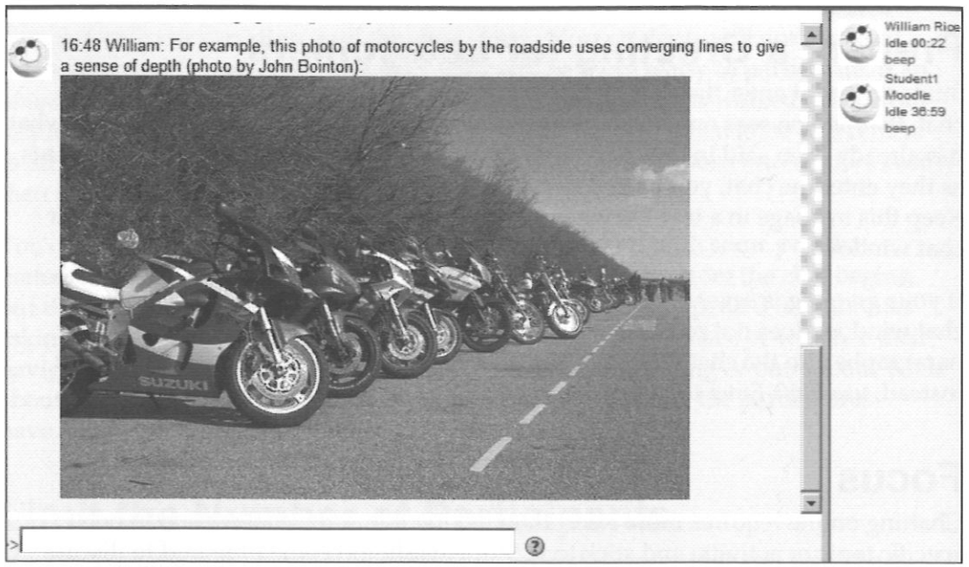
You can insert images by placing them into the standard HTML image tag. If the image is on the Web, include the full link to the image. For example, typing `http://farm1.static.flickr.com/172/427149859_037a0a9202.jpg` into a chat line, produces the following:



Summary

In this chapter, we learned that, online chat has some unique advantages over an in-person classroom discussion. Students do not need to deal with the fear of public speaking. Transcripts can be edited and used as course material, and conversation can proceed at a leisurely pace. This gives participants time to think.

The key to using these advantages is preparation. Prepare your students by ensuring that they know chat room etiquettes and how to use the software. Prepare yourself by having material ready to copy and paste into the chat. Also, everyone should be prepared to focus on the goals and subject of the chat. More than any other online activity, chat requires that the teacher takes on a leader's role and guides the students to a successful learning experience.

4
Quiz Solutions

A quiz can be more than just a test. At its best, a quiz can also become a learning experience. Moodle offers features that help you to accomplish that. This chapter gives you different ways of using Moodle quizzes for more than just testing.

Distribute Quizzes Over Time

Distributed practice is when a student practices a skill or knowledge during many sessions that are short in length and distributed over time. For example, if you're teaching a language course, you might practice every day for one week on a list of vocabulary words. That would be distributed practice. But even more effective would be repeating that practice once a week for the next few weeks.

Advantages and Limitations of Distributed Practice

Students who use distributed practice learn more material, and remember the material longer, than students who cram because:

- It's easier for students to maintain motivation and focus for short spans of time rather than for an all-night study session.
- Short practice sessions prevent mental and physical tiredness. Fatigue interferes with memory and reasoning, and reduces the ability to focus.

Research indicates that we continue to learn and process information that we study, after the study period has ended. If our brains were ovens, you could say we continue to "bake" the knowledge for a while even after the heat has been shut off. The more practice sessions we engage in, the more times we experience this effect.

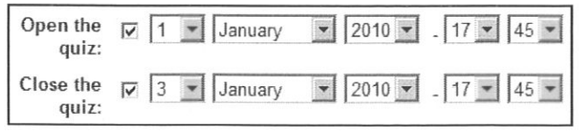
Several factors affect how well, distributed practice works:

Factor	Effect on Distributed Practice
Length of the practice session.	The shorter the better. It should be just long enough to cover the material, but not long enough to fatigue the student.
Time between practice sessions.	Research shows that at first, the time between sessions should be short enough so that students don't forget the material between practice sessions. As the students gain proficiency and confidence with the material, the time between sessions can be increased. There are no hard-and-fast rules. As a teacher, you must use your judgment and monitor the students' performance, adjusting the time between sessions as needed.
Time period over which practice sessions are distributed.	The longer the better. Keep returning to the material until the students master it. Students might demonstrate mastery by performing well on the quizzes you give them, or by using the material in an activity like writing a paper or participating in a forum.

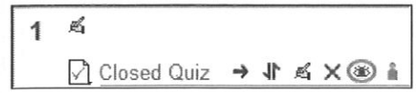
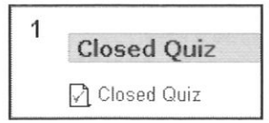
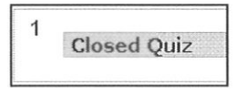
With all this talk of the advantages of distributed practice, there are some situations where massed practice (a long study or work session) is better. For example, when you're writing a paper you often reach a point where you are accomplishing several things at once. You are writing a section now, you have your next few points in mind, you have recalled the next few pieces of information that you need to use, and you know where the piece that you are working on fits into the overall organization of the paper. At that point, you do not want to be interrupted. Writers, programmers, artists, and people who do creative work know that sometimes the best way to be productive is to exert a sustained and uninterrupted effort. For each learning situation, you must consider, which would give better results; distributed practice or sustained effort.

Opening and Closing Quizzes at Predetermined Times

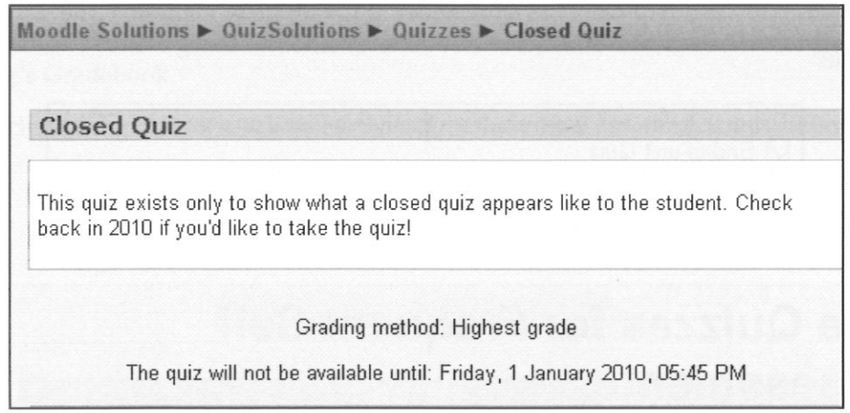
The **Editing Quiz** window contains settings that enable you to determine when a quiz becomes available and unavailable to students:



Remember that the show/hide setting determines if a student can see an item in the course or not. So, even when a quiz is closed, students could see it listed in the course. The following table examines how the setting can be used.

Whether the quiz is open or closed, if the course developer has set it to show...	Whether the quiz is open or closed, if the course developer has set it to hidden...
	
The student will see the quiz listed on the course's home page...	The student will not see the quiz listed on the course's home page...
	

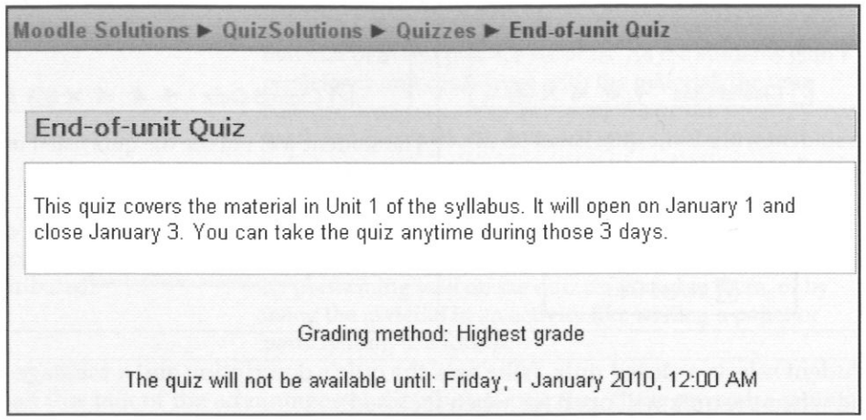
If a student selects a closed quiz, (s)he sees the quiz's description and a message stating when the quiz will open (or when it closed):



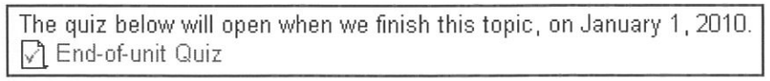
Indicating that a Quiz is Closed

If you're going to close a quiz until a given date, will you allow the student to stumble into the quiz and discover that it is closed until a given date? Or will you indicate to the student that the quiz is closed? You have several options.

In the previous figure, you can see that Moodle tells the student, **The quiz will not be available until: Friday, 1 January 2010, 05:45 PM**. However, that information is not very prominent. Consider using the first line of the quiz's description to explain that the quiz is closed until the open date, so it's the first thing the student reads after selecting the quiz:



You can use a label on the course's home page to indicate that the quiz is closed, like this:



You can also hide the quiz until it's time for the student to take it.

Use Quizzes for Frequent Self Assessment

Self assessment is the ability of a student to observe, analyze, and judge his or her performance based on criteria that you supply. At its best, self assessment also means that the student can determine how to improve his or her performance. Supplying the students with quizzes that they can take at their own, fulfills the first part of that goal. Using feedback during the quizzes helps fulfill the second. Self assessments are typically not graded. The goal of a self assessment is usually not to achieve a grade, but to practice for a graded activity.

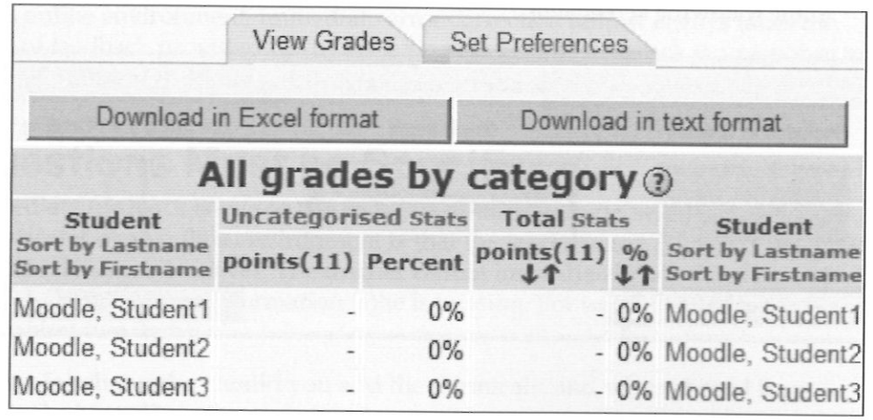
Adding self assessment to your course has several advantages for you and the students. First, self assessments are a chance for students to become more actively involved in their learning. Second, students learn to identify their errors as they make the errors, assuming the self assessment quiz provides immediate feedback. For more about using immediate feedback in a quiz, see *Immediate Feedback Makes a Quiz a Learning Tool*, later in this chapter. This feedback during self assessment reduces the errors students make "when it counts", that is, when they are being graded. Third, self assessments build the students' confidence, and makes them more independent learners, and as a teacher, your workload is reduced by self assessment quizzes that provide feedback, because they reduce the need for you to provide feedback yourself. You can also improve your relationship with your students by showing confidence in their ability to work independently.

