



**For Teachers, Trainers
And Administrators**

**Revised January 2005
V.1.4.3**



GNU GENERAL PUBLIC LICENSE
Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.
59 Temple Place, Suite 330, Boston, MA 02111-1307 USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

Preamble only (see for complete license)

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification are outlined in the GNU General Public License found online.

ABOUT THIS DOCUMENT

This manual was created for the Moodle.org community by Bryan C. Williams of remote-Learner.net, and is available under the Creative Commons Noncommercial copyright. You may copy, distribute, and create derivative works based upon it — but for noncommercial purposes only. Any alteration of the original work must credit the author, and members of the Moodle community that contributed to this document (Bryan C. Williams, Matt Riordan and Martin Dougiamas).



Table of Contents

Introduction	4-5
Getting Started	6-7
Course Management	8-38
Learner Management	39-43
Administration Features	44-48
Installing Moodle	49-54
Web Server Settings	55
Notes	56-58



Moo·dle (moōd'l)

If you were a computer programmer the term “Modular Object-Oriented Dynamic Learning Environment” (Moodle) might make your heart skip a beat. If you were a teacher you might recognize the word as a verb that describes the process of lazily meandering through something, doing things as it occurs to you to do them, an enjoyable tinkering that often leads to insight and creativity.

As such it applies both to the way Moodle was developed, and to the way a student or teacher might approach studying or teaching an online course. Anyone who uses Moodle is a Moodler. The Australian developer of Moodle (Martin Dougiamas), is both an educator and computer scientist. This combination brings unique qualifications to the art and science of using technology to reach learners in the 21st century.

Open Source e-Learning Software

Moodle is a course management system (CMS) - a software package designed to help educators create quality online courses and manage learner outcomes. Such e-learning systems are sometimes also called Learning Management Systems (LMS), Virtual Learning Environments (VLE) and Learning Content Management Systems (LCMS). Students need only a *browser* (e.g., IE, Firefox, Safari) to participate in a Moodle course.

Moodle is Open Source software, which means you are free to download it, use it, modify it and even distribute it (under the terms of the GNU General Public License). Moodle runs without modification on Unix, Linux, Windows, Mac OS X, Netware and any other system that supports PHP, including most web host providers. Data is stored in a single database: MySQL and PostgreSQL are best supported, but it can also be used with Oracle, Access, Interbase, ODBC and others.

Language Support

Moodle has 50 language packs, including: Arabic, Catalan, Chinese (simplified and traditional), Czech, Danish, Dutch, English (UK and US versions), Finnish, French (France and Canada versions), German, Greek, Hungarian, Indonesian, Italian, Japanese, Maori, Norwegian, Polish, Portuguese (Portugal and Brazil), Romanian, Russian, Slovak, Spanish, Swedish, Thai and Turkish.

Design Philosophy

The design and development of Moodle is guided by a particular philosophy of learning, a way of thinking that you may see referred to in shorthand as a “*social constructionist pedagogy*”. This page tries to explain in simple terms what that phrase means by unpacking **four main concepts** behind it. Note that each of these is summarizing one view of an immense amount of diverse research so these definitions may seem thin if you have read about these before.

If these concepts are completely new to you then it is likely that these ideas will be hard to understand at first. We recommend that you read this carefully, while thinking about your own experiences of trying to learn something.

1. Constructivism

This point of view maintains that people actively construct new knowledge as they interact with their environment.

Everything you read, see, hear, feel, and touch is tested against your prior knowledge and if it is viable within your mental world, may form new knowledge you carry with you. Knowledge is strengthened if you can use it successfully in your wider environment. You are not just a memory bank passively absorbing information, nor can knowledge be “transmitted” to you just by reading something or listening to someone.

This is not to say you can't learn anything from reading a web page or watching a lecture, obviously you can, it's just pointing out that there is more interpretation going on than a transfer of information from one brain to another.

2. Constructionism

Constructionism asserts that learning is particularly effective when constructing something for others to experience. This can be anything from a spoken sentence or an internet posting, to more complex artifacts like a painting, a house or a software package.

For example, you might read this page several times and still forget it by tomorrow - but if you were to try and explain these ideas to someone else in your own words, or produce a slideshow that explained these concepts, then I can guarantee you'd have a better understanding that is more integrated into your own ideas. This is why people take notes during lectures, even if they never read the notes again.

3. Social Constructivism

This extends the above ideas into a social group constructing things for one another, collaboratively creating a small culture of shared artifacts with shared meanings. When one is immersed within a culture like this, one is learning all the time about how to be a part of that culture, on many levels.

A very simple example is an object like a cup. The object can be used for many things, but its shape does suggest some "knowledge" about carrying liquids. A more complex example is an online course - not only do the "shapes" of the software tools indicate certain things about the way online courses should work, but the activities and texts produced within the group as a whole will help shape how each person behaves within that group.

4. Connected and Separate

This idea looks deeper into the motivations of individuals within a discussion. Separate behavior is when someone tries to remain 'objective' and 'factual', and tends to defend their own ideas using logic to find holes in their opponent's ideas. Connected behavior is a more empathic approach that accepts subjectivity, trying to listen and ask questions in an effort to understand the other point of view. Constructed behavior is when a person is sensitive to both of these approaches and is able to choose either of them as appropriate to the current situation.

In general, a healthy amount of connected behavior within a learning community is a very powerful stimulant for learning, not only bringing people closer together but promoting deeper reflection and re-examination of their existing beliefs.

Once you are thinking about all these issues, it helps you to focus on the experiences that would be best for learning from the learner's point of view, rather than just publishing and assessing the information you think they need to know. It can also help you realize how each participant in a course can be a teacher as well as a learner. Your job as a 'teacher' can change from being 'the source of knowledge' to being an influencer and role model of class culture, connecting with students in a personal way that addresses their own learning needs, and moderating discussions and activities in a way that collectively leads students towards the learning goals of the class.

Obviously Moodle doesn't force this style of behavior, but this is what it is best at supporting. In future, as the technical infrastructure of Moodle stabilizes, further improvements in pedagogical support will be a major direction for Moodle development. You are invited to be a part of this future by contributing your ideas and experiences using Moodle with your students.



Join the online community of teachers and business trainers at <http://moodle.org>

Creating a New User Account

Before you can do anything in Moodle you must create a New Account. By default this is done via e-mail confirmation. A message is sent from Moodle after completing the New Account registration form (Fig. 2), accessible from the main Login screen (Fig. 1). Other forms of user authentication are supported in Moodle (e.g. manual accounts only, external database, POP3, LDAP etc.), and these are explained in the Administration section of this manual.

Once a user account is established the primary Moodle administrator can change an accounts login permissions. Following are types of user accounts that can be assigned to a Moodle user:

- Student (default - can interact with course content only)
- Teacher *with* Editing Permissions (can populate a course with activities and provide learner feedback - e.g. grades, assignment comments etc.)
- Teacher *without* Editing Permissions (can provide learner feedback only - e.g. grades, assignment comments etc.)
- Course Creator (can create new courses, teach within them and assign teachers)
- Administrator (can do anything and go anywhere within Moodle - see page 44)

Fig. 1

Fig. 2

Fig. 3

Step 1: Click "Start now by creating a new account button"
Step 2: Complete signup form and click "Create my new account" button
Step 3: Respond to the e-mail sent by clicking link within message

Participants complete the process of creating a New Account by clicking the link sent by Moodle in an e-mail message they receive. This step should not be omitted when using the default e-mail authentication method. E-mail link will login new user to Moodle site front page (Fig. 3). Once you have created a New Account ask the Moodle administrator to change your accounts login permissions.

Moodle Screen Elements

Learners can access a Moodle course using almost any browser, including Internet Explorer, Mozilla, Firefox and Safari for the Macintosh. It is important that learners have a familiarity with using their browser and that Moodle basic screen elements (Fig. 4) are explained, including:

- The Navigation bar (breadcrumbs trail)
- Side blocks
- Course content area
- Turn editing on button (seen by course creators only)

The screenshot shows a Moodle course page for 'Moodle 101'. At the top, it says 'You are logged in as Bryan Williams (Logout)'. Below this is a navigation bar with 'Home > M101' and a 'Turn editing on' button. The main content area is a weekly outline with 10 weeks of content. The left-hand side has a menu with 'Administration' and 'Courses' sections. The right-hand side has several side blocks: 'Latest News', 'Calendar', 'Upcoming Events', 'Recent Activity', and 'Online Users'. Annotations with arrows point to these elements: 'Navigation bar' points to the breadcrumb trail; 'Turn editing on' points to the button; 'course content area' points to the weekly outline table; and 'Side blocks' points to the left-hand menu and right-hand sidebar.

Fig. 4

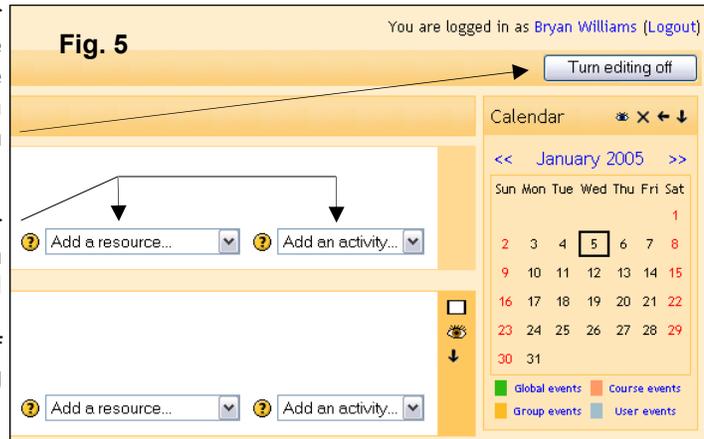
The Navigation bar or "breadcrumbs trail" in Moodle displays hyperlinks, showing where the student is at in relation to the course or site main page. This allow the user to easily return to a previous screen, and should be used over the back/forward buttons on the browser.

Course Setup - Side Blocks

If this is the first time you are entering a new course created for you by an administrator, it will be mostly blank (see Fig. 4). Course templates have *block* areas on the left and right sides, with *course content* activities being added in the middle of the screen. Side blocks can be added, removed and moved around on the course homepage to fit your needs.

To reveal Moodle's features for adding content and arranging side blocks in your course, click the "Turn editing on" button located in the top right corner of the screen (Fig. 5).

This action will reveal features for adding activities and resources in the content area of the course, and allow you to work with side blocks. The following is a description of Moodle side blocks included during installation, and their functions.



People

This block has three selections, including:

- Participants (shows list view of everyone enrolled in course)
- Groups (see Learner Management section in manual)
- Edit profile (allows a user to add personal information to their profile - Fig. 6)



Encourage learners to add a picture and details to their profile by clicking the "Edit profile" button



Activities

Whenever you add a different activity or resource to your course, an icon will appear in this block representing the specific Moodle "module" (e.g. Forum, Journal, Assignment etc.). These icons will link to a list of all instances of that modules activity that appear throughout the course. For students this provides a quick way to access a specific learning activity, teacher feedback or grade. For teachers they can access Learner Management features covered in that section of the manual.

Calendar

This block allows a user to post significant events, relative to their account permissions:

- Site (event viewable in all courses - created by admin users)
- Course (event viewable only to course members - created by teachers)
- Groups (event viewable only by members of a group - created by teachers)
- User (personal event a student user can create - viewable only by the user)

If you add closing dates to an Assignment, Forum, Quiz or Chat activity within your course, these events will show up on the Calendar automatically. You can view previous or future months on Calendar by clicking the left/right arrows next to the current month's name (Fig. 7).

Today's date is always outlined in black. Other events are color coded based on what the event is (color key under Calendar). You can hide or show various categories of events by clicking on the color key.

For example, if you wanted to hide *Group* event dates (events assigned to learner Groups you create), click "Group events" on the bottom of the Calendar. This would hide all group events, and the color code would disappear from the link on the calendar. To show the events again, click the Group Events link again.



Fig. 7

Steps To Adding A Calendar Event

1. Click month on Calendar (e.g. January)
2. In Calendar view click "New Event" button (Fig. 8)
3. From New Event page select:
 - User event (event unique to the user only)
 - Group event (if Groups are enabled, select group within course event is for)
 - Course event (for learners within the course only)
 - Site event (created by admin users only)
4. Add event properties (Fig. 9) and click Save changes. Event will now display with color code within Calendar block (Fig. 10).



Fig. 8

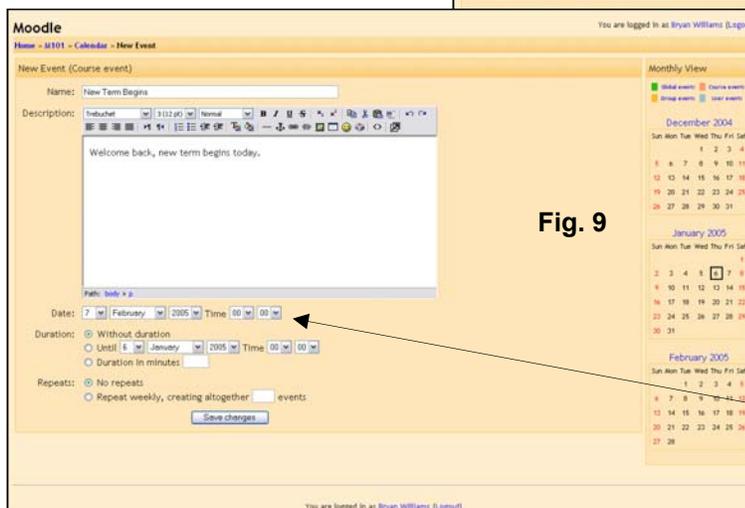


Fig. 9



Fig. 10

Upcoming Events

This block displays upcoming Calendar events in an abbreviated list, with links to the actual event so all details can be viewed. If this event is an Assignment, Forum, Quiz or Chat closing date the participant can link directly to this activity.

Search

Allows participants to do a Google like search of all *Forums*, for the occurrence of their search value.

Administration

These features are discussed in the Learner Management section of the manual.

Courses

This block will display a list of all courses (only) that a participant is enrolled in, allowing one-click access to another course home page.

Latest News

The News forum (default) within your course provides a way in which you can post course news you want participants to receive. Any posting made in this forum will display as a listed item in the Latest News block.

Recent Activity

This block displays two types of information for a participant; an abbreviated list of what they have done since their last login (displayed within the block), and a more detailed “Full report of recent activity”. This latter feature provides the participant with a *Normal* view displaying a list of recent activity by module, or an *Advanced* view where report criteria can be set.



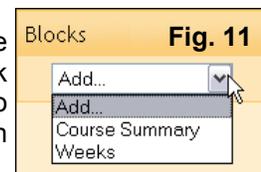
Recent Activity is a great way to quickly spot check course participation of a specific learner, using the Advanced search feature.

Online User

Displays name and image of everyone logged in to the course within the past 5 minutes.

Customizing Block Placement

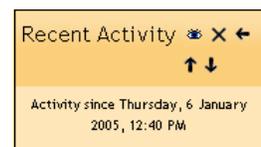
Blocks can be added, removed and moved around on the course home page to meet the needs of your classroom. When you click “Turn editing on” the Block block appears (Fig. 11), allowing you to easily perform these actions on any of the blocks we have discussed in this section of the manual.



When editing is turned on, symbols for manipulating a block appear in the header (Fig. 12), including:

- Eye - Hides or shows the block to students
- X - Removes block and adds it back to Block drop-down list
- ↑↓ - Moves block up or down in position
- ↔ - Moves block to left or right side of screen

Fig. 12



Moodle open source developers are regularly adding new side blocks! Check the Blocks forum in the Using Moodle course at <http://moodle.org> for recent additions.

Course Setup - Settings

In the simplest of terms, a Moodle course is comprised of learning *activities* presented to participants within a specific *format*. This format can be open-ended consisting of a number of topics, or it can be more formal such as structured around a beginning and ending date (like Fig. 1), or it can be formatted to encourage informal learning. Moodle allows you to select one of these three formats while setting up your course:

- Topic (for open-ended or ongoing enrollment - self paced learning)
- Weekly (structured, with a beginning and ending time period - e.g. school environments)
- Social (Forums that encourage informal modes of learning - peer interaction)

All features available from the Administration block will be covered in the Learner Management section of the manual, except for the **Settings** selection. This selection is central to course management in that this is where you will structure the online learning experience for your participants. When you click the Settings link in the Administration block the “Edit course settings screen (Fig. 13) appears, allowing you to make the following selections:

The screenshot shows the 'Edit course settings' page for a Moodle course. The page is titled 'Moodle 101' and has a breadcrumb trail 'Home - M101 - Edit course settings'. The main heading is 'Edit course settings'. The form contains the following fields and options:

- Category: Orientation
- Full name: Moodle 101
- Short name: M101
- ID number: (empty)
- Summary: (Rich text editor with content: 'Write a concise and interesting paragraph here that explains what this course is about')
- Path: body
- Format: Weekly format
- Course start date: 5 January 2005
- Enrolment period: Unlimited
- Number of weeks/topics: 10
- Group mode: Visible groups
- Availability: This course is available to students
- Enrolment key: (empty)
- Guest access: Do not allow guests in
- Hidden sections: Hidden sections are shown in collapsed form
- News items to show: 5 news items
- Show grades: Yes
- Show activity reports: No
- Maximum upload size: 20Mb
- Your word for Teachers: Teacher
- Your word for Teachers: Teachers
- Your word for Students: Student
- Your word for Students: Students
- Force language: Do not force

A 'Save changes' button is located at the bottom of the form. The footer of the page indicates 'You are logged in as Bryan Williams (Logout)' and 'M101'.

Fig. 13

The course “Settings” screen is where the online learning experience is structured for your students. Moodle allows a course creator to select different formats for their course including Topic, Weekly or Social format.

**Category:**

It is likely that your course may be one of several selections available at the Moodle site front page. Courses are typically assigned to a category (e.g. Language Arts, Workplace Safety etc.), and your Moodle administrator may have done this when the course template was created. If not, make a selection from the Category value list that places your course in the correct category for your organization.

