

Report on Two NCSU Instructors' Experience with Moodle During Fall 2010

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Abstract This is a report on two instructors' experience using Moodle to teach distance- and web-based upper division PHI and LOG courses during Fall 2010. Dr. David F. Austin taught Philosophy of Science PHI 340-001, 601 (initially 383 students) using Moodle (without any TAs as always); Dr. Gary H. Merrill (GHM) taught ([Practical Ontology](#)¹ [for Data-Mining] PHI 498/LOG 598 – 14 students, some of whom were very experienced software developers and/or MD/PhDs). Dr. Merrill also gave Dr. Austin expert advice about issues that we encountered during the semester; some of this advice is recorded below.

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¹ <http://www4.ncsu.edu/~ghmerril/PracticalOntology/about.html>

1. Introduction and Overview

Our experience with using Moodle as a Learning Management System contrasts sharply with the faculty experiences described in [Vista to Moodle: Everybody's Doing It](https://deltawire.delta.ncsu.edu/around-campus/vista-to-moodle-everybody%E2%80%999s-doing-it/)²

<https://deltawire.delta.ncsu.edu/around-campus/vista-to-moodle-everybody%E2%80%999s-doing-it/>

We appreciate the help that has been given to us by various staff members in DELTA and at the Help Desk, and nothing in what follows is intended as targeted criticism of the individuals who attempted to help us with the specific problems that we encountered. So, for the most part, names other than ours are omitted.

There are **five major points** that need to be made given the flaws that we encountered repeatedly in our semester-long intensive use of Moodle (details in later sections):

1. Moodle suffers from flaws (bugs and deficiencies in design) that directly affected our and our students' ability to use the system efficiently and effectively. Some of the bugs affect Moodle modules used in grade determinations, and this raises concerns about the university's legal liability.
2. To date tracking of these flaws at NCSU has been scattered and incomplete.³
This
 - a. is a disservice to users who need ready access to information about any flaws;
 - b. makes the job of support personnel (Learntech, Help Desk) more difficult;
 - c. reduces confidence that remedial efforts will be effective; and
 - d. raises governance issues.
3. There is good reason to doubt that it is feasible to repair Moodle's flaws.
4. It appears to us that costs to instructors were "externalized" in assessing Moodle's suitability. Should any affected instructors' departments be compensated for time lost?
5. While students must be alerted to the existence of some flaws, some of the students are very likely to use information about flaws to try to cover for

²Most key issues raised by the contrasts are not addressed in [NC State University Enterprise Learning Technologies update 12/14/2010](https://deltawire.delta.ncsu.edu/around-campus/nc-state-university-enterprise-learning-technologies-update/)
[https://deltawire.delta.ncsu.edu/around-campus/nc-state-university-enterprise-learning-technologies-upda](https://deltawire.delta.ncsu.edu/around-campus/nc-state-university-enterprise-learning-technologies-update/)
[te/](https://deltawire.delta.ncsu.edu/around-campus/nc-state-university-enterprise-learning-technologies-upda)

³ The tracking may now be less scattered and incomplete than at the beginning of the Fall 2010 semester. But as is detailed below, the progress has been unacceptably slow.

negligence.⁴ This will increase the difficulty of enforcing the [academic integrity policy](#), a responsibility already more challenging for instructors of web-dependent, web-based and distance education courses.

Executive summary of the flaws that I and GHM encountered during Fall 2010:

- The Grade book is unreliable and poorly designed thus making errors far more likely.
 - Grade changes can be self-reversing.
 - Locking and then unlocking a grade can (under unspecified circumstances) cause a grade to display incorrectly for all students.
 - Grade display inconsistency: students can get unearned points for unsubmitted quiz answers.
 - Grades become invisible when the Course Score is hidden.
 - Grade book shows incorrect scores for reasons difficult to discover.
 - Grade book shows incorrect scores: scores are capped 62.5% below the actual maximum.
 - Grades for courses are not computable in the Grade book and the Moodle Grade Submit tool does not allow an efficient workaround “given Moodle’s innate design.”
 - Grade book will not display uploaded scores and grades correctly.
 - Students who have dropped or withdrawn re-appear when deleted from the Grade book.
 - There are interminable waits for Grade book page refreshes for higher numbers of records displayed:
- Results show disallowed second attempt of quiz as allowed,
- There is no way for an instructor to see things exactly as students do, so when students report difficulties, determining what the difficulties are and whether it’s their misuse of software, dissembling on their part or a genuine system problem is much harder. This is unfair to students who are honest in their reports, partly because it makes detecting the less-than-honest more difficult. (“The computer lost my test answers” is the new “The dog ate my homework,” but there are many modes of computer ingestion.)
- There is no batch/multiple action facility for moving large numbers of items in a Moodle 1.9.9 site.
- There is no course site-wide Search function.
- It is not possible to download all individual student answers to quiz questions in the current version of Moodle. (This is obviously so highly desirable that it was planned as part of the core distribution of Moodle 2.0.)
- Groups cannot be defined by uploading a spreadsheet file or searching the grade book so if an instructor wants to define subgroups in a large class to make appropriate resources available, someone (for PHI 340, me) must go through the entire enrollment student by student and choose students individually for a given group. Thus it is also not possible readily to create by searching the grade book within Moodle a group of students who have, say, missed or done poorly on a test.
- To prevent other known problems, Learntech advises that tests be presented to students in secure pop-up windows. This makes it difficult for students to print or select and copy their test forms before submitting saved answers - a back-up strategy that I have always strongly urged students to follow. I found two utilities that students can install in their systems to allow taking of screenshots, but that’s asking for additional problems and they should not have to use those utilities.
- Questions that appear on quizzes disappear from the Question database
- Directories do not upload.
- Extending assignment due dates is a complex process that invites error.
- Participant display page-turning loses one’s place in the participants list.
- Moodle and Vista will not automatically submit for scoring answers that a student has saved for test questions once the deadline arrives. Saving and submitting answers are two different steps

⁴ Studies on the general prevalence of academic dishonesty among college students suggest that a substantial majority of them lie or cheat at some time.

and so students will sometimes forget the latter. Someone else must then grade the answers manually (or LearnTech can force-submit on request but the questions must still be graded manually). It would be possible to refuse all credit to the student, but that seems somewhat heavy-handed when answers have been saved.

- When files are moved in Moodle, it does not automatically change relevant internal links. The links break, without notice. One cannot update a file by overwriting it by another with the same name.
- There is a glitch in the Calendar that causes a series of event to time shift if the series spans the transition from EDT to EST. (This was allegedly fixed. But I found that a series of times had shifted in the PHI 340 Fall 2010 Calendar immediately after the time change in November so I fixed them one by one.)
- Downloading Moodle logs in Excel format results in unpredictable changes if log entries are copied and pasted within Excel.
- In some supported browsers, email cannot be sent only to selected students under the Participants menu, contrary to what configuration and documentation indicate.

More detail on most of these flaws is provided below in Section 3 (page 5).

2. Moodle Use at NCSU

During Fall 2010, nearly 1900 sections with many hundreds of instructors had Moodle sites. (I can provide the complete list on request.) The transition from Vista to Moodle is far from over, so these numbers will increase dramatically during the next six months. Even if the problems that we have encountered affected only a relatively small minority of users, they would nonetheless be serious.⁵ Nor would it be reasonable to assume that current and near-future users are representative of future users who may well tax the system ever more heavily.

Many positive remarks about Moodle can readily be found on the web even outside of moodle.org. Many organizations use Moodle. A natural question is therefore, If Moodle is flawed, why is it so well-regarded and popular? Although addressing this question is strictly speaking outside the scope of this report, a partial answer is also suggested below (page 51).

I believe that some, perhaps most, of the persistence of Moodle-related problems at NCSU may be attributable to recent budget eviscerations. If the Chancellor's guidelines on strategic planning allow it, some consideration might be given to augmenting DELTA and IT funding.