Exclude Self Assessment Quizzes from the Gradebook

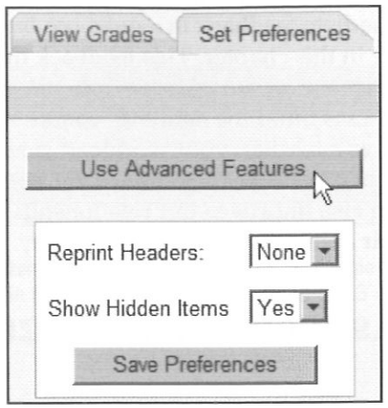
Moodle gives you a Gradebook for each course. The scores for graded activities, such as quizzes and workshops, automatically appear in the Gradebook. You want a self assessment quiz to display a grade to the student so that (s)he knows how well (s)he did, but, you don't want that quiz grade to be included in the calculation for the student's course grade. Moodle enables you to exclude selected activities from a course's Gradebook.

To exclude the grade for a self assessment quiz from the Gradebook, do the following:

1. From the **Administration** block, select **Grades** (Grades). The first time that a teacher, administrator, or course creator visits a course's Gradebook, the Gradebook displays in its simplest mode:

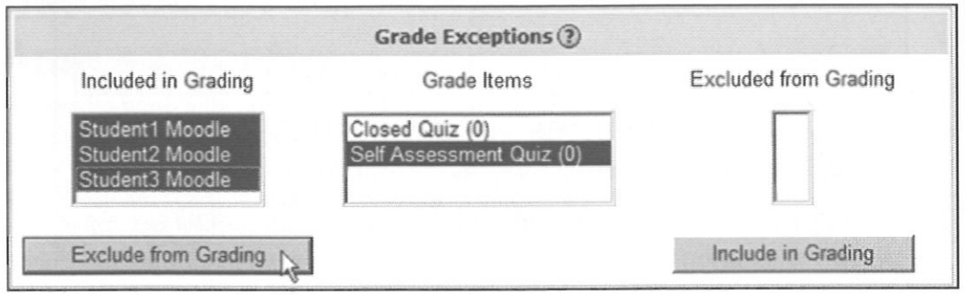


2. To exclude a quiz from the grade calculations, you need to view the Gradebook in advanced mode. Select the **Set Preferences** tab. Under this tab, select **Use Advanced Features**, as shown in the following screenshot:

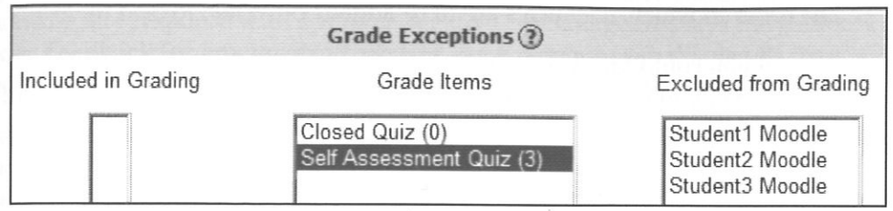


3. Several new tabs appear. Select **Grade Exceptions**, shown in the following screenshot:

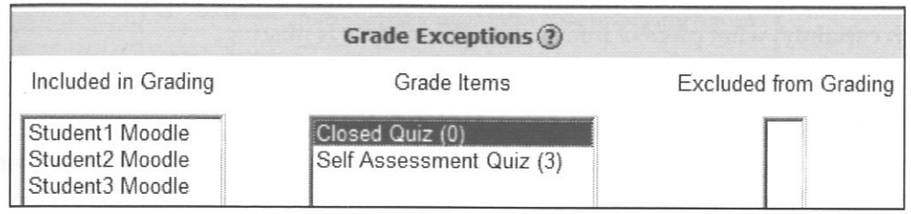
4. This page can be tricky. It looks like you should select the activity from the middle column, and then select either **Exclude from Grading** or **Include in Grading** for that item. However, that isn't how this page works. Instead, select the activity from the middle column and then select all of the students whose grade for this activity you want to exclude from the Gradebook. Refer to the following screenshot:



5. And then, select **Exclude from Grading**. This excludes that activity from the selected students' overall grade:



However, note that for the other activity in this course, the Closed Quiz, all of the students' grades will still be included in the Gradebook:



When using this method to exclude self assessment quizzes from the Gradebook, remember that if a student joins your course late, you'll need to return to the **Grade Exceptions** page and exclude that student's self assessment quiz grades from the Gradebook.

Making Quiz—A Learning Tool

In an online environment, immediate error correction almost always takes the form of feedback provided by the learning system. The feedback is a response to a student's answer to a quiz question.

Questions Must be Specific

Immediate feedback is one of the strengths of an e-learning system. One of the weaknesses of an online environment is that the teacher can't ask why the student picked an incorrect answer. The teacher cannot immediately ask the student to discover exactly what information (s)he is missing. For example, this quiz question asks about two items:

> In what order should you add the chemicals, and when should they be heated?

If a student gets this question wrong in an online quiz, should the feedback correct the student's knowledge of:

> The order in which, chemicals are to be added? or, When to heat them?

There's no way you could know. Break this question into two more specific questions, and then you can design appropriate error correction for each question:

1. In what order should you add the chemicals?
2. The mixture should be heated after which chemical is added?

Online quiz questions must be very specific for immediate error correction to work online. There must be no doubt what item of knowledge is being measured. As feedback is a response to a quiz question, the questions and remedial information must be carefully matched. The quiz question must be specific enough to measure with certainty, what piece of information the student is missing.

Adding Feedback to Quiz Questions

Moodle enables you to create several different kinds of feedback for a quiz. You can create feedback for:

- The entire quiz, which changes with the student's score. This is called **Overall Feedback**, and uses a feature called **Grade Boundary**.
- A **question**, no matter what the student's score on that question. All students receive the same feedback. This is called **General Feedback**, which every question can have.

The type of feedback that you can create for a question, varies with the type of question.

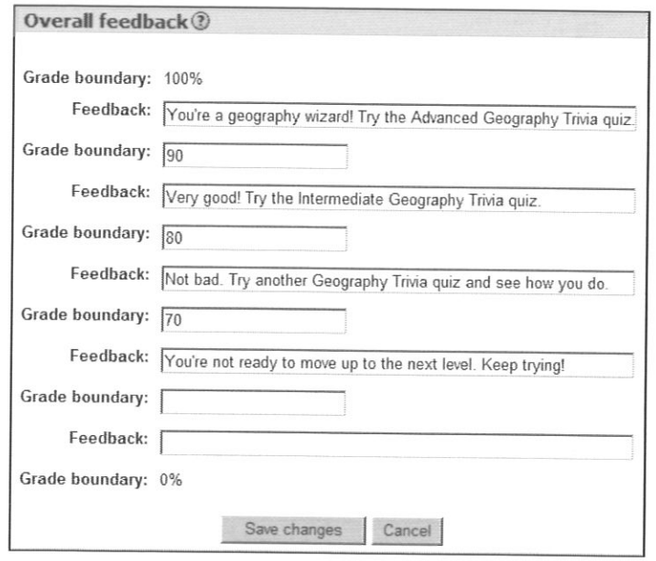
Feedback for a Multiple Choice Question

In a multiple choice question, you can create feedback for correct, partially correct, or incorrect response. If a response has a value of 100%, it is considered completely correct and the student receives all of the points for that question. However, a response can have a value of less than 100%. For example, if a question has two correct responses, you could give each response a value of 50%. In this case, each response is partially correct. The student needs to choose both responses to receive the full point value for the question. Any question with a percentage value between 0 and 100 is considered partially correct.

A response can also have a negative percentage value. Any response with a percentage value of less than zero is considered an incorrect response.

Choosing a response with a value of 100% will display the feedback under **Feedback for any correct answer**. Choosing any response with a point value between 0 and 100% displays the feedback under **Feedback for any partially correct answer**. Choosing any response with a zero or negative percentage displays the feedback under **Feedback for any incorrect answer**. Each response can display its own feedback. This type of feedback is called **Response Feedback**, or just **Feedback**.

The screenshot below shows **Overall Feedback** with **Grade Boundaries**. Students who score 90—100% on the quiz receive the first feedback, **You're a geography wizard...** Students who score 80—89.99% receive the second feedback, **Very good!...**

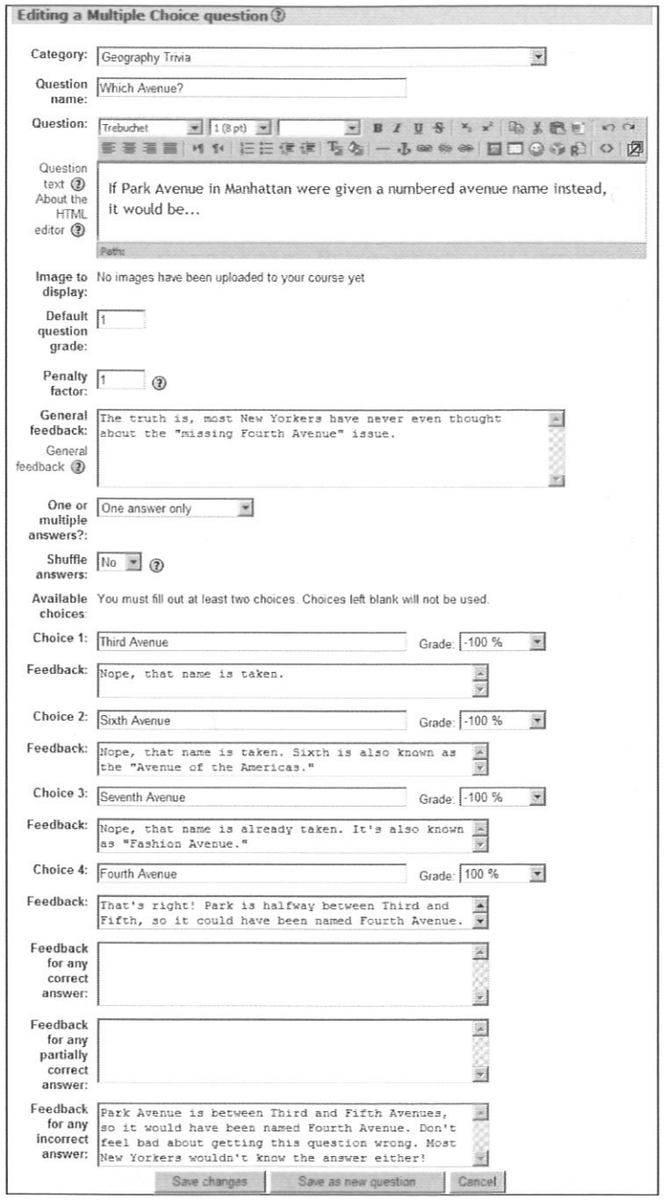


The screenshot below shows a multiple-choice question that uses several kinds of feedback. You're seeing this question from the course creator's point of view, not the student's. First, you can see **General Feedback: The truth is, most New Yorkers have never even thought about the "missing Fourth Avenue" issue**. After the question is scored, every student sees this feedback, no matter what the student's score.

