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Integrating the Use of Moodle:
Develop a Creative Project with Podcasting

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At the 2007 VSTE conference, Mr. Fred Scott, an instructional technology manager at Chesterfield County Schools, shared with us this quote, “We must provide our children the best possible learning environments to foster critical thinking, innovations, and problem solving to better our society.” I think Mr. Scott’s quote belongs at the start of any project teachers undertake involving the use of technology with students: It is a great rationale behind the use of electronic collaboration tools (wiki-wikis) and podcast productions. Collaborative tools encourage social interaction and build negotiation skills; they foster a need to compromise and a willingness to accept the input of others in meeting goals. Podcasts encourage repeated exposure to class content, writing and planning, and support the motivational aspects of publication. Both require the use of innovative new technologies that are being leveraged today in successful businesses (see Tapscott & Williams, 2006; Friedman, 2006). When designed well, the electronic collaboration tools and podcasts can work together to solve problems aligned with learning standards in the classroom.

This document outlines how to use the wiki module/activity within Moodle (an open-source course management system) in planning an audio podcast, edited with Audacity. Other software tools can be used, including Wikispaces or PBWiki for the wiki-wiki, and GarageBand, for audio editing. While a variety of tools can be used to perform the processes outlined in this article, Moodle is

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popular in K-12 environments because of its price, alongside the free/open-source Audacity.

Step One: Define the Project

Wikis and podcasts are easy enough on their own. A wiki is a simple document manager that lives on a Web server. Podcasts are audio files that are served over the Internet using a subscription model facilitated by RSS (Really Simple Syndication—a new web "standard" for distributing content online, through the receipt of "subscriptions"). Both are centered around the creation and (easy) publication of content: in this case, text and audio.

Before we worry about the technical aspects of how these two media work, let us first consider the learning objectives. What is it that we want students to do that will keep them responsible for the content being covered, demonstrate understanding and mastery, and demand opportunities for creativity? Podcasts can answer that compound question.

Once we come up with the answers, we should next design an assessment instrument to evaluate the project. Most often, this is a rubric. If we are using Moodle or another flexible content management system (Blackboard and Angel come to mind)—why not use the built-in "workshop" activity that allows students to evaluate the podcast products themselves?

Podcasts are most often modeled after radio programs, and can include interviews, news reports, and opinion pieces. Podcasts can also include video and digital images to strengthen the audio content. Thinking about a podcast project may require us to consider how the content being covered can fit into the guise of a report, an interview, or multiple perspectives and opinions. If we carefully dissect a radio program, an entire "show" is divided into sections—perhaps an introduction, a couple unrelated reports, an interview, and something fun? Student podcast projects can mimic the segments found in professionally-produced talk radio programs. This may allow a lesson to focus on students each producing a show segment, and then putting multiple segments together to form one podcast "show."

Once the teacher has considered what he or she envisions the podcast to sound (or look) like, and has considered some objectives, it is time to write out the lesson objectives, the standards being addressed, and the evaluation criteria used in a rubric. Teachers can communicate this infor-

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mation with students. The instructor posts this information on the front-page of the wiki, and then provides links to pages where students will plan and write-out their production. Because the wiki pages are viewable and editable by the entire class, students should be encouraged to evaluate the planning by various groups within the class, while the instructor proffers comments and suggestions as the planning takes place. Students will not be able to proceed with the recording and production of their podcast until the planning and writing on the wiki has been approved by the instructor.