Full name:

Give your course a full name, as it will appear in the header area of the home page (e.g. Moodle 101), and in the site front page category.

Short name:

This is the name that will appear in the Navigation bar "breadcrumbs" are (e.g. M101)

ID Number:

If you have an official code name for this course then use it here. Otherwise, leave blank.

Summary:

Enter a brief description for your course; about a paragraph of information that describes it to someone visiting the site front page.

Format:

Select a display format for the course (Topic, Weekly or Social), as discussed on page 11.

Course start date:

If you selected Weekly format, assign a date for when the course will go live.

Enrollment period:

If you would like to set a time limit for how long a participant can be enrolled in your course, make a selection here. If you do not wish to set an enrollment period limit, select Unlimited. When you set enrollment period limits, a participant will be automatically unenrolled from the course on the specified number of days after they have first entered the course.

Number of weeks/topics:

If you chose either Topic or Weekly format, select the number of topics or weeks your course will be comprised of.

Group mode:

Group mode allows you to segment participants into either Separate or Visible groups. Groups are discussed in the Learner Management section of the manual.

Force (Group mode):

If the group mode is "forced" at a course-level, then the course group mode is applied to every activity in that course. Individual group settings in each activity are then ignored. This is useful when, for example, one wants to set up a course for a number of completely separate cohorts.

Availability:

This option allows you to "hide" your course completely. It will not appear on any course listings, except to teachers of the course and administrators. Even if students try to access the course URL directly, they will not be allowed to enter.

Enrollment key:

A course enrolment key is what keeps unwanted people out of your course. If you leave this blank, then anyone who has created a Moodle username on this site will be able to enrol in your course simply by going in to it. If you put something here, then students who are trying to get in for the FIRST TIME ONLY will be asked to supply this word or phrase.



The idea is that you will supply the key to authorized people using another means like private email, snail mail, on the phone or even verbally in a face to face class. If this password "gets out" and you have unwanted people enrolling, you can unenrol them (see their user profile page) and change this key. Any legitimate students who have already enrolled will not be affected, but the unwanted people won't be able to get back in.

Guest access:

You have the choice of allowing "guests" into your course. People can log in as guests using the "Login as a guest" button on the login screen. Guests ALWAYS have "read-only" access - meaning they can't leave posts or otherwise mess up the course for real students. This can be useful when you want to let a colleague in to look around at your work, or to let students see a course before they have decided to enroll. You have a choice between two types of guest access: with the enrolment key or without. If you choose to allow guests who have the key, then the guest will need to provide the current enrolment key EVERY TIME they log in (unlike students who only need to do it once). This lets you restrict your guests. If you choose to allow guests without a key, then anyone can enter into your course.

Hidden sections:

This option allows you to decide how the hidden sections in your course are displayed to students. By default, a small area is shown (in collapsed form, usually gray) to indicate where the hidden section is, though they still can not actually see the hidden activities and texts. This is particularly useful in the Weekly format, so that non-class weeks are clear. If you choose, these can be completely hidden, so that students don't even know sections of the course are hidden.

News items to show:

A special forum called "News" appears in the "Weekly" and "Topics" course formats. It's a good place to post notices for all students to see. (By default, all students are subscribed to this forum, and will receive your notices by email.) This setting determines how many recent items appear on your course home page, in the Latest News block or News forum. If you set it to "0 news items" then the Latest News block won't appear on the home page.

Show grades:

Many Moodle activities allow grades to be set. By default, the results of all grades within the course can be seen in the Grades page, available to students from the course home page "Administration" block. If a teacher is not interested in using grades in a course, or just wants to hide grades from students, then they can disable the display of grades using this setting. This does not prevent individual activities from using or setting grades, it just disables the results being displayed to students.

Show activity reports:

Activity reports are available for each participant that show their activity in the current course. As well as listings of their contributions, these reports include detailed access logs. Teachers always have access to these reports, using the "Activity" link visible on each participants profile page. Student access to their own reports is controlled by the teacher via this course setting. For some courses these reports can be a useful tool for a student to reflect on their involvement and appearance within the online environment, but for some courses this may not be necessary. Another reason for turning it off is that the report can place a bit of load on the server while being generated. For large or long classes it may be more efficient to keep it off (default).

Maximum upload size:

This setting defines the largest size of file that can be uploaded by students in this course, limited by the site wide setting created by the administrator. It is possible to further restrict this size through settings within each Moodle activity module.

Your word for.....:

These four fields allow you define what names will appear within the course for teachers and students.

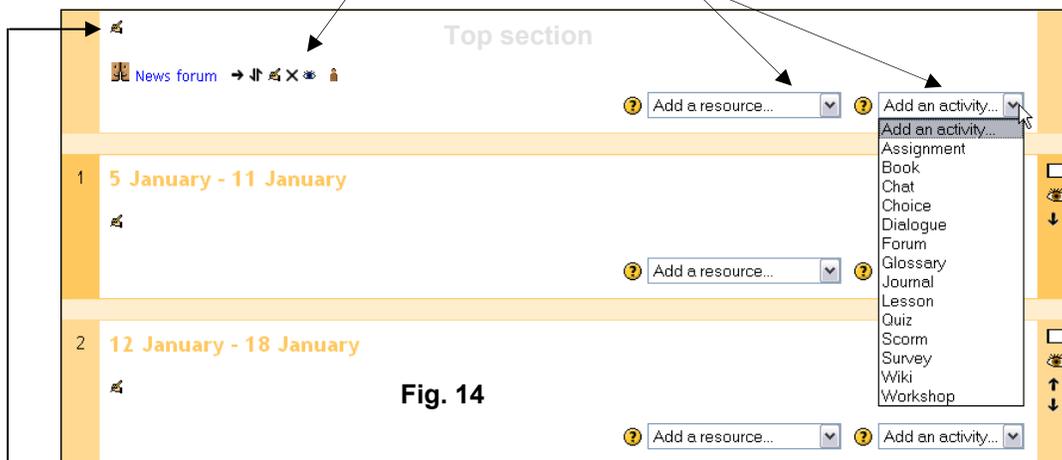
Force language:

Allows you to set course language setting to a default, which will override a students settings. Moodle has language packs for over 50 languages, which change all screen information and help files to the language selected. Course content which is added is in the language in which it was created, Moodle does not automatically interpret such content.

Course Setup - Design Tools

This section will discuss Moodle design tools (editing symbols and the HTML editor), used during course creation. A good way to become familiar with these basic features is to add a summary description in the Top section of the course home page for your participants (Fig. 16). Begin by clicking the “Turn editing on” button. This action will reveal:

- Block side block for adding, removing and moving side blocks (see page 9)
- Add an activity and Add a resource lists (Fig. 14 - discussed on page 16)
- Activity/Resource editing symbols



Editing Symbols

Each time you add an instance of an activity or resource to your course, a series of editing symbols will appear alongside the link. For example, notice in Fig. 14 these symbols appear to the right of the “News forum”, added by default when the course shell was created. The following is an explanation for these editing symbols:

- → Indents activity (left-facing arrow appears to un-indent)
- ⬆️ Moves activity up or down in relation to other activities (in topic/weekly areas)
- 🖋️ Allows you to Edit the activities properties
- ✖️ Deletes activity
- 👁️ Hides activity from students (or shows the item if it is already hidden)
- 👤 Displays “Group” setting status of activity (Groups discussed in Learner Management)

Course Home Page Summary Description

To add comments in the Top section of the course home page that describes your course to participants, click the Edit icon link for the Top section area. This action will bring up the sections *Summary of week/topic* property screen (Fig. 15). You can add an image with your description, and when complete simply click “Save Changes” to see your summary appear on the course home page (Fig. 16). Each topic/week in your course can have a Summary description.

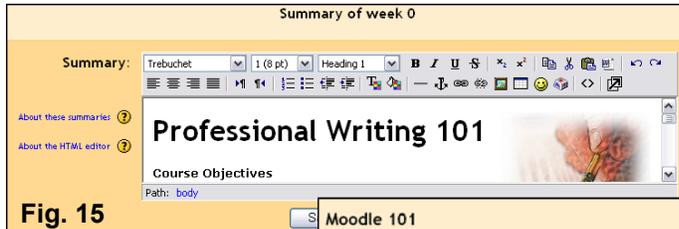


Fig. 15

Moodle's built-in HTML editor is available when adding property descriptions and when creating new activity resources. Students also use the HTML editor during coursework.

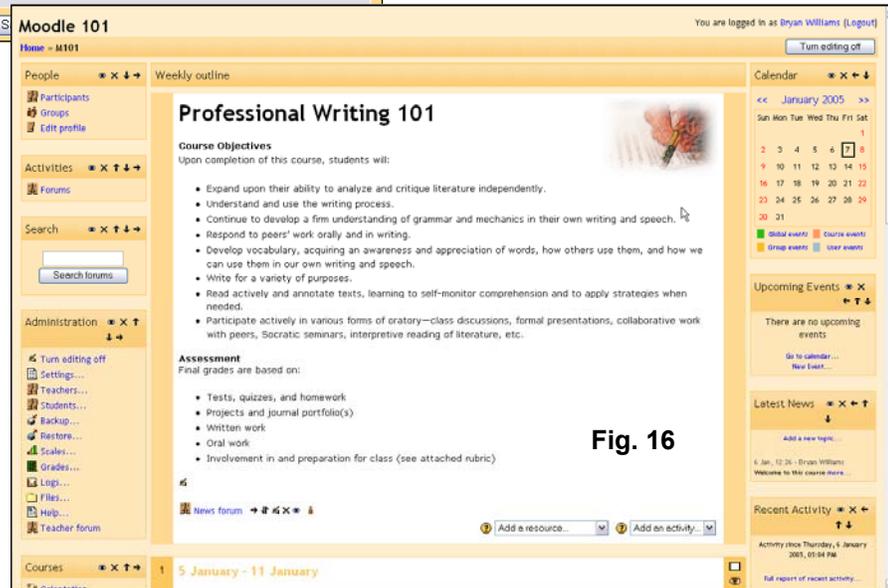


Fig. 16

HTML Editor

When you are creating your course you will frequently use Moodle's built in HTML editor (Fig. 17). Your students will use this tool when responding to Forum posts, making Journal entries, creating a Dialogue response and when they use a Wiki. The HTML editor can be disabled by the Moodle administrator, but is a useful tool for enriching course content.

The HTML editor is not as feature rich as a commercial application like Dreamweaver or FrontPage, but you can do almost anything these tools can. A button on the tool bar allows you to expand the editor to full screen and you can also work directly with code.

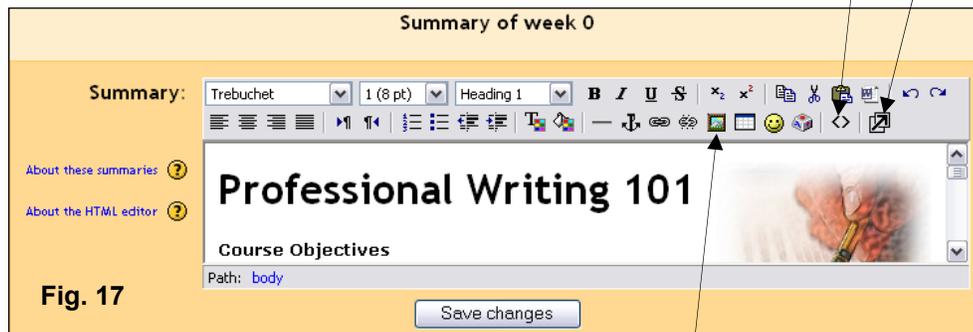


Fig. 17

Images stored in the course "Files" area can be easily inserted and you can create links to resources stored on another server. Hyperlinks and anchor points can also be easily inserted into a document. Moodle has built in media filters, discussed in the Administration section of the manual, that allow you to embed Flash, QuickTime, MP3 and Windows Media files into the HTML editor so they play directly within the page you create.

Course Setup - Adding Activities and Resources

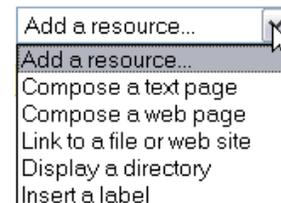
A Moodle course is populated with activities in one of two ways; by adding a “module” instance from the Activities drop-down menu (Fig. 18), or by adding an internal or external Resource (Fig. 19). An internal resource is defined as a file you create within Moodle using say the HTML editor, and an external resource is typically a file stored elsewhere on the Internet, on another server or elsewhere within Moodle.

This section of the manual will explain both activity modules and resources. The following activity modules are discussed:

- Assignment
- Book (not standard)
- Chat
- Choice
- Dialogue (not standard)
- Forum
- Glossary
- Journal
- Lesson
- Quiz
- SCORM
- Survey
- Wiki
- Workshop



Fig. 19



Assignment Module

In a bricks & mortar classroom an instructor may provide learners with an assignment that typically gets assessed (or graded) for completion. Adding an instance of an Assignment module activity allows you to do this. An assessment can be made from either a participants online submission of an electronic file (Word, PowerPoint etc.), or from an offline submission of the project in an actual classroom.

In either case the instructor can provide an assessment/grade or written feedback to the participant on their assignment, using Moodle’s [Learner Management](#) features (see that section of the manual). When you select Assignment from the drop-down menu a property screen appears with the following values to be completed:

Assignment name:

Give your assignment a name (e.g. “Report on *Topic Content*”)

Description:

You can be as brief or expanded as you want when adding details of the assignment. If you are adding rich content, tables etc. to your description, expand the HTML editor into full screen mode so you can make your webpage document look nice when participants view it.

Assignment type:

Select whether participants will complete the assignment as an Offline activity, or Upload a single file. If the latter, participants will have an option at the bottom of the screen to upload a file (not viewable during teacher login).

Allow resubmitting:

Select whether course participants can submit the assignment more than once.

Grade:

If this assignment is graded, select a value for the grade or select a scale that is being used. In the Learner Management section of the manual you will learn how to create custom grade scales and assessment of your own.

Maximum size:

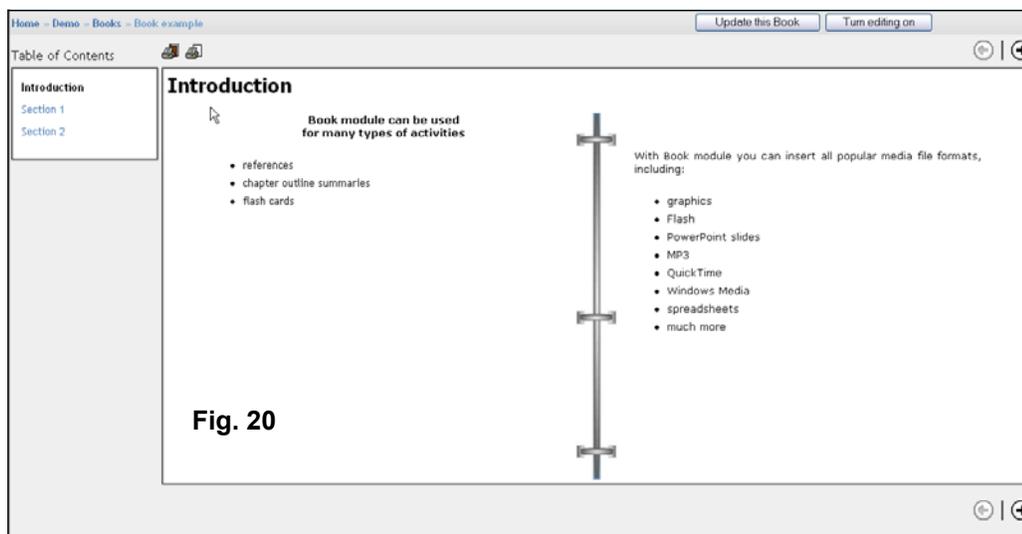
If you selected Upload a single file for Assignment type, set this value for the maximum size file (Word, Excel PowerPoint etc.) a participant can upload. This is typically only a few megabytes in size, unless the assignment is a multimedia file submission.

Due date:

When the course is running in a “Weekly” format there is an option to set a date for when this assignment is due by. This date will appear in the course Calendar as a reminder for participants. If you are using Topic format, set this date for say a few years in advance so the assignment activity will never become unavailable to students.

Book Module (non-standard)

Book module allows you to set up indexed multi-page study material (Fig. 20), which is ideal for presenting linear content (think PowerPoint). Property options allow you to set how chapters are numbered and whether participants can print content. There is also an option that allows you to add custom titles to each section of content created.



Resources and **Activity** modules like Forums, Assignments, Journals, Lessons, Chats and Quizzes are what make up a Moodle course. Setting up a new course begins when the teacher or course creator clicks the “Turn editing on” button located in the upper right corner of the screen.



Developers are regularly adding new Activity modules and add-ons to the Moodle open source project. These additions can be downloaded at <http://moodle.org/download/modules>

Chat Module

The Chat module allows participants to have a real-time synchronous discussion via the web. This is a useful way to get a different understanding of each other and the topic being discussed - the mode of using a chat room is quite different from the asynchronous Forums. The Chat module contains a number of features for managing and reviewing chat discussions.

Setup properties include the ability to establish a Chat session date/time (displayed on course calendar), schedule repeating chat sessions, a period for saving past chat sessions for students to review and whether or not these past sessions can be viewed.

Choice Module

A choice activity is very simple - the teacher asks a question and specifies a choice of multiple responses. It can be useful as a quick poll to stimulate thinking about a topic; to allow the class to vote on a direction for the course; or to gather research feedback. The Choice properties window allows you to select whether results from the activity are published for participants to view (anonymously or known) and whether a participant can modify their original selection. You can also set whether the results page will display a column showing unanswered participants.

