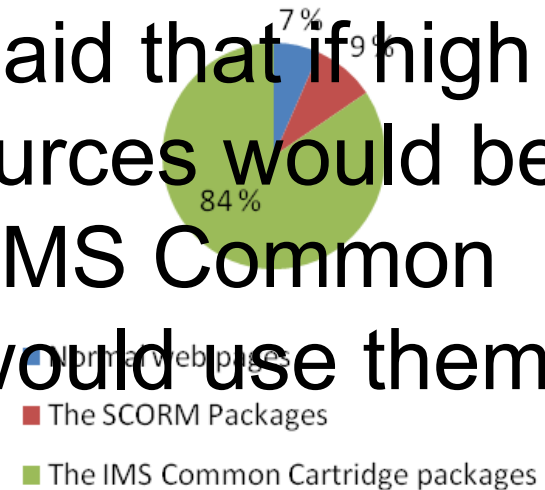


Would you use it?



~ 100% of the teachers said that if high quality educational resources would be available in SCORM/ IMS Common Cartridge format, they would use them

would you prefer?



BUT

- these are above average teachers and they still need training.
- Moodle bias (“better” dealing with CC?) → if SCORM packages could be separated into its components easily, they would like SCORM.

<http://www.aspect-project.org/node/88>



More information..

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Dank u! - Merci!