Below that, you can see that **Choice 1** through **Choice 4** contain feedback for each response. This feedback is customized to the response. For example, if a student selects **Sixth Avenue** the feedback is **Nope, that name is taken. Sixth is also known as the "Avenue of the Americas".**

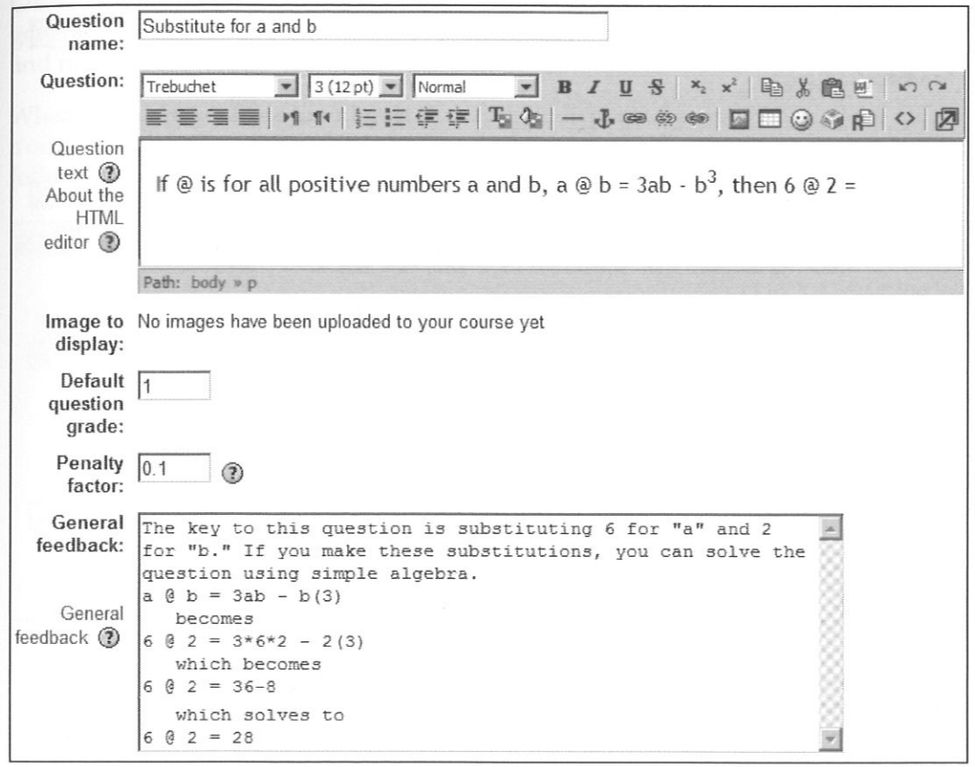
Near the bottom of the page, under **Feedback for any incorrect answer**, you can see the feedback the system gives if the student selects one of the incorrect responses. In this case, we use the feedback to tell the student what the correct response is.

There is no feedback under **any correct answer** or **partially correct answer**. Those options are useful when you have multiple responses that are correct, or responses that are partially correct. In this case, only one response is correct and all other responses are incorrect.

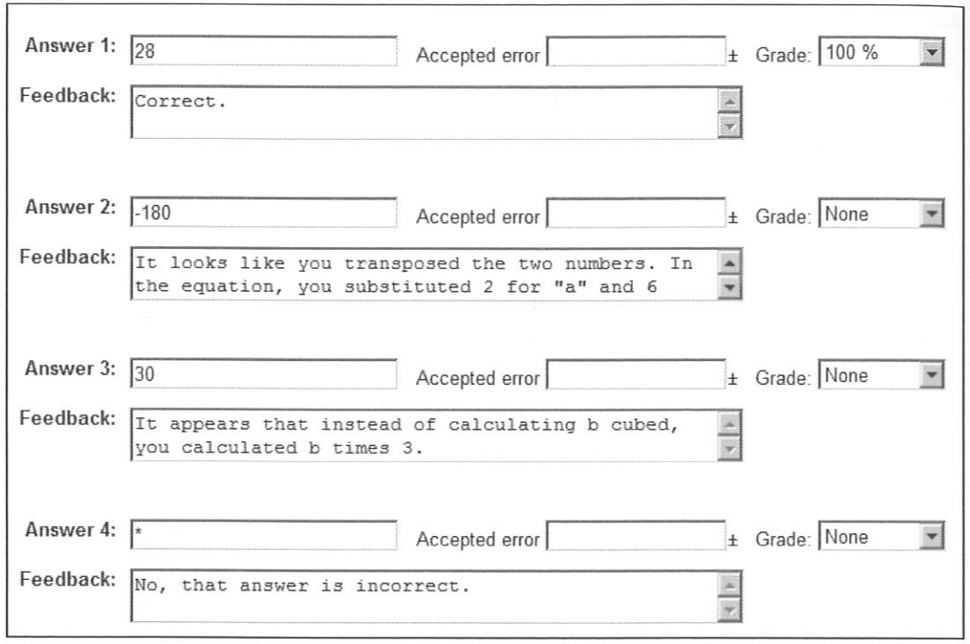


Feedback for a Numeric Question

The next screenshot shows feedback for a question with a numeric answer. Note that the **General Feedback** explains how the question is solved. This feedback is displayed to everyone after answering the question, even those who answered correctly. You might think that if the student answered correctly, (s)he doesn't need this explanation. However, if the student guessed or used a different method than that given in the **General Feedback**, explaining the solution can help the student to learn from the question.



In a numeric answer question, the student types in a number for the answer. This means the student could enter, literally any number. It would be impossible to create customized feedback for every possible answer, because the possibilities are infinite. However, you can create customized feedback for a reasonable number of answers. In this question, I've created responses for the most likely incorrect answers. After I've given this test to the first group of students, I'll need to review their responses for the most frequent incorrect answers. If there are any that I haven't covered, I'll need to add them to the feedback for this question.



In the previous screenshot, note that each response has customized feedback. **Answer 1** is correct. **Answer 2** would be the result of switching the two numbers while trying to solve the problem. As this is a likely error, I've included feedback just for that answer, explaining the error the student made. **Answer 3** is the result of interpreting b^3 as "b times 3" instead of "b cubed." This is also a likely error, so I've included feedback for that answer. **Answer 4** is a wildcard, and applies if the student submitted any answer other than the three above.

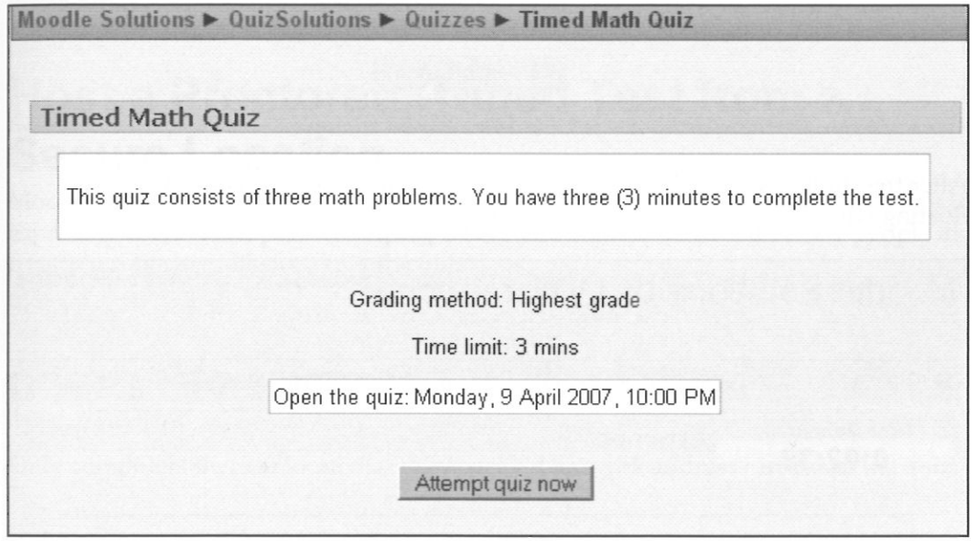
Reinforce Expertise with Timed Quizzes

Timed quizzes are an example of teaching, using a strategy called **time trials**. Time trials can be used to:

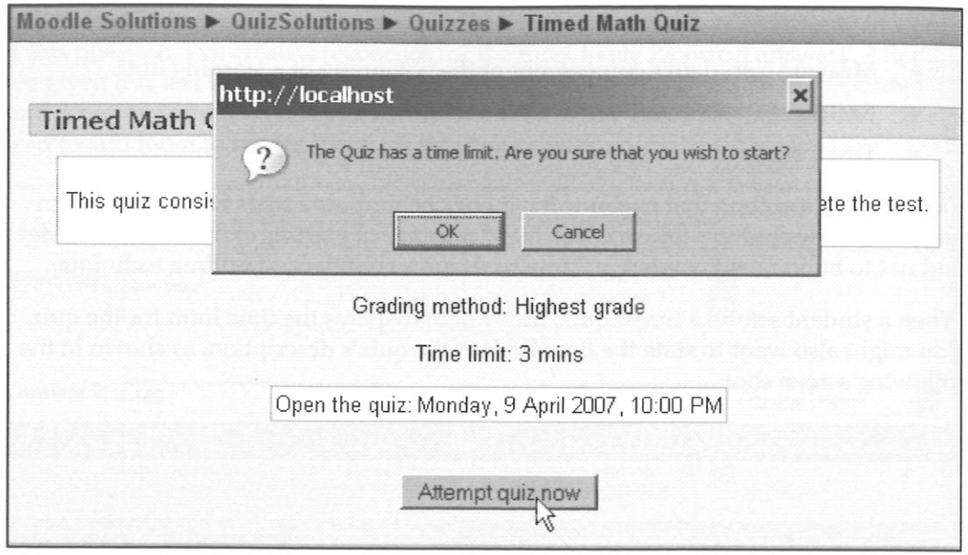
- **Measure** a student's competence at the beginning of a learning unit.
- **Build** a student's confidence with the knowledge or skill.
- **Test** a student's mastery at the end of a learning unit.

Chapter 1 has a section that explains the theory behind time trials in more detail. In general, you should use time trials to build mastery of existing skills and knowledge, and not to build new knowledge. Time trials are a confidence-building technique.