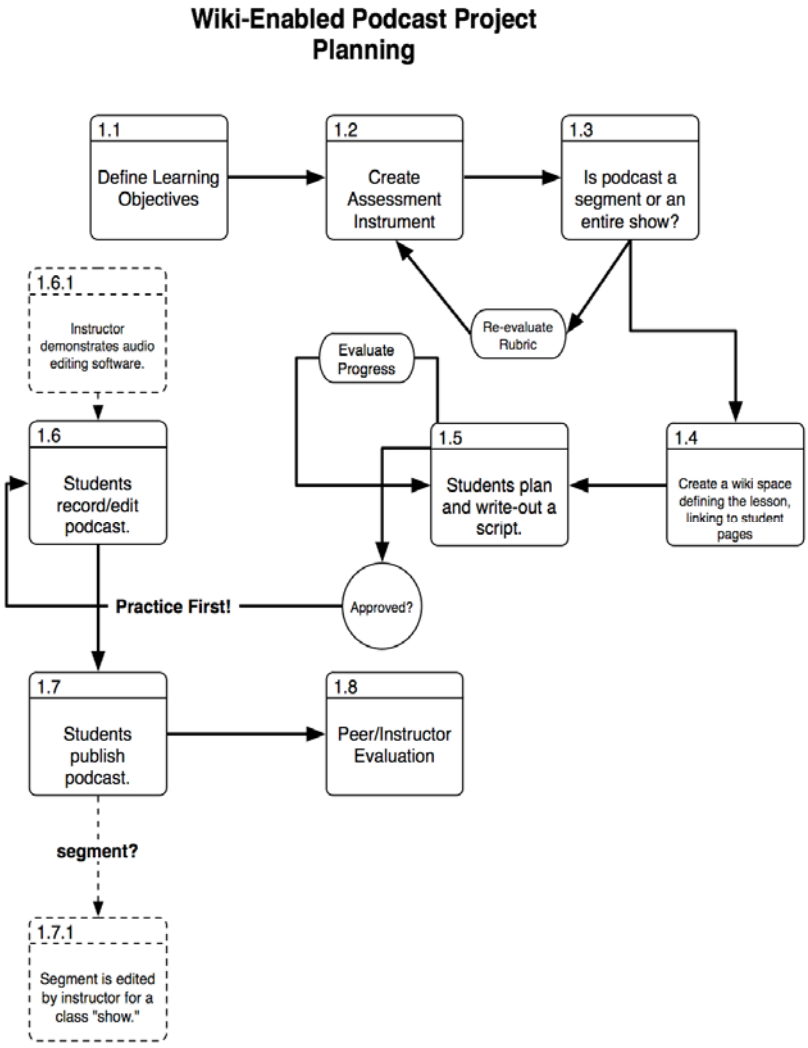

Figure 1. Planning the Podcast Lesson Using Moodle

Classroom time should be devoted towards practicing the podcast. Students should be coached on their reading style, an appropriate "radio" voice, and the finer points of software used for editing. Once the podcast has been recorded and edited, it should be published for feedback from peers. Podcast episodes may be published inside or outside of the Moodle environment, and comments can be collected through the students' wiki page, or through a workshop activity in Moodle. The details that follow demonstrate creating a podcast without the use of paper, using all electronic, digital tools.

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Step 2: Setting Up the Wiki

Within Moodle, create a new wiki activity. In the example used here, I am using Moodle 1.6. Earlier or later versions of the Moodle wiki may look different.