Dialogue Module (non-standard)

This module provides a simple communication method between pairs of users. A teacher can open an dialogue with a student, a student can open a dialogue with a teacher, and (optionally) a student can open a dialogue with another student. A teacher or student can be involved in many on-going dialogues at any time. If you were a teacher, you might think of this as an after school personal meeting. If you were a mentor, this could be a one-to-one session. Students can use a dialogue to help each other in a private manner.

Setup properties allow you to select whether a dialogue is deleted a certain number of days after it has been closed, the type of dialogue instance being created (i.e., teacher to student, student to student or everybody) whether more than one dialogue per person is permitted and whether Moodle will automatically send out an e-mail notifying each party that a comment has been added to the dialogue.

Forum Module

This activity can be most important in terms of helping learners construct new knowledge - it is here that discussion among participants and teachers takes place. Forums can be structured in different ways, and can include peer rating of each posting. The postings can be viewed in a variety of formats, and can include attachments. By *subscribing* to a forum, participants will receive copies of each new posting in their email. A teacher can impose subscription on everyone if they want to.

Forum setup properties include:

- How students are allowed to post to a forum
- Whether subscription is forced
- Maximum size of attachment upload
- Whether posts can be rated and by whom, the type of rating scale used and how students can view these ratings, and a time period in which ratings can be applied.



Participants can choose how they wish to receive forum posts and other e-mail that Moodle sends out, by changing their "Edit profile" preferences (e.g. single message for each post made, daily digest of all messages etc.)

Glossary

This activity allows teachers and participants to create and maintain a list of definitions, like say a dictionary of terms specific to course content (Fig. 21). The entries can be searched or browsed in many different formats. The glossary also allows teachers to export entries from one glossary to another (the main one) within the same course. Finally, it is possible to automatically create *links* to these entries from throughout the course.

For example, each time a participant encounters a term within the glossary within say a forum post, assignment activity or quiz, the term is highlighted in grey. Clicking the highlighted term will display that glossary definition in a pop-up window.

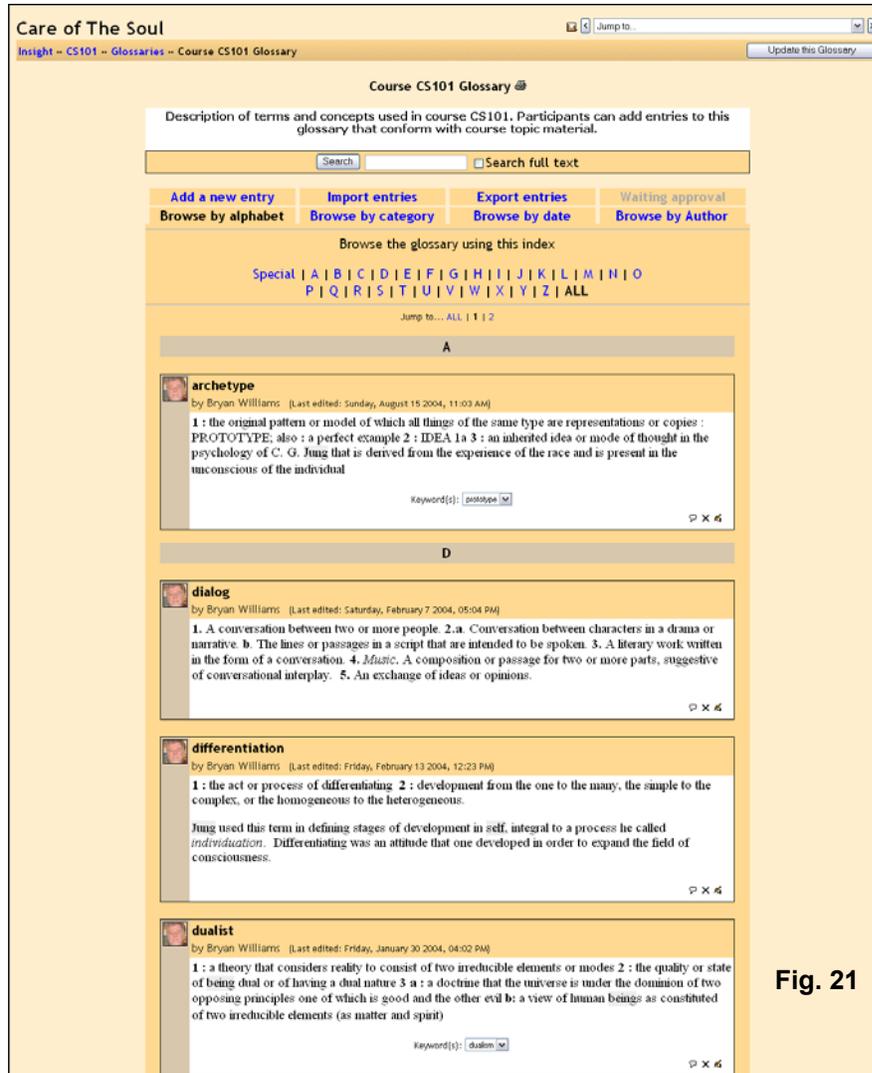


Fig. 21

Glossary setup properties allow you to establish whether students can add to the glossary, what format is used (e.g. dictionary, encyclopedia, FAQ etc.), whether comments can be added to an entry, whether linking is enabled, and like forums whether a term can be rated by participants. With a degree of imagination a glossary activity can really make a course shine!

Journal Module

This activity can be very important when reflective activity is encouraged, either connected with a certain course topic or as part of another activity. The teacher asks the student to reflect on a particular topic, and the student can edit and refine their answer over time. This answer is private and can only be seen by the teacher, who can offer feedback and a grade on each journal entry (discussed in Learner Management section of manual). It's usually a good idea to have about one Journal activity per week.

Journal properties setup allows you to create a description for the activity, determine whether the student entry carries a grade or assessment, and set a time period in days or weeks for when entries can be submitted.

Lesson Module

A lesson delivers content in an interesting and flexible way. It consists of a number of pages. Each page normally ends with a question and a number of possible answers (Fig. 22). Depending on the student's choice of answer they either progress to the next page or are taken back to a previous page. Navigation through the lesson can be straight forward or complex, depending largely on the structure of the material being presented. Lessons are a great way to assess practical knowledge of a subject, and with creative use of Moodle's HTML editor very effective simulations can be built.

Home - Demo - Lessons - How to use the Lesson Module

How to use the Lesson Module

Introduction

A lesson is used when it is necessary to tell the students some information about the topic being taught. The topic is broken into small chunks and shown to the student bit by bit. Each part is re-enforced by requiring the students to answer questions. The students proceed through the material only by answering the questions correctly. Wrong answers are "penalised" either by showing the same material again or going even further back in the lesson, even to the beginning of the lesson!

Within the lesson these chunks are called Pages. The length of each page is arbitrary but normally it should not be more than the amount that comfortably fits on a screen.

What is the "Unit of Information" used in the Lesson Module?

A Bit
 A Page
 A Think
 A Chunk

Please check one Answer

Fig. 22

Lesson module allows you to add entire lessons that guide the student based on the student's answers. It might be helpful to think of a Lesson activity as a kind of flowchart. The student reads some content. After the content, you ask the student some questions. Based on the answers the student gives, the system sends the student to another page in the Lesson. For example, if a student chooses question one, then the system might go to page 3. If the student chooses answer two, the system goes to page 1. If the student answers question 3, the system goes to page 5 etc. Lessons are very flexible, but do require some set-up.

To add a Lesson, select Lesson from the Add an activity menu on the course homepage. This action will take you to the Lesson editing properties page (Fig. 22a). Fill in the Name of the lesson. Next, select the maximum grade to be given for the whole lesson (a number from 0-100).

Adding a new Lesson to topic 1

Name:

Maximum grade: 0

Maximum number of answers/branches: 4

Maximum number of Attempts: 5

Action after Correct Answer: Normal - follow Lesson Path

Minimum number of Questions: 0

Number of Pages (Cards) to Show: 0

Student can Re-take: Yes

Handling of Re-takes: Use Meon

Available from: 17 May 2004 - 14 45

Deadline: 17 May 2004 - 14 45

Save changes

Fig. 22a

How grading works: If the system sends the student ahead to any later page, the question is marked correct. If the system sends the student back to any page, the question is marked incorrect. The “Maximum number of answers” sets how many questions can be asked on each page. If you leave the number at say 4, you can still ask 2 questions on one page if you wish. You can even have a page where you do not ask a question – in those cases the student automatically continues on to the next page.

Next, set if the students can retake the lesson or not, and set the dates that the lesson is available. When you are done, click on “Save changes.” The new Lesson activity now appears on the course homepage in the content area where it was originated. *You must still define all of the pages in the lesson.* To do that, click on the Lesson link on your class homepage in the section area where you created it. This will take you to the first page (Fig. 22b), where you can start to define all the *pages* that make up the Lesson.

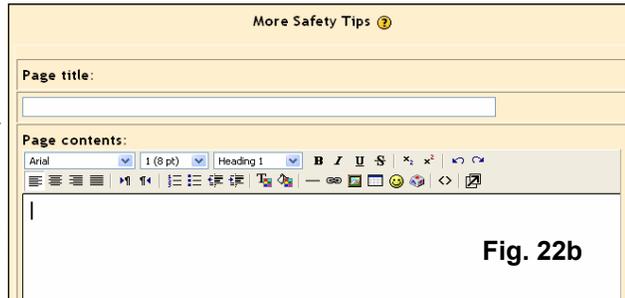


Fig. 22b

The items on the first page are:

- **Page title:** title of this page only. If you have multiple pages for your lesson, each one will have a title.
- **Page contents:** this is where you put the information you are trying to convey. It may be a story, a problem to solve, a poem, or anything that you want to ask questions about. You should usually end the section with a question that will be answered by the students.
- **Answer 1** (or Answer #): this is where you type one answer to the question you asked. You fill in one answer per Answer #, up to the maximum you defined. You do not have to fill them all in.
- **Response #:** after each Answer # section, there is a Response #. This is an explanation that the student will see after picking one of the possible answers and before being redirected to another page (or staying on the same page).
- **Jump to:** after each Response # there is a field that tells the system what to do if the student picks that number. You can tell the system to end the lesson, to stay on the current page, or to jump to any page that already exists (forward or back). For example, if I pick Answer 1 and the “Jump to” field is set to go to the next page, then I will be sent to the next page of the lesson. Grading is determined by the navigation. That is, if a student stays on the same page or is sent to a previous page, then the answer is counted as wrong. If the student picks an answer and is sent to a later page, then the answer is counted as correct. By default, Answer 1 sends the student to the next page, and all the other Answers keep the student on the same page, but that can be changed. The students will see the order of the Answers mixed up (Answer 1 may actually be the fourth question asked).

Navigation through the lesson can be straight forward or complex, depending largely on the structure of the material being presented. Lessons are a great way to assess practical knowledge of a subject, and with creative use of Moodle’s HTML editor very effective simulations can be built.

Once you have all of the fields in your Lesson set up, click “Save page.” This will take you to a summary page like Fig. 22c. From the summary page you can add another page, using the link in the upper right or the lower right.

The screenshot shows a lesson summary page titled "Basic Safety". At the top right is a link "Add page Here". The main content area contains a text box with the following text: "Computers that are still plugged in to power outlets can be dangerous. Computers should always be unplugged before you work on them." Below this is a question: "What is the first thing you should do before repairing a computer?". The page is divided into three sections, each with an "Answer", "Response", and "Jump to" field. The first section has Answer 1: "Unplug the computer.", Response 1: "Correct!", and Jump to: "Next page". The second section has Answer 2: "Make sure you are careful not to lose screws as you take the computer apart.", Response 2: "Please re-read the section and try again.", and Jump to: "This page". The third section has Answer 3: "Make sure the computer is plugged in before you open the case.", Response 3: "Please re-read the section and try again.", and Jump to: "This page". At the bottom right is another "Add page Here" link.

Answer 1:	Unplug the computer.
Response 1:	Correct!
Jump to:	Next page
Answer 2:	Make sure you are careful not to lose screws as you take the computer apart.
Response 2:	Please re-read the section and try again.
Jump to:	This page
Answer 3:	Make sure the computer is plugged in before you open the case.
Response 3:	Please re-read the section and try again.
Jump to:	This page

Fig. 22c

If you click on the link above the page, your new page will be added *before* the page you are looking at. If you click on the link below the page, your new page will be added *after* the current page. You would then fill in the new page with content, a question (at the end of the content), your answers, responses, and “jump to” fields. You can repeat that as many times as you like. Once you have more than one page, you can move the pages around by clicking on the arrows near the top of the page descriptions (Fig. 22d).

The screenshot shows a lesson page titled "Basic Safety". At the top right is a link "Add page Here". The main content area contains a text box with the following text: "Computers that are still plugged in to power outlets can be dangerous. Computers should always be unplugged before you work on them." Below this is a question: "What is the first thing you should do before repairing a computer?". The page is divided into three sections, each with an "Answer", "Response", and "Jump to" field. The first section has Answer 1: "Unplug the computer.", Response 1: "Correct!", and Jump to: "Next page". The second section has Answer 2: "Make sure you are careful not to lose screws as you take the computer apart.", Response 2: "Please re-read the section and try again.", and Jump to: "This page". The third section has Answer 3: "Make sure the computer is plugged in before you open the case.", Response 3: "Please re-read the section and try again.", and Jump to: "This page". At the bottom right is another "Add page Here" link.

Answer 1:	Unplug the computer.
Response 1:	Correct!
Jump to:	Next page
Answer 2:	Make sure you are careful not to lose screws as you take the computer apart.
Response 2:	Please re-read the section and try again.
Jump to:	This page
Answer 3:	Make sure the computer is plugged in before you open the case.
Response 3:	Please re-read the section and try again.
Jump to:	This page

Fig. 22d

Once some (or all) of your pages are in the system, you can check to make sure things work the way you expect. To test the pages, click on the “Check navigation” link at the bottom of the page (Fig. 22e). This will take you to the testing screen (what students see), as shown in Fig. 22f.

The screenshot shows a testing screen titled "More Safety Tips". At the top right is a link "Add page Here". The main content area contains a text box with the following text: "Computers that are still plugged in to power outlets can be dangerous. Computers should always be unplugged before you work on them." Below this is a question: "What is the first thing you should do before repairing a computer?". The page is divided into three sections, each with an "Answer", "Response", and "Jump to" field. The first section has Answer 2: "Avoid carpet.", Response 2: "Please try again.", and Jump to: "This page". The second section has Answer 3: "Keep the machine plugged in - the electrical ground will protect the PC.", Response 3: "Please review the article on safety.", and Jump to: "Basic Safety". At the bottom right is another "Add page Here" link.

Answer 2:	Avoid carpet.
Response 2:	Please try again.
Jump to:	This page
Answer 3:	Keep the machine plugged in - the electrical ground will protect the PC.
Response 3:	Please review the article on safety.
Jump to:	Basic Safety

Fig. 22e

The screenshot shows a testing screen titled "More Safety Tips". At the top right is a link "Add page Here". The main content area contains a text box with the following text: "Computers that are still plugged in to power outlets can be dangerous. Computers should always be unplugged before you work on them." Below this is a question: "What is the first thing you should do before repairing a computer?". The page is divided into three sections, each with an "Answer", "Response", and "Jump to" field. The first section has Answer 2: "Avoid carpet.", Response 2: "Please try again.", and Jump to: "This page". The second section has Answer 3: "Keep the machine plugged in - the electrical ground will protect the PC.", Response 3: "Please review the article on safety.", and Jump to: "Basic Safety". At the bottom right is another "Add page Here" link.

Answer 2:	Avoid carpet.
Response 2:	Please try again.
Jump to:	This page
Answer 3:	Keep the machine plugged in - the electrical ground will protect the PC.
Response 3:	Please review the article on safety.
Jump to:	Basic Safety

Fig. 22f

Quiz Module

Quiz module allows the teacher to design and set quiz tests, consisting of multiple choice, true-false, short answer questions etc. (Fig. 24). These questions are kept in a categorized database, and can be re-used within courses and even between courses. Quizzes can allow multiple attempts. Each attempt is automatically marked, and the teacher can choose whether to give feedback or to show correct answers. Quiz module includes grading facilities.

Working with Quiz module involves a simple step-by-step process, which includes:

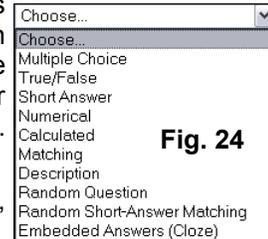


Fig. 24

- Step 1 - Create a quiz activity on the course home page using the “Add an activity” drop-down list, and set all properties for the Quiz. Properties can include:
 - a.) an opening and close date for the quiz
 - b.) a time limit
 - c.) whether answers and questions are shuffled when a new attempt is made
 - d.) whether more than one attempt is allowed
 - e.) whether attempts build on previous attempt
 - f.) a grading method or curve
 - g.) how quiz gives feedback
 - h.) whether students can view past attempts
 - i.) a maximum grade given for the quiz
 - j.) an optional password to access the quiz
- Step 2 - Select a category to create your quiz questions in. If no categories exist, click the “Edit categories” button and add a new category (Fig. 25).

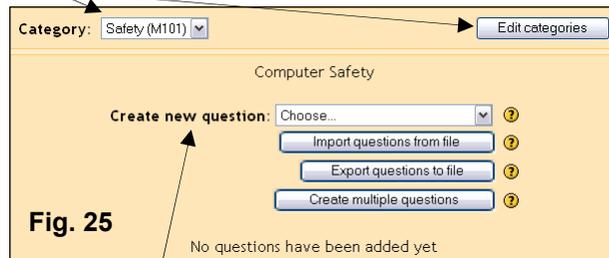


Fig. 25

- Step 3 - From the Create new questions list select a type of question to create (Fig. 24). Moodle allows you to import questions from a file or other learning management system such as Blackboard, WebCT and IMS QTI formats.
- Step 4 - Once you have added questions to the category (Fig. 26), you will publish these question to the Quiz activity. Select each one and click the “<<Add selected to quiz” button. After placing each question in the proper order (Fig. 27) and optionally assigning a grade value, you are ready to complete the Quiz activity. Simply click the “Save this whole quiz” button and the Quiz activity will now be available from the course home page.