About my and Dr. Merrill's backgrounds:

DFA: Like many philosophers, I came into the field through math and physics, and I wrote my first program in 1969 (FORTRAN, IBM 360). During 1970-1977, I worked as a systems analyst for a NYC consulting firm doing mathematical modeling for Department of Defense weapons systems projects (programming

⁵I have not yet attempted to collect data from all these instructors, nor have I seen the results of surveys of Moodle users during Fall 2010 obtained by four groups of students working in EAC 583-601 F10 *Needs Assessment and Task Analysis In Training & Development* <http://moodle.wolfware.ncsu.edu/course/view.php?id=6541> or by "DELTA's own analysis that they are performing throughout the transition" (email message from Brandi Stover bmiliving@ncsu.edu Re: From Blackboard Vista to Moodle Survey - Your help is needed! November 10, 2010 8:17:30 PM EST). I was promised and have again requested the results from EAC 583-601 projects.

included). So I am not a technophobe, and I have not tried to keep up with most developments in computer software or hardware. Though I use computers at least twelve hours daily to do my work, I don't often "look under the hood." I have taught PHI 340 almost every semester and summer since 1983, with total enrollments averaging about 500 annually (>13,000 students total); I last had a TA c1990 and could not handle current enrollments (about 600 annually) without using a Learning Management System (LMS). As a long-time (7 years) Vista user (after 3 years with Wolfware), I would welcome a better LMS than Vista.

GHM: Dr. Gary H. Merrill retired this year as Director of GlaxoSmithKline's Semantic Technologies Group; he'd previously been a software tool developer at Bell Laboratories, a commercial compiler developer at Lattice Inc., and a Principal Systems Developer and Manager of the Language Features and Environments Department at SAS Institute, Inc. Earlier, he had been a successful and respected (tenured) Philosophy faculty member at Loyola University, specializing in modal logic and philosophy of science; his research publications from that era continue to be cited favorably. He continues to be a highly gifted, pellucid teacher of complex, technical material. (His CV is included in an Appendix). He knows a great deal about how what's "under the hood" should be designed from both user- and developer-perspectives. See also http://www.ncsu.edu/chass/philo/phil_lcsi.html and "It's a matter of philosophy," *The News & Observer* 7/10/2006 about Dr. Merrill's seminal role in the [Logic and Cognitive Science Initiative at NCSU](#).

3. Details of our Use and Experience of Moodle

Moodle suffers from flaws (bugs and deficiencies in design) that directly affected our and our students' ability to use the system efficiently and effectively.

I turn now to the details pertaining the first three of the major points summarized above. (The last two points about will be addressed *inter alia*.)

Conventions: Brief descriptions of specific problems or bugs are indicated with the symbol ➤. Explanatory text is in normal font, and supporting documentation (typically in the form of email) appears with a light blue background.

Relevant pre- (Fall 2010) history:

PHI 340 typically enrolls over 256 students - Vista's reported limit - and I tried hard to make the material at the site as comprehensive and readily searchable as possible while also trying to accommodate varied student preferences for different kinds of site navigation. In addition, I depend upon the genuine learning management system features of an application such as Vista or Moodle, rather than merely those features that support the creation of course web sites. Consequently I may have had more trouble with Vista than some other faculty. Technical support staff did what they could to help, but workarounds were generally time-consuming, led to further complexity in the site, and since Vista is a proprietary "black box" NCSU staff could not fix what was wrong.

Blackboard's (lack of) support for Vista was notorious and should have been legally actionable.