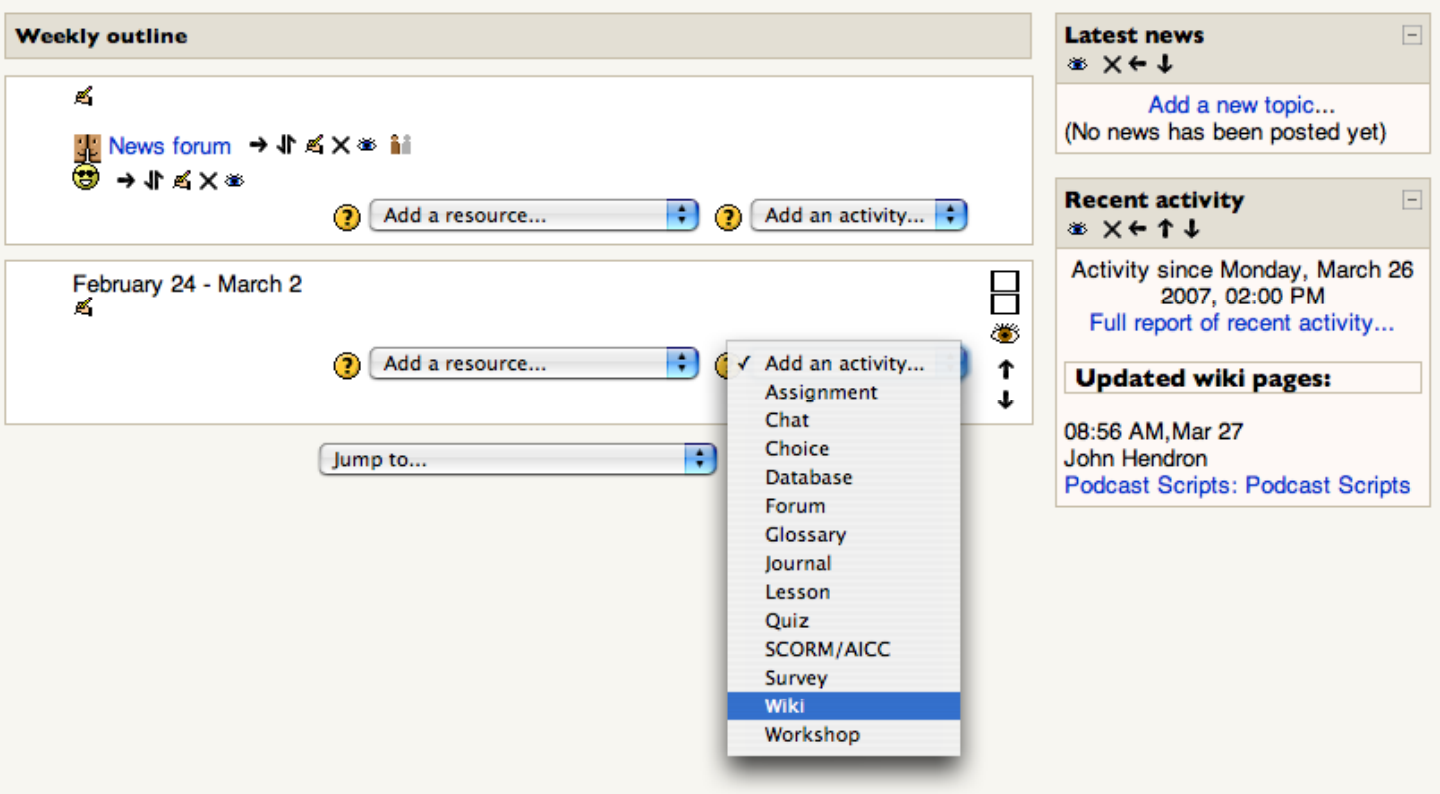

Figure 2: Adding a Wiki activity within a Moodle course.

Once the activity choice has been selected, it is time to define some wiki parameters.