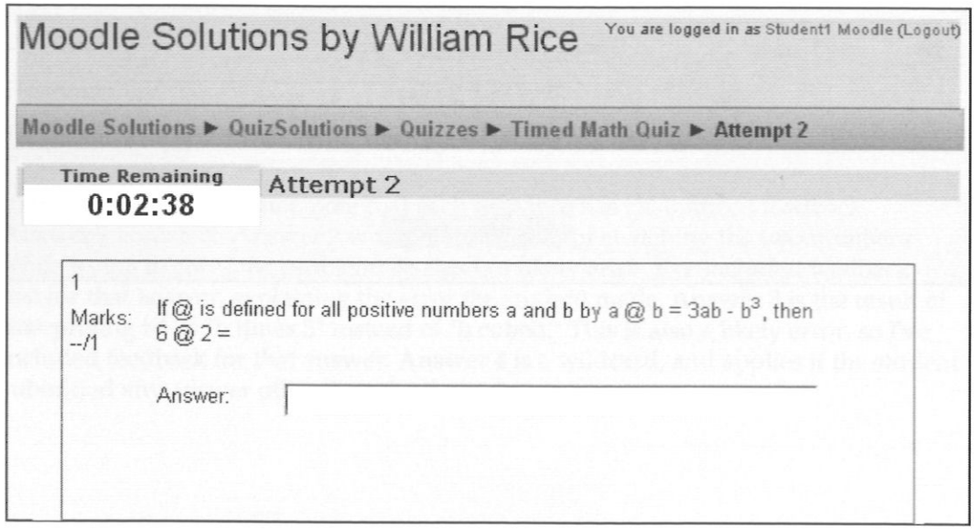
When a student selects a timed quiz, the system displays the time limit for the quiz. You might also want to state the time limit in the quiz's description, as shown in the following screen shot:



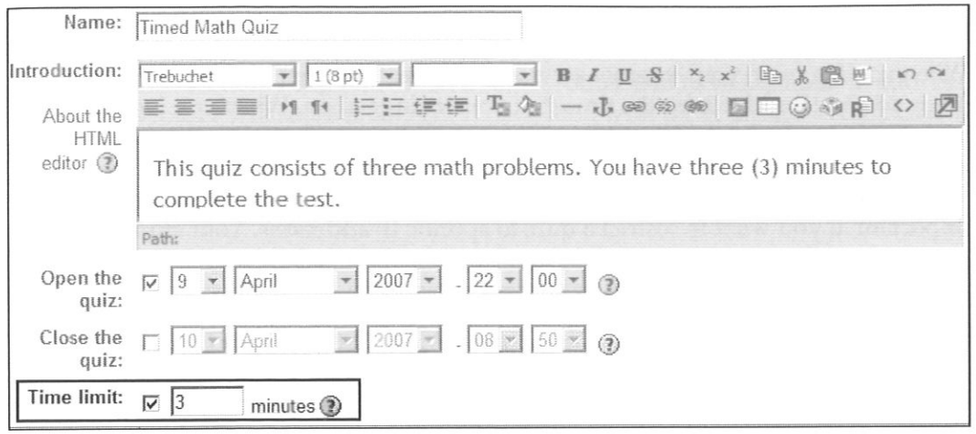
When the student selects **Attempt quiz now**, the student is reminded that the quiz has a time limit:



After the student selects **OK**, the quiz displays a timer that appears in a separate floating window, as shown in the following screenshot:



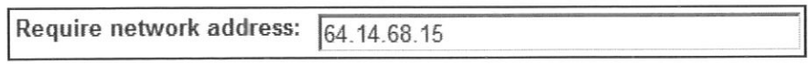
Adding a time limit to a quiz is a matter of changing one setting on the **Editing Quiz** page, as highlighted in the following screenshot:



Host a Proctored, Timed Test from a Secure Location

Moodle enables you to restrict the location from which a quiz can be accessed. This is especially useful for a proctored quiz, where you want to be sure that only people in a certain room are able to access the quiz.

This is done with the **Require network address** setting as shown:



Only computers that are located at this specified network address can access the quiz.

Different Kinds of Network Addresses

You can specify different kinds of network addresses. Each is explained as follows:

Full IP Addresses

This is the simplest option. Every computer connected directly to the Internet has a unique identifier, called its IP address. Please note the use of the phrase "directly connected", is deliberate and I'll explain it further. A full IP address specifies a single computer, router, printer, or other device on the Internet.

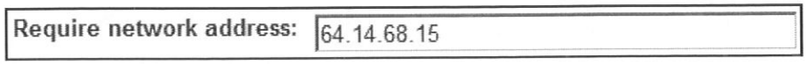
An IP address is specified by writing four numbers, separated by decimal points, like this: `255.255.255.255`. Each number can be from `0` to `255`. There are a limited number of IP addresses for the Internet. Don't worry, we haven't run out of them yet, and there is a plan for adding more IP addresses.

When you log on to your internet service provider (ISP) from home, your ISP usually gives you an IP address for the time that you are logged on. When you log off, your ISP "takes back" the IP address so someone else can use it. When you log on again, you're given a new one. So, when one of your students accesses the Internet from their homes, (s)he will probably have a different IP address every time. This is important, if you want to restrict a quiz to specific IP addresses. Your students won't be able to access that quiz from their homes. They will need to be physically present at the computers that have the IP addresses you specify.

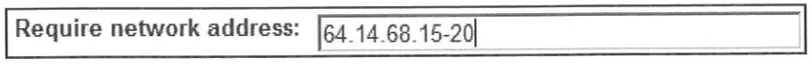
Often, one IP address serves many computers. Again, think of your home computer. If you have DSL or a cable modem, you probably have a router that enables you to connect several computers to that one modem. In this case, your modem has an IP address. The router enables all of your devices—the computer in your home office, the laptop your kids are using in the living room, the printer you've connected to your router—to share that one IP address. In a similar way, your school or company may have only one IP address that gets shared among many computers. In some modern lecture halls, you will find several wireless access points that students can connect to with their laptops. Usually, each access point will have a unique IP address. In that case, all of the laptops using the access point will share the access point's IP address. The next time you're in a lecture hall, look up at the ceiling; if you see several antennas, each with an IP address written on it, those are the wireless routers.

If you want to use the **Require network address** setting to limit access to a certain room, ask your network administrator if every computer in that room has a unique IP address, or if they share an IP address. If each computer in a room has a unique IP address, you will need to enter the range of IP addresses into this field.

To restrict access to a quiz to one IP address, enter it into the **Require network address** field, like this:



To restrict access to a range of IP addresses, enter them like this:



In this example, the range covers all the IP addresses from 64.14.68.15 through 64.14.68.20.

Partial IP Addresses and Private Networks

In the previous section, I explained that a single router will have a unique IP address, and that the router will share its Internet connection with the computers connected to it. So the router will have a public IP address, like 64.14.68.15. But what about the computers "behind" that router? What IP address will the computers that share the router's Internet connection have?

The area behind a router is considered a **private network**, or **subnet**. The computers on the private network are not connected directly to the Internet; they go through the router. As they're not connected directly to the Internet, they don't need an IP address that is unique to the Internet. Each computer on a private network needs an IP address that is unique within its network, but not unique to the external network. The computers behind a router—the computers on a private network—use the following ranges of IP addresses:

10.0.0.0 through 10.255.255.255

169.254.0.0 through 169.254.255.255

172.16.0.0 through 172.31.255.255

192.168.0.0 through 192.168.255.255

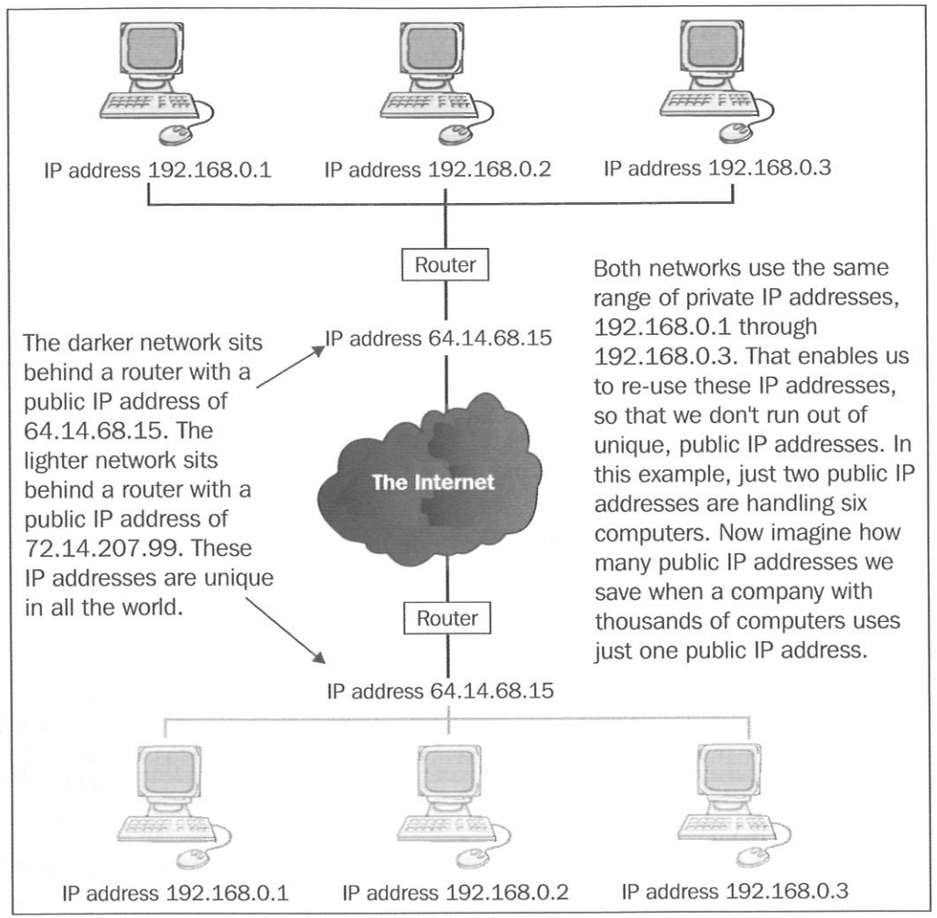
If the computers at your school or company have IP addresses that fall within one of these ranges, then your institution is using a private network. For example, if the computers in the room where you want to administer a test have IP addresses from 198.168.0.143 through 198.168.0.162, then those 20 computers are on a private network, and they access the Internet through a router. You can restrict access to just those computers by entering **198.168.0.143-162** into the **Require network address** field.

The diagram on the next page shows two private networks connected to the Internet. Each network sits behind one router, and uses the same range of private IP addresses. The routers have unique IP addresses, but the subnets use the same range of IP addresses.

If the computers in your institution are on a private network, or subnet, entering something like **192.168** or **172.16** into the **Require network address** field will grant access only to those computers on your subnet. If you want to grant access only to computers in a certain room, so that you can proctor the quiz, then find out the IP addresses of the computers in that room and enter the IP address range into the field.

How to Determine a Computer's IP Address

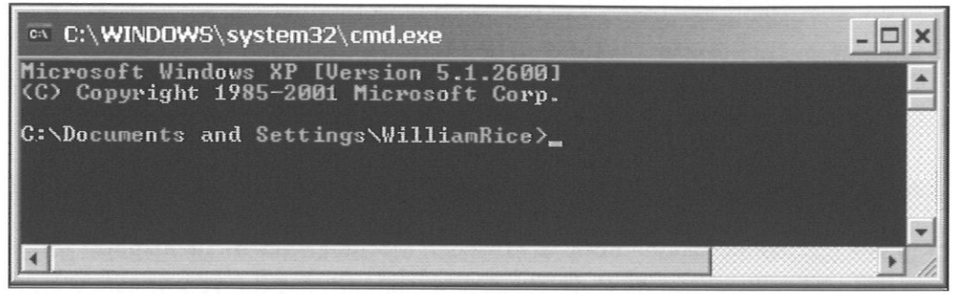
The easiest way to determine a computer's IP address is to ask your network administrator. But if you must do it yourself, here are basic instructions.



