



Moodle specification document for ModENet

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1 Introduction

The EMCET projects (I and II) have been funded through the EU's Leonardo da Vinci programme to promote good practice and provide an innovative support system for modular education and vocational training in Europe, by creating an internet portal, databank and the European Institution for development and dissemination of the modular approach.

The Modular Education Network (ModENet) initiative aims to complement EMCET activities by providing a website that will enable individuals or organisations to develop and share best practice through a collaborative community. ModENet will also be a first point of contact for all training providers, researchers and enthusiasts interested in a modular approach to teaching and learning.

There are separate higher-level specifications and business planning documents detailing the project's overall aims and requirements. The purpose of this document is to show how the necessary functionality can be set up on the ModENet website. We have recommended the use of the Moodle software package, and show how it can be used and adapted to satisfy ModENet's needs and enhance the user experience. This will be achieved by discussing the following areas:

- The choice of Moodle as the appropriate software package
- The high level Moodle configuration required by ModENet
- Installation and configuration
- Further issues to be resolved
- Timeframes

2 The choice of Moodle as the appropriate software package

The word Moodle is an acronym for "Modular Object-Oriented Dynamic Learning Environment" and is a free Virtual Learning Environment (VLE) and Learner Management System (LMS). Moodle has been developed for and by the educational community and provides extensive functionality to cover the requirements of the local school through to universities and hospitals. It is well established with over 30,000 education sites operating worldwide with 63 sites having more than 20,000 users. Moodle is free to download and use, making it a cost effective method of developing online communities. There are alternative open source VLEs but Moodle is the most established and widely used.

The advantages of using Moodle over other VLEs include:



- § Cost: there are costs common to all VLEs (server costs etc) but Moodle is free to download and update.
- § Wide access: there are no restrictions on number of users or licence agreements.
- § Quick response for extra requests and facilities: Moodle is being constantly updated and improved by users in similar situations. There are no commercial influences or restraints imposed.
- § Customisation: Moodle allows client customisation without any of the constraints put on by proprietary versions.
- § Implementation: Moodle is acknowledged to be one of the easiest VLEs to download and upgrade.
- § Commercial risk: there is no company backing to Moodle and so no risk of the sole source of support being cut off.
- § Online support and documentation: the Moodle website is extremely informative and facilitates collaborative support for users in a number of ways. The Moodle Community has over 200,000 registered users speaking in over 75 languages including discussions in Polish.

2.1 The Moodle “package”

Moodle focuses on learner-led educational experiences and provides many opportunities for learners to interact with content, teachers and each other.

The standard functionality available and potentially applicable to the ModENet project includes:

- Discussion forums with feedback
- Web logs (Blogs)
- Preset database – users and content
- Registration process
- Process for collecting payments
- Calendar
- Homepage
- Web links to other websites (EMCET)
- Site news
- RSS feeds (Really Simple Syndication = web announcements)
- Online chat
- Peer review
- Uploading and sharing of documents
- Creation of online content by users
- Preset web page themes and creation templates
- User profiles



The following section will detail which of these will be used to satisfy the requirements of the design document.

3 High level Moodle configuration required for ModENet

The requirements for the ModENet community differ from the traditional teacher / student relationship in which Moodle developed. There is however much functionality in Moodle which will allow ModENet to achieve its objective to create a collaborative community website to promote the use of modularised courses across Europe.

3.1 Homepage

It is assumed that the site will require all users to register and be logged in before any of the site content can be viewed.

It is proposed that a pre-login page should be added to the site. This page will welcome users and outline the site's aims and facilities. Clicking the "login" button will then take users to the login / registration page.

When the user has logged in, the homepage will appear with navigation to all of the site's pages and features.

It is proposed that the homepage will show:

- Logo
- Terms and conditions (link to)
- Classified advertising (potentially)
- Links to a chat room, glossary etc

In addition there will be "blocks" (screen areas) containing:

- Calendar
- Upcoming events
- List of participants
- Links to other websites such as EMCET
- Latest news

There will be a large "Site News" section. This will form the core of the ModENet site containing the discussion forums. It is possible to show up to 10 forums on the home page with links to more as appropriate.

The presence of these forums on the homepage has two advantages:



- users are encouraged to participate because they can see how the discussions are unfolding
- users do not have to find discussion forums, they are immediately visible

There is some flexibility in Moodle to introduce site logos, branding and so on. It is assumed that such branding will be included as part of the site support and hosting provided by ITeE.

Decisions required:

- What should be visible prior to login?
- What should banner section contain?
- Should Guests be allowed to view content without logging in?
- Which websites should the homepage link to?
- What will the design treatment be and when will it be available?

3.2 Registration

It is proposed to allow new users to register themselves as guests using “Email-based registration”. This system allows ModENet to collect personal information before automatically emailing a link which, when followed, allows the user to create an account.

Moodle specifies generic information that is gathered as standard but this can be modified depending on the project’s requirements. It is envisaged that fields such as “category of membership” (individual, full or training provider) and “organisation” will be added. The project wishes to use the personal information gathered for marketing purposes so consideration needs to be given to what other information could be valuable.

Users can specify in their account profile whether they can be contactable by e-mail.

Decisions required:

- What user information is required?

3.3 Discussion forums

To avoid unnecessary complexity it is recommended that the project utilise the “Site News” discussion forum that will occupy the lower part of the homepage.

