



LEONARDO DA VINCI - TRANSFER OF INNOVATION

TENEGEN WORKFLOW AND STORYBOARD



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WORKFLOW AND STORYBOARD OF TENEGEN'S CONTENT DEVELOPMENT

1 Aims

R7 aims are to define the course components and give a technological guide for the implementation the learning objects into Moodle environment. This document is based on the conceptual ideas developed by Ken Currie in WP1. (See Annex 1.)

2 Tenegen Course Components

2.1 Tenegen's Competency Framework (TCF)

Tenegen Competency Framework was elaborated by the developer partners, and published in **R5-"Tenegen's pedagogical and networking model"**.

The authors of the modules designed all other course material by using the principles defined in TCF. The TCF is available as a concept map on the Mindmeister website: [TCF](#).

2.2 Course Specification (TCS)

1. Short course description with schedules and the e-mail of the instructors

http://www.tenegen.eu/tmoodle/file.php/1/Tenegen_Moodle_ikonOK/kinfo.htm



2. The short description of the learning objectives of the modules

http://www.tenegen.eu/tmoodle/file.php/1/Tenegen_Moodle_ikonOK/Modulok.htm
(HU)

<http://www.tenegen.eu/course/mod/resource/view.php?inpopup=true&id=783> (EN)

3. Learning Objectives (LO), Learning Outcomes (OC) detailed in each module

The LOs and OCs are defined in the module descriptions of TC01, TC02, TC03, TC04, TC05, based on the common template developed by Tenegen Consortium in WP1. These documents are published in the Moodle platform under the title:

"General guide (learning objectives, learning outcomes, assignments, credits)" in every module.

<http://www.tenegen.eu/tmoodle/mod/resource/view.php?id=311> (HU)

<http://www.tenegen.eu/course/mod/resource/view.php?id=730> (EN)

For every lecture, the authors have defined the learning outcomes related to the topics contained within. Example:

<http://www.tenegen.eu/tmoodle/mod/book/view.php?id=308>. (In Hungarian: "tanulási célok")

<http://www.tenegen.eu/course/mod/book/view.php?id=308> (EN)

2.3 Study guide (TSG)

The TSG is a framework document outlining the structure and possible paths through the course. It introduces the course, its structure and teaching approach, and it explains how to use the materials.

1. General introduction – only in TC01

There are two chapters in the first module (in TC01, help the participants to start) which include a definition of all the materials and tools used in the course – to help the participants to navigate easily.

The links go to these lectures in the Hungarian course:

<http://www.tenegen.eu/tmoodle/mod/book/view.php?id=308> (HU)

<http://www.tenegen.eu/tmoodle/mod/book/view.php?id=308&chapterid=311> (HU)

<http://www.tenegen.eu/course/mod/book/view.php?id=308&chapterid=307> (EN)

<http://www.tenegen.eu/course/mod/book/view.php?id=308&chapterid=309> (EN)

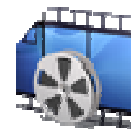


2. Video Guide – Tenegen learning environment

⇒ Video roundtrip in the learning environment:

<http://www.tenegen.eu/tmoodle/course/view.php?id=45>

<http://www.tenegen.eu/course/course/view.php?id=45> (EN)



3. Module guides

⇒ Weekly study guide on the message board

<http://www.protopage.com/tenegenkurzus#Untitled/5. h%C3%A9t>

⇒ Weekly study guide in the modules

⇒ **A suggested learning path, with schedules and assignments in the module – in each modules**

<http://www.tenegen.eu/tmoodle/mod/resource/view.php?id=543>



2.4 Authors Guidelines (TAG)

All the author are familiar with the Moodle environment. As technical guide they can use this document. The partners agreed in using the same course components defined in this document.

2.5 Tutoring Guide (TTG)

There is a special course – called the “**Teachers’ room**” – detailing the communication platform for the tutors who lead the learning groups. In this course the tutors can find:

- ⇒ learning materials about the main principle of online tutoring
- ⇒ a video lecture - how to create a blog for the group (Blogger)
- ⇒ all figures about the participants and groups
- ⇒ templates to create tutoring reports
- ⇒ tasks for tutors with deadlines to complete the reports
- ⇒ tasks for instructors with deadlines to evaluate the tutors’ reports
- ⇒ a guide to create and lead a videoconference with DimDim
- ⇒ forums - to communicate news, to discuss technical problems, etc.

Tutors’ course:

<http://www.tenegen.eu/tmoodle/course/view.php?id=16> (HU)

<http://www.tenegen.eu/course/course/view.php?id=16> (EN)

3 Course components

3.1 Reference Text (TBK)



In TC01, TC03, TC04 modules the learning materials are currently stored in the Moodle Book format. This solution has advantages for the participants: they like it because all the reading materials are held in a single place in a printable format. Normally content in Moodle is held in a loose lesson by lesson collection.

(<http://www.tenegen.eu/tmoodle/mod/book/view.php?id=308&chapterid=287&edit=0>)



Tartalomjegyzék

<p>Beköszöntő és körséta</p> <p>Tanulási környezet</p> <ul style="list-style-type: none"> Kreativitás? (forum, napló) A kurzus részei A szertár <p>Az e-learning</p> <ul style="list-style-type: none"> a jövő iskolája? utópia? és az IKT fajtái keretrendszer példák szabványok kompetenciák 	<p>Beköszöntő és körséta</p> <p>Nem is olyan régen még úgy neveztük, hogy oktatásról beszélünk. Angolul " Technology technológia legújabb szemfényvesztései, ve segíthet a hálózati technológia? Közösen ké</p> <p>Bemutakozás helyett</p> <p> ...kérek szépen egy egérkattintást a</p>
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(How to use? See the Appendix 1.)

<http://www.tenegen.eu/course/mod/book/view.php?id=308> (ENU)

3.2 Workbook (TWB)



As a first assignment the participants are asked to create their own learning diary. They can decide to create it as a simple Moodle blog or to

create an open blog on any external blogger site. We have suggested <http://www.blogspot.com> and have created a video tutorial about how to best use it.

Moodle blogs:

<http://www.tenegen.eu/tmoodle/blog/index.php?filtertype=site&>

Public blogs aggregated in the Widgami Tenegen site:

<http://www.widgami.hu/netgen> (HU)

<http://www.netvibes.com/tenegen-teachers#TeachersBolgs> (EN)

3.3 Glossary (TGL)



We use the Moodle glossary component. The participants are allowed to comment on the entries and are allowed to put a new entry into the glossary.

3.4 Reference List (TRL)



1. Online references

The participants collect links using del.icio.us: <http://del.icio.us/tenegen>

2. Offline references




Moodle “database” component. Participants are allowed to create new entries.