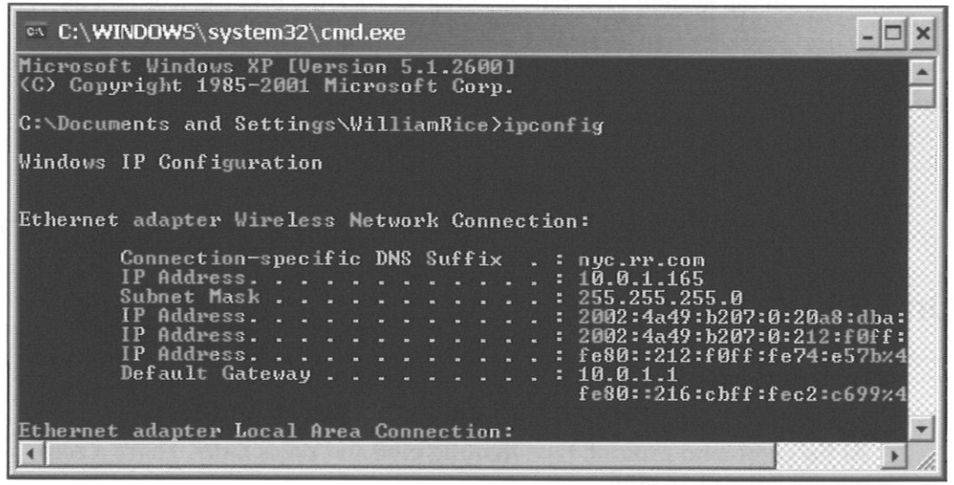
On Microsoft Windows

From the **Start** menu, select **Run...**

1. In the resulting dialog box, enter **cmd** and then click the **OK** button. A DOS window will appear, like this:



2. If the computer uses Windows 95, 98, or ME, type **winipcfg** and press *Enter*. If the computer uses Windows NT, 2000, or XP, type **ipconfig** and press *Enter*.
3. The IP Address is one of the first pieces of information displayed:



4. To close the window, type **exit** and press *Enter*.

On a Macintosh

- **OS X 10.3 or 10.4**
    1. From the **Apple** menu, select **Location** and then **Network Preferences...** .
    2. In the Network Preference window, next to **Show:**, select **Network Status**. Your IP address will be listed.
- **OS X 10.2**
    1. From the **Apple** menu, select **Location** and then **Network Preferences...** .
    2. In the Network Preference window, next to **Show:**, select the method that you use to connect to the Internet. For example, you might be connected via **Built-in Ethernet**, **Internal Modem**, or **Airport**.
    3. After selecting your connection method, click the **TCP/IP** tab. Your IP address will be listed.
- **OS X 10.1 and earlier**
    1. From the **Apple** menu, select System Preferences... .
    2. In the System Preferences window, click the **Sharing** icon. If you don't see this icon, click **Show All** to make it display, and then click **Sharing**. Your computer's IP address will display at the bottom of the window.
- **Mac OS 9**
    1. From the **Apple** menu, select **Control Panels**. A submenu displays.
    2. Select **TCP/IP**. In the TCP/IP window, your IP address is listed.

On a Linux Computer

1. Open a command shell. You might need to refer to your Linux help files or manual to learn how to do this. On most Linux PCs, you can open a command shell with one or two clicks.
2. At the command prompt, type **ifconfig eth0** and press *Enter*. That's a zero, not the letter O, in **eth0**.
3. The system will display the settings for all of the network hardware in your computer. Look for the line that begins with **inet addr:**. Your IP address will be listed immediately after that.

Summary

In this chapter, you saw how to use Moodle's `Quiz` module to create self-assessment and learning experiences. Some of the features we explored are:

- Opening and closing quizzes at predetermined times.
- Scoring quizzes without including them in the students' final grade.
- Feedback for quizzes, questions, and individual responses to questions.
- Timed quizzes.
- Restricting access to a quiz, based on the student's location.

There are other features that you can use to make a quiz a good learning experience. For example, you can use the settings for **Attempts allowed** and **Each attempt builds on the last** to enable students to try a quiz several times. After each attempt, the student can retain the correct answers and work at the wrong answers. You can use **Adaptive mode** to create questions that allow multiple attempts immediately after the student has entered an answer, and that change their feedback according to the student's answer. I encourage you to explore these and other features. With the right approach, perhaps we can change things enough so the words test and quiz no longer scare so many students, but are something that they look forward to.

Here are some ideas for using the **Random Glossary Block** for something other than a glossary:

- **Highlights** from work that past students in a class submitted. If a class is working on a long-term project, create a glossary that contains the best work submitted by the past students who have completed working on it. Display the glossary while the current class is working on that project.
- Inspirational or informative **quotes** related to the field of study.
- If you're teaching in a corporate setting, consider putting **rules and procedures** into their own glossaries. You could create a separate glossary for each type of rule or procedure. For example, a Human Resources Policies glossary, a Purchase Order glossary, etc. Then, display random entries from these glossaries in the appropriate courses.
- Create a glossary with **past exam questions** and their answers. Students can use this as another resource to prepare for exams.
- Funny **anecdotes** related to the field of study.
- **Common mistakes** and their corrections. For example, how to spot software bugs, or common foreign language grammar errors.

Summary

In this chapter, we studied about how a glossary can be useful in the Moodle environment. To make a good Moodle glossary, think beyond using it just for vocabulary. A collection of brief material such as quotes, tips, short stories, rules, policies, examples, frequently asked questions, etc. can be made into a glossary. If you're going to create a web page with a list of items, ask yourself if you could use a glossary instead.

The big advantage a glossary holds over a simple web page, is its constant presence in the sidebar. With the **Random Glossary Block**, you can put new information in front of the student every time (s)he logs into your course. The student doesn't need to click into a web page to see that information. Also, you can allow students to contribute to the glossary, which makes it an interactive activity.

8
The Choice Activity

Moodle's Choice is the simplest type of activity. In this activity, you create one question, and specify a choice of responses. You can use a choice to:

- Take a quick poll.
- Ask students to choose sides in a debate.
- Confirm the students' understanding of an agreement.
- Gather consent.

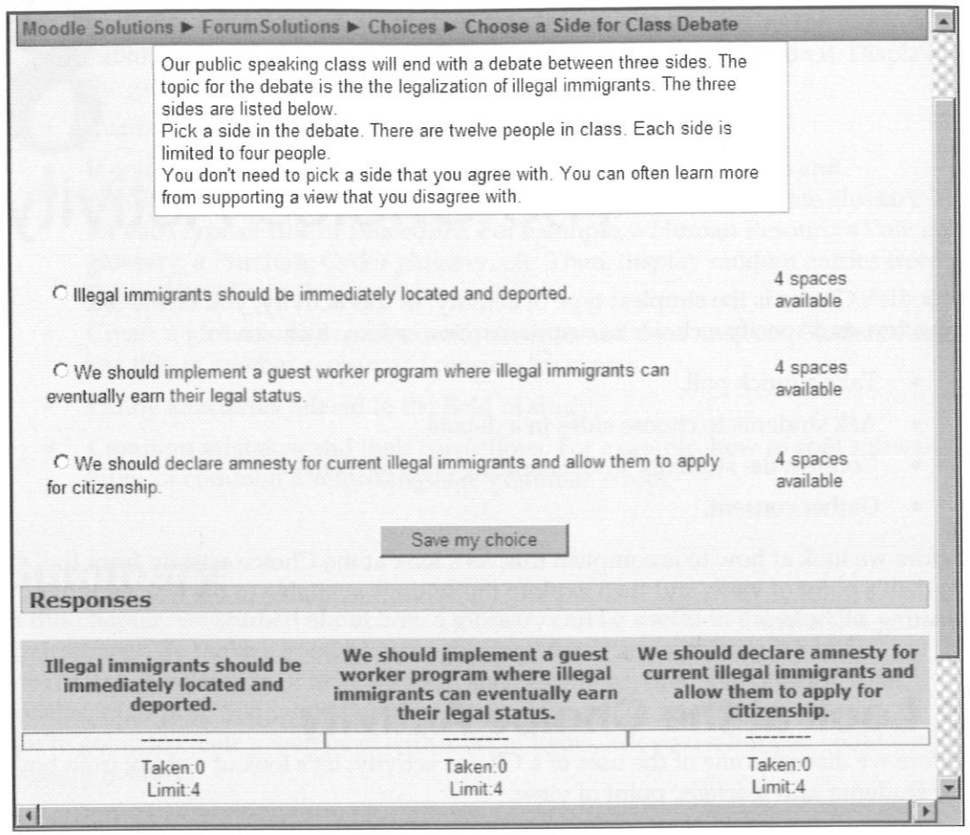
Before we look at how to accomplish this, let's look at the Choice activity from the student's point of view, and then explore the settings available to the teacher while creating a Choice.

A Look at the Choice Activity

Before we discuss some of the uses of a Choice activity, let's look at a *choice* from both the students' and teachers' point of view.

Students' Point of View

From the students' point of view, a Choice activity looks like this:



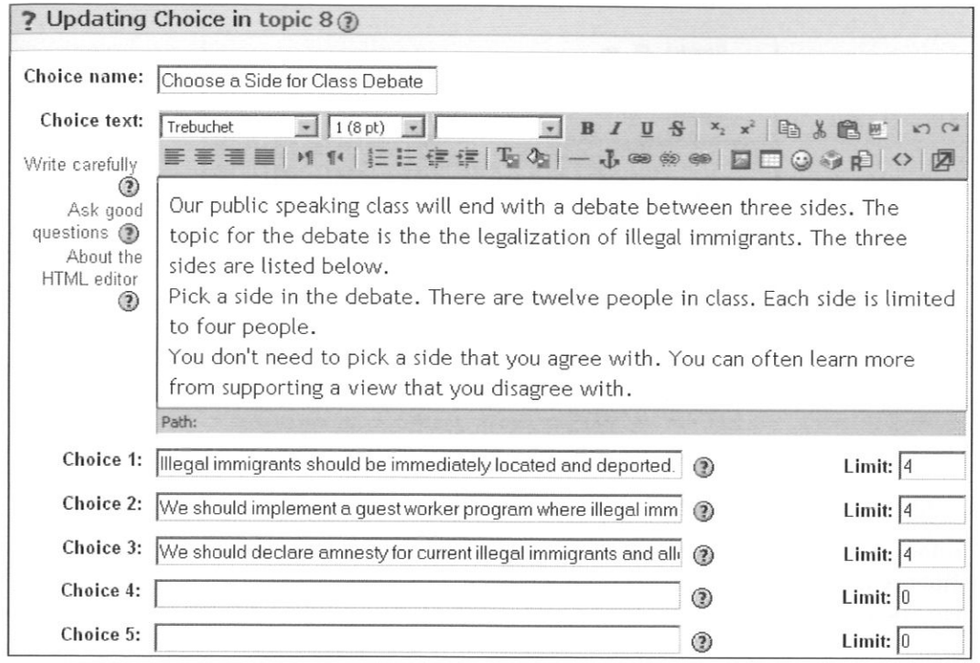
Note that at the bottom of the window, the student can see how many other students have chosen a response. There is also a limit on the number of students who can choose each response.

Teachers' Point of View

Before we discuss some of the uses of a Choice activity, let's look at the settings available on the **Editing Choice** page. Then, we'll see how we can make creative use of these capabilities.

Number of Choices

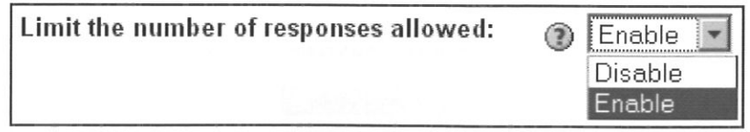
When you first use the **Editing Choice** page, Moodle gives you space for five responses:



If you have used up all the choices, and need more choices, save the activity and exit. When you return to the editing page, Moodle gives you two more blank choices. You can continue doing this until Moodle has created as many choices as you need.