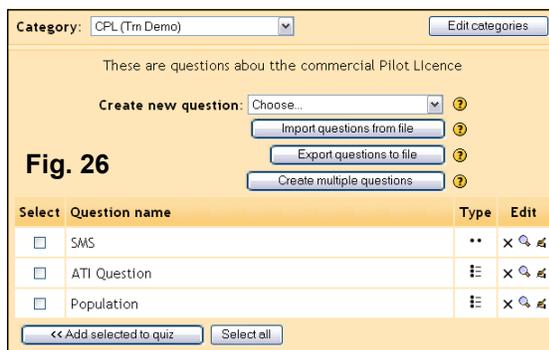


Fig. 26

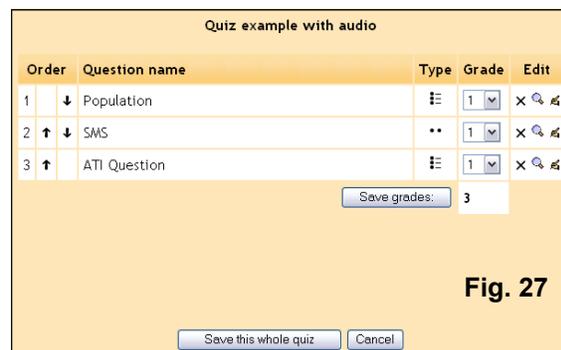


Fig. 27

To start building a category of questions, either select an existing category or create a new one as indicated. Once you have made your selection from the Category drop-down list, the screen will refresh and display any existing questions that have been created under the category you have selected (Fig. 25). Moodle gives you options at this point as to how questions are created and added to the category:

- **Import questions from file:** this imports existing questions from file systems Moodle recognizes (AON, Blackboard, Course Test Management, GIFT, IMS/QTI, Missing word format and WebCT).
- **Create multiple questions:** this feature creates a specified number of random questions. These questions are drawn randomly from your database of pre-existing questions. You specify the category the questions come from, so Moodle will not accidentally ask questions about Othello when you are teaching Hamlet!
- **Create new question:** (most common selection)

When you create a new question, it is stored in the category you select. It is then always available to add to any quiz at any time. To create a new question, select the type of question you want from the pull-down menu. You have the option of adding:

1. Multiple choice questions
2. True/False questions
3. A short answer question
4. A numerical question
5. Matching question
6. Description question
7. Random set
8. Random short answer
9. A special embedded question (Cloze)

Multiple Choice – To add a multiple choice question, select Multiple Choice in the “Create new question” drop-down menu. This will take you to the multiple choice question screen. Type in the name of the question (something to help you identify the question in the list), and type in the question. You do not have to type the answers in the “Question” box – the program will list the answers you type in the various “Choice #” boxes.

You may select an image to display, if you have any loaded resources in the course Files area (see Learner Management section of manual). You may then select if students are allowed to select more than one answer, or if there is only one answer allowed. Next, fill in your answers for the multiple choice question, and include feedback text if you wish.

In Moodle, you have an option to apply a *weight* to multiple choice questions. The positive answers must add up to 100%, or the system will ask if that is what you want to do. You do have the option to assign negative weight to an answer, such that a wrong answer might actually count against the student, instead of being no credit. This might be true where multiple answers are possible, such that A) is worth 50%, B) is worth -50% and C) is worth 50%. A student selecting A) and C) would get full credit, but a student selecting A) and B) would get no credit at all. You do have the option to make a wrong answer not count either way as well.

When you are done filling in your questions, answers, feedback and grade, click on “Save changes.” This action will return you to the quiz edit screen (Fig. 26), with the new question listed. You are now ready to add another question.

True/False – the questions are just that – true/false. To add a true/false question, select True/False from the “Create new question” drop-down menu. This will take you through a process similar to that of creating multiple choice questions discussed above.

Short Answer – To create a short answer question, select Short Answer from the “Create new question” drop-down menu. This will take you through a process similar to that of creating multiple choice questions discussed above. Fill in the question name (something that will tell you what the question is) and the question itself. The question can have up to 5 short answer “answers.” This can be very flexible. You can make a fill-in-the-blank (e.g. President Bush is

___ years old), or just ask for answers (Name the first 3 presidents).

Note: One big caution to pass on to students: a misspelled answer is WRONG (unless you put in the right answer and the 2 or 3 most common misspellings – that would work).

Next to each answer is the “Grade” field. The total points of the question must equal 100%. In the case of the presidents question above, you would make each answer worth 33% of the question. In the case of the fill-in-the-blank question, one answer would be worth 100%. You can have multiple answers be worth 100% (in the case of listing common misspellings, or in the case of “Name 1 of the first 3 Presidents” – where 3 answers would be worth 100% each).

You may also fill in feedback for each answer. Feedback generally comes up if you type an answer that the quiz has, so on short answer questions, the feedback is limited to telling you why your answer is correct (on short answer questions only). The feedback can show the student the correct answer if the student guesses wrong, even if the wrong answer is not in the list of answers. Once you are finished, click on “Save changes” to return to the quiz edit creation screen (Fig. 26).

Numerical Question – To add a numerical question, make sure “Numerical” is selected in the “Create new question” drop-down menu. This will take you through a process similar to that of creating multiple choice questions discussed above. A numerical question is a question that expects a number for the answer. It has the added flexibility to accept a range of answers (10 +/- 3 would accept anything from 7 to 13).

Fill in the “Question name” with anything that will help you identify the question. In the “Question” box, fill out the question you wish to ask (“How fast can Matt run?”). If you have loaded any picture images to the system (from Files area), you will have the option to display the image as part of the question. Next, fill in the correct answer, and the accepted error (2 in the example would allow a correct answer of 8-12). You may then fill in feedback if you wish to use that feature. When everything is filled out the way you want it, click on “Save changes.” The question will then appear in the list of questions on the main quiz screen.

Matching – To add a matching question, select “Matching” from the drop-down menu. This will take you through a process similar to that of creating multiple choice questions discussed above. Fill out a question name that you will recognize, and then write the “big” question – this is the introduction the student sees. This could be “Match the following questions with the correct answers,” or “Match the name of the president with the year he was elected,” or anything else you like.

Next, fill in at least 3 questions that will be matched to the answers you provide. The “questions” can be one word to be matched to the answer. Each matching part is worth an equal amount (if you have four matches, each is worth 25% of the whole question. The whole question then can be weighted on the quiz – more on weighting later). When you are finished filling in the whole question (remember the program treats all the matches – even if there are eight – as one question), click on “Save changes.” You will then be taken back to the quiz editing screen where you will see your new question added to the list.

Description – To add a description, select “Description” from the drop-down menu. A description is not actually a question. It allows you to add text to a quiz (such as a story or an article) that you can then ask other questions about. Fill in the “Question name” with a name that will help you remember the description. Then, in the “Question” box, fill in your description (story, article, etc.). If you have uploaded pictures in the Files area, you can choose to display them with the description (so your description can describe a picture). When everything is filled out the way you want it, click on “Save changes.” Your description should now appear in the list of questions on the main quiz screen.

Random question – To select a random question, select “Random question” from the drop-down menu. A random question will select a question that already exists randomly from all the questions in any category you specify. If you have 10 questions in say an Othello category, this feature will pick one of those questions at random.



Select the category you wish to draw the question from (“Default” in example). You may name the question if you wish (you might want to add the category to the name – i.e. “random Default #1”). Note that you can mix random questions with “normal” questions on a quiz. When you are done, select “Save changes,” and you should see the main quiz screen with the new random question added (“Random Default #1” in my example):

Random Short-Answer Matching – This question makes a matching question by drawing random questions and answers from among the short-answer questions you have created. You must have at least two short-answer questions in a category for this feature to work.

A category is whatever category you were in when you selected the random short answer matching question. The question name can be anything you like, but it is suggest adding a number to the end (#1, #2, etc.). You may leave the existing default introduction, or you may change it if you wish. You then select the number of questions you would like to have. When you are finished, click on “Save changes.” You should see the quiz editing screen with the new question listed (“Random Short-Answer Matching #1” in example):

Embedded Answers (Cloze) – This question type embeds the answers into the question. This allows you to have questions that look like Fig. 27a. These are great questions, but do require some formatting.

The “Question name” names the question for the list. The “Image to display” lists any pictures you have uploaded to your “Files” section. The “Question” part is where you type your question, but this MUST include the formatting. This can take some getting used to. To create a question like the example in Fig 27a, the following would be entered in the Question area:

```
This sample question consists of some text with an answer embedded right here
{1:MULTICHOICE:Wrong answer#Feedback for this wrong answer~Another wrong answer#Feedback for
the other wrong answer~Correct answer#Feedback for correct answer~%50%Answer that gives half the
credit#Feedback for half credit answer} and right after that you will have to deal with this short answer
{1:SHORTANSWER:Wrong answer#Feedback for this wrong answer~Correct answer#Feedback for
correct answer~%50%Answer that gives half the credit#Feedback for half credit answer} and finally we
have a floating point number {2:NUMERICAL:=23.8:0.1#Feedback for correct answer 23.8~%50%N/
A#Feedback for halfcredit answer in the nearby region of the correct answer}.
```

This entry will display a question like Fig. 27a. The formatting works like this:

- Normal text is just typed (like “This question consists of some text with an answer embedded right here” from above).
- To open a field in the embedded question, use the left bracket { and close the field with the right bracket }.
- To insert a pull-down menu, type the number of points the field (menu) is worth (1,2,3, etc.). The entire question is worth the total of all the points of each part (menus and short answer parts). Follow the number by a colon, followed by the word MULTICHOICE followed by another colon (1:MULTICHOICE:). Then type your possible answers followed by tildes (~). The correct answer must start with an equals sign (=). An answer that counts for partial credit starts with the percent sign followed by the credit followed by a percent sign (%50% for 50 % credit). A full example would be: {2:MULTICHOICE:Washington~Jefferson~Lincoln~=Franklin~%50%Adams} This entry would make a pull-down menu of 5 items. This menu would be worth 2 points. In this example, Washington, Jefferson and Lincoln are wrong, Franklin is right, and Adams is worth half-credit.
- To insert a short answer (fill-in-the-blank), put in the points the short answer is worth, followed by a colon followed by SHORTANSWER followed by a colon (2:SHORTANSWER:). Then put an equals sign (=) followed by the right answer inside the brackets. An example would be {2:SHORTANSWER:=Maine}. This would make a

blank worth 2 points where the answer is Maine (and spelling does count!). You may list other correct answers by separating them by a tilde sign (~) – like this (don't forget the = sign): {2:SHORTANSWER:=Maine~=Ohio}.

When you have everything the way you want it, click on “Save changes.” Your Embedded Answers question will now display on Editing quiz screen list (Fig. 27b) of questions for your category.

3 This question consists of some text with an answer embedded right here

8 Marks and right after that you will have to deal with this short answer and finally we have a floating point number .

Fig. 27a

CVCA -> CMPTR1 -> Quizzes -> Editing quiz

Quiz

No questions have been added yet

Fig. 27b

Category: Default

The default category for questions.

Create new question: Choose...

Select	Question name	Type	Edit
<input type="checkbox"/>	PC Case	≡	✕ ⚙
<input type="checkbox"/>	Matt's Foods	≡	✕ ⚙

Quiz module uses a publishing metaphor. A quiz activity is created on the course homepage, which leads to the Editing quiz screen where *categories* of questions are created first. Once a category is created, questions are populated into the category. Finally, the course creator selects questions from a category to publish to the quiz activity.



Scorm Module

A SCORM package is a bundle of web content packaged in a way that follows the SCORM standard for learning objects. These packages can include web pages, graphics, Javascript programs, Flash presentations, quizzes and anything else that works in web browsers. There are many 3rd party tools available that create SCORM compliant learning objects. The SCORM module allows you to easily upload any standard SCORM package and make it part of your course.

Scorm properties setup are simple; you will give the activity a name and description, and then click the "Choose or update a SCORM package..." button. On-click, you will be given a chance to locate the SCORM package. Once this action is completed you are ready to click the Continue button. Moodle will now examine the XML file that accompanies the SCORM package and create the activity for the course home page. It should be noted that SCORM is an *evolving* standard, and that problems do occur when an XML file is not formed in the way Moodle expects. If you encounter problems adding a SCORM activity to your course, post a question in the SCORM module forum at <http://moodle.org>.

Survey Module

The Survey module provides a number of verified survey instruments that have been found useful in assessing and stimulating learning in online environments. Teachers can use these to gather data from their students that will help them learn about their class and reflect on their own teaching. Standard survey's included with this activity are:

- ATTLS (20 item version)
- Critical incidents
- COLLES (actual)
- COLLES (preferred and actual)
- COLLES (preferred)

Wiki Module

A Wiki enables documents to be authored collectively in a simple markup language using a web browser. "Wiki wiki" means "super fast" in the Hawaiian language, and it is the speed of creating and updating pages that is one of the defining aspects of wiki technology. Generally, there is no prior review before modifications are accepted, and most wikis are open to the general public or at least to all persons who also have access to the wiki server.

The Moodle Wiki module enables participants to work together on web pages to add, expand and change the content. Old versions are never deleted and can be restored. This module is based on Erfurt Wiki. Setup properties allow you to create a Wiki activity for a Group, Teacher or Student, and select whether the HTML editor is available in the wiki when used. There are also options for how linking is done, whether uploads are permitted and customizing initial pages.

Workshop Module

A Workshop is a *peer assessment* activity with a huge array of options. It allows participants to assess each other's projects, as well as exemplar projects, in a number of ways. It also coordinates the collection and distribution of these assessments in a variety of ways. Workshop module does have a learning curve, however the effort made can include greater student participation. The following is a detailed explanation of properties and management of Workshop module activity:

Title and Description can be whatever you like.

Maximum grade is set to a number from 0 to 100. For all of the following examples, we will use a maximum grade of 100.

Grading strategy has several options – Accumulative, Not Graded, Error Banded, Criterion, and Rubric.

- **Accumulative grading:** This is the default setting. Accumulative grading breaks each project into sections (you determine the number, from 1-20) that can be individually graded and commented upon. The grades of each piece determines the final grade (based on the maximum grade you set). This style of review uses yes/no questions, grading scales (i.e., “poor” to “excellent”) and purely numeric grading (1-100).
- **Not Graded:** This setting is used for peer review where the students may comment on work, but not grade it. The teacher may assign grades to the comments that are made; not assigning grades on the comments means the assignment does not count for a grade (it is used for peer comments only).
- **Error Banded:** This style of grading sets up multiple yes/no expectations for an assignment. If the element is there (a “yes” answer), credit is given; if not (a “no” answer), no credit is given for that part of the assignment. Each individual part may be weighted if desired.
- **Criterion:** For this type of grading scale, you set up criteria for the peers to choose from. The students then chose ONE criterion that most closely matches the project. Each criterion has a grade assigned to it, so by choosing one criterion, the reviewer gives the grade associated with that comment.
- **Rubric:** This review setting is very similar to “Criterion,” except that the teacher assigns different sections to each project. Then, within each section, the reviewer selects one comment that most closely matches the project being reviewed. Grades from each section are then combined to give the final grade.

Number of Comments, Assessment Elements, Grade Bands, Criterion Statements or Categories in Rubric field determines how many elements an assignment will have evaluated. This is the number of things you wish to have evaluated. You could set this to “3,” and have the peers evaluate on style, content, and grammar (for example). If this field is set to 0, then the group may only make comments in the “General Comments” section of an assignment.

Allow Resubmissions field allows students to resubmit their assignment at any time. This can be useful to encourage students to write several drafts incorporating suggestions made. The system will then keep the highest grade of all the assignments submitted by the student (the highest grade is the largest teacher-peer combined score).

Number of Assessments of Examples from Teacher forces the students to walk through one or more example projects that the teacher has put online. The student will have to make comments and grade the project, and then these comments can be graded by the teacher. Students can NOT submit their own work until they have gone through all of the examples the teacher has set up.

Number of Assessments of Student Submissions field sets how many other projects the student can evaluate and comment on. If there are more submissions than the allowed assessments, the reviewer will get a random set to evaluate.

Self Assessment field, if set to “Yes,” allows students to evaluate and grade their own work. This is added to the “Number of Assessments...” (if the “Number of Assessments...” is set to 5, the student must still evaluate 5 other students’ work). If the “Number of Assessments...” is set to “0” and this field is set to “Yes,” then the project is for self-evaluation only.

If the **Assessments must be agreed** field is set to “Yes,” then the assessments from students are open to review from other students. If other students disagree with the evaluation made by the original reviewer, then the evaluation process will continue until

the students do agree, or until the assignment passes the closing time.

Hide Grades before Agreement field allows the teacher to hide the numeric grades from other reviewers while they are trying to reach agreement. If this field is set to “Yes,” then all the numeric parts of the evaluation are hidden – students can only see each other’s comments. The grades will appear after the reviewers agree with each other.

Maximum Size limits how big the project can be. In general, we recommend making this as big as you can unless space is an issue.

Deadline field sets when the workgroup assignment closes. After this point, student grades will appear (if hidden) and peer evaluation stops.

Workgroup Evaluation Types

Getting a workgroup ready for evaluation requires setting up each section (evaluation elements). These elements vary depending on the type of evaluation you select. Once you have added a workgroup, it has no evaluation elements in it. To add the elements, click on your new workgroup. In the example (Fig. 28) displayed on the course homepage, it is called “Uses of Computers”.

Accumulative Grading Strategy

This is the default grading strategy. It allows for various styles of evaluation, including yes/no questions, scaled questions, and numeric evaluations. If you selected this strategy on the setup screen, you will see something like Fig. 29.

We have elected to have 5 elements on the evaluation (2 are off-screen). 5 to 10 elements is fairly typical for a Workshop, but you can create from 1 to 20 elements.