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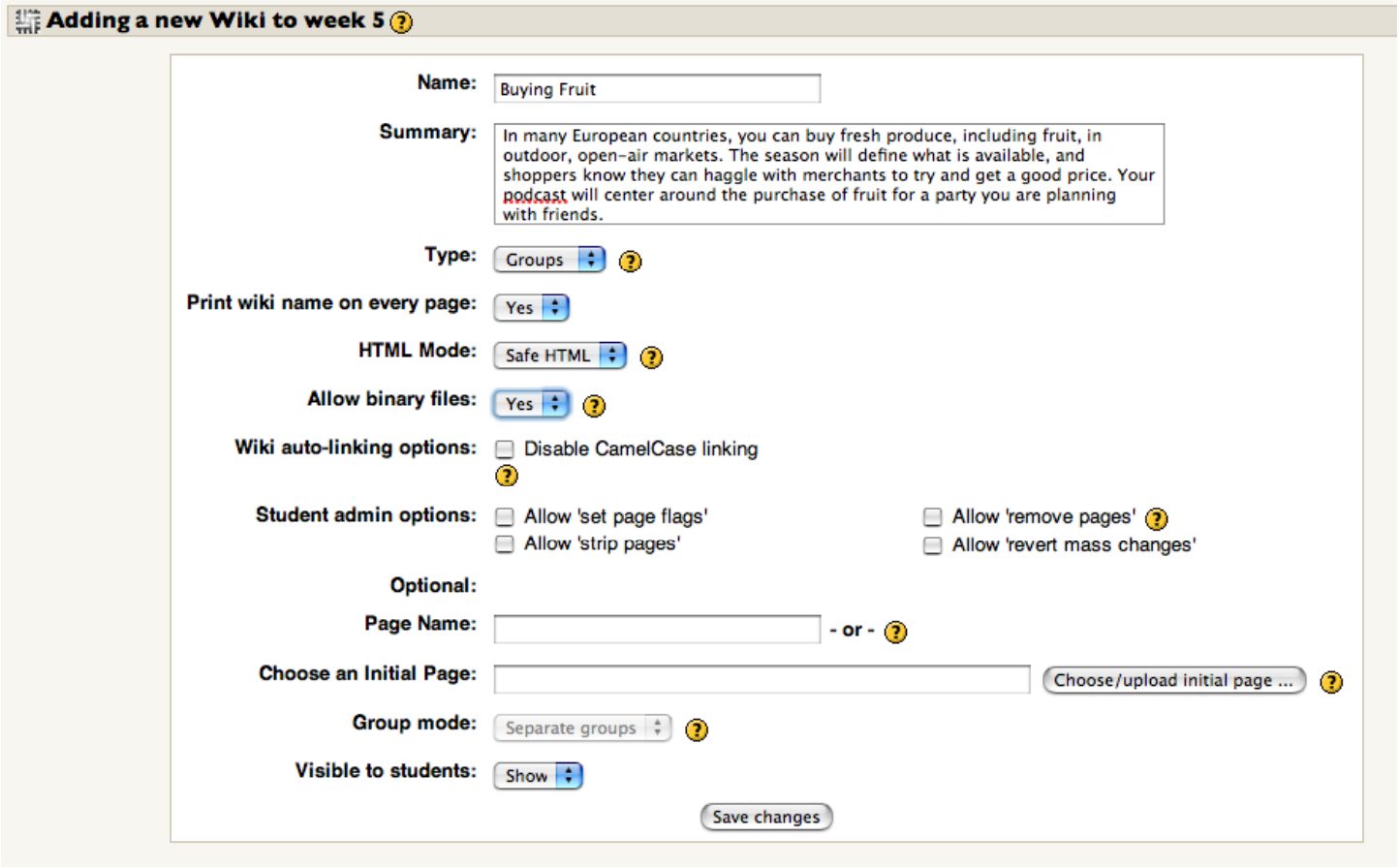

Figure 3: Defining the Wiki with options.

In my course, I have made the choices seen in Figure 3. The "type" of wiki is the most important: your choices include teacher, groups, and student with Moodle's wiki. "Groups" allows everyone in the class group to edit and read the wiki pages. "Teacher/Student" restrict access for editing.

I used the summary section at the top to define the podcast project. In this particular example, students will be asked to use vocabulary to create a conversation they will record in Spanish.

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Before adding links to student wiki pages, this is what the wiki looks like in "Edit" mode within Moodle:

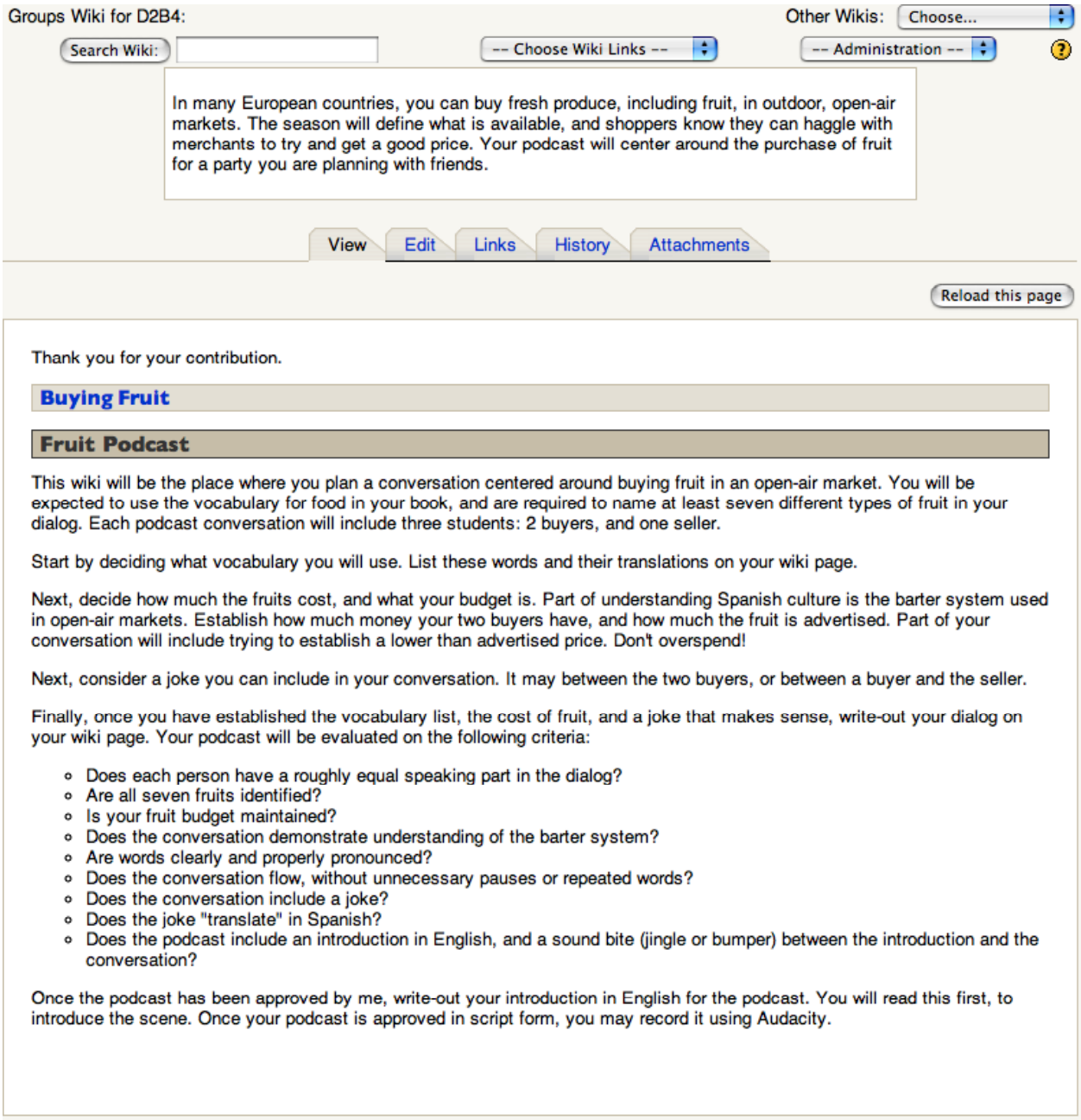

Figure 4: A sample wiki page introducing a dialog lesson in Spanish.

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To create the student pages, either assign generic group names as wiki links, or assign pages by using student names. Figure 5 shows an example of a wiki edit "in progress," with links for each student-group page.

Figure 5: Editing a wiki in Moodle using wiki formatting.

Once these links are established, the wiki puts question-mark links next to these names on the document. Clicking these "?" links creates new wiki pages, where students will work in groups. Students in the same classroom can work on one computer to edit the script using the wiki, or they can work independently across classes, or at different times. Moodle will provide a warning if the wiki is being edited by two or more parties at the same time.