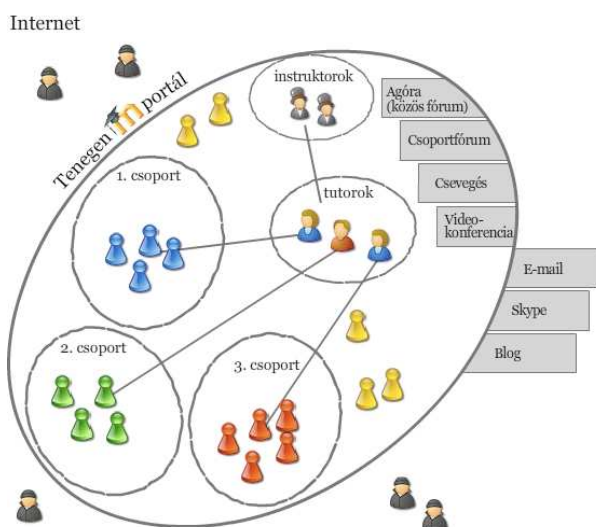
3.5 Study Plan (TSP)

The Moodle diary component serves in each module as a course schedule. The diary is generated automatically from the assignment descriptions where the instructor defines a date when the assignment should be completed.



3.6 Tools of communication

		
Agora	Group forums	Chat



We use the Moodle communication tools (blogs, forums, instant messages, e-mail) and an integrated tool for synchrony communication, plus the DimDim videoconference system.

Agora

A platform for all participants to discuss questions raised by the instructors during the course. The participants are not allowed to create a new topic here.

Group forums

Group forums are created for two reasons: to help the group members to be able to ask questions (technical, administrative) of the tutors, and to give them the potential to carry on debates in relatively small circles. The participants are allowed to create a new topic here.



For peer-to-peer discussions the participants use the personal learning diary, personal blogs. The outer blogs are aggregated:

<http://www.widgami.hu/tenegen>



As a communication tool the [Tenegen's Protopage](#) message board is used too, for publishing news. The participants are allowed to set messages to each-other here.



3.7 Laboratory - Resource Bank (TRB)

Tenegen Laboratory is technically a Moodle course category in which the courses use various stores and tools to make the learning process more effective.



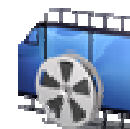
1.1.1. Moodle Games

Moodle Games are based on the glossary function. In order to use the games, images or photos should be uploaded for every entry of the glossary. We make use of all the simple games in Moodle, such as crosswords, hidden pictures, sudoku, snakes and ladders, etc.



1.1.2. Video storage

Videos are used to relate to the learning content. The videos are created with Camtasia Studio.



1.1.3. LOs - repository

A repository for learning objects created as a Moodle database into which the participants are able to upload their learning objects, along with appropriate metadata. This re-inforces the understanding of the concepts of LOs, metadata, e-learning standards.



1.1.4. Publications

Technically a Moodle database used to store publications described with some appropriate metadata. The participants are allowed to put new entries into it.



1.1.5. Help

There are different tools used under this „course“. The official Tenegen Help is a text-oriented tutorial created as a Moodle glossary. The reason for this choice of solution was because Moodle generates living links from this component (the glossary) into the overall course materials. Authors are therefore able to refer to the entries inside the text and the Help opens in a new window for the user, who may continue with the lesson after reading the text.

1.1.6. SandBox

The sandbox was created for the participants to try out every functions of Moodle. It will be used mainly in TC03, TC04.

1.1.7. Editorial

In the editorial, the participants are asked to reflect on the learning materials. They can suggest new topics, add further links, and they can criticize the content (which they do at times!) Technically it is a Moodle glossary.



3.8 Learning Activities (TLA)

The learning activities in Tenegen course are defined in the weekly guides.

Fundamentally we define the types of activities as follows:

1. Reading the lessons and carrying on the so called “tinies” – a lot of small tasks, exercises.
2. Using the tools in the laboratory to practice and to learn along with video tutorials.
3. Learning from each other - communicating using all the offered tools in Tenegen platform.
4. Completing the assignments

The learning activities are recorded automatically by Moodle.

4 Assessment components

1.1.8. Tiny exercises

Small tasks and exercises at the end of the lessons (e.g. visit a page, load up an LO, see the suggested video, make a post in the personal blog, post on the forum related to the question asked at the end of the lesson, to create a mindmap, etc.). The weekly topics contain a list of all ‘tinies’ for the next week. The participants are asked to record their own achievements and experiences while doing these small tasks, so that the instructor and tutor should be able to follow the learning process, and help the teachers if needed.



1.1.9. Credited Assignments

The participants find exact information about their responsibilities in the “**General guide (learning objectives, learning outcomes, assignments, credits)**”, with a short description of the assignment, credits. This document defines the thresholds too.

The detailed version of the assignments is created as Moodle tasks, inside the module. See an example in Annex 2.

The assignments are evaluated (commented and credited) by the tutors using the Moodle tools.

5 Competency Assessment

The self assessment questionnaire is offered weekly. In the *tiny* the participants are asked to repeat it at the end of the week. See one of them here:

<http://www.tenegen.eu/tmoodle/mod/questionnaire/view.php?id=438> (HU)

<http://www.tenegen.eu/course/mod/questionnaire/view.php?id=874> (EN)

At the end of the course the participants will be asked to re-fill out the Tengegen’s questionnaire – prepared for the needs-analysis. The results will be analysed against the statistics deriving the first survey carried on before the course. The survey site:

<http://survey.prompt.hu>

6 VLE components

Learner Profiles (LP)

As a first step the participants are asked

1. to register on the e-learning portal, and
2. fill out the figure in their profile
3. create their own learning diary (inside or outside blog – DW)
4. introduce themselves on common forum – Agora
5. introduce themselves on the group forum

The participants e-portfolio will be developed in TC02. The platform will be Mahara, in the Hungarian course:

<http://mahara.prompt.hu>

7 Survey and feedback gathering support

At the end of the modules, and at the end of the whole course, the participants will be asked to fill out the evaluation questionnaire created by the Moodle built in component. Statistics will be automatically created by Moodle.

8 Others

The teachers will be asked to explore the networking attitude of their students and to summarize their experiences in an assignment at group level two (TC01A03I-individual experiences, TC01A03G – group level experiences).

To do these we offer, through the portal, a questionnaire for the students. Teachers invite the students to fill out the questionnaire, and the results will be send back to the teachers for analysis.

The questionnaire on the sites:

<http://www.tenegen.eu/course/mod/questionnaire/view.php?id=570> (HU)

<http://www.tenegen.eu/course/mod/questionnaire/view.php?id=570> (EN)

9 Style guide – suggested standards

9.1 Graphical design

In the Tenegen courses all style defined in Moodle is through CSS files, however it is suggested to the authors that they use the Tenegen icons as standard. The icons are uploaded into the WP4 – Platform implementation folder on the portal.



9.2 The structure of units – lessons

Suggested structure of the learning units:

1. Learning Outcomes, competences aimed to develop by the unit



2. Readings – learning content
3. Bibliography
4. Exercises (tinys)



10 Annex 1 – Course Component (CAPDM)

By Ken Currie

As the Tenegen project progresses it is very important that we get agreement on the structures and components that we need and want to see in the five courses being developed.