I attended the larger information sessions and a training workshop for Moodle and was pleased with what I learned. (The reasons given for Moodle's adoption were not primarily related to any projected cost-savings. Instead, it was suggested that overall costs would be comparable to those with Vista plus Wolfware.) I viewed training videos and read documentation online including the book on Moodle 1.8 (the current version at NCSU is 1.9.9 with 1.9.10 scheduled for December 2010, and Moodle 2.0+ installation tentatively slated for Summer 2011). While I did not expect that Moodle would be vastly superior to Vista and the information provided made it clear that it might at first have some limitations that Vista does not, there seemed to be good reason to think Moodle would not be seriously deficient in comparison to Vista. There had been a year's pilot project during which bugs and design deficiencies could be discovered and dealt with or cataloged; there had been a smaller pilot before then.⁶ That seemed time and volume enough to do the testing needed to discover common user problems.

My actual experience was an unpleasant surprise. Relying partly on Moodle logs, I can estimate fairly accurately how much time using Moodle has cost me over and above the 20+ hours weekly that I typically spend on PHI 340: *an average of at least 15 hours weekly during August–December 2010*. (This includes time reading help files and other documentation and searching moodle.org and other sources for answers. I have found Moodle help files at moodle.org that are highly misleading or lacking in desirable or essential detail.)

[This is still significantly less time than I would have had to spend had Vice Provost Miller and Mr. Greg Kraus not made available to me a [Multiple actions module](#) for doing batch moves and deletions that is not yet part of the NCSU implementation of Moodle. (This was provided after my department head forwarded to the Vice Provost Miller a mid-May 2010 email from me about my fear that the multiple actions I'd need to execute at the site for conversion would take me about 50 hours. I also included in my email a link to the Multiple actions module at moodle.org.) Those 50 hours of work would have been unrelievedly tedious, with little or no connection to course content, and I am grateful for DELTA's help.]

Details of Fall 2010 Problems Encountered

During the weeks that I prepared the site for the first day of Fall 2010 classes, I discovered that in addition to the lack of batch move and deletion facilities (Multiple actions) available in Vista, there are other ways in which Moodle is regrettably different from Vista.

➤ Although an icon and label for it were initially included in the navigation menu for

⁶ See http://wikis.lib.ncsu.edu/images/c/c0/LMS_Report_spring_2010.pdf which gives Spring 2010 usage statistics for Vista, Wolfware and Moodle. Then, Moodle was used in 1101 sections with a total enrollment of 34,325 by 19,796 students. During Fall 2010, it was reported earlier in the semester, Moodle was used by 2,174 sections to manage 69,708 enrollments.

Moodle, *there is no Global Search function*. Students cannot search the entire site for material. Since I typically remind students about a dozen times during the semester to use such a function to find relevant material, this is a significant defect for my purposes.

➤ I ended up with 66 students in PHI 340-601 and 277 in PHI 340-001, a total of 343. For research and teaching purposes, *I need to download into spreadsheets (Excel and JMP) all individual student answers to every test question, over 100,000 answers in all for the semester. This is not possible in the current version of Moodle.* (The ability to do so is obviously so highly desirable that it was planned as part of the core distribution of Moodle 2.0.)

From: DFA

Date: September 1, 2010 3:24:43 PM EDT

To: Learntech

Subject: PHI 340-001, 601 F2010 Moodle Downloading Individual Quiz Answers

For research and teaching purposes, I need to download into spreadsheets all individual student's answers to every quiz question, about 100,485 answers in all for the semester.

I've not been able to discover how to do so in Moodle though I've looked in help files and various sources of online documentation.

How does one accomplish this?

Thank you.

From: Learntech

Date: September 1, 2010 3:54:11 PM EDT

To: DFA

Subject: Call 1417817: PHI 340-001, 601 F2010 Moodle Downloading Individual Quiz Answers

The short answer is that there is not a tool or function to do all of that in one fell swoop. What you could do to get quiz result data is to go into the quiz, click the results tab, click item analysis, and click the "download excel format"

That will at least give you the statistics for that quiz. But beyond that, moodle was just now buildt to be analyzed in the way you are descibing, since quizzes are graded automatically, most people don't need to see all the results all in one place.