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Step 3: Setting Up the Rubric

Without a lot of detail, I included the rubric criteria in my wiki page. Next, I create a new Workshop activity and carefully select the options.

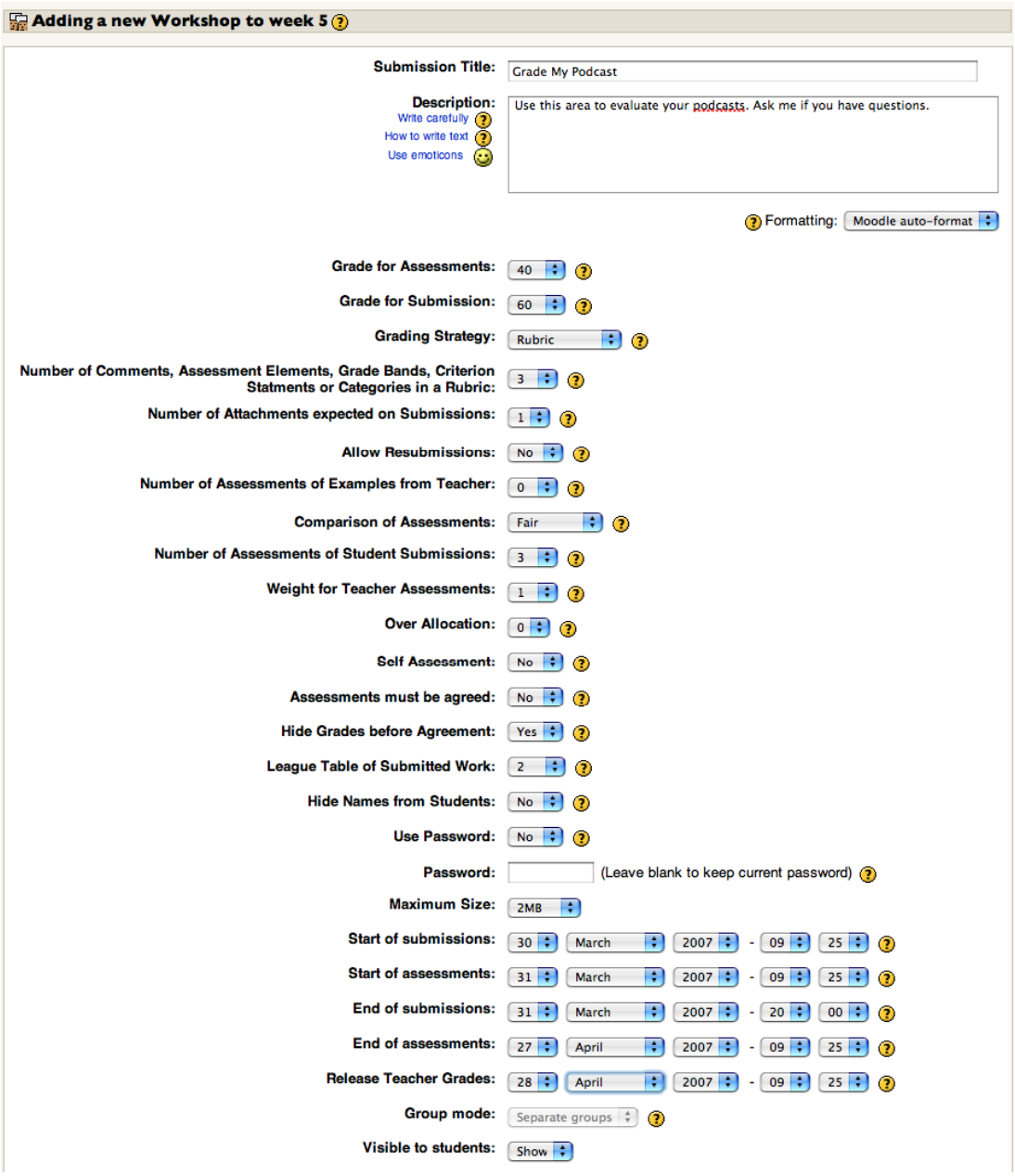

Figure 6: Workshop options in Moodle.