One goal should be to achieve a consistency to each course, hence ensuring that there is a uniformity of structure and publication type – at least at the core of each course. It is accepted that different courses may require specific modules for that course, but if there is a common core then our target group – teachers – will take comfort from a common structure (the Tenegen ‘brand’) for each course, and this should ensure that each course is used efficiently and optimally.

This note enumerates a fairly large set of publication types and tries to explain the role of each. I would ask the Tenegen team to read, comment and offer any publication type that they feel is missing but should be included. **Action: ALL**

While it is possible to argue for a huge number of types, it is important to be able to give a clear message put to both the producers of course materials (who will have to produce to a subset of these types) and to the end user of these materials (who much have a clear understanding of how to make good use of them). The set presented below is a fairly comprehensive set which we feel can be applied to, and optimized for, different teaching and learning processes.

There are four generic types of components – Hard, Soft, Custom and VLE (delivery environment) related.

1. Hard components (e.g. mock exam) have a relatively fixed structure (in XML terms) which should vary only slightly between known alternatives.
2. Custom components (e.g. concept gateways) which are defined by a specific need but which can be as ‘hard’ as necessary thereafter.
3. Soft components (e.g. student handbook) can significantly vary across needs, though it still remains a relatively generic XML publication.
4. VLE components (e.g. certificate of achievement) are publications generated in support of specific VLE processes.

The table below lists a comprehensive set of course components. Those marked with * are components that I think we should include in Tenegen courses. Those marked * are ones we should consider using. There may, of course, be other custom needs to be added.

Management components	Course components	Assessment components
<u>Hard defined</u> * * Learning Objectives (LO) * Learning Outcomes (OC) Competency Framework (CF)	<u>Hard defined</u> * * Reference Text (BK) * Workbook (WB) Glossary (GL) Reference List (RL)	<u>Hard defined</u> * Unit Quiz (UQ) * * eQuiz (EQ) Self Assessment (SA) * Mock Exam (ME) Past Papers & Answers (PP)
<u>Custom defined</u> Style guide (SG)	<u>Custom defined</u> * * Concept Gateways (CG)	<u>CAPDM defined</u>
<u>Soft defined</u> Programme Specification (PS) Course Specification (CS) Authors Guidelines (AG) Student Handbook (SH) Teaching Guide (TG)	<u>Soft defined</u> Course Guide (UG) Study Plan (SP) * * Discussion Papers (DP) Resource Bank (RB) Learning Activities (LA)	<u>Soft defined</u> Tutor Marked Assignment (TA) Certificate of Achievement (AC)
		<u>VLE components</u> Learner Profiles (LP) * * Digital Workbook (DW) * Portfolio (PO)

I would like to draw attention to one or two of the key components:

- Learning Objectives (LO). These should be at the heart of every course, as a means of presenting a clear structure to students and creators alike. They are very different from Learning Outcomes (OC) – which I will cover in a separate paper.
- Reference Text (BK). This will almost certainly be part of the Tenegen outputs and comprising the bulk of the course materials. Though necessary, this type tends to be fairly static, i.e. not too interactive, though the HTML publication at least can be quite dynamic with the right materials
- Discussion Papers (DP). These provide a mechanism for personal reflection & portfolio building, but also as a mechanism for a focussed discussion through the VLE forums. DPs should be short (3-5 page) papers with a discussion topic on each page. Students should be able to record personal reflection (though web base input elements) but also to network to peers through the on-line forums.
- Digital Workbooks (DW). These are a simple mechanism for the development of personal portfolios. They are based on the content of the other publications they appear in (e.g. Discussion Papers) and can be supplemented by portfolio systems that act as personal file spaces.

The tables below begin to outline the characteristics of each type. Do take the time to add to the information here. I will issue updates on a semi-regular basis.

Structure is critical. A deliberate and meaningful design for every course is beneficial, so we tend to draw an ‘onion layered’ picture to illustrate (see the next figure). This is a simple representation of how each courses should be built, including specific needs. Note that at the centre of this course diagram is an explicit reference to learning objectives – something that every course in every school and university has, but which are underused. The learning objectives ‘map’ out a course, and all subsequent materials should be structured around this map. They are at the centre of the design.

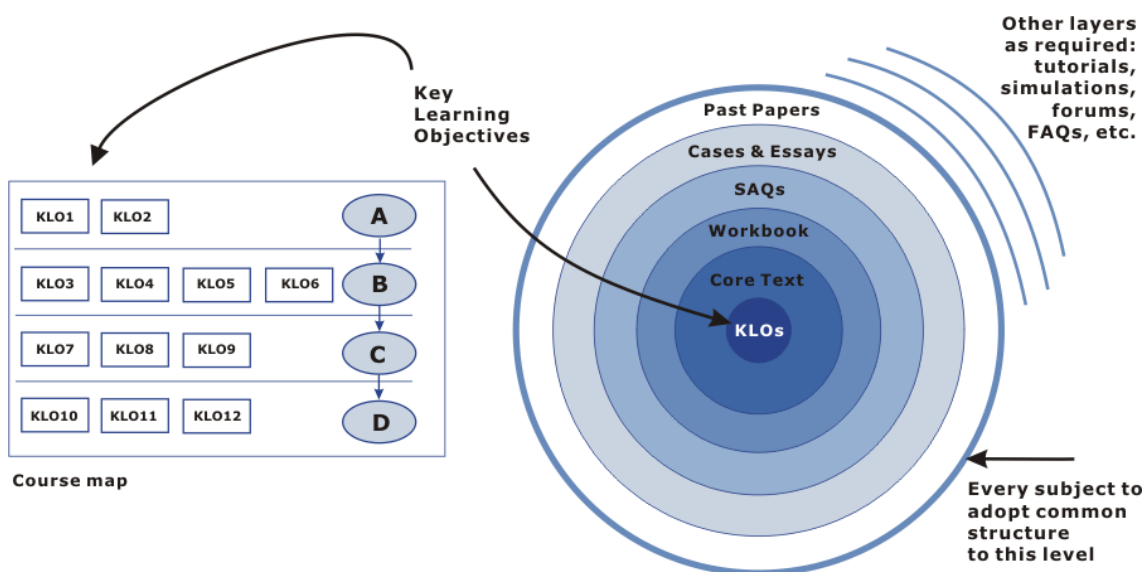


Figure 2: The Course Component ‘Onion’ encouraging structural consistency

Learning objectives can be put to very effective use. As such they are an essential starting point.

1. HARD DEFINED COMPONENTS

Component name:	Reference Text (BK)
Alternative names:	Study, Module, Course, Reference, Core Text; Textbook An alternative name may simply be a Workbook,
Description & use:	The main learning text book for the course that delivers the bulk of the textual material. Includes an Index and References.
Relevant standards:	1. XML DocBook Document Type , OASIS Standard 5.0 2. UQF questions & answers.
Samples required:	XML demonstration master with equations, figures Print PDF sample of book with all elements represented. Screen PDF with hot-linking, annotation and PDF features enabled. Accessible HTML samples with navigation variations and interactive inline activities and hyperword veneers.
Process support:	Convert into DocBook from RTF and HTML. Optional support for full-text Lucene index generation.
Service support:	Custom style setup. Tagging, illustrating and typesetting support. Printer integration support.
Component name:	Unit Quizzes (UQ)
Alternative names:	End of chapter/unit/topic quiz.
Description & use:	Formative. One at a time with feedback or paged with summary overview at the end. Drives optional LO graph display. Links back in to core text.
Relevant standards:	IMS QT&I and CC standards
Samples required:	
Process support:	Upload, checkin/out XML quiz file with diagrams etc. XOpus type editor to edit or create from new online in web browser. Test the rendering for each question and answer in QA tool.