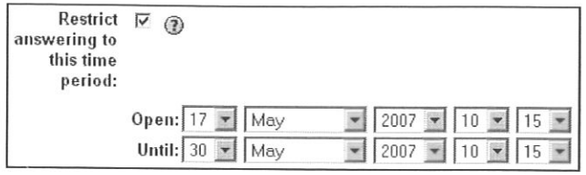
Limit

The **Limit** next to each choice enables you to limit how many students can select that choice. In the example above, no more than four students can select each choice. So after four students have selected **Choice 1**, that choice becomes unavailable. Limits must be enabled for the choice by clicking on **Enable** as shown in the following screenshot:



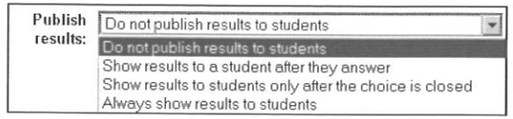
Time Limit

You can define a time period during which students are allowed to make a choice. If you don't set a time limit (if you leave the box unchecked), the choice is always available. The following screenshot shows you how to set the time limit:

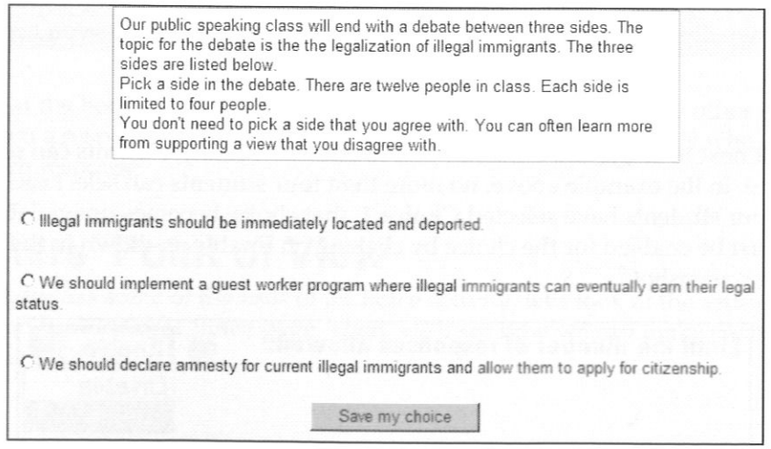


Publish Results

You can choose whether to reveal the results of the choice to the students, or not, by choosing an option from the drop-down menu, as shown in the following screenshot:



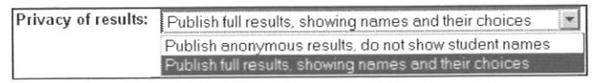
In the example at the beginning of this section, **Publish results** was set to **Always show results to students**. That is why the student could see how many students had chosen each response. If it had been set to **Do not publish results to students**, the activity would not have shown the number of students who selected each response. Note that at the bottom of the following screenshot, the number **Taken** and **Limit** are no longer displayed:



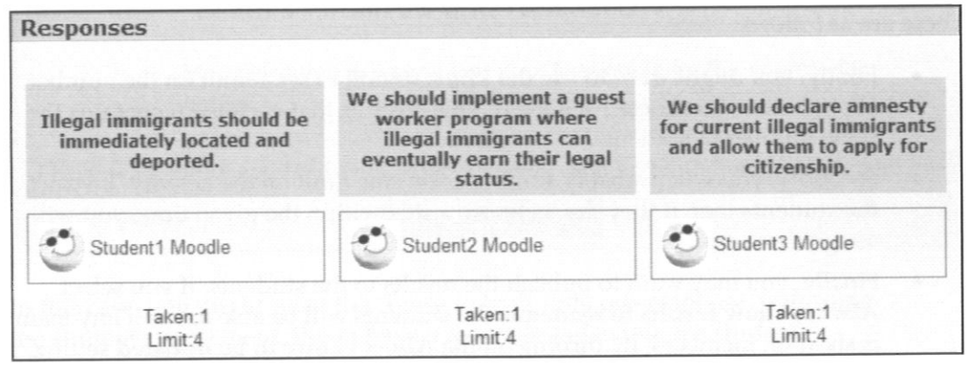
If you are going to limit the number of students, who can choose a response, consider using **Always show results to students**. That way, the student can see how many people have chosen the response, and how many slots are left for each response.

Privacy

If you publish the results of the choice, you can then choose whether to publish the names of the students who have selected each response:



In the example at the beginning of this section, **Privacy of results** was set to **Publish anonymous results, do not show student names**. If it had been set to **Publish full results, showing names and their choices**, the student would have seen who had selected each response:

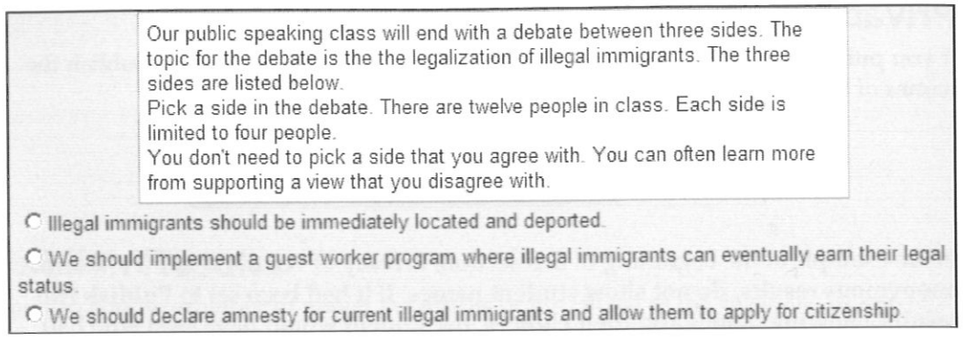


Allow Students to Change their Minds

The **Allow choice to be updated** setting, determines if a student can change his/her answer after submitting it. If this is set to **Yes**, a student can retake the choice activity until the activity is closed.

Choosing Teams

You can use a Choice activity to have students organize themselves into teams, as in the example that we've been using:



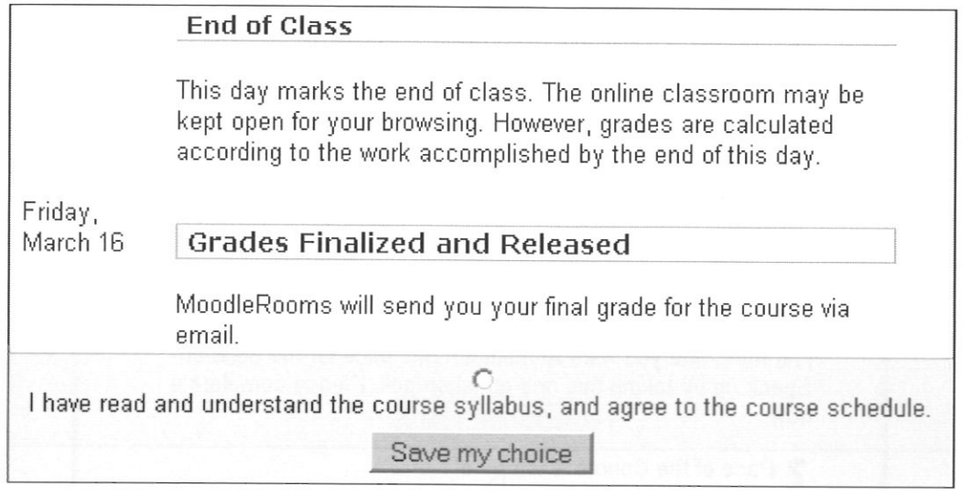
If you use a choice for this, there are some settings that will help your students. These are as follows:

- Firstly, you might want to use the **Limit** setting to set a limit on the number of students who choose each team. This ensures that each team contains the same number of students.
- Secondly, you will probably want to set a time limit on the activity. Instruct the students that, if they don't choose a side within the given time, you will assign them one.
- Finally, you may want to publish the results to the students. If you select **Always show results to students**, the students will be able to see if any team is short on members. By turning on the **Allow choice to be updated** setting, you can give the students the ability to spontaneously organize themselves into teams of approximately equal size.

Under **Privacy of results**, you can choose to show the students' names and results, if you don't mind them choosing teams based on friendship and compatibility. If learning to work with people who they might not like is one of your learning goals, you might want to publish the results anonymously instead.

Asking for Students' Consent

You can use a Choice activity to confirm the students' understanding of an agreement or record their consent. For example, if you're teaching a filmmaking class, and you anticipate entering the resulting film into student competitions, you could use a choice to record the students' consent to have their work submitted to the competition. Or, you could write the course syllabus and schedule as the text of the choice, and have the student confirm that (s)he has read the syllabus. This is shown in the following screenshot:

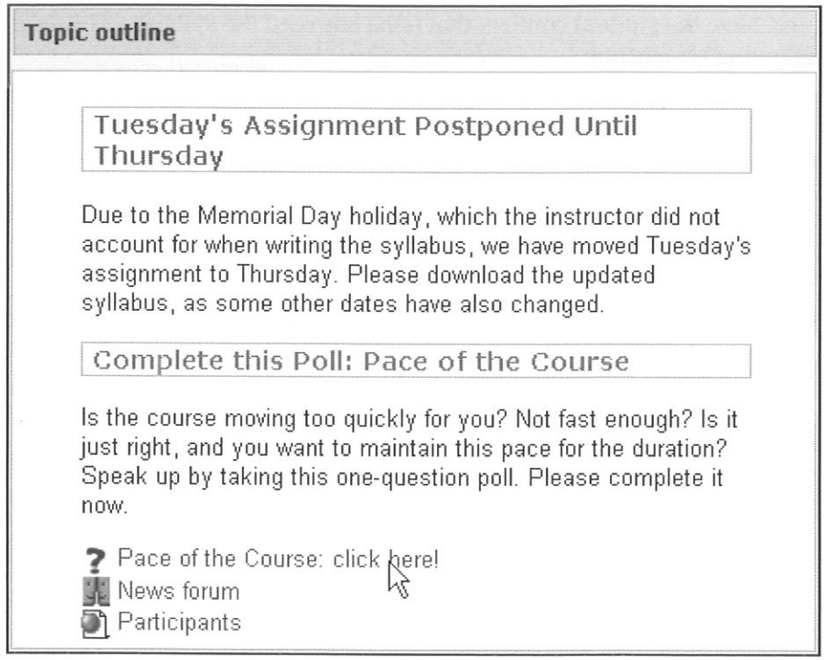


In this case, you might want the choice to have only one response, indicating the student's agreement. If you have a response indicating the student's disagreement, enable them to change their response, and decide how you will handle the disagreement.

You can also use a choice to survey the class about their readiness to proceed with an activity. This is especially useful if the class needs to coordinate their efforts. For example, if you're using one of Moodle's workshop activities, you can have students assess each other's work as part of their grade. If some students don't submit their work on time, this can hold up the entire activity. To ensure students understand the workshop and are ready to start, you can use a survey to quickly poll them. When the entire class has responded they are ready, you can proceed with the activity.

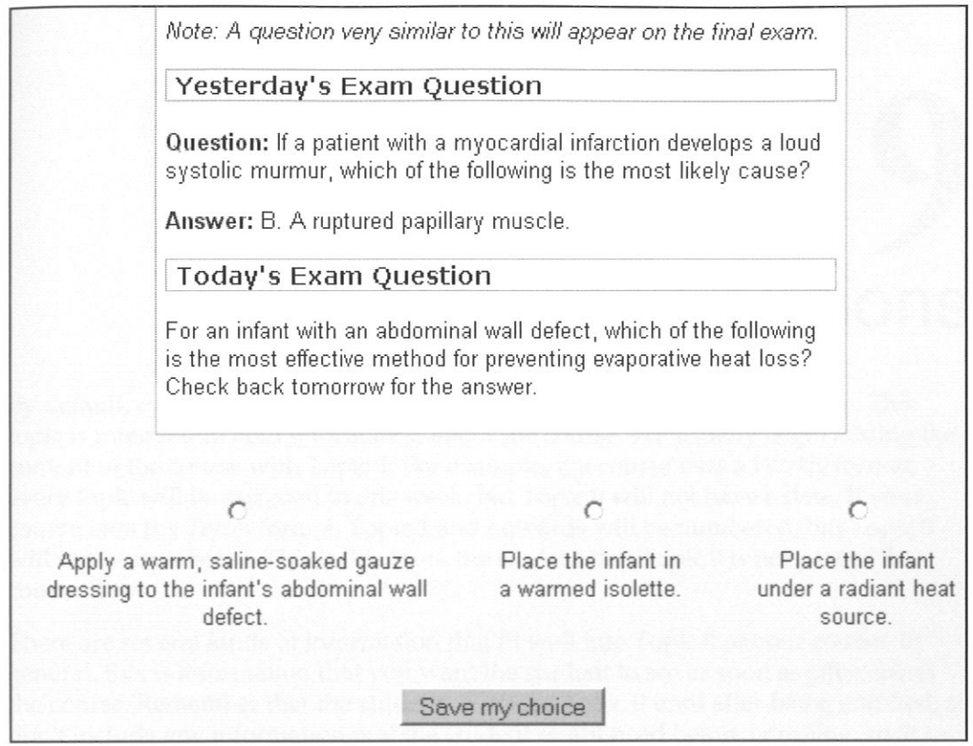
How are We Doing?