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Figure 7 shows example elements within the rubric. I recommend filling-out each of the five grade options. Instructors will likely choose more than three elements, but I used three here as an example.

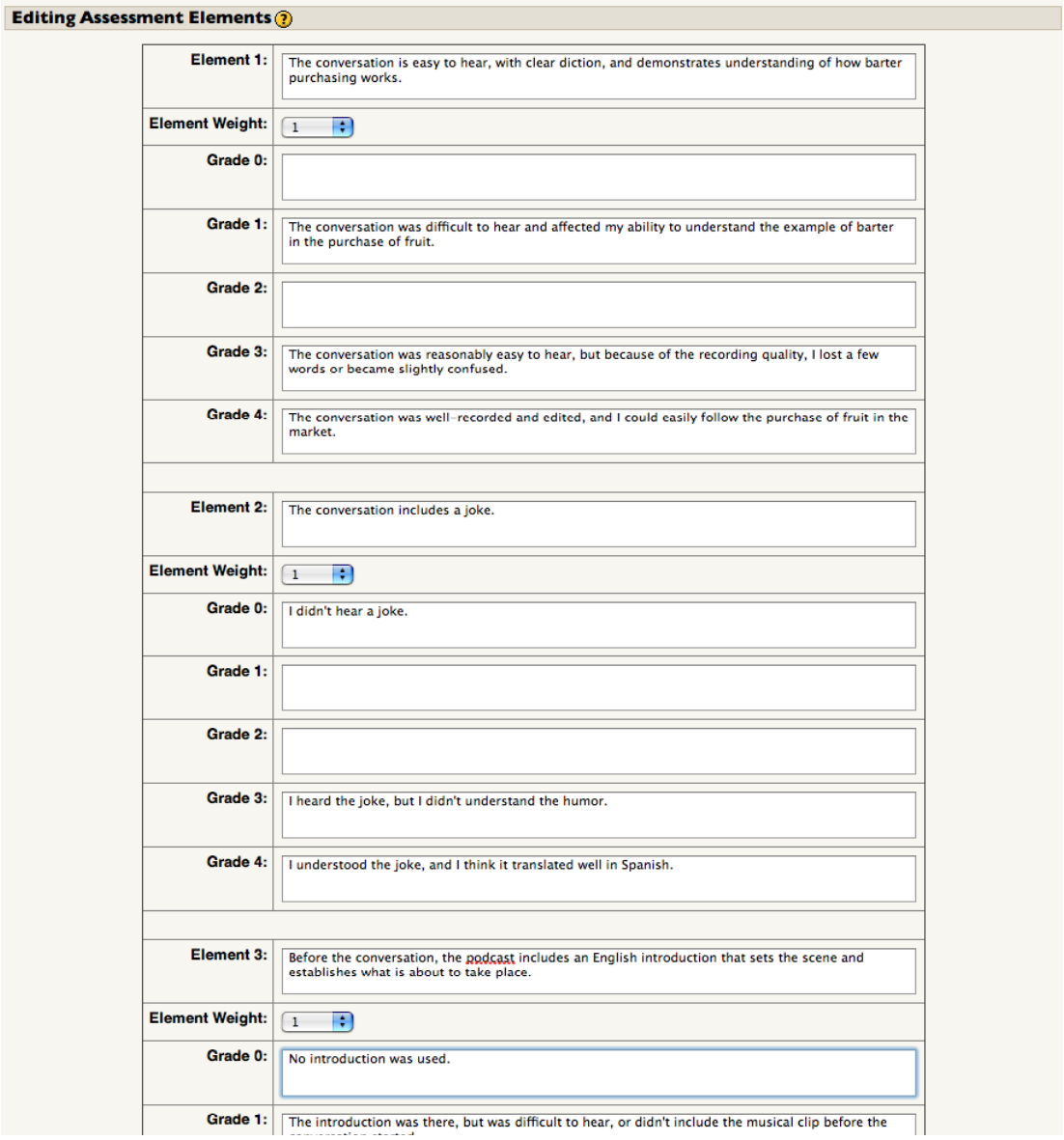

Figure 7: Setting criteria (elements) in the rubric.