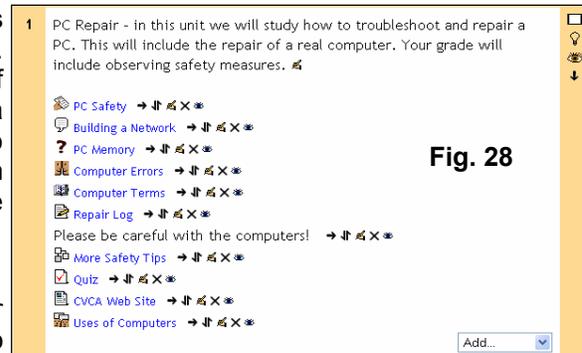
In the blank space next to “Element 1,” fill in your evaluation standard. This varies on the type of element you are using. For Element 1, we will use a “2 point Yes/No scale.” Note that the “2 point” does not refer to how much the question is worth (that is set using the weight). The “2 point” refers to the fact that there are 2 options available (yes or no).

Since we are using a yes/no answer, we need an element that can be answered using yes or no. For our example, we will use “Is the paper 2 pages long or longer?”

Type of Scale allows you to set how you want the element evaluated. The options are:

- 2 point Yes/No scale
- 2 point Present/Absent scale
- 2 point Correct/Incorrect scale
- 3 point Good/Poor scale (a sliding scale with 3 options)
- 4 point Excellent/Very Poor scale (a sliding scale with 4 options)
- 5 point Excellent/Very Poor scale (a sliding scale with 5 options)
- 7 point Excellent/Very Poor scale (a sliding scale with 7 options)
- Score out of 10
- Score out of 20
- Score out of 100

In all cases, the points are for the element ONLY. A “Score out of 100” is not for the whole project, but for the element it is assigned to only. In my “Element 1” example, I will use a 2-point Yes/No scale.



Element Weight sets the weight of the element. In our example all 5 elements are weighted with a weight of 1. That means each element is worth the same, or 20% (5 elements at 20% each = 100%). If we feel an element should be worth more or less than other elements, we can change the weight (from 0 to 4 times weight – there are negative weights as well, but they are experimental). In our examples, we will leave the weight as 1.

Element 2 field, we will choose one of the sliding scales, the 5-point Excellent/Very Poor scale. This creates a scale that has 5 options, from Excellent to Very Poor. The grade of the element is based on the choice. In our example, each element is worth 20%. If someone rates my paper as a 3 on the scale, I will get 3/5 (a rating of 3 out of a possible 5) of 20, or 12 points for this element. We need to fill in the element description in a way that can be answered by the scale Excellent to Very Poor. In our example, we will use “Rate the paper on how well it is written.”

Element 3 field, we will use the “Score out of 100” scale. This allows the reviewer to select a score of 0 to 100 for this element. The grade of this element is based on the score given. If I get a score of 75 on the scale, I will get 75/100 credit, or 15 points (75% of 20 total points). We need to describe the element in a way that can be evaluated on a 100-point scale. For this example, we will use “On a scale of 100, rate how well the author did research.”

Other elements are filled out in a similar way. When we have filled out the other elements, our example looks like Fig. 30. Click “Save changes” to save your changes. The system will then ask if you want to “Amend Assignment Elements again.” If you want to go back and make changes, click on “Yes”; otherwise, click “No.” You will now see a screen like this Fig. 31.

The screenshot shows a form titled "Editing Assessment Elements" with three rows for different elements. Each row includes a text field for the element description, a dropdown menu for the "Type of Scale", and a dropdown menu for the "Element Weight".

- Element 1:** Description: "Is the paper 2 pages or longer?". Type of Scale: "2 point Yes/No scale". Element Weight: "1".
- Element 2:** Description: "Rate the paper on how well it is written.". Type of Scale: "5 point Excellent/Very Poor scale". Element Weight: "1".
- Element 3:** Description: "On a scale of 100, rate how well the author did research.". Type of Scale: "Score out of 100". Element Weight: "1".

Fig. 30

The screenshot shows a "Managing the Assignment" interface for an assignment titled "Uses of Computers". It displays the due date, maximum grade, and details of the assessment. Below the details is a progress bar with six steps: 1. Set Up Assignment, 2. Allow Student Submissions, 3. Allow Student Submissions and Assessments, 4. Allow Student Assessments, 5. Calculation of Final Grades, and 6. Show Final Grades. At the bottom, there are buttons for "Amend Assessment Elements" and "Administration".

Fig. 31

A Workshop is a *peer assessment* activity with a huge array of options. It allows participants to assess each other's projects, as well as exemplar projects, in a number of ways. It also coordinates the collection and distribution of these assessments in a variety of ways. Workshop module does have a learning curve, however the effort made can include greater student participation.

The links at the bottom allow you to control the workgroup. The “Amend Assessment Elements” link takes you back to where you can modify the elements, the scoring, and the weights. The “Administration” link allows you to evaluate student evaluations, papers, and so on.

The 6 stages near the bottom (tabs) allow you to control the pacing of the workgroup. Fig. 31 shows each stage:

- **Set Up Assignment** as the current stage. To move to one of the next stages, click on the stage you want.
- **Allow Student Submissions** allows student to submit papers, but they can not evaluate other papers.
- **Allow Student Submissions and Assessments** allows students to upload their papers and to assess other papers.
- **Allow Student Assessments** does not allow students to upload papers, but does allow them to assess other papers.
- **Calculation of Final Grades** allows you to make changes to the grades.
- **Show Final Grades** allows students to see their grades. You can move between stages at any time (you can skip from stage 1 to stage 3 and back to stage 2 if you wanted to).

What an accumulative evaluation looks like:

At this point, it might be useful to see what a student would see for an evaluation. For the accumulative evaluation from above, a student would see something like Fig. 32.

Not Graded Grading Strategy

This grading strategy is used for peer comments only. You may still have as many elements as you like, but each element only has a comments section – numerical evaluation is not present.

Fill in each element field with a description to guide the reviewer’s comments (e.g. “Discuss the strength or weakness of the thesis statement.”) When you have filled in all of the elements, click on “Save changes.” The system then follows the same steps as above (see the Accumulative Grading Strategy section above).

The screenshot shows an 'Assessment' form with three elements. Each element has a question, a grade selection area, and a feedback text area. The first element asks 'Is the paper 2 pages long or longer?' with 'Yes' and 'No' radio buttons. The second element asks 'Rate the paper on how well it is written' with a scale from 'Excellent' to 'Very Poor' and five radio buttons. The third element asks 'On a scale of 100, rate how well the author did research.' with a dropdown menu showing '0'. Each element has a 'Weight: 1.00' label.

Error Banded Grading Strategy

This grading strategy is based entirely on yes/no responses for the evaluation. Each element is set up with a yes/no system. When you first click on the workgroup, you should see something like Fig. 33.

In addition, there is a Grade Table (Fig. 34) to set up at the bottom of the page. The grade table allows the teacher to set up suggested grades based on the number of “No” answers recorded by the reviewer. The Grade Table does not have to be linear (our example takes off 5 for the first “No,” 10 for the second “No,” and 15 for the third “No.”). These are only suggested grades – the reviewer may modify the grade up or down by as many as 20 points (stress to the students they should have good reasons for changing suggested grades).

The screenshot shows the 'Editing Assessment Elements' form. It has three rows for elements. Each row includes a text input field for the element description, a dropdown menu for 'Element Weight' (set to 1), and a feedback text area. The form is titled 'Editing Assessment Elements' with a help icon.

Fill out each element with a yes/no question and set the weight. When you weight a question, it will count that weight against the yes or no count. For example, if we had 3 questions, and weighted one question as “2,” and the other two questions as “1,” the first question would have twice the weight of the other two.

That means if a reviewer selects “No” on the first question (the weighted one), it would count as two “No’s” on the grade (or an 85 in the example grade chart). When done, click “Save changes”. Our example would look like Fig. 35.

Element 3:

Element Weight: 1

[[gradable]]	
[[numberofnegativeresponses]]	Suggested Grade
0	100
1	95
2	85
3	70

Save changes Cancel

Fig. 34

Criterion Grading Strategy

This strategy lets the reviewer pick ONE statement that matches the project. Each statement has a grade assigned to it. When you click on a Criterion workgroup for the first time, you will see a screen like Fig. 36.

In each element section, write the statement you want and assign a suggested grade to that statement. The reviewer may change the suggested grade up or down by up to 20 points. When you are finished, click on “Save changes.” our example looks like Fig. 37.

Element 1: The paper is 2 or more pages long.
Element Weight: 1

Element 2: The paper covered the topic assigned.
Element Weight: 1

Element 3: The paper used at least 3 sources.
Element Weight: 1

[[gradable]]	
[[numberofnegativeresponses]]	Suggested Grade
0	100

Fig. 35

Editing Assessment Elements

Criterion 1:
Suggested Grade: 100

Criterion 2:
Suggested Grade: 95

Criterion 3:
Suggested Grade: 85

Fig. 36

Editing Assessment Elements

Criterion 1: The paper covered all the basic requirements, was thoughtfully written, had good style, and was entertaining.
Suggested Grade: 100

Criterion 2: The paper covered all the basic requirements, but did not go beyond them.
Suggested Grade: 90

Criterion 3: The paper did not cover the basic requirements.
Suggested Grade: 70

Save changes Cancel

Fig. 37

Rubric Grading Strategy

This strategy is very similar to the Criterion. In the Rubric, the reviewer must select ONE statement that most closely matches the project. Each statement has a grade attached to it. The difference with the Rubric is that it allows a statement for multiple elements, so a project might have 5 elements to it, each of which has statements to be matched to the project. The total grade is based on each element grade. When you click on a Rubric workshop for the first time, you will see a screen like Fig. 38.

The Element box is where you describe what you want the reviewer to evaluate. You may then set the weight of the element. You then fill in at least two of the “Grade” boxes. You do NOT have to fill in all five (but you can if you wish). The system will ignore everything after the first blank box, and will calculate the grade based on how many possibilities are present.

For example, if I have 5 elements all weighted as 1, each element is worth 20%. Each grade box (inside each element) divides the 20 points available to the element. If I fill in 2 boxes, Grade 0 is worth zero points (Grade 0 is always worth zero points, no matter how many boxes are filled out), and the statement in Grade 1 is worth all 20 points. If I fill out 3 boxes, Grade 0 is worth 0, Grade 1 is worth 10 points, and Grade 2 is worth all 20. If I fill out all 5 boxes, Grade 0 is worth 0, Grade 1 is worth 5, Grade 2 is worth 10, Grade 3 is worth 15, and Grade 4 is worth all 20 points. The reviewer will pick ONE statement for EACH element.

Fill in each element description, pick the weight, and fill in as many grade boxes as you like for each element (you must fill out at least two Grade boxes for each element, or the element will not count). The best grade is always the last statement. Click on “Save changes.” Our example looks like Fig. 39. Element one would have 3 choices. The reviewer would pick one of them for this element, and would then do the same for the remaining elements.

The screenshot shows the 'Editing Assessment Elements' interface. It features a table with the following structure:

Editing Assessment Elements	
Element 1:	<input type="text"/>
Element Weight:	1
Grade 0:	<input type="text"/>
Grade 1:	<input type="text"/>
Grade 2:	<input type="text"/>
Grade 3:	<input type="text"/>

Fig. 38

The screenshot shows the 'Editing Assessment Elements' interface with a single element filled out. It features a table with the following structure:

Editing Assessment Elements	
Element 1:	Evaluate the style of the paper.
Element Weight:	1
Grade 0:	The paper's style was difficult to work through. The author's intent was not clear, and the paper was hard to follow.
Grade 1:	The paper's style was okay. I was able to follow the author's train of thought.
Grade 2:	The paper's style was great. The paper was easy to read and the author's argument was logical and clear.
Grade 3:	<input type="text"/>
Grade 4:	<input type="text"/>

Fig. 39

Course Setup - Adding Audio & Video

Moodle allows you to embed rich media into an activity you create within your course when using the HTML editor. Your Moodle administrator should enable the Multimedia plug-in “Filter” setting (see Administration section of manual) in advance. Examples of media player files supported within Moodle include:

- Flash
- Windows Media
- QuickTime
- MP3

How to add a media resource:

Step 1: Create an instance of an activity on the course home page. As an example we will create an “Assignment” called The Interview (Fig. 40). Complete all properties for this activity. In the example we have selected that this will be an assignment requiring the student to upload their work online (see page 16), entered a Grade value and Due date.

Step 2: We have described the assignment and added a link to a Windows Media video file, entering the text “Review this video” for our link. Linking to a resource stored in the **Files** area of the course is easy. Select the URL link button on the HTML editor and locate a file by using the Browse button (Fig. 41) on the Insert a Link screen. Our resource (interview.wmv) is stored within the course Files area (Fig. 42).

Step 3: Click “Save changes” when you have completed creating the activity. The results (Fig. 43) will display in the browser as your students will see the assignment.



Embed audio narration (MP3) files into a Quiz or Lesson, and find other ways to enrich course activities using multimedia resources.

Updating assignment in week 0

Assignment name: The Interview

Description: **Plan your questions.** This does not mean you should read formally or present them in artificial manner. Conduct your conversation in anatural, informal fashion. Always keep your questions in mind and try to guide the convin mind and try to guide the conversation along lines that will give you a story with substance. Planned questions, jotted down on a pad in front of you, are particularly valuable when you interview someone by using the telephone. At the same time, be receptive to a new angle that may arise and may be better than the one you had originally planned.

Review this video

Path: body > table.generabox > tbody > tr > td.generaboxcontent > form > table > tbody > tr > td > input

Assignment type: Upload a single file

Allow resubmitting: No

Grade: 100

Maximum size: 20Mb

Due date: 13 February 2005 - 10:00

Save changes Cancel

Fig. 40

Insert Link

URL: http://remote-learner.net

Title:

Target: None

Anchors: ---

Browse... OK Cancel

Fig. 41

File Browser

interview.wmv 13 Jan 2005, 10:23 AM

Delete Move Zip Rename Create folder Browse... Upload

Fig. 42

Moodle 101

The Interview

Due date: Sunday, 13 February 2005, 10:00 AM (30 days 22 hours)

Maximum grade: 100

Plan your questions. This does not mean you should read formally or present them in artificial manner. Conduct your conversation in anatural, informal fashion. Always keep your questions in mind and try to guide the convin mind and try to guide the conversation along lines that will give you a story with substance. Planned questions, jotted down on a pad in front of you, are particularly valuable when you interview someone by using the telephone. At the same time, be receptive to a new angle that may arise and may be better than the one you had originally planned.

Review this video

You are logged in as Bryan Williams (Logout)

Fig. 43

Moodle has built in media filters for Flash, Windows Media Player, QuickTime and MP3 files. Embedding these resources in an activity using the HTML editor displays the file, with its control features, with the page you create.

Course Setup - Adding Math Equations

Moodle supports TeX and Algebra notation to add mathematical expressions anywhere in a module where the HTML editor is used. Please note that your Moodle administrator must enable the TeX and Algebra “Filters” for these functions to work.

Algebra

There are a couple of ways to add mathematical expressions. For very simple expressions, you can use the superscript and the subscript functions in the HTML editor. More complicated expressions (fractions, calculus, etc.) need more advanced formatting, using the algebra filter. This filter uses coding to create mathematical expressions.

The good news is that it is very simple to use. The code looks like a mathematical expression you would type (like $x^2 = y$), except you enclose it in double “@” signs, like this: `@@x^2 = y@@`. The filter is flexible and can ignore spacing:

- `@@xy=z@@` is the same as `@@ x y = z @@`.
- The filter can make full use of parenthesis for organization, so `@@(length)/(height)@@` is a valid expression.

Fig. 44 shows some examples of what the input into Moodle would look like, with the corresponding output.

More complicated expressions – TeX

Moodle supports TeX notation for more complicated mathematical expressions. TeX expressions are always enclosed in double \$. A TeX expression looks like `$$sinx^2$$`. TeX expressions can be more complicated.

For more information on TeX formatting see:

- <http://www.math.uiuc.edu/~hildebr/tex/course/intro2.html>
- <http://www.math.tamu.edu/~harold.boas/courses/math696/LaTeX-in-line-equations.html>
- <http://abel.math.harvard.edu/computing/latex/manual/node21.html>
- <http://www.mathboard.de/formentor.php>

<code>@@x^2@@</code>	x^2
<code>@@A=pi r^2@@</code>	$A=\pi r^2$
<code>@@dy/dx=3x^2/y^3@@</code>	$\frac{dy}{dx} = \frac{3x^2}{y^3}$
<code>@@asin(x/y)@@</code>	$\sin^{-1}\left(\frac{x}{y}\right)$
<code>@@int(x/(x^2+4) dx)@@</code>	$\int \frac{x}{x^2+4} dx$
<code>@@int(x/(x^2+4) dx,0,1)@@</code>	$\int_0^1 \frac{x}{x^2+4} dx$
<code>@@sqrt(x^2+y^2)@@</code>	$\sqrt{x^2+y^2}$
<code>@@sqrt(x^2+y^2,3)@@</code>	$\sqrt[3]{x^2+y^2}$
<code>@@x>=1@@</code>	$x \geq 1$
<code>@@x<=pi@@</code>	$x \leq \pi$
<code>@@x<>infy@@</code>	$x \neq \infty$
<code>@@cos(x,2)+sin(x,2)=1@@</code>	$\cos^2(x) + \sin^2(x) = 1$
<code>@@cosh(x,2)-sinh(x,2)=1@@</code>	$\cosh^2(x) - \sinh^2(x) = 1$
<code>@@lim((x-2)/(x^2-4),x,2)=1/4@@</code>	$\lim_{x \rightarrow 2} \frac{(x-2)}{(x^2-4)} = \frac{1}{4}$
<code>@@lim(x/(x^2+1),x,infy)=0@@</code>	$\lim_{x \rightarrow \infty} \frac{x}{x^2+1} = 0$

Fig. 44

For a great Moodle glossary on TeX commands go to <http://emathpool.net/login/index.php> and log in as a Guest.