Users will be shown the most recent 10 discussion threads with links to access older discussions. All users will be able to create new threads and contribute to existing threads.



Users will be able to:

- Upload / download documents (max size 32mb)
- Discuss the topic
- Split discussions into separate threads
- Receive notification via e-mail when changes are made

Decisions required:

- Is email notification of updates required?

3.4 Social networking

The project aims to enable social networking between users. This will be made possible via a homepage link "Participant" which provides a list of all registered users (not necessarily logged in). From the list it is possible to see details of other users and view their profile, send messages (via e-mail or within the site), access their blogs and site contributions.

Whenever a user makes a contribution to the discussion their name is attached, other users reading their contribution can view their profile.

When users click on their own name it will allow them to update their own profile, adding:

- Free text descriptions
- Keywords describing interests, projects and so on
- A picture
- Whether they are contactable by e-mail

Additional social facilities such as blogs and messaging are also available if required.

Decisions required:

- What user data should be made available to other users?
- Are blogs and messaging required?

3.5 Online meetings

It is possible to host online meetings using Moodle. Such meetings can be time-limited, restricted to specific user groups and can link to documents, links, websites, images, video or other types of content.

Meetings can be hosted in two ways:



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ModENet specification

- Chat rooms – these will allow multiple users to chat in real time achieving quick results but with only the administrator able to extract a log
- Discussion forums – as described above this format could be used to discuss uploaded documents. This has the advantage of being asynchronous with a visible history.

The two options can be used simultaneously or as appropriate to different types of meeting.

3.6 Glossary/collaborative content development

Moodle offers two options for collaborative content development: glossaries and wikis.

It is proposed that the site glossary option be used to develop definitions collaboratively. When a user enters a term and description others can comment, update and develop. This maybe useful to record conclusions to discussion forums or allow further discussion on certain terms.

Decisions required:

- Is this functionality necessary to the site? (it can be added or extended following site launch)

3.7 Payments

ModENet will be a subscription-based service and therefore there is a requirement to process payments and link these payments to site registration information. Moodle can be linked to PayPal (an “e-commerce business allowing payments and money transfers to be made through the internet”) that operates a subscription monitoring service. It offers the advantage of securely collecting monies in a variety of currencies and prompting repeat payments e.g. every 12 months. There is a cost involved with using PayPal of up to 3.9% of each transaction. The PayPal system would need monitoring and administrating alongside the Moodle ModENet site.

PayPal however imposes a restriction of a single subscription rate (with introductory offers etc). The types of membership, Individual vs. Group and low or high GDP, specified for the ModENet site would need significant bespoke programming on the Moodle site and database to cover this requirement. The ModENet site will have to ascertain the correct rate a user should be paying and control which users have been paid for by their organisation’s full Organisational membership before being passed to PayPal.

The cost of the bespoke programming and the relatively small number of users suggest the following process is a more viable solution:



It is suggested that when a user first registers they go through the self-registration process and fill out all the required data fields. They can then access the site with only viewing rights and would be unable to contribute or download documents. The site administrator would then be able to identify the new user on the database, manually applying the required logic regarding membership type and GDP etc. The administrator would then contact the user via e-mail proposing the correct payment process. The advantages of the PayPal subscription service could still be realised if the administrator forces users down that route.

This would be achieved by setting the default role assigned to each new user to "Guest" and when payment is received the administrator manually amending this to "non editing teacher". This will give users sufficient permissions within the site

Decisions required:

- Is the proposed process acceptable?
- Further details relating to how payments will be processed is required.

3.8 RSS feeds

RSS feeds supply selected content from a website to anyone who has request to receive the information. As such they can be used either inbound or outbound. Inbound the site will highlight changes made in other websites (e.g. EMCET) whilst outbound will notify users via their web browser that changes have been made to the ModENet site.

Decisions required:

- Are RSS feeds required? If yes, both inbound and outbound?

4 Installation and configuration

The Moodle and associated server software can be downloaded free of charge from <http://download.moodle.org/> with Moodle version 1.8.2 being the version recommended for new servers.

The installation process depends on the operating systems and existing web servers etc and as such at this point Jigsaw Learning is unable to give detailed technical recommendations. Moodle requires the use of a web server offering Apache, PHP and MySQL. A fresh installation of Moodle will occupy about 60MB of storage. However most of the space will be occupied by content added by users, it is impossible to say how much space the project will require but it should not be a prohibitive amount.

The installer script may prompt the user to enter certain configuration settings. To ensure that installation and configuration is as simple as possible it is recommended that default entries be accepted during the installation process.

Once installed Jigsaw Learning proposes that they work closely with the ITeE team to implement the configuration changes necessary to enable the functionality described above.

5 Further issues to be resolved

In addition to the decisions required listed above consideration should be given to:

- How the site will be contacted – admin / Webmaster?
- What level of moderation/administrative intervention will be required?
- Are there any future requirements for the site that need to be considered at conception?
- Has the site domain been registered? If not, what proposals are in place for the domain name?
- Is there any functionality that has been omitted from this document?

6 Timeframes

Jigsaw Learning understands that the technical team supporting the ModENet site will be available to begin installation and initial configuration from August 28th. With this date in mind, it is considered feasible to launch a pilot site prior to the ModENet meeting in Cologne.

Mark Timmons - August 27, 2007