	Export as IMS Q&Ti 2.1 and 1.2.1 format files validated against the latest IMS Common Cartridge test tools .
Service support:	
To build tasks:	

Component name:	Past Papers with Answers (PP)
Alternative names:	
Description & use:	A collection of past papers with/without tutor and model student answers. A growing bank of past papers, model answers and selected student answers, for student practice. Grows over time to be a central resource. Attributes for classification and culling.
Relevant standards:	
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Workbook (WB)
Alternative names:	
Description & use:	A structured work book, or study guide, accompanying and generally similarly structured to the Reference Text.
Relevant standards:	
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	eQuiz (EQ)
Alternative names:	
Description & use:	Fun. One at a time. Immediate feedback with links back in.

	Summary.
Relevant standards:	IMS QT&I Flash object API. Java applet API.
Samples required:	eQuiz like examples with every possible question type including flash.
Process support:	Upload, checkin/out XML eQuiz file with diagrams etc. XOpus type editor to edit or create from new online in web browser. Test the rendering for each question and answer in QA tool. Export as IMS Q&Ti 2.1 and 1.2.1 format files validated against the latest IMS Common Cartridge test tools .
Service support:	
To build tasks:	

Component name:	Glossary (GL)
Alternative names:	
Description & use:	A Glossary for the course, subject, programme; highly structured independent reference publication, with multiple navigation routes.
Relevant standards:	
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Learning Objectives (LO)
Alternative names:	Key Learning Objectives
Description & use:	A numbered list of learning objectives and their descriptions - used to structure all surrounding materials. Used to best effect with the SAQs and short answer questions in particular, where student feedback is offered through Progress Reports (Profiling).
Relevant standards:	
Samples required:	

Process support:	
Service support:	
To build tasks:	

Component name:	Self Assessments (SA)
Alternative names:	Specimen Objective Test
Description & use:	Bank of self-assessment questions that can be used to dynamically generate an online test and get a profiled response. For on-line marking only. 1 or paged Short Answer inputs too. Can also select specific LO focus.
Relevant standards:	IMS QT&I
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Mock Exam (ME)
Alternative names:	Timed test.
Description & use:	On-line bank of questions with marks and LO mappings. Dynamically assembled into timed exams. One at a time question delivery. Options to abandon and see summary overview and LO profile summary.
Relevant standards:	Microsoft / IITT ? IMS QT&I
Samples required:	XML template and full example; Print PDF; Screen PDF; HTML tree; Text out.
Process support:	
Service support:	
To build tasks:	

Component name:	Learning Outcomes (OC)
Alternative	

names:	
Description & use:	A list of Learning Outcomes used to structure and orient the summative assessments of any course against. These should ideally map to the LOs, perhaps through some aggregation process. They are also potentially the top layer of any competency framework, e.g. Moodle or CIL's Specifications. The link to LOs offers a route from Cfs back into the course materials as structured around the LOs.
Relevant standards:	
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Competency Framework (CF)
Alternative names:	
Description & use:	
Relevant standards:	<ol style="list-style-type: none"> 1. HR-XML: http://ns.hr-xml.org/2_5/HR-XML-2_5/CPO/CompetencyTypes.html 2. IMS RDCEO: http://www.imsglobal.org/competencies/index.html 3. TenCompetence: http://www.tencompetence.org/ 4. Moodle: http://docs.moodle.org/en/Development:Progress_tracking 5. Others: http://www.ostyn.com/rescompetency.htm
Samples required:	Some kind of academic or professional competency example.
Process support:	<p>Creation of a 3 layer structured competency framework like MCDST, MCSE.</p> <p>Support competency review and update collaboration process e.g. using Wiki.</p> <p>Output competency as PDF specification document.</p> <p>Provide online service to deliver frameworks for completion by students and feature provision in VLE.</p>
Service support:	<p>Consultancy to define customer frameworks.</p> <p>Production expertise to tag one up and generate PDF.</p> <p>Programming to deliver a framework online in a Wiki and VLE.</p>

To build tasks:	Build a complete service to author, produce and deliver. Could be database forms or XML file based.
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Component name:	Reference List (RL)
Alternative names:	References
Description & use:	The List of References for a Reference Text, Course and Programme. Also includes references to library e-journals, website/services and canned searches.
Relevant standards:	
Samples required:	
Process support:	Database held and derived, along with graphics and other supporting elements.
Service support:	
To build tasks:	Implement as a supporting database? of references with different types. Harvard structured publication references; URIs...

2. CAPDM DEFINED COMPONENTS

Component name:	Style Guide (SG)
Alternative names:	
Description & use:	A sample of every information element used in the programme including front matter; authors biographies, lists, tables, index, figures, equations, activities, tasks, cases, essays, toc, references, index, question, answer etc. Also addresses all style/layout choices.
Relevant standards:	XML DocBook.
Samples required:	<ul style="list-style-type: none"> • Sample XML master publication with many default elements, attribute variations and element sets • 3 example styles (a plain textbook style; a pre/undergraduate course materials modern layout; and a postgraduate academic layout) with example PDF and HTML output publications.
Process support:	Customise output style in a few tightly defined ways: a spot

	<p>colour; various logos; fonts used; and page size.</p> <p>Choose style for application per programme/course.</p> <p>Pass through new, user originated XML class attributes to HTML output.</p>
Service support:	Custom style design and setup service.
To build tasks:	<p>Develop XML single master source file.</p> <p>Develop 3 style variants.</p> <p>Document CSS style components.</p> <p>Develop output PDF and HTML publications.</p>

Component name:	Concept Gateways (CG)
Alternative names:	Interactive Tutorials.
Description & use:	Targeted tutorials on the key concepts of a course – the things that have to be learned well.
Relevant standards:	Extended UQF to accommodate Flash & Java applets and video objects.
Samples required:	Interactive tutorials in any subject
Process support:	XML
Service support:	
To build tasks:	

3. SOFT COMPONENTS

Component name:	Programme Specification (PS)
Alternative names:	
Description & use:	Includes a definition of all the materials in the programme and course. This includes the Assignment guide for the programme.
Relevant standards:	
Samples required:	
Process support:	

Service support:	
To build tasks:	

Component name:	Course Specification (CS)
Alternative names:	Module specification
Description & use:	Defines one module and how it will meet the learning objectives. This includes the Assignment guide for the course.
Relevant standards:	
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Teaching Guide (TG)
Alternative names:	
Description & use:	A description of how to teach a course to align it with the accrediting organisation's requirements.
Relevant standards:	
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Student Handbook (SH)
Alternative names:	Induction pack.
Description & use:	
Relevant standards:	
Samples required:	

Process support:	
Service support:	
To build tasks:	

Component name:	Course Guide (CG)
Alternative names:	Module Guide; Unit Guide
Description & use:	A framework document outlining the structure and possible paths through the course. Introduces the course - its structure, teaching approach and rigours. How to use the materials.
Relevant standards:	
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Study Plan (SP)
Alternative names:	
Description & use:	Specific study plan and instructions. Perhaps weekly structure - perhaps no structure. Includes the Assignment guide with scheduled dates.
Relevant standards:	
Samples required:	Abstracted weekly structure from IFS FD,
Process support:	Create XML or database publication. Output as PDF document. Example provision as page in VLE e.g. Moodle.
Service support:	Support client's own editing and publishing of this.
To build tasks:	Candidate online and XML publication for customers to edit and maintain for themselves in their VLE as well as a publication.