To test TeX formatting “live” go to: <http://moodle.org/filter/tex/texdebug.php>

Enroll in the Using Moodle course at <http://moodle.org> and visit the “Mathematics Tools” forum.

Course Setup - Adding RSS Feeds

Moodle supports outgoing (out of Moodle) RSS feeds. This option needs to be enabled by the Moodle administrator. Once enabled, RSS is available in the Forum and Glossary modules.

What is RSS

RSS is a technology where visitors to your site can choose to have the site send new postings to an RSS reader. RSS allows a user to build a custom news service. When users “subscribe” to your RSS-enabled page, they will get new postings from Forums and/or new entries in Glossaries, without having to visit your Moodle. Moodle has an RSS aggregator (collector) for these modules.

The end user does need a way to display the news-feed. Windows and Macintosh RSS news readers can be found at:

- <http://www.bloglines.com/> (web based)
- <http://www.fastbuzz.com/main.jsp> (web based)
- or you can put RSS into a search engine to find more.

Why use RSS? If you normally try to keep updated on what is happening on say 10 or 15 different websites, RSS can help. If all these web pages are RSS enabled, then you can put all 15 RSS feeds into your RSS news-reader, and see all the new things going on in one place.

RSS in Forums

When RSS is enabled, two new properties in Forum setup appear (Fig. 45).

- **RSS feed for this activity:** This turns RSS on or off for this forum. When set to “None,” RSS is disabled. When set to “Discussions,” the RSS feed will send out new discussions to subscribers. When set to “Posts,” the RSS feed will send out any new posts to subscribers.
- **Number of RSS recent articles:** This number sets the number of articles that go out via RSS. If this number is set to 5, then the 5 most recent articles will be sent to subscribers. As new posts (or discussions) get added, the oldest post/discussion gets replaced on the RSS feed. If your forum gets a lot of posts every day, you will want to set this number high.



When you enable RSS in your Forum, your users will see an orange RSS button on the main page of the forum (in the upper right-hand side), as shown in Fig. 46. If you click on the RSS button you will get taken to a page that looks something like Fig. 47.

The stuff on the page is not important to you or your users (but Moodle needs it!). For the purposes of RSS feeds, you (or the user) would copy the URL (the web address) from the top of the browser, and paste this address into an RSS news-reader. Now you (or your students) can get the latest posts or discussions along with all the other RSS (news) feeds that you are subscribed to.



RSS in Glossaries

Moodle's RSS feed works almost the same in the Glossary module as it does in the Forum module. If RSS is enabled, you will see two additional fields in Glossary setup (Fig. 48).

RSS feed for this activity: None [v] [?]
 Number of RSS recent articles: 0 [v] [?]

Fig. 48

- **RSS feed for this activity:** This turns RSS on or off. When set to “None,” the RSS feed is disabled. When set to “Concepts with authors,” the RSS feed will send out the glossary entries with the name of the author. When set to “Concepts without authors,” the RSS feed sends out glossary entries without the name of the author.
- **Number of RSS recent articles:** This number sets the number of entries that go out via RSS. If this number is set to 5, then the 5 most recent articles will be sent to subscribers. As new entries get added, the oldest entry gets replaced on the RSS feed. If your glossary gets a lot of posts every day, you will want to set this number high.

When RSS is enabled for your Glossary, an orange RSS button appears on the main page (Fig. 49), just like when the Forum is enabled. Create a Glossary description that tells students about RSS. When a user clicks on the RSS button, they see the XML code displayed (Fig. 47), needed by the news-reader.

RSS Test for Glossary [RSS icon]

This glossary is RSS enabled. To subscribe to the RSS feed, click on the RSS button, copy the URL (web address) from your browser, and paste it into your RSS aggregator.

Search [input] [input] Search full text

Add a new entry Import entries Export entries Waiting approval
 Browse by alphabet Browse by category Browse by date Browse by Author

Browse the glossary using this index

Special | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O
 P | Q | R | S | T | U | V | W | X | Y | Z | ALL

RSS: RSS is a way of sending out information to a collection program.
 Keyword(s): News Feed [v] [x] [4]

Fig. 49

Once a user has the RSS news-feed link, adding it to a reader (Fig. 50) is simple and will then display Forum and Glossary aggregated information, along with other information they subscribe to.

Bloglines

Home My Blogs Help Hello, mriordan@cvcroyals.org | Edit Profile | Log out

4 Subscriptions [Mark All Read]

- Bloglines | News (1)
- Moodle News (5)
 - RSS test
 - RSS Test for Glossary
 - Saved Items

Tell A Friend **NEW!**
 Manage Subscriptions
 Manage Email Subscriptions
 My Recommendations
 Open New Item Notifier

Search: My Blogs All Blogs [input] Search

Subscribe by Entering URL [input] Sub

moodle RSS Test for Glossary [Feed] [Edit] [Unsubscribe] [Mark Unread] 1 Item

This glossary is RSS enabled. To subscribe to the RSS feed, click on the RSS button, copy the URL (web address) from your browser, and paste it into your RSS aggregator.
 Updated: Fri, 28 May 2004 03:10 PM

RSS
 by Matt Riordan
 RSS is a way of sending out information to a collection program.
 Fri, 28 May 2004 02:55 PM
 Email | Save

Fig. 50

Display items within the last Month [v] Display



Bloglines is an example of an online web-based RSS news-reader.

Learner Management Features

In this section of the manual you will be introduced to Moodle’s features for managing learner activity, including:

- Groups
- Activities block
- Administration block



Fig. 51

Groups

Moodle allows you to separate students into groups, when for example you assign projects to course participants that will work together. You must have either “Separate” or “Visible” groups enabled in the course Settings properties (see Fig. 13) to use the Groups feature. If you click on “Groups” in the People block (Fig. 51), a screen like Fig 52 appears (you must first click the “Turn editing on” button).

If your course has no students in it yet you will see only your name. Fig 52 has two students and a teacher (#). There are no groups yet. To add a group type the name of the group in the box next to “Add new group,” and then click on button. In Fig 53 we have added a group called “Group1:”

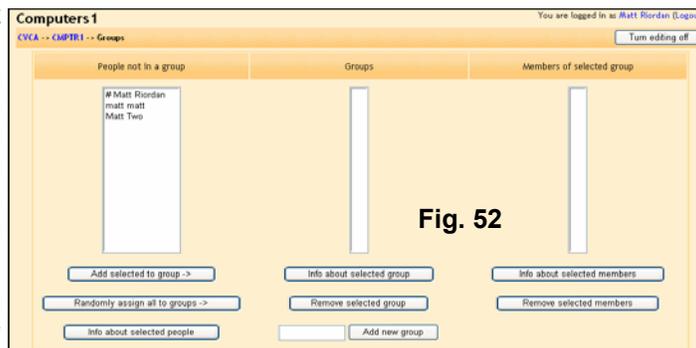


Fig. 52

Students can now be added to the group. To add a student, simply click the student’s name and click “Add selected to group.” To add multiple students to a group at the same time, hold down the Shift key on your keyboard while clicking on each name. If you prefer, you may add all of the students to a group using the “Randomly assign all to groups” button. After adding students to Group1, the screen will now look like Fig. 53. If you now click “Turn editing off” you will see the newly created group (Fig. 54).

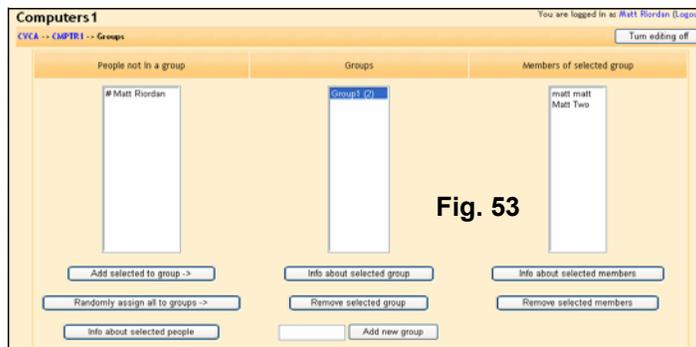


Fig. 53

Groups and Activities

Moodle’s Groups feature allows you to create distinct activities for members of a group. When you create an activity, as explained earlier in the manual, editing tools appear in the topic/weekly area (Fig. 55) allowing you to select a Group relationship for this activity.

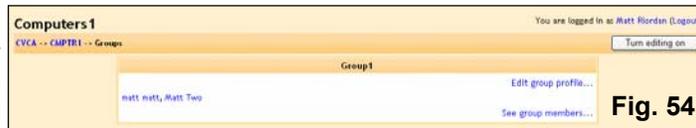


Fig. 54



Fig. 55



Each time you click the Group icon image connected with an activity, it will change to reflect a different Group status for that activity (e.g., Visible, Separate or No Groups)

Activities Block

Activities block (Fig. 56) lists all Moodle modules added during course creation (e.g., Forums, Quizzes, Assignments, etc.). The first time you enter your course the only module that is listed is “Forums.” This is because one forum (News) exists by default. The Activities block list will grow as you add different activities to your course.

As a teacher in the course you can access each activity within a module category that appears in the Activities block. Simply click the modules icon to see a list of activities within this category. For example, Fig. 57 shows a list of all “Assignment” activities with a link that allows you to view each student’s submission for an individual course assignment.

Let’s look at the learner management function for “Assignment #1: PowerPoint example. Notice there are 5 submitted assignments. If we click the “View 5 submitted assignments” link on the right, this action will reveal a screen (Fig. 58) that allows the teacher to access each student’s uploaded assignment, grade this assignment and add feedback comments for the student to review.



Fig. 56

Topic	Name	Due date	Submitted
1	Assignment #1: PowerPoint example	Friday, December 10 2004, 10:00 AM	View 5 submitted assignments
	The Interview	Thursday, January 14 2010, 09:00 AM	View 0 submitted assignments

Fig. 57

If this were an “Offline” assignment (see page 16), submitted in class, the teacher would simply add the grade and feedback comments. In either case, once learner management functions are completed simply click the “Save all my feedback” button. Students will be e-mailed a message indicating the teacher has commented/graded their assignment.

Journal module has the same learner management properties for giving students feedback on their journal entries (Fig. 59), and the is notified via e-mail when the teacher has commented on their entry.

Finally, when Quizzes is selected from the Activities block, a list of all course quizzes appears (Fig.60), allowing the teacher to select a specific quiz and view student results (Fig. 61). Simply click the link on the right side of a quiz in the list to see student results. Results can be view in different ways, including:

- Overview (shown)
- Regrade attempts
- Detail statistics
- Simple statistics

Topic	Name	Quiz closes	Attempts
7	Quiz Facts	Monday, February 19 2007, 01:20 PM	
	Quiz example with audio	Monday, March 7 2005, 05:00 PM	View 38 completed quizzes (22 Users)
11	Appointment Book quiz	Thursday, September 15 2005, 07:00 PM	View 13 completed quizzes (10 Users)
	Text Quiz	Friday, December 10 2010, 01:20 PM	View 2 completed quizzes (2 Users)

Fig. 60

Quiz example with audio			
Overview Regrade attempts Detailed statistics Simple statistics			
Visible groups: All participants			
Name	Attempts	Highest grade /0	
	<input type="checkbox"/> 0.0 March 17 2004, 08:38 PM (11 secs)	0.0	
	<input type="checkbox"/> 0.0 March 26 2004, 06:57 PM (1 min 25 secs)	0.0	
	<input type="checkbox"/> 0.0 March 26 2004, 06:59 PM (2 hours 19 mins)		
	<input type="checkbox"/> 0.0 March 31 2004, 05:35 PM (53 secs)	0.0	

Fig. 61



Fig. 58

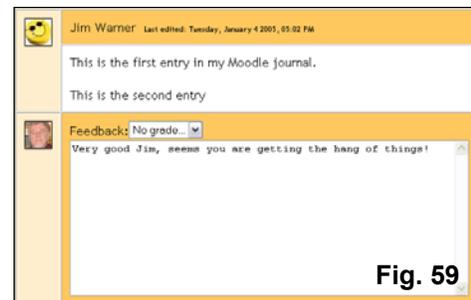


Fig. 59

Administration Block

One of the selections in this block has already been discussed in the Course Management section of the manual (page 11). The remainder of the selections in this block are discussed here, including:

- **Turn editing on** allows you to make changes to the course (e.g. add activities).
- **Settings** allows you to change the look of your class (see page 11).
- **Teachers** lists all the teachers for the course (typically just you, but could be more than that if the class were team-taught).
- **Students** lists all of the students in the class. You can manually enroll or unenroll a student from here.
- **Backup** allows your class data to be backed up.
- **Restore** allows you to restore old class data (that was backed up).
- **Scales** allows you to define special scales for evaluation. These are made up of word evaluations (i.e., Excellent, Good, Average, etc.)
- **Grades** lists the grades of the tests and quizzes of each enrolled student.
- **Logs** shows you all of the activity in your class for a set amount of time.
- **Files** allows you to upload files (e.g. graphics, Word, PP, Excel doc's etc.) into your course, for inclusion in an activity or layout.
- **Help** brings up the Moodle abbreviated manual pages.
- **Teacher forum** is a teacher-only discussion board.

Teachers

This feature lists all teachers (Fig. 62) in a course (typically just you). From here you can add a co-teacher if you wish. To add another teacher to your class, click on the “Add teacher” button next to the name of the teacher you wish to add (or type in the teacher’s name if there are too many users to show).



Fig. 62

Once you have added a teacher, you can set the “Order” of the teachers (for listing purposes – 1 is at the top, lower numbers are in numerical order on the list). If you wish, you can select “Hide” from the “Order” menu. This hides that teacher from the students (unless the teacher posts something in the class). This is useful if you want another teacher to audit the class with you.

The last setting is the “Edit” menu. If this is set to “Yes,” the teacher can do anything a normal teacher can do (create assignments, grade, etc.). If this is set to “no,” the teacher has the access rights of a teacher (the teacher can go anywhere and see everything in a class), but the new teacher will not be able to change anything (no editing permissions).

Students

You can add or unenroll a student from your class manually from the Students property screen (Fig. 63). On the left are the students currently enrolled in the class, and on the right are the students that could be added to the class.



Fig. 63

To add a new student, click on the left-facing arrow next to the student's name (or type in the student's name in the "Search" field if there are too many students to list). The student should move from the "Potential student" column to the "Enrolled students" column. To unenroll a student from a class, click on the right-facing arrow next to the student's name. The student should move from the "Enrolled students" column to the "Potential students" column. Please note that students may enroll themselves by clicking on the class listing of your class (they will need the enrollment key if you supply one).

Backup

Generally, you will not have to worry about backup as the primary Moodle administrator has set a schedule of site wide backups. However, it is a best management practice to perform a course backup at regular intervals, and to store this backup locally on your computer. After clicking the Backup link you will see options for specific activities you wish to backup. Simply follow the on-screen instructions to complete a backup.

Restore

If you have backup files you wish to restore to the system, click on this button.

Scales

The Scales feature (Fig. 64) allows you to create a word-based custom evaluation scale (like "fair," "excellent," etc.) that is used as the grading instrument within an activity. Default scales include 1-100 and Separate and Connected ways of knowing. Here's how to create a custom grading scale:

- Click Add a new scale button from within the Scales property window
- Name – This is the name of the scale.
- Scale – This is where you input your scale words. You can have as many as you like, but they need to be separated by commas, and they should be from the lowest level comment (like "Poor") to the highest level comment (like "Excellent").
- Description – This is an optional field. You may type anything you like here that describes your custom scale.

When you are done typing in the information, click on "Save changes" button The new scale will now be available within all resources where scales can be applied (Forums, Assignments, Quizzes, Lessons, Journals, Workshops).

Custom scales ?

Name:

Scale:

Description:

Save changes

Standard scales

Satisfactory

Outstanding

Fig. 63

Grades

Grades feature (Fig. 64) displays the grades and scales applied for Forums, Quizzes, Assignments, Lessons, Journals, Workshops and SCORM activities that students have completed, submitted or posted. You can easily download grades in Excel or text format for inclusion in a grade book, and you can select which course on the site you are enrolled in as a teacher to view grades.

Grades

View @ page: All participants

Download as Excel Download as text/csv

First name	Last name	News forum	Social forum	Assignment #1	PowerPoint example	The Interview	How to use the Lesson Module	Workshop example	Appropriate Conduct in a Diverse Workplace	Fire Demo	Appointment Book	Appointment Book quiz	Total
Kenneth	Allen			Max: 100	Max: 100	Max: 10	Max: 100	Max: 100	Max: 100	Max: 18	Appointment Book	Appointment Book quiz	Max: 5
Don	Atwell												1,7
Marc	Bates												1,7
Judy	Sacco												1,7

Fig. 64

Logs

Logs show you the activity in your class for different days or times. This can be useful to check to see if everyone has done a certain task, or spent a required amount of time online within certain activities. When you select Logs from the Administration block, a report screen (Fig. 65) is revealed that allows you to set filter criteria for the type of logs (Fig. 66) you wish to view, including:

- Course you want to view
- If “Groups” are enable, which group you want to view
- A specific participant (or All participants) whose logs you want to view
- A date (or all dates) for logs you want to view
- Which course activity (or All activities) logs you want to view



Fig. 65

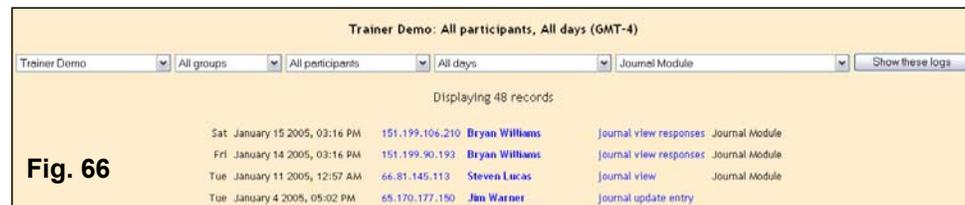
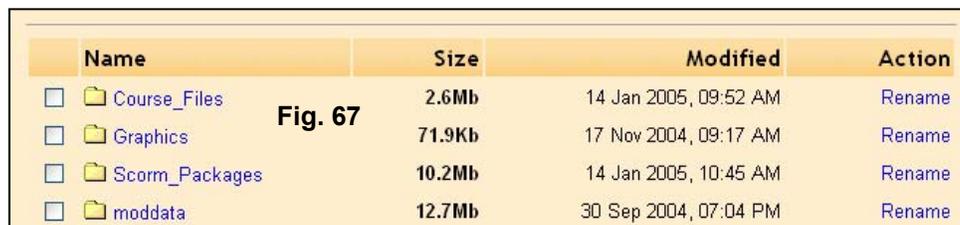


Fig. 66

Files

The Files feature (Fig. 67) allows you to upload files to the server within your course. These files are stored in a special place on the server, outside of the public directory (cannot be access by web surfers). Students do not have access to these files unless you link them to an activity within the course, using the HTML editor (see page 15). A file can be text documents, sound, graphic or video, spreadsheet, PowerPoint or any executable file. Moodle will either open it for the student within their browser, or download.