Consider creating a variety of choices to ask students about the pace, direction, and progress of your course. You can hide or reveal them whenever you want to poll the students. Place this kind of poll at the top of the page, under a heading to draw attention to it, as shown in the following screenshot:



Preview the Final

Since, a Choice activity is not an official "quiz", it can provide a non-threatening way to check the students' understanding of key concepts. Try preparing a variety of Choice activities with questions about the most difficult concepts in a lesson, and using them to take quick measurements of how well the students are assimilating the material. Or, create a series of choices called "Final Exam Questions". Tell the students that each of these questions will appear in the final exam, in a slightly different form, and that each will have a time limit. When the student reads the newest question, (s)he is rewarded with the answer to the previous question.



This can motivate students to frequently check their progress in the course.

Summary

Moodle's `Choice` module is not only simple, but also very flexible. Its interface is less threatening than a Quiz, and its publishing features allow students to see the progress of a Choice, unlike a Survey. Whenever you need to gather a feedback, gain a consensus, or take a poll, consider using a Choice activity.

10
Workshop Solution

Moodle's Workshop module is one of the most complex and powerful of all the activities. A workshop provides a place where the student can:

1. Receive directions for completing a project.
2. View an example of a completed project, provided by the teacher.
3. Assess the teacher's example using criteria given by the teacher.
4. Compare his/her assessment of the example to the teacher's assessment of the same example.
5. Submit his/her completed project.
6. Assess other students' completed projects, again using the criteria given by the teacher.
7. Compare his/her assessment of other students' work to the assessments made by other students, and by the teacher.
8. Receive assessments of the project that (s)he submitted.

I listed the workshop tasks in the order of which students usually complete them. You can skip some of these steps. However, the steps that can be skipped offer the most educational benefit.

For example, you can skip steps 3 and 4. If you do that, the workshop becomes a matter of just reading instructions on how to complete a project, viewing an example, and submitting the work. You might as well just use an Assignment instead. Assessing an example gives the student a clear idea about the teacher's expectations. By comparing his/her assessment to an assessment made by the teacher, confirms or denies the student's understanding of the expectations. This step is especially important if the student will be assessing other students' work.

Step 6 is also optional, but this can result in missed opportunities for learning. When a student is asked to assess another student's work, instead of just reading or reviewing it, the assessor is probably paying more attention to detail and spending more time on the work.

Steps 7 and 8 are also optional. As a teacher, you could just assess each student's work yourself. However, allowing a student to be assessed by others, and having him/her see how others assessed the work that (s)he assessed, makes the workshop a powerful collaborative experience.

This chapter will take you through the process of creating a full-featured workshop. It will not cover workshop administration, since Moodle's online documentation does an adequate job of explaining it. Instead, this chapter will focus on helping you to make decisions that create the kind of workshop experience you want your students to undergo.

Workshop Basics

Workshops are complex. There are a lot of moving parts, and most settings that you choose will affect or be affected by at least one other setting. Let us review some basic concepts before we talk about workshop specifics.

Plan your Strategy

When you create a Moodle workshop, you will enter several page's worth of information. But all the settings that you choose can be summarized into a few basic questions:

- What work do you want the student to submit?
- Will a student assess the work of his/her classmates, and if so, how will that affect the student's grade?
- How much of the student's grade depends on assessing the work of his/her peers, and how much of the work the student has submitted?
- What are the criteria for assessing the work?
- What submissions will the student assess— an example by the teacher, other students' work, and/or the student's own submission?
- If classmates assess each other's work, will they do this anonymously?
- Must the classmates agree on a grade, or can they make their assessments independent of each other?
- What is the schedule for submitting the work, and for submitting assessments?

Try to answer these questions before you begin creating your workshop. When you have answered them, you have created your workshop strategy. Then, as we step through creating a workshop, we will equate each setting with one of the questions.

Grading Grades

One of the most unique features of a workshop is that the student doesn't receive a grade only for the work that (s)he has submitted. The student can also receive a grade for the assessments that (s)he has performed. In other words, the student is graded on the grades that (s)he gives to others.

Step-by-Step Example: Create the Workshop

Let's begin our step-by-step example. We'll organize the steps using the questions from the section above.

What Work do you want the Student to Submit?

This is how you can get your students to submit their work:

1. From the **Add an activity** drop-down list, select **Workshop**. The **Editing Workshop** page is displayed.
2. Into the **Submission Title** field, enter the name of the workshop. Students will see this on the course home page.
3. When a student first enters the workshop, (s)he will see what you have entered in the **Description** field. This field can be both a description of the workshop, and instructions for completing the work. In the example below, you can see several features of a workshop description:
    - The goal of the workshop. This is in the first sentence.
    - An overview of what the student will do. This is in the second and third paragraphs.
    - Step-by-step directions for completing the workshop. This example could be improved if the author included a link to a printer-friendly version of the instructions.
    - A clear statement of what to do first. This is in the last sentence.
    - The example is taken from an online photography course.

In this assignment, you will explore the limitations of your lens's depth of field.

You will take two pictures of a close-up subject. One picture will have a second subject in the medium background, six to eight feet from the lens. The other picture will have a second subject in the far background, over thirty feet from the lens. You will see the limitations on your lens's ability to simultaneously focus on a close-up subject and background subject.

Before taking and submitting your pictures, you must review the two examples provided by the instructor. Click the Assess link below to display the assessment form, and the links to the examples. Your submissions will be graded by the teacher, using the same form.

To complete this assignment:

Assess the two examples provided by the teacher.

Take the first photo. Place the main subject no more than three feet from the lens and a second subject six to eight feet from the lens. Name this picture yourname_close-med.jpg, where your name is your username.

Take the second photo. Place the main subject no more than three feet from the lens, and a second subject thirty or more feet from the lens. Name this picture yourname_close-far.jpg, where yourname is your username.

Attach the two photos. Below you see a form titled Submit your Assignment using this Form:, and below that you should see fields for Attachment 1: and Attachment 2:. Use those fields to attach your photos.

In the Title: field for the submission form, enter your username.

In the Description: field, for each picture, give the:

Distance from lens to closest subject.

Distance from lens to background subject.

Lens opening used.

Focal length used.

Finally, submit the assignment.

Begin now with Step 1, by clicking on the Assess link below.

In this example, the author gives complete instructions for completing the workshop. You might choose to enter a minimal description, and put the instructions in a web page or `.pdf` file instead.

Will a Student Assess the Work of his/her Classmates, and if so, How will that Affect the Student's Grade?

For the field **Grade for Assessments**, select a value. This value is the maximum grade the student can earn for assessing the work of his/her peers, and for assessing his/her own work.

This is not a grade for the work the student submitted. This is a grade for the assessments the student completed.

The teacher does not assign this grade. Instead, Moodle automatically calculates this grade. The calculation happens in one of two ways. If the teacher assesses a submission, Moodle compares the student's assessment of that submission with the teacher's. The closer the student comes to matching the teacher's assessment, the higher the student's **Grade for Assessment**. For example, if both Student 1 and the Teacher assessed the work of Student 2, and Student 1's assessment matched the Teacher's assessment almost exactly, then Student 1 would receive a high grade for that assessment.

Or, in case the teacher did not assess a submission, the student's assessment of that submission is compared with the assessments made by the other students in the class. The closer the assessment of the student is to the average, the better is the student's grade for that assessment. If a submission is assessed by one or two students, then that student(s) receives the best grade possible for their assessments. If a submission is assessed by three or more students, then the student's grade is closer to the average. Further down the page, you will choose the **Number of Assessments of Student Submissions**. This will determine how many submissions each student will assess. If you choose to have each student assess only 1 or 2 submissions, and the teacher is not assessing submissions, then expect them to score the maximum on the grade for assessments. This is not always bad. If you just want the student to have credit for trying the assessment, regardless of how well the student's assessment agrees with others, then this is a good option.

If you want the student to be graded on how close his/her assessment is to those of his/her peers, then the teacher should not perform any assessments, and you should have the student assess three or more submissions. If you want the student to be graded on how close his/her assessment is to that of the teacher's, then of course the teacher will need to assess each submission.

How much of the Student's Grade Depends on Assessing the Work of his/her Peers, and How much on the Work the Student has Submitted?

For the field **Grade for Submission**, select a value. This value is the maximum grade the student can earn for the work that (s)he submits.

The grade for submission is determined by the assessments that the teacher and/or classmates made of the work. If the student's work is assessed by only the teacher, then the grade for submission is whatever the teacher determines. If the student's work is assessed by his/her classmates, then the grade for submission is determined by their assessments. If both the teacher and classmates assessed the work, then the grade is affected by both.

Further down the page, you will choose the **Weight for Teacher Assessments**. This will determine how much weight the teacher's assessment of the work will have, compared to the peer assessments.

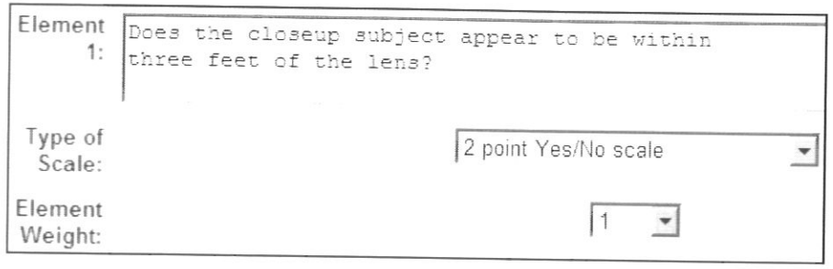
What is the Criteria for Assessing the Work?

Select a **Grading Strategy**. It determines how the student's work will be assessed by his/her classmates. Earlier on the **Editing Workshop** page, you selected the maximum **Grade for Submission**. When a student's submission is being assessed, the student is getting a grade for the submission. All of the assessments for a submission will be averaged and the grade for the submission will be calculated. More on how the grade is calculated is discussed later.