Component name:	Discussion Papers (DP)
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Alternative names:	
Description & use:	On-line papers with attached collaboration forums.
Relevant standards:	
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Learning Activities (LA)
Alternative names:	
Description & use:	Important, but quite custom in need. Might include reflective exercises, posts & uploads, and/or tests.
Relevant standards:	
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Tutor Marked Assignment (TMA)
Alternative names:	
Description & use:	An assignment with supporting details. No interaction other than to solicit submitted document.
Relevant standards:	IMS QT&I
Samples required:	
Process support:	
Service support:	
To build tasks:	

Component name:	Certificate of Achievement
Alternative names:	Course completion certificate
Description & use:	Template document with background graphic that can be personalised with student's name and course title and used to indicate attainment of a course qualification.
Relevant standards:	
Samples required:	Full example; Print PDF.
Process support:	<p>Customise the course title; date; awarding paragraph; student name; certificate graphic and save as named template.</p> <p>Generate one certificate.</p> <p>Generate a batch of certificates from a list of names.</p> <p>Download certificate PDFs.</p>
Service support:	Custom programming setup and VLE integration.
To build tasks:	Build service process (database driven?) to show custom editing of key fields and generation of PDF certificate.

4. VLE COMPONENTS

The following components are required to support delivery processes that operate in the customer's VLE. These components are batch generated for individual learners, programmes or courses. They are included here because they can be substantial publications as well as online VLE service states.

5. SURVEY AND FEEDBACK GATHERING SUPPORT

Component name:	Surveys
Alternative names:	Feedback form
Description & use:	Assessment document that can capture responses to questions and an individual's reflections. Works like an assessment service in a vle, except that it is not used for assessment but data gathering.
Relevant standards:	UQF for assessment and question types. No answers.
Samples required:	XML template with all question types and full example;

	Summary PDF ‘book’ of all survey responses; SQL database table summary of responses by date, question, user.
Process support:	Author XML survey and questions. Print as PDF paper survey. Attach to online VLE course or programme (like an assessment). Email URL to non- VLE respondees – standalone service.
Service support:	Programming setup of custom survey service.
To build tasks:	Build example survey. Build SQL database recording option. Add to demonstration VLE course. Build summary view of survey result records.

6. COMPETENCY ASSESSMENT

Component name:	Competency profile
Alternative names:	
Description & use:	Automatically generated after matching a student’s recorded competency profile against a set of learning outcomes for a course. Summarises students current skills, competencies and specialisations.
Relevant standards:	Moodle progress tracking: http://docs.moodle.org/en/Development:Progress_tracking
Samples required:	Example print PDF. Online VLE profile.
Process support:	Download PDF summary. Dynamically configure a VLE course instance.
Service support:	Custom programming setup and VLE integration.
To build tasks:	Generic skills tracker type web service to take any (Moodle) competency framework and generate online assessment for students to fill in and record.

Component name:	Training needs summary
Alternative	Training needs analysis

names:	
Description & use:	Automatically generated from matching a student's recorded competency profile against a set of learning outcomes for a course. Summarises topics to be studied and hours involved. Can also be used to dynamically build a course, personalized for an individual.
Relevant standards:	Moodle progress tracking: http://docs.moodle.org/en/Development:Progress_tracking
Samples required:	
Process support:	Complete competency assessment and submit it. Required published competency framework.
Service support:	Custom programming setup and VLE integration.
To build tasks:	Is a service application of the Competency Framework component?

7. PORTFOLIOS

Component name:	Learner profile (LIP)
Alternative names:	
Description & use:	
Relevant standards:	In competency modeling, the IMS LIP can be used to merge the competencies in IMS RDCEO and the users
Samples required:	
Process support:	Download PDF summary. Dynamically configure a VLE course instance.
Service support:	Custom programming setup and VLE integration.
To build tasks:	Implement LIP data structures needed for profile in VLE service. Build into Portfolio component that merges in achievement related to competencies. Add in access to digital workbooks too.

Component name:	Digital workbook (DW)
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Alternative names:	Portfolio component
Description & use:	Record of student's working through a body of materials. Reflections and interim results. Uses workbook analogy to engender familiarity of concept with student. One third of portfolio (other 2 thirds are student profile data, and assessment records perhaps with competency achievement).
Relevant standards:	IMS ePortfolio.
Samples required:	Example complete digital workbook in VLE.
Process support:	Student to build up workbook. Tutor to overview workbook. Submit workbook for Certification and accreditation.
Service support:	Custom programming setup and VLE integration.
To build tasks:	Generalize from digital workbook.

Component name:	Portfolio (PO)
Alternative names:	
Description & use:	Pulls together the achievements, work and reflections of an individual student. Has to be generated by VLE but can be generated as a PDF publication (generic MPE portfolio producing tool service integrated into VLE).
Relevant standards:	IMS ePortfolio standard. http://www.imsglobal.org/specifications.html http://www.nabble.com/IMS-e-portfolio-standard-implemented-in-new-Sakai-tool-td17913517.html Europortfolio http://www.europortfolio.org/ IMS Learner Information Profile standard IMS LIP describes the characteristics of a learner, which are needed for recording and managing learning-related history, goals, and accomplishments, engaging a learner in a learning experience, and discovering learning opportunities for learners. In competency modeling, the IMS LIP can be used to merge the competencies in IMS RDCEO and the users
Samples required:	Example ePortfolio publication.
Process support:	Generate print and online PDF portfolio publication from VLE.

Service support:	Custom program setup and VLE integration.
To build tasks:	Implement portfolio comprising: LIP data structures needed for profile; Achievements related to competencies; Optionally add in digital workbooks work too.