You can create a folder within the Files area for storing all course resources you want to allow students to have access to on the course homepage. One option from the Add a resource... menu is “Display a directory”, which allows you to select only the directory for display you created in the Files area.

Help

Moodle’s internal help file, an abbreviated reference like this manual.

Teacher Forum

This is a forum that is accessible by teachers only. It can be used to discuss anything you like, but may be especially useful if face-to-face meetings are difficult (if schedules conflict). It may also be useful for departmental discussions and course creation ideas.

Administration Features

This section of the manual assumes you have “Administrator” account permissions within Moodle (see page 6). If you have these permissions, the Administration block (Fig. 68) will appear on the site front page after login.

There are two types of administrators; a *primary* admin who installs/upgrades Moodle, and *site* admins designated by the primary admin. Site admins have the same permissions as a primary admin, except they cannot designate other site admins.



There can be only one primary admin, but many site admins (not a good idea)

The following is an explanation of features available from the Administration block on the site front page, after login. All of these features are available from a single screen (Fig. 69) when you click the Admin link at the bottom of the block.

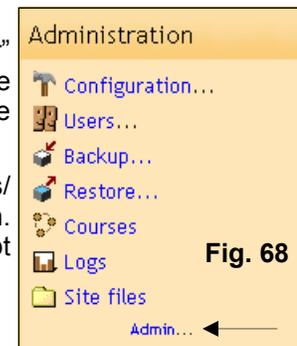


Fig. 68

Configuration

- **Variables:** Moodle’s main configuration properties set by the primary admin during installation are stored in this area. These properties include the site language default and behaviors of certain features.
- **Site settings:** Properties that allow you to add a description on your site front page, set display features and define what teachers and learners are called.
- **Themes:** Moodle comes with over a dozen stock themes, including the default orange theme. Additionally, there are a number of themes that developers have contributed at moodle.org. This property window allows you to select a theme your *entire* site will use.
- **Language:** If you know what you are doing and want to change Moodle’s default language strings, use this setting. You can also check to see if the language pack you are using (e.g. English, Spanish etc.) is up to date (Fig. 70). To change the wording that appears in a language string file (e.g. moodle.php), click the “Compare and edit current language” button. You can now select and edit language files directly in the browser, if the file you wish to change is set with write permissions on the server.
- **Modules:** Modules are used within Moodle when creating learning objects (e.g., Forums, Assignments, Quizzes etc.). This setting allows you to hide a module from a course creator, delete a module or change setting behaviors for a specific module.
- **Blocks:** Side blocks within Moodle can also be hidden, deleted and with a few blocks you can change settings.

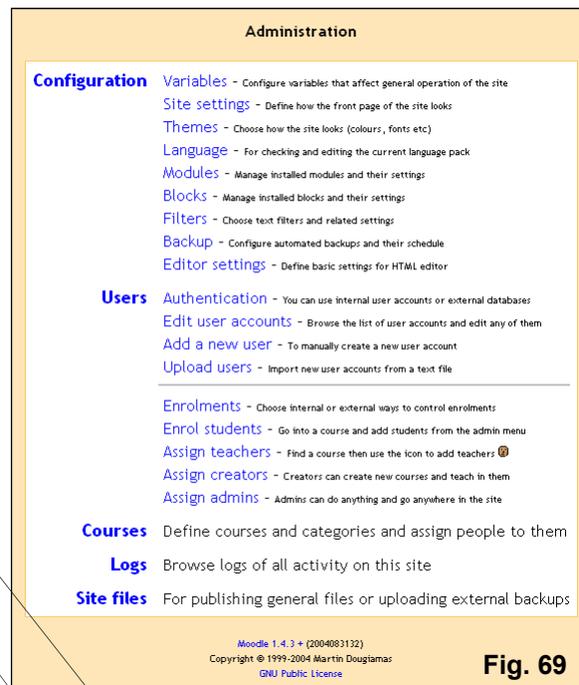


Fig. 69

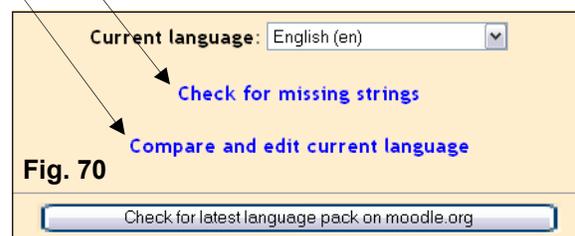


Fig. 70



There are a number of custom modules and blocks that developers have created to add functionality to Moodle. Check Moodle.org for the latest additions. Installing a new module or block is simple, usually the developer will include instructions. After installing a custom module or block the admin must visit the Administration area (Fig. 69) to complete installation. This is done automatically (screen notifications) and often involves adding database tables.

- **Filters:** Moodle has a number of special filters (Fig. 71) built-in which an admin can enable, including:

Glossary Auto-linking: When active will create a hypertext link within a course activity created with the HTML editor (e.g. Assignment, Forum, Quiz, Lesson etc.), that will display an associated glossary entry in a pop-up window.

Resource/Activity/Wiki Names Auto-linking: When active will create a hypertext link within a course to resources, activities, and wiki entries with this value.

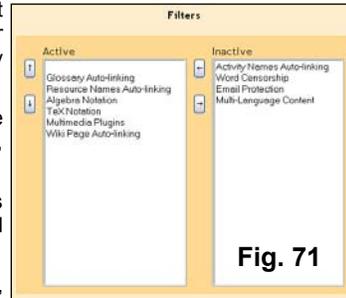
Algebra/TeX notation: When active allows math expressions to be entered in the HTML editor, when surrounded by special characters (e.g. \$\$ - see page 36).

Multimedia Plugins: When active media resources like Flash, MP3, Windows Media and QuickTime files will embed their players within an activity created with the HTML editor (see page 15).

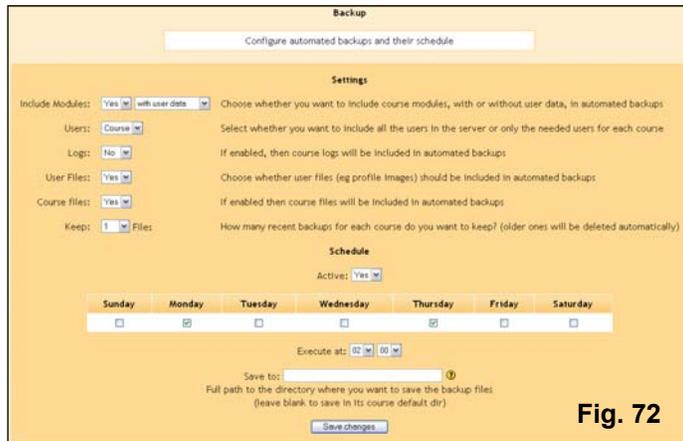
Word Censorship: Moodle allows an admin to censor inappropriate words that students might use in forums mostly, when this filter is active. A few basic words are included in the filter by default, and the admin can add to this list by simply editing the filter.php file located in the /filter/censor folder of your Moodle installation. This file can be opened and appended in any text editor (Notepad, etc.).

Multi-Language Content: This filter looks for <lang> tags in your HTML which indicate that a text contains multiple languages. It then selects and outputs the best language for the current user.

Email Protection: When active, your Moodle site is protected against spam bots and webcrawlers that search out e-mail addresses for harvesting. This includes such services as Google, Yahoo etc.



- **Backup:** Moodle can be set to automate site-wide backups (Fig. 72) using this property. It is important for the admin to set a schedule of nightly backups for Moodle, and to encourage their teachers and course creators to perform backups of their courses (see page 42). Select the items you wish to backup (defaults), and choose Yes from the Active drop-down list. Next, click the days you want Moodle to perform backups, and an Execute at: time. By default your backups will be stored in the moodledata folder 1 backupdata directory. Click Save changes when you have set properties to your liking.



- **Editor Settings:** These properties allow you to control some features that are available within Moodle's built in HTML editor. For example, you can add more fonts to the default list that appears, and if Aspell is installed on the server you can enable the spelling dictionary.

Users

- **Authentication:** By default, Moodle creates a [New Account](#) on the site using "Email-based authentication", unique for each student user (Fig. 73). This means that users will create their own accounts and will be sent an e-mail message that contains a link back to the site, which completes the authentication process. On subsequent visits the user will just Login at the site prompt.



An administrator can set Moodle to authenticate new users in several other ways (Fig. 74), including:

- Manual accounts only (individual enrollments by admin)
- No authentication (as name implies, no authentication allowed)
- PAM (Pluggable Authentication Modules)
- Use a FirstClass server
- Use a POP3 server
- Use an IMAP server
- Use an LDAP server
- Use an NNTP server
- Use an external database

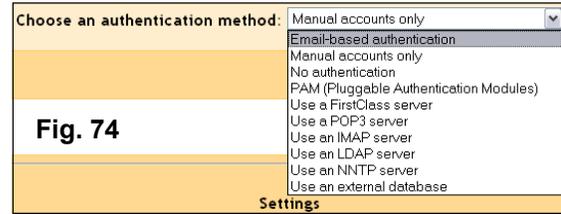


Fig. 74

- **Edit user accounts:** When you click this link Moodle allows the administrator to browse a list of all site users, and edit or delete their account.
- **Add a new user:** When the admin uses “Manual accounts only” as an authentication scheme they can add a new user to the site from this screen.
- **Upload user:** If you are sure you want to import multiple user accounts from a text file, then you need to format your text file as follows:
 - a.) Each line of the file contains one record
 - b.) Each record is a series of data separated by commas
 - c.) The first record of the file is special, and contains a list of fieldnames. This defines the format of the rest of the file.

Required fieldnames: these fields must be included in the first record, and defined for each user
username, password, firstname, lastname, email

Default fieldnames: these are optional - if they are not included then the values are taken from the primary admin
institution, department, city, country, lang, timezone

Optional fieldnames: all of these are completely optional. The course names are the "shortnames" of the courses - if present then the user will be enrolled as students in those courses. Group names must be associated to the corresponding courses, i.e. group1 to course1, etc.

idnumber, icq, phone1, phone2, address, url, description, mailformat, maildisplay, htmleditor, autosubscribe, course1, course2, course3, course4, course5, group1, group2, group3, group4, group5

- d.) Commas within the data should be encoded as , - the script will automatically decode these back to commas.
- e.) For Boolean fields, use 0 for false and 1 for true.
- f.) Note: If a user is already registered in the Moodle user database, this script will return the user id number (database index) for that user, and will enrol the user as a student in any of the specified courses WITHOUT updating the other specified data.

Here is an example of a valid import file:

```
username, password, firstname, lastname, email, lang, idnumber, maildisplay, course1, group1
jonest, verysecret, Tom, Jones, jonest@someplace.edu, en, 3663737, 1, Intro101, Section 1
reznort, somesecret, Trent, Reznor, reznort@someplace.edu, en_us, 6736733, 0, Advanced202, Section 3
```

- **Enrolments:** On page 45 different authentication schemes were discussed, with the default method being “Email-based authentication”. Authentication and enrollment are two different processes in Moodle. Authentication is the process whereby a student creates an account that allows them to login to the *site*. The enrollment scheme you select controls how the student will access a specific *course* on the site. Moodle allows you to make one of four selections from the Enrolments screen: (Fig. 75)

Internal Enrolments: This is the default and used in most situations. A user will enter a course by clicking its link on the site front page. The course owner can establish an “enrolment key” with the courses Settings properties.

External Database: an external database can control who is enrolled in courses, provided it follows a table structure that Moodle expects. See the help file on the properties screen if you use this selection.

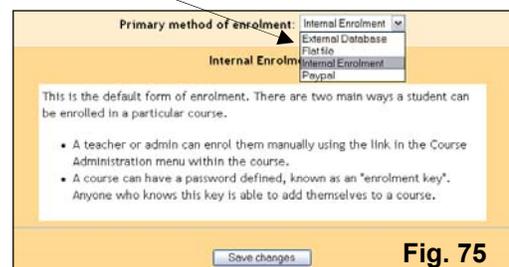


Fig. 75

Flat file: This method will repeatedly check for and process a specially-formatted text file in the location that you specify. The file can look something like this:

```
add, student, 5, CF101
add, teacher, 6, CF101
add, teacheredit, 7, CF101
del, student, 8, CF101
del, student, 17, CF101
add, student, 21, CF101, 1091115000, 1091215000
```

Paypal: The Paypal module (Fig. 76) allows you to set up paid courses. If the cost for any course is zero, then students are not asked to pay for entry. There is a site-wide cost that you set here as a default for the whole site, and then a course setting that you can set for each course individually (within the "Settings" property screen). The course cost overrides the site cost. You must have a Paypal user account (free) to collect funds when students make a purchase. With the Paypal enrolment scheme activated, students are queried when they make a course selection from the site front page as to whether or not they want to make a purchase. On click, they are taken to Paypal and the regular merchant transaction process for your account is followed. Paypal no longer requires an individual making a purchase to have their own Paypal account; this fact makes Moodle's Paypal enrolment feature simple and invaluable when creating paid courseware or collecting tuition.

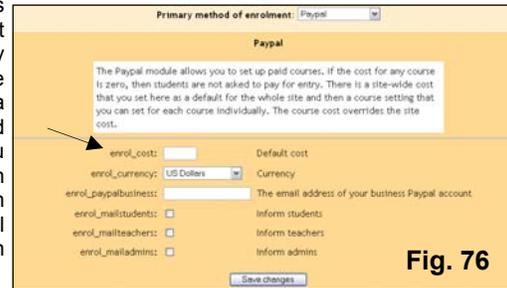


Fig. 76



When Paypal enrolment method is selected, a new Property (Cost:) appears on the course "Settings" screen

- **Enroll students:** This features allows an admin to select a course and manually add students.
- **Assign teachers:** Admin can select a course and manually add a teacher. Teachers can be given "editing permissions" within a course, or blocked from using the editing features.
- **Assign creators:** This selection allows an admin to change a users permissions (Fig. 77), allowing them to create new course templates and to teach within such courses.
- **Assign admins:** A *primary* admin can change a users permissions to admin, from a screen like Fig. 77. Admins have all privileges of a primary admin, except they cannot create other admins.



Fig. 77

Courses

This selection allows the admin to define new "categories" and to populate these categories with new courses (e.g. Mathematics (category) - 8th Grade Algebra Class (course)). Fig. 78 displays the property screen for creating, deleting or hiding categories, and the button to "Add a new course". Courses can be moved from one category to another, and you can change the order on the site front page in which categories appear.



Fig. 78

Logs

Admins may be asked to examine the activity logs of a certain student on occasion, and report their findings to a teacher or organizational manager. The Logs selection in Administration allows you to do this (Fig. 79), with features for selecting:

- A course to view
- A student to view
- A date or range to view
- A specific activity to view



Fig. 79



Logs are also available to a teacher within their course as a selection in the Administration block.

Site files

Each course you create within Moodle will have a file storage area available (Fig. 80) for uploading course resources and storing backups. There is a “Files” selection within the Administration block within each course, and a “Site files” selection on the site front page (Fig. 81) Administration block. The Moodle site front page is actually a course as well, with folder designation 1 in the moodledata directory. When you click Site files on the administration screen (Fig. 69) the storage area properties for the site front page, or course 1, will appear (Fig. 80). You then have options for creating sub-folders, uploading files, deleting files and zipping files.

Fig. 80 Note: files placed here can be accessed by anyone

Name	Size	Modified	Action
<input type="checkbox"/> backupdata	1.6Mb	4 Jan 2005, 01:27 PM	Rename
<input type="checkbox"/> resources	606.5Kb	4 Jan 2005, 12:38 PM	Rename

With chosen files...

Administration

- [Configuration...](#)
- [Users...](#)
- [Backup...](#)
- [Restore...](#)
- [Courses](#)
- [Logs](#)
- [Site files](#) **Fig. 81**
- [Admin...](#)



Installation

Moodle is primarily developed in Linux using Apache, MySQL and PHP (also sometimes known as the LAMP platform), but is also regularly tested with PostgreSQL and on Windows XP, Mac OS X and Netware 6 operating systems. The requirements for Moodle are as follows:

- Web server software. Most people use Apache, but Moodle should work fine under any web server that supports PHP, such as IIS on Windows platforms.
- PHP scripting language (version 4.1.0 or later). PHP 5 is supported as of Moodle 1.4.
- A working database server: MySQL or PostgreSQL are completely supported and recommended for use with Moodle.

Most web hosts support all of this by default. If you are signed up with one of the few web hosts that does not support these features ask them why, and consider taking your business elsewhere.