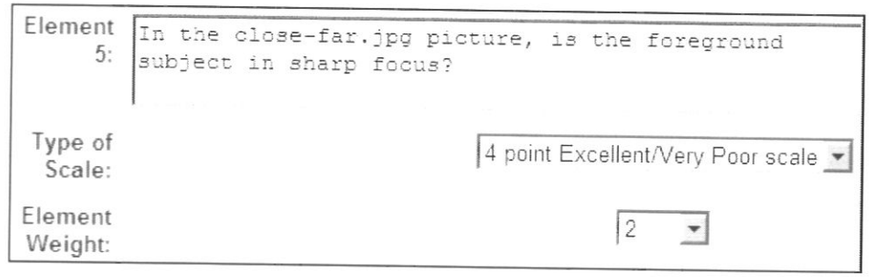
The online help gives complete explanations for each grading strategy. In brief, your choices are:

- **No grading**: When a classmate assesses the student's work, (s)he leaves comments but does not grade them. Recall that previously, we said the **Grade for Assessments** is calculated based on the scores a classmate gives when performing an assessment. If you select **No grading**, then a classmate is not giving any scores when he performs an assessment. The result is that Moodle cannot calculate a **Grade for Assessments** when the **Grading Strategy** is set to **No grading**. This would seem to put us in a quandary. If we base a part of each student's grade on the assessments that (s)he performs, but the assessments consist only of comments which Moodle cannot use to calculate a grade, how do we get a grade for the assessments? In this case, the teacher can grade the student's assessments. The maximum points that the teacher can give for this grade is set in the **Grade for Assessments**.

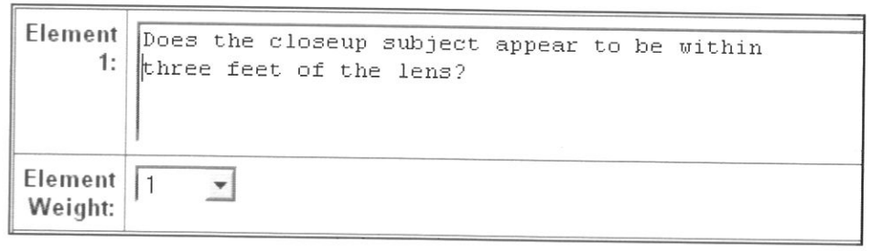
- **Accumulative grading**: In this strategy, the teacher creates several assessment elements. Each element is a specific, well-defined criterion for judging the work. And, each element can have its own grading scale. For example, here is an assessment element from a photography workshop. Note that in the following screenshot it uses a 2-point scale, and has a grade weight of 1 point:



Here is another assessment element from the same workshop. Note that this one uses a 4-point scale, and has a grade weight of 2 points:



- **Error Banded Grading**: The submission is assessed using a set of Yes/No criteria. Using **Error Banded Grading**, an assessment element would look like this:



Note the default **Element Weight** is **1**

The grade is determined by a **Grade Table**, which lists the grade the student earns when a given number of assessment elements are negative. This is shown in the following screenshot:

Grade Table

Number of Negative Responses	Suggested Grade
0	10
1	9
2	7
3	6
4	4
5	3
6	1
7	0
8	0
9	0

- **Criterion**: With a Criterion strategy, the assessor just chooses a grade, and adjustment, and optionally leaves comments. This is shown in the following screenshot:

Assessment
Tuesday, 10 June 2008, 05:49 PM

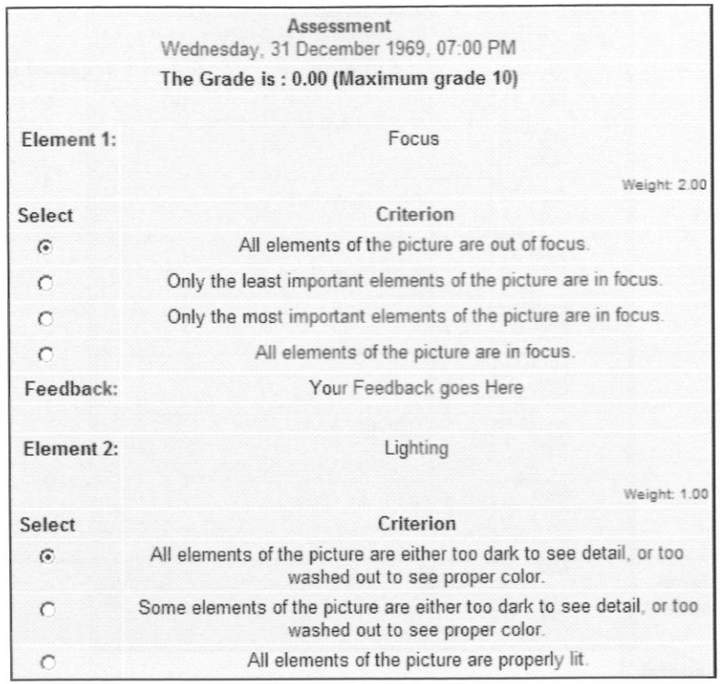
	Criterion	Select Suggested Grade
1	Perfect	5
2	Almost Perfect	4
3	Pretty Darn Good	3
4	Nice Try	2
5	Needs Work	1
6	Not Even Close	0

Optional Adjustment 0

General comment/ Reason for Adjustment:

Save my Assessment

- **Rubric**: The Rubric assessment strategy is like Criterion, but instead of giving one overall rating for the entire submission, you choose one rating for each aspect of the submission. In this example, the student assesses a photograph on its focus and lighting:



Assessment
Wednesday, 31 December 1969, 07:00 PM
The Grade is : 0.00 (Maximum grade 10)

Element 1:	Focus
	Weight: 2.00
Select	**Criterion**
◉	All elements of the picture are out of focus.
○	Only the least important elements of the picture are in focus.
○	Only the most important elements of the picture are in focus.
○	All elements of the picture are in focus.
Feedback:	Your Feedback goes Here
Element 2:	Lighting
	Weight: 1.00
Select	**Criterion**
◉	All elements of the picture are either too dark to see detail, or too washed out to see proper color.
○	Some elements of the picture are either too dark to see detail, or too washed out to see proper color.
○	All elements of the picture are properly lit.

Select a value for **Number of Comments, Assessment Elements, Grade Bands, Criterion Statements,** or **Categories in a Rubric**.

- **Number of Comments** applies if you chose a **Grading Strategy— Not Graded**. Remember that with this grading strategy, the assessor doesn't give a grade, but instead only leaves comments.
- **Assessment Elements** applies if you chose **Accumulative grading**.
- **Grade Bands** applies if you chose **Error Banded Grading**.
- **Criterion Statements** applies if you chose **Criterion**.
- **Categories in a** Rubric applies if you chose **Rubric**.

Select the **Number of Attachments expected on Submissions**. This does not set the minimum or maximum number of attachments that a student can upload. Instead, it just creates a given number of upload boxes. See the online help for more explanation.

Choose if you will **Allow Resubmissions**. Recall that previously, you chose a **Grade for Submission**. If you allow resubmissions, the student's **Grade for Submission** will be that of the submission with the highest grade.

What Submissions will the Student Assess?

A student can assess—an example by the teacher, other students' work, and/or the student's own submission.

If the setting **Number of Assessments of Examples from Teacher**, is set to number other than **0**, the student must assess examples provided by the teacher before (s)he can upload a submission.

Select a value for **Comparison of Assessments.** Remember that previously you chose a **Grade for Assessments**. Recall that if the teacher assesses the submissions, then a student's grade for assessments is calculated by comparing it to the teacher's assessments. If the teacher does not assess the submissions, then a student's grade for assessments is calculated by comparing it to the assessments made by the rest of the class. This setting determines how closely the student's assessment must agree with the teacher's, or with the class average, for a submission. For example, if this is set to **Very Lax**, and there are 10 yes/no assessment criteria, an assessment that agrees with the teacher on 8 of the 10 criteria would earn a grade of 80%. But if it is set to **Very Strict**, it would earn a grade of 35%.

The setting **Number of Assessments of Student Submissions** determines how many submissions each student will be asked to assess. If this is set to zero, then students do not assess each other's work.

Recall that the grade is calculated from the assessments made of that submission. The **Weight for Teacher Assessments** determines how much the Teacher's assessment affects that grade. You select how many student assessments the Teacher's assessment is worth. If this is set to **0**, the teacher's assessment is not used when determining a student's grade for submissions.

As students submit or upload their work to a workshop, Moodle allocates it to other students for assessment. The field **Number of Assessments of Student Submissions** determines how many submissions each student is required to assess. Ideally, everyone will submit their assignments on time, and the students will have plenty of time to evaluate each other's work. For example, suppose there are 10 students in the class, and **Number of Assessments of Student Submissions** is set to **3**. That means, each of the ten submissions is assessed three times. Moodle assigns the assessments as the work is submitted.

However, if a student submits work late, the students who are going to evaluate the late person's work will need to wait before they can complete their assessments. Let us suppose one student doesn't submit his/her work by the deadline. That means the class is three assessments short. Since Moodle assigns the assessments evenly, three students will end the class one assessment short. Shall we penalize these students for not completing the required three assessments?

In our example, **Over Allocation** is set to **0**, and each submission is evaluated three and only three times. If we set **Over Allocation** to **1**, then when the deadline arrives, Moodle will over allocate some work to the students who still need to complete their assessments. In this example, Moodle will randomly choose three pieces of work that have already been assessed three times, and assign them to the three students who are missing an assessment. These pieces of work will then be over allocated by one assessment each. Moodle allows a maximum over allocation of two.

If **Self Assessment** is set to **Yes**, each student is asked to evaluate his or her own work. This is in addition to the number of student submissions that the student is asked to evaluate.

If Classmates Assess Each Others' Work, will They do it Anonymously?

If **Assessments must be agreed** is set to **Yes**, then an assessment made by one student can be viewed by the other reviewers of the same work. If the other reviewers disagree, the evaluation process continues until they agree or until the assignment's closing time is passed. This can be a useful tool for determining how clear your evaluation elements are. If there is a lot of disagreement among reviewers of the same work, revisit your evaluation elements and the instructions you gave the reviewers.

Must the Classmates Agree on a Grade, or Can they Make their Assessments Independent of Each Other?

The **Hide Grades Before Agreement** setting, affects the assessment process only if **Assessments must be agreed** is set to **Yes**. If **Hide Grades Before Agreement** is set to **Yes**, the numeric parts of a project's evaluation are hidden from other reviewers. The reviewers can see each other's comments, but not the grades they've assigned. The grades will appear after the reviewers have chosen the same grade, or the closing time has passed.

The **League Table of Submitted Work** setting creates a list of the best-rated assignments in this workshop. If set to zero, no list is created.

If **Hide Names from Students** is set to **Yes**, evaluators are given the name of the person whose work they are assessing. Note that the names of students are never hidden from the teacher. Also, if a teacher assesses a student's work, the teacher cannot do so anonymously. This only hides the names of students who submitted work from the students who are evaluating the work.

The **Use Password** and **Password** fields can be used to protect the assessment. Note that all students have the same password.

Maximum Size sets the size limit for project files uploaded to the workshop. This cannot be greater than the limit set for the site.

What is the Schedule for Submitting the Work, and Assessments?

The fields for **Start and End of Submissions/Assessments** determine when the workshop opens and closes. On the closing date, students can no longer upload files, or evaluate others' work. If any grades are hidden, they appear.

You can start the assessments before the end of the submissions. This will give students more time to assess their classmates' work. You can also have a delay between the end of submissions and the beginning of assessments. This gives you time to examine the submissions before having the class assess them. You can determine if the work is close to what you expected or were trying to elicit from the students. You might even want to use the time between submission and assessment to refine your assessment criteria, in response to the work submitted.

Summary

The key to a Workshop is not what kind of work you will have the student submit, but your assessment strategy. An assessment strategy determines what the students assess, how they assess the work, if they must agree on their assessments, if their assessments must agree with yours, and how much of their grade depends upon completing assessments.

If the work that the student produces is the most important part, you may as well use a simple Assignment instead. It is the assessment strategy that makes a Workshop different form the other modules.