11 Annex 2- Moodle Book

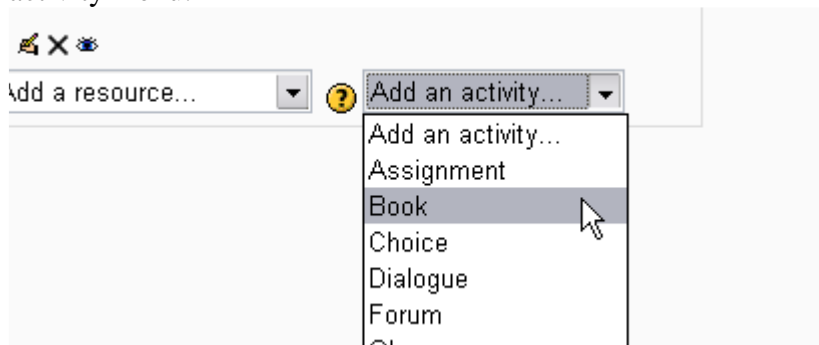
The Book module makes it easy to create multi-page resources with a book-like format. It is contributed to the project by Petr Škoda. This module can be used to build complete book-like websites inside of your Moodle course.

Previously created websites can be imported directly into the Book module. Books can be printed entirely or by chapter.

The book module allows you to have main chapters and sub chapters, but it goes no deeper. In other words, sub chapters cannot have their own sub chapters. This was an intentional decision by the creator of the book module. He intended this to be a simple resource for teachers and students.

The book module is not interactive. You can, however, link to choices, forums, etc., from within a book. And you can include multimedia objects like Flash movies in your book.

Turn on editing in your course and choose the book resource from the drop down activity menu:



Give your book a name and a summary:

📖 Adding a new Book

Name:

Summary:

Write carefully ?
Ask good questions ?
Use emoticons 😊

Indicate how you want chapters numbered

Chapter Numbering: ?

- None
- Numbers
- Bullets
- Indented

There are several predefined numbering types:

- * None - chapter and subchapter titles are not formatted at all, use if you want to define special numbering styles. For example letters: in chapter title type "A First Chapter", "A.1 Some Subchapter",...
- * Numbers - chapters and subchapters are numbered (1, 1.1, 1.2, 2, ...)
- * Bullets - subchapters are indented and displayed with bullets.
- * Indented - subchapters are indented.

Note that the width of the table of contents is set by the administrator of your site.
Enable or disable printing

Disable Printing: ?

- No
- Yes
- No

Disabling printing means hiding the print icons. (The print option is one of this resource's most popular features, so you might not want to disable it.)

Allow or disallow custom titles



If you disallow custom titles, the chapter title (the one that appears on the table of contents) will appear as a header at the top of your content. If you enable custom titles, you will be able to create a title different from the one that appears in the ToC.

Custom Titles Enabled: The custom title (red arrow) is different than the title in the table of contents (green arrow).

Custom Titles Enabled: The custom title (red arrow) is different than the title in the table of contents (green arrow).

Custom Titles Disabled: The titles in the table of contents and in the chapter are the same.

Custom Titles Disabled: The titles in the table of contents and in the chapter are the same.

Add a chapter

'; and 'Content: You can probably get the water you want to boil from a variety of sources....' in a text area. At the bottom left of the content area, there are two links: 'Write carefully' with a question mark icon and 'Use emoticons' with a smiley face icon." data-bbox="141 466 857 761"/>

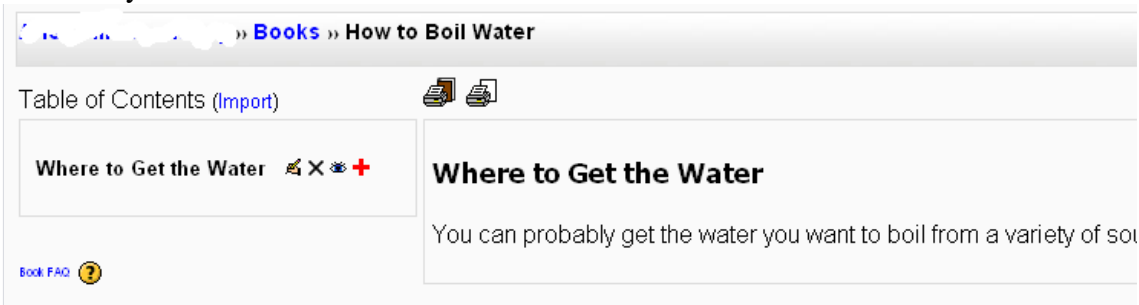
Titles of chapters appear as links in the table of contents to the left of your content.

Keep your titles short.



View work to date




So far, you see the table of contents on the left and the content on the right. Note the print icons near the top.

To add another chapter, click on the Red Cross in the Table of Contents. The new chapter will be inserted directly after the chapter whose title is on the same line as the red cross you click.




» Books » How to Boil Water

Table of Contents (Import)  

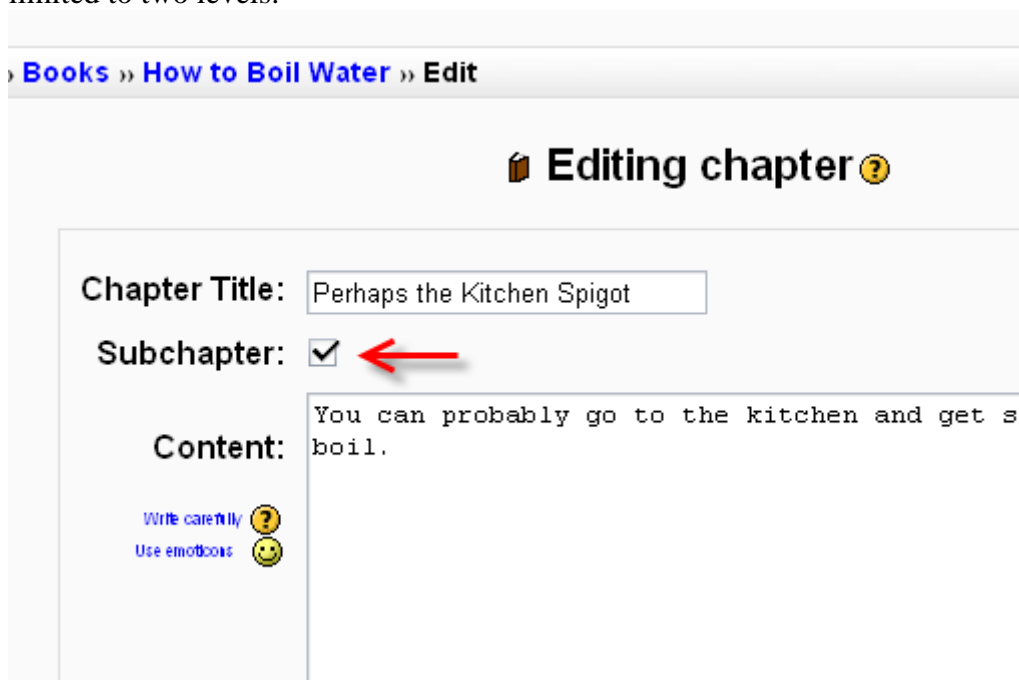
Where to Get the Water    **Where to Get the Water**

You can probably get the water you want to boil from a variety of sources.



Book FAQ 

Add a sub chapter


Note that the sub chapter box is checked. A chapter may have many sub chapters, but sub chapters cannot have subchapters. In order to keep this resource simple, you are limited to two levels.