If you want to run Moodle on your own computer and all this looks a bit daunting, consider downloading either the EasyPHP or Xampp Windows distro at <http://goohio.com/moodle/>. These all-in-one installations make no registry changes on your computer so they easily uninstall by deleting the directory. Both distributions include Apache, MySQL, PHP and Moodle.

The latest Moodle release is [available for download](http://moodle.org) at <http://moodle.org>. Here is a quick summary of the contents of the Moodle folder, after being unzipped, to help get you oriented:

config.php - contains basic settings. This file does not come with Moodle - you will create it.

install.php - the script you will run to create config.php

version.php - defines the current version of Moodle code

index.php - the front page of the site

- admin/ - code to administrate the whole server
- auth/ - plugin modules to authenticate users
- blocks/ - plugin modules for the little side blocks on many pages
- calendar/ - all the code for managing and displaying calendars
- course/ - code to display and manage courses
- doc/ - help documentation for Moodle (eg this page)
- files/ - code to display and manage uploaded files
- lang/ - texts in different languages, one directory per language
- lib/ - libraries of core Moodle code
- login/ - code to handle login and account creation
- mod/ - all the main Moodle course modules are in here
- pix/ - generic site graphics
- theme/ - theme packs/skins to change the look of the site.
- user/ - code to display and manage users

Step 1: Create a Database

You need to create an empty database (e.g. "moodle") in your database system along with a special user (e.g. "moodleuser") that has access to that database (and that database only). You could use the "root" user if you wanted to for a test server, but this is not recommended for a production system.

If you are using a web host, they will probably have a control panel web interface for you to create your database. The **Cpanel** system is one of the most popular of these. To create a database in Cpanel:

1. Click on the "**MySQL Databases**" icon.
2. Type "moodle" in the database field and click "**Add Database**".
3. Type a username and password (not one you use elsewhere) in the respective

- fields and click **"Add User"**.
- Now use the **"Add User to Database"** button to give this new user account **"ALL"** rights to the new database.
 - Note that the username and database names may be prefixed by your Cpanel account name. When entering this information into the Moodle installer - use the full names.

If you have access to Unix command lines then you can do the same sort of thing by typing commands. Here are some example Unix command lines for MySQL:

```
# mysql -u root -p
> CREATE DATABASE moodle;
> GRANT SELECT,INSERT,UPDATE,DELETE,CREATE,DROP,INDEX,ALTER ON
moodle.*
    TO moodleuser@localhost IDENTIFIED BY 'yourpassword';
> quit
# mysqladmin -p reload
```

And some example command lines for PostgreSQL:

```
# su - postgres
> psql -c "create user moodleuser createdb;" template1
> psql -c "create database moodle;" -U moodleuser template1
> psql -c "alter user moodleuser nocreatedb;" template1
```

Step 2: Create a Data Directory

Moodle will also need some space on your server's hard disk to store uploaded files, such as course documents, user pictures and uploads. The Moodle installer tries hard to create this directory for you but if it fails then you will have to create a directory for this purpose manually (recommended).

For security, it's best that this directory is NOT accessible directly via the web. The easiest way to do this is to simply locate it OUTSIDE the web directory, but if you must have it in the web directory then protect it by creating a file in the data directory called `.htaccess`, containing this line:

```
deny from all
```

To make sure that Moodle can save uploaded files in this directory, check that the web server software (e.g. Apache) has permission to read, write and execute in this directory. On Unix machines, this means setting the owner of the directory to be something like "nobody" or "apache", and then giving that user read, write and execute permissions (777). On Cpanel systems you can use the "File Manager" to find the folder, click on it, then choose "Change Permissions".

On many shared hosting servers, you will probably need to restrict all file access to your "group" (to prevent other web host customers from looking at or changing your files), but provide full read/write access to everyone else (which will allow the web server to access your files). Speak to your server administrator if you are having trouble setting this up securely. In particular some sites that use a PHP feature known as "Safe Mode" may require the administrator to create this directory properly for you.

Step 3: Run The Installer Script

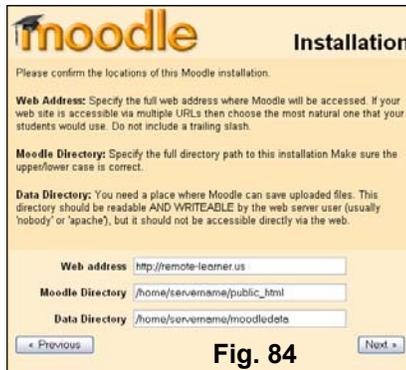
To run the installer script (`install.php`), just try to access your Moodle main URL using a web browser, or access **`http://yourserver/install.php`** directly. (The Installer will try to set a session cookie. If you get a popup warning in your browser make sure you accept that cookie!). The first installation setup screen (Fig. 82) will prompt you for a default site language.



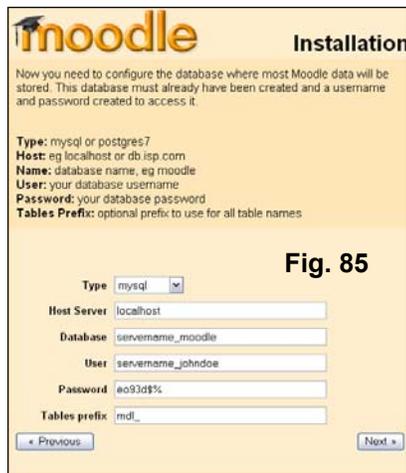
Fig. 82

Moodle will detect that configuration is necessary and will lead you through some screens to help you create a new configuration file called **config.php**.

After the language selection screen, Moodle will detect whether PHP is set up correctly on the server (Fig. 83). If any settings do not Pass this check, make sure you correct whatever feature on the server that has not passed before proceeding with installation. See General Web Server Settings section for suggestions.



The next screen in Moodle's installer (Fig. 84) will ask you about the location of Moodle on your server. You will be asked for the absolute Web address for your site, and for the name of the directory where Moodle is located. Make sure you enter the server name. Finally, enter the server path for where the "moodledata" directory is located (see Step 2).



Now installer will ask for your database connection information (Fig. 85), starting with the **Type** of database (MySQL or Postgre SQL) used. This is often a point where a problem may occur if you are not familiar with these properties. In most cases the **Host Server** name will be simply "localhost". Some ISP's will use a specific name or IP address for their database server, in which case you will enter that name or number (e.g. mysql.ispname.net).

Now add the name of your **Database** as it was set up. This is typically prefaced with the name of your Moodle server, an underscore, and then the name of the database (Fig. 85). Do the same when you add the **User** name assigned to the database. Note that for security reasons you should create a unique user name and password for Moodle's database. Finally, add just the **Password** (no underscore) that was assigned to the database. By default Moodle uses a table prefix of "mdl". Unless you are a database admin or know what you are doing, do not change this value.



At the end of the Installation process Moodle will try and write the config.php file into the right location. If Moodle is unable to do this (Fig. 86), which may be the case because of permission settings, you will be given an option to download the file so that you can then manually upload config.php into the main Moodle directory on the server.

Add configuration settings the installer creates to the **config-dist.php** file in the Moodle folder. Copy and paste to the top portion of the file as needed. Make sure there are no spaces at the bottom of this file after **?**. Finally, rename this file **config.php**



Step 4: Go to Admin Page And Continue Configuration

Once **config.php** has been correctly created in the previous step, access the front page of your site where Moodle is located (e.g. <http://yoursite.com/moodle>) This will take you to the "admin" page for the rest of the configuration. The first time you access this admin page you will be presented with a GPL "shrinkwrap" agreement, which you must agree with before you can continue with the setup.

Now Moodle will start setting up your database and creating tables to store data. Firstly, the main database tables are created. You should see a number of SQL statements followed by status messages (in green or red) that look like this:

```
CREATE TABLE course ( id int(10) unsigned NOT NULL auto_increment, category int(10) unsigned NOT NULL default '0', password varchar(50) NOT NULL default '', fullname varchar(254) NOT NULL default '', shortname varchar(15) NOT NULL default '', summary text NOT NULL, format tinyint(4) NOT NULL default '1', teacher varchar(100) NOT NULL default 'Teacher', startdate int(10) unsigned NOT NULL default '0', enddate int(10) unsigned NOT NULL default '0', timemodified int(10) unsigned NOT NULL default '0', PRIMARY KEY (id)) TYPE=MyISAM
```

SUCCESS

...and so on, followed by: Main databases set up successfully.

If you don't see these, then there must have been some problem with the database or the configuration settings you defined in **config.php**. Check that PHP isn't in a restricted "Safe Mode" (commercial web hosts sometimes have safe mode turned on). You can check PHP variables by creating a little file containing `<?php phpinfo() ?>` and looking at it through a browser. Check all these and try this page again.

Scroll down the very bottom of the page and press the "Continue" link on each screen that successfully populates the database, as shown above. You should now see a form where you can define more configuration variables (Fig. 87) for your installation, such as the default language, SMTP hosts and so on. Don't worry too much about getting everything right just now - you can always come back and edit these later on using the admin interface. The defaults are designed to be useful and secure for most sites. Scroll down to the bottom of the Variables page and click "Save changes".

If (and only if) you find yourself getting stuck on this page, unable to continue, then your server probably has what is called the "buggy referrer" problem. This is easy to fix: just turn off the "secureforms" setting, then try to continue again.

Next you will see more pages that print lots of status messages as they set up all the tables required by various Moodle modules. As before, they should all be green.

Scroll down to the very bottom of the page and press the "Continue" link.

Fig. 87

Moodle
Home Administration Configuration Variables

Variables

Choose a default language for the whole site. Users can override this setting later.

Choose whether or not you want to display the general output language menu on the home page, login page etc. This does not affect the user's ability to set the preferred language in their own profile.

Leave this blank to allow users to choose from any language you have in this installation of Moodle. However, you can restrict the language menu by entering a comma-separated list of language codes that are valid. For example: en,es,fr.

Choose a suitable locale - this will affect the format and language of dates. You need to have this locale data installed on your operating system (eg en_US or es_ES). If you don't know what to choose leave it blank.

You can set the default timezone here. This is the only the DEFAULT timezone for displaying dates - each user can override this by setting their own in their profile. "Server time" here will make Moodle default to the server's operating system setting, but "Server time" in the user profile will make the user default to their timezone setting.

If you set a country here, then this country will be selected by default on new user accounts. To force users to choose a country, just leave this empty.

Give the full name of one or more valid SMTP servers that Moodle should use to send mail (eg mail.example.com). If you leave it blank, Moodle will use the PHP default method of sending mail.

If you have specified an SMTP server above, and the server requires authentication, then enter the username and password here.

Emails are sometimes sent out on behalf of a user (eg forum posts). The email address you specify here will be used as the "From" address in those cases unless the recipients should not be able to reply directly to the user (eg when a user chooses to keep their address private).

Indicate the version of GD that is installed. The version shown by default is the one that has been auto-detected. Don't change this unless you really know what you're doing.

This specifies the amount of time people have to re-write forum postings, journal feedback etc. Usually, 30 minutes is a good value.

If students haven't logged in for a very long time, then they are automatically unenrolled from courses. This parameter specifies that time limit.

If you are using email administration, this is the period within which a response will be accepted from users, after this period, old unconfirmed accounts are deleted.

This specifies the length of time you want to keep log about user activity. Logs that are older than this age are automatically deleted. It is best to keep logs as long as possible. To save you need them, but if you have a very busy server and are experiencing performance problems, then you may want to lower this log lifetime.

This will display information to selected users about previous failed logins.

If login failures have been recorded, email notifications can be sent out. Who should see these notifications?

If notifications about failed logins are active, from many failed login attempts by one user or one IP address it is worth notifying about?

If people logged in to this site are idle for a long time (without loading pages) then they are automatically logged out (that session is erased). This variable specifies how long this time should be.

This setting customises the name of the cookies used for Moodle sessions. This is optional, and only used to avoid cookies being confused when there is more than one copy of Moodle running within the same web site.

Indicate the location of your zip program (this only, optional). If specified, this will be used to create zip archives on the server. If you leave this blank, then Moodle will use internal routines.

Indicate the location of your unzip program (this only, optional). If specified, this will be used to unzip zip archives on the server. If you leave this blank, then Moodle will use internal routines.

Files (images, uploads etc) are provided via a script using their arguments (the second option here). This method allows files to be more easily cached in web browsers, proxy servers etc. Unfortunately, some third server don't allow this method, so if you have trouble viewing attached

The next page is a form (Fig. 88) where you can define parameters for your Moodle site and the front page, such as the name, format, description and so on. Fill this out (you can always come back and change these later) and then press "Save changes".

Finally, you will be asked to create a top-level or *primary* administration user for future access to the admin pages. Fill out the details (Fig. 89) with your own name, email etc and then click "Save changes". Not all the fields are required, but if you miss any important fields you'll be re-prompted for them.

Fig. 88

Fig. 89

If for any reason your install is interrupted, or there is a system error of some kind that prevents you from logging in using the admin account, you can usually log in using the default username of "admin", with password "admin".

Once successful, you will be returned to the home page of your new site (Fig. 90). From this point on you will administer Moodle as described on pages 44-48.

Make sure you remember the username and password you chose for the administration user account, as they will be necessary to access the administration page in future.



Step 5: Set up Cron (important)

Some of Moodle's modules require continual checks to perform tasks. For example, Moodle needs to check the discussion forums so it can mail out copies of posts to people who have subscribed.

The script that does all this is located in the admin directory, and is called cron.php. However, it can not run itself, so you need to set up a mechanism where this script is run regularly (e.g. every five or ten minutes). This provides a "heartbeat" so that the script can perform functions at periods defined by each module. This kind of regular mechanism is known as a cron service.

Note that the machine performing the cron does not need to be the same machine that is running Moodle. For example, if you have a limited web hosting service that does not have a cron service, then you can might choose to run cron on another server or on your home computer. All that matters is that the cron.php file is called regularly.

The load of this script is not very high, so 5 minutes is usually reasonable, but if you're worried about it you can reduce the time period to something like 15 minutes or even 30 minutes. It's best not to make the time period too long, as delaying mail-outs can slow down activity within the course.

Fig. 90



First, test that the script works by running it directly from your browser:

```
http://example.com/moodle/admin/cron.php
```

Now, you need to set up some way of running the script automatically and regularly.

On Windows systems

The simplest way is to use the little package **moodle-cron-for-windows.zip** (<http://moodle.org/download/modules/moodle-cron-for-windows.zip>) which makes this whole thing very easy by installing a small Windows service. Run it and forget about it!

On web hosting services

Your web-based control panel may have a web page that allows you to set up this cron process. For example, on a Cpanel system, look for a button called "Cron jobs". In there you can put the same sort of Unix commands as listed below.

Using the command line on Unix

There are different command line programs you can use to call the page from the command line. Not all of them may be available on a given server. For example, you can use a Unix utility like 'wget':

```
wget -q -O /dev/null http://example.com/moodle/admin/cron.php
```

Note in this example that the output is thrown away (to /dev/null). The same thing using lynx:

```
lynx -dump http://example.com/moodle/admin/cron.php > /dev/null
```

Alternatively you could use a standalone version of PHP, compiled to be run on the command line. The advantage with doing this is that your web server logs aren't filled with constant requests to cron.php. The disadvantage is that you need to have access to a command-line version of php.

```
/opt/bin/php /web/moodle/admin/cron.php
```

Using the crontab program on Unix

All that Cpanel does is provide a web interface to a Unix utility known as crontab. If you have a command line, you can set up crontab yourself using the command:

```
crontab -e
```

and then adding one of the above commands like:

```
*/* * * * * wget -q -O /dev/null http://example.com/moodle/admin/cron.php
```

Usually, the "crontab" command will put you into the 'vi' editor. You enter "insert mode" by pressing "i", then type in the line as above, then exit insert mode by pressing ESC. You save and exit by typing ":wq", or quit without saving using ":q!" (without the quotes).

General Web Server Settings

Firstly, make sure that your web server is set up to use index.php as a default page (perhaps in addition to index.html, default.htm and so on). In Apache, this is done using a DirectoryIndex parameter in your httpd.conf file, which might look like this:

```
DirectoryIndex index.php index.html index.htm
```

Just make sure index.php is in the list (and preferably towards the start of the list, for efficiency).

Secondly, if you are using Apache 2, then you should turn on the AcceptPathInfo variable, which allows scripts to pass arguments like http://server/file.php/arg1/arg2. This is essential to allow relative links between your resources, and also provides a performance boost for people using your Moodle web site. You can turn this on by adding these lines to your httpd.conf file.

```
AcceptPathInfo on
```

Thirdly, Moodle requires a number of PHP settings to be active for it to work. On most servers these will already be the default settings. However, some PHP servers (and some of the more recent PHP versions) may have things set differently. These are defined in PHP's configuration file (usually called php.ini):

```
magic_quotes_gpc = 1 (preferred but not necessary)
magic_quotes_runtime = 0 (necessary)
file_uploads = 1
session.auto_start = 0
session.bug_compat_warn = 0
```

If you don't have access to httpd.conf or php.ini on your server, or you have Moodle on a server with other applications that require different settings, then don't worry, you can often still **OVERRIDE** the default settings. To do this, you need to create a file called **.htaccess** in Moodle's main directory that contains lines like the following. This only works on Apache servers and only when Overrides have been allowed in the main configuration.

```
DirectoryIndex index.php index.html index.htm

<IfDefine APACHE2>
    AcceptPathInfo on
</IfDefine>

php_flag magic_quotes_gpc 1
php_flag magic_quotes_runtime 0
php_flag file_uploads 1
php_flag session.auto_start 0
php_flag session.bug_compat_warn 0
```

You can also do things like define the maximum size for uploaded files:

```
LimitRequestBody 0
php_value upload_max_filesize 2M
php_value post_max_size 2M
```

The easiest thing to do is just copy the sample file from **lib/htaccess** and edit it to suit your needs. It contains further instructions. For example, in a Unix shell:

```
cp lib/htaccess .htaccess
```