From: DFA

Date: September 1, 2010 4:29:46 PM EDT

To: Learntech

Subject: Re: Call 1417817: PHI 340-001, 601 F2010 Moodle Downloading Individual Quiz Answers
On Sep 1, 2010, at 3:54 PM, [Learntech](#) wrote:

[The short answer is that there is not a tool or function to do all of that in one fell swoop. What you could do to get quiz result data is to go into the quiz, click the results tab, click item analysis, and click the "download ex\[c\]el format"](#)

I'd discovered that much.

[That will at least give you the statistics for that quiz. But beyond that, moodle was just now buildt to be analyzed in the way you are descibing, since quizzes are graded automatically, most people don't need to see all the results all in one place.](#)

I've not seen the data on what most Moodle users need. I'll look for it.

In Vista, quizzes were graded automatically yet it was easy to download the relevant data.

There appears to be a Moodle plugin that facilitates such downloads

- <http://download.moodle.org/download.php/plugins19/mod/quiz/report/responses.zip> -

And "in Moodle 2.0 dev, this report has been moved into core,"

<http://moodle.org/mod/data/view.php?d=13&rid=96> :

Quiz Report: Detailed Responses

Type: Quiz Report

Requires: Moodle 1.6 or later

Status:

Maintainer(s): Jean-Michel Vedrine

This quiz report plug-in displays all the responses given by students at the quiz in one big table. It allows this table to be downloaded as an Excel spreadsheet.

In Moodle 2.0, this was moved into the core distribution.

So there would seem to be many - even if not most - people who do need to see the results all in one place, e.g., those who do more statistical analysis than the simple sorts built into Moodle.

When I asked last Spring about what sorts of statistical analysis was offered by Moodle, I was told that it would be best to load data into Respondus. But that implied that the data would be readily available for loading. PHI 340 students will provide over 100,000 answers during Fall 2010 (385 students, 261 questions).

From: Learntech

Date: September 2, 2010 9:36:07 AM EDT

To: DFA

Subject: Call 1417817: PHI 340-001, 601 F2010 Moodle Downloading Individual Quiz Answers

At the moment, I'm afraid Item Analysis is the only Moodle quiz statistics available. You've already discovered that it will be coming with Moodle 2.0, and I've added the individual plug-in to our feature request list in the meantime.

Sadly, we haven't received much call for the functionality beyond what Item Analysis can provide, so I don't know if the plug-in will be rolled out any sooner than the release of Moodle 2.0. Either way, we are working on adding that particular feature to our installation of Moodle as soon as it's tested, ready and approved.

➤ *Groups cannot be defined by uploading a spreadsheet file or searching the grade book*, so if an instructor wants to define subgroups in a large class to make appropriate resources available, someone (for PHI 340, *me*) must go through the entire enrollment student by student and choose students individually for a given group. Thus it is also not possible readily to create by searching the grade book within Moodle a group of students who have, say, missed or done poorly on a test.

From: DFA

Date: August 15, 2010 6:59:59 PM EDT

To: Learntech

Subject: Using Import Groups in Moodle

For PHI 340 001, 601 Fall 2010 in moodle.wolfware.ncsu.edu:

I want to upload a file specifying which students enrolled are in one of two groups that I have already named: 001 and 601.

I tried to use Import Groups, formatting the file as it seems to be specified in the associated help file. (see attached)

I then get the error message:

"groupname, email" is not a valid field name

The link on the error page <http://docs.moodle.org/en/error/moodle/invalidfieldname> yields nothing intelligible.

The link Moodle Docs for this page <http://docs.moodle.org/en/course/import/groups/index> yields nothing useful.

The Moodle doc at http://docs.moodle.org/en/Upload_users makes it seem impossible to do what I want since I do not know passwords.

Does the following apply in this instance?:

Updating existing accounts

By default Moodle assumes that you will be creating new user accounts, and skips records where the username matches an existing account. However, if you set "Update existing accounts" to **Yes**, the existing user account will be updated.

When updating existing accounts you can change usernames as well. Set "Allow renames" to **Yes** and include in your file a field called oldusername.

Warning: any errors updating existing accounts can affect your users badly. Be careful when using the options to update.