» Books » How to Boil Water » Edit

 **Editing chapter** 

Chapter Title:

Subchapter: 

Content:

Write carefully 
 Use emoticons 

Using the Book Module

One may, of course, use book to present information in a well-structured, user-friendly format. But there are other possibilities. Because this module allows one to import individual web pages or folders of web pages, it is useful for group work. For example: each student creates a simple web page about your school and the teacher (that's you!) uploads the pages to the book. Viola! You and your students have created a useful, interesting resource for new students and their parents. You could do this to create a class cook book and nutrition guide, a resource about local civic organizations, triangles in our daily lives, world leaders, you name it.

» » [How to Boil Water](#) » Import

📖 Importing chapters into book ?

File or directory:

Subchapter:

Import selected HTML file or directory.
Chapters are sorted alphabetically using file names.

📖 Editing chapter ?

Chapter Title:

Subchapter:

Content:

Trebuchet 1 (8 pt) **B** *I* U ~~S~~ x₂ x²

Write carefully ?
About the HTML editor ?

Path:

browse to the desired web page or folder of web pages and import them into your book
Note: Relative file links are converted to absolute chapter links. Images, Flash and Java are re-linked too. Remember to upload images and multimedia files as well as html files to your server, of course. Javascripts, SSI page includes, etc., will probably be lost, however, so keep your pages simple and static.

12 Annex 3 – Sample for credited assignment

<p>MODULE: TC01</p> <p>E-LEARNING CONCEPT</p>	<p>IDENTIFIER:</p> <p>TC01A02</p>
<p>1. ASSIGNMENT</p> <p>Please evaluate the e-learning state-of-the-art of your school against the trends you learned in this module, and give a short introduction about your work answering the questions below!</p>	<p>METHOD:</p> <p>Evaluation</p>
<p>2. CONTENT REQUIREMENTS</p> <p>a) ICT infrastructure in your school</p> <ul style="list-style-type: none"> – Please give a short summary about the ICT equipments available in your school! (hardware – figures) – What kind of software does your school have? Are the software packages available for the teachers? – Do you use open source software at home or in the school? – Could you use ICT in the classrooms, or only in computer labs? – Have you ever worked within a Learning Management System (LMS) as a learner or teacher? – Are any LMSs installed in your school? – Does your school have a website? If yes, who manages it? <p>b) Please give the level of your school’s ICT infrastructure in a decimal scale regarding</p> <ul style="list-style-type: none"> – Hardware, software – Technical support – Motivation and competences of teachers – Strategy, support from the leaders <p>c) How do you use computers and networks in your own work? Provide a short summary about your work</p> <p>d) How do you use computers and networks in your pedagogical practice? Provide a short summary about your work</p>	
<p>3. FORMAL REQUIREMENTS</p> <p>You are asked to work in Word documents (2-4 pages) In header: Name, Institute, Your group at left side</p> <ul style="list-style-type: none"> • Module, assignment identifier at the right side <p>Footer: Left side the filename, right side the page number</p> <ul style="list-style-type: none"> • Please use page break only if it was important! 	<p>ASSIGNMENT:</p> <p>TC01A01_your_name.doc</p>

4. IPR ISSUES

Please give your declaration according the copyright issues of your assignment using the CC suggestions <http://creativecommons.org/license/>

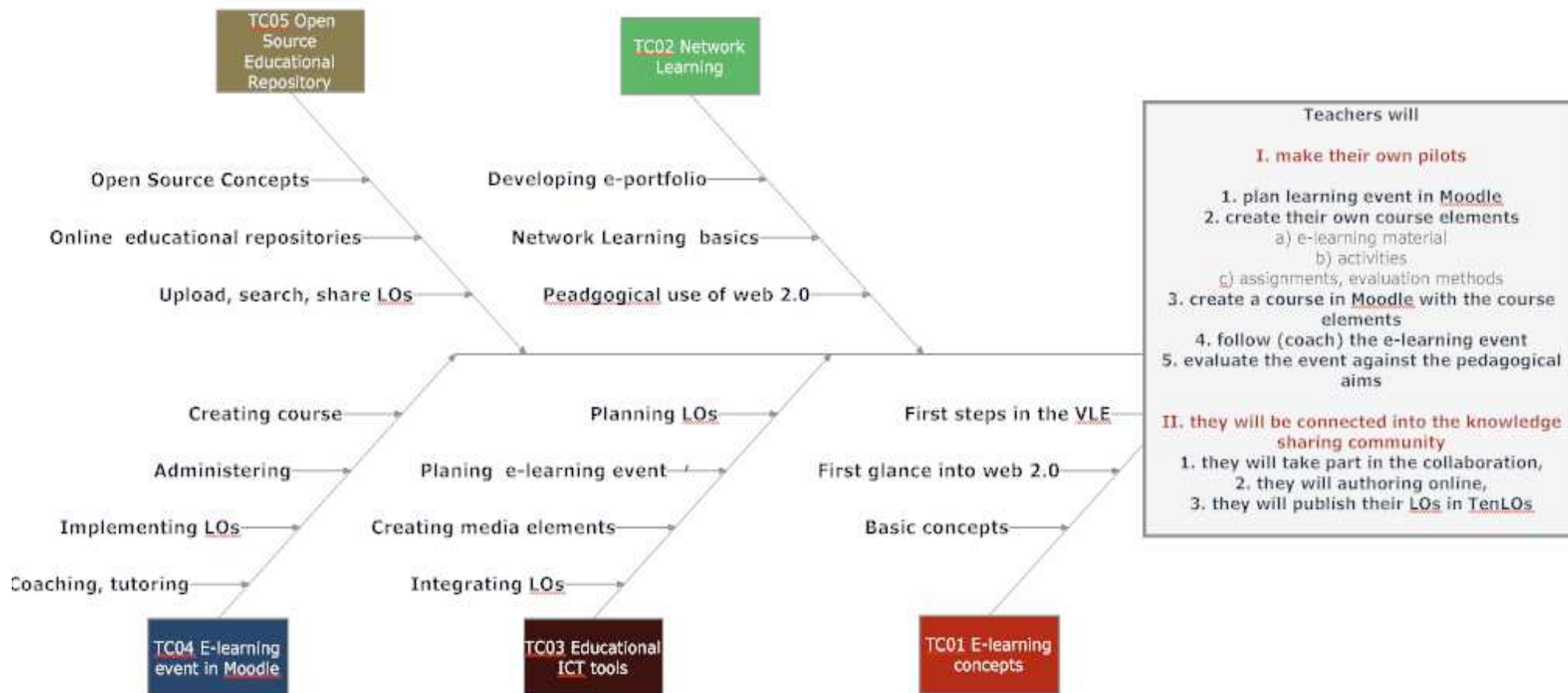
5. ASSESSMENT

Your work will be assessed by your tutors. Maximum achievement: 25 credits
Assessment considerations: content, arrangement, clarity, aesthetic, spelling.

6. BIBLIOGRAPHY

Articles, studies according to the e-learning trends, defined by your instructor, available as a part of the course content.