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Options shown in Figure 6 (page 8), limit submissions to 2 MB. However, Moodle administrators may be willing to increase this limit. The upload limit needs to exceed the space required to upload podcasts. Alternatively, the class can listen to podcasts at once, using a sound system or the teacher's computer, and then use the online rubric to assess the podcast.

Step 4: Recording and Editing Podcasts

Several elements are required for recording the podcasts:

- a microphone
- sound recording software
- sound editing software
- music clips for a "bumper"

With many laptops and the free Audacity software, three of the four elements are there: a built-in microphone, and the software required for recording and editing. While GarageBand (Macs only) includes royalty-free music jingles, online sources such as *creativecommons.org* and *Freeplay-Music.com* provide solutions for acquiring music clips. Readers can find a link to an online resource for working with Audacity at the end of this article. If podcasting is new to a class, quick demonstrations on the use of Audacity will help. I recommend this script as a demonstration before students start:

1. Opening Audacity.
2. Checking the microphone level.
3. Recording the introduction (sample) in English.
4. Importing a musical jingle or bumper clip.
5. Adjusting the position of the bumper.
6. Recording a second portion in Spanish.
7. Cutting out silence at the beginning or ending of a clip.
8. Exporting the recording as a MP3 file.

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A student with experience using Audacity can demonstrate these steps with the help of an LCD projector.

Step 5: Evaluation

An important aspect of this lesson is the peer evaluation. Instructors doing a podcast project for the first time may choose to do the grading themselves. But asking students to listen to each other's podcasts reinforces the listening and critical thinking aspects that are highlights to this lesson.

Moodle's tools—specifically the wiki and the workshop—can help facilitate a classroom podcasting project, increasing productivity. The wiki is an ideal tool for collaboration, as the documents and scripts students create are visible by all stakeholders in the project, and can be evaluated efficiently online. Although complex to set-up, the workshop can facilitate peer review and comments while also allowing the instructor to weigh-in on the final product.

Conclusion

I hope you see the benefits of the wiki and other Moodle tools in providing our students a better "learning environment," for "fostering critical thinking," and solving problems. The problem in this lesson centered around creating a conversation—a creative pursuit. The constraints were dictated by learning objectives: the understanding of a cultural phenomenon (barter economy), and proper use of vocabulary (in this instance, fruit). The objectives, and how students would be evaluated in two different stages (after the script writing and after the podcast production) were upfront, and available in the wiki.

If Moodle is a vital part of how a classroom works, it can be further enabled to plan the scheduling and due-dates for this project. More often than not, however, Moodle is being used as a supplemental resource in classrooms to enhance projects like this podcast.

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Article Resource Links

Audacity Tutorial http://www.glnd.k12.va.us/wiki/index.php/Handouts/Podcasting-Audacity

Audacity *http://audacity.sourceforge.net/*

GarageBand *http://www.apple.com/garageband/*

Moodle *http://moodle.org/*

PBWiki *http://www.pbwiki.com/*

Wikispaces *http://www.wikispaces.com/*

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About the Author

John Hendron (www.johnhendron.net) currently serves as the instructional & web technologies specialist for Goochland County Public Schools, where he facilitated a teacher blogging initiative in Fall 2005. His interests include the intersection of creativity with technology-integrated projects. Now with over 85 podcast episodes, John has emerged as one of the first K-12 podcasters in Virginia with the *TechTimes Live!* podcast (www.glnd.k12.va.us/technology/times.php).

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