13 Annex 4 – Tenegen Learning Outcomes



14 Annex 5 – Credited assignments of the modules

ID	Assignment	Credit	Skills	Learning Outcomes	Learning Objectives
TC01	E-learning concepts				
TC01A01	Activity in collaboration (in discussion forums, in chats, communication with tutors e-mail, messages) in the given theme, summarizing the results in an assignment	30	TC01S1-3	TC01OC01-2	TCL003
TC01A02	Evaluation report about the e-learning state-of-the-art of the school and the ICT tools usage in the pedagogical practice and trends	15	TC1S02	TC01OC03-4	TCL001
TC01A03E TC01A03G	After group discussion and web research report on the networking attitude and culture of your students	15 10		TC01OC05	TCL001, TCL004
TC01A04	Select two collaborative web 2.0 tools and analyze its pedagogical potential	20	TC01S04	TC01OC07	TCL002, 5
TC01A05	Online test	10		TC01OC01-2	TCL001-2
TC02	Net pedagogy				
TC02A01	Activity in collaboration (in discussion forums, in chats, communication with tutors e-mail, messages) in the given theme	30			
TC02A02	Create a detailed, well structured e-portfolio with knowledge map, and use this in a knowledge sharing processes.	20			
TC02A03	Write a blog with reflection on the learning and teaching process	40			
TC02A04	Active participation in web 2.0 interactive web-tools (data management, communication, media)	10			
TC03	Educational ICT tools				
TC03A01	Activity in collaboration (in discussion forums, in chats, communication with tutors e-mail, messages) in the given theme, summarizing the results in an assignment	20		TC03OC01-4	TCL003
TC03A02	Search and select two e-learning materials or objects, evaluate their pedagogical value in your own subject	10	TC03S01	TC03OC02	TCL007
TC03A03	Select or create three e-learning elements, describe with metadata and store in Moodle	15	TC03S02	TC03OC03	TCL007
TC03A04	Design e-learning material and integrate the elements into a presentation or in web page	40	TC03S04	TC03OC04	TCL005
TC03A05	Online test	15		TC03OC1-4	TCL001
TC04	E-learning event in Moodle				
TC04A01	Activity in collaboration (in discussion forums, in chats, communication with tutors e-mail, messages) in the given theme, summarizing the results in an assignment	10		TC04OC01-6	TCL003
TC04A02	Create a synopsis to e-learning event, planning all the activities, assignments and feedbacks	15	TC04S03	TC04OC01	TCL005
TC04A03	Establish an own course in Moodle, integrate the e-learning material	35	TC04S01-2	TC04OC02-3	TCL008
TC04A04	Test the course with students	20	TC03S04	TC04OC03-4-5	TCL009

ID	Assignment	Credit	Skills	Learning Outcomes	Learning Objectives
TC04A05	Evaluate the learning event against the pedagogical aims, including at institutional level	20	TC03S05	TC04OC06	TCL0010
TC05	Open Source Educational Repository				
TC05A01	Collaborative definition and design of a Learning Object.	10		TC05OC01-2-3,	TCL001
TC05A02	Production of a SCORM-compliant Learning Object	35		TC04OC05,7	
TC05A03	Activity in collaboration (in discussion forums, in chats, communication with tutors e-mail, messages, through the FreeLOms platform) aimed at producing a learning resource	20			
TC05A04	Report about the potential of using Learning Objects and Web 2.0 collaborative site in an integrated way, including potential translation methods between tag and metadata systems	20		TC04OC08	
TC05A05	Online test	15		TC04OC01-7	TCL001

15 Annex 6 – Video Conferencing

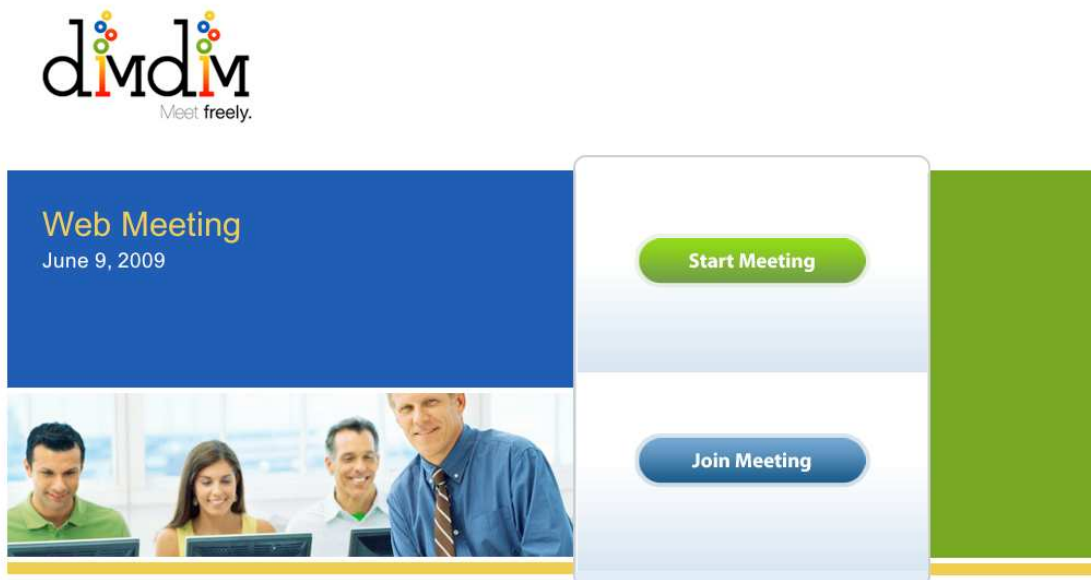


The tutors are asked to arrange videoconferences to discuss details with group-members.

Our conferencing system is based on the free, open source distribution of DimDim. You can access it from the Moodle front page, or directly with the link given below.

Usually when a conference has been scheduled, we will provide you with a direct link to the conference – you'll only have to enter your name. In case you can't find a link to the conference, just type

<http://meeting.prompt.hu> into your browser window and you'll be presented with the following screen:



On this screen you'll need to click on the "Join Meeting" button, then enter your desired name and use "Tenegen" as the room's name.

Enter Room Name

Enter Your Name

Once you've joined the conference in progress, you'll be presented with DimDim's conferencing interface.



- 1: You can chat privately with any participant by invoking this menu by selecting "Chat privately..."
- 2: If any participant has a camera connected, you'll be able to see its video stream in this window.
- 3: These are the control buttons for the A/V broadcaster. You can mute a particular participant's microphone and/or camera, and you can also start/stop broadcasting your own voice or camera stream.
- 4: This is the main content pane, and the host sets what is displayed in this window. The host can share documents, his/her computer screen, or a webpage, and there's also a group whiteboard feature.
- 5: You can maximize the content window with the "Full screen" button in the upper right corner of the content pane.
- 6: This shows the time elapsed since the beginning of the conference.
- 7: You can leave the conference by pressing this button.
- 8: You can chat with all the participants by typing into this window. WARNING: this is a public chat; every participant will see what you've typed.