Can you tell me how efficiently to do what I need to do without affecting users badly?
Thank you.

From: Learntech

Date: August 17, 2010 9:11:43 AM EDT

To: DFA

Subject: Call 1405908: Using Import Groups in Moodle

Unfortunately, you cannot import users into groups through the CSV file. The documentation is worded poorly there, implying that you can do it. The Group Import feature merely lets you upload a list of group names to mass create blank groups.

Please let me know if you have any other questions.

➤ To prevent other known problems, *Learntech* advises that tests be presented to students in secure pop-up windows. This makes it difficult for students to print or select and copy their test forms before submitting saved answers - a back-up strategy that I have always strongly urged students to follow. I found two Firefox utilities that students can install in their systems to allow taking of screenshots, but that's asking for additional problems and they should not have to use those utilities.

From: DFA

Date: October 9, 2010 11:17:08 PM EDT

To: Learntech

Subject: Screengrab! and Moodle

In the Handbook (aka "syllabus") for PHI 340 I have always urged students to keep an independent record of answers they submit to T/F and multiple choice questions:

"You should also print out and/or save the screen with your answers displayed just before submitting your answers using the Submit All and Finish button." PHI 340 Handbook Fall 2010, p. 10

"Be sure to Save each and every answer, keep an independent record of your answers, and click on the Submit All and Finish button to submit answers for scoring." PHI 340 Handbook Fall 2010, pp. 15, 17, 18, 19.

Following advice provided by learntech, I set all tests to open in secure windows. And there is no apparently no way for instructors to see a Moodle site just as students do.

While taking Exam #1 on Sept 24, students found that it was difficult to keep an independent record of their quiz form with answers selected. One student posted helpfully to a forum,

"If it helps anybody out regarding printing a copy of the test and the difficulties that were talked about, I have found that I was not able to use 'Print Screen' successfully unless I said 'no' to the dialog box that came up before opening the exam. The dialog box asks for permission to access the Clipboard on your computer. I am using Windows Vista on a Dell laptop.

I don't know if denying Clipboard access affects anything with actually filling out the exam and submitting it, so I will allow it when I have my final answers ready and fill in the online version."

Is there a reliable way for students to do as I have advised them? Would the following Firefox add-on work?

<http://www.screengrab.org/>

Thank you.

From: Learntech

Date: October 11, 2010 8:46:24 AM EDT

To: DFA

Subject: Call 1432364: Screengrab! and Moodle

I'm sorry for the confusion. Print Screen is actually not disabled as part of the Secure Window features, it continues to work as normal so that students can get a snapshot of their test and print it out as an image.

From the message you linked, it sounds like the issue is that Windows itself is butting into a security error regarding Clipboard access. Windows Vista has been fairly notorious for excessive warning messages and very limited permissions even for admin users. My guess is that clicking "Yes" to the Windows warning message would be all that prevents a student from using Print Screen to print the test.

Alternatively, after a couple of rounds of testing, it looks like Screengrab will also work (and may circumvent the Clipboard access entirely). Screengrab may be a bonus, since it can make an image of the entire page at once, not just the fraction of it that fits on a student's screen.

If it's easier on you and your students, there is also the option of disabling the Secure Window function. The feature prevents some very basic operations (chiefly selecting text and copy & paste). If you find you aren't worried about students using those particular features to try and cheat on the test, then disabling the Secure Window feature costs you nothing, and may save a lot of frustration for both you and your students.

That said, given the warning message described, there is no guarantee that the Secure Window is the cause of this particular problem.

I hope that helps! If you find you still have questions or are interested in other options, please let me know.

From: DFA

Date: October 12, 2010 12:35:50 AM EDT

To: Learntech

Subject: Re: Call 1432364: Screengrab! and Moodle

On Oct 11, 2010, at 8:46 AM, Learntech wrote:

I'm sorry for the confusion. Print Screen is actually not disabled as part of the Secure Window features, it continues to work as normal so that students can get a snapshot of their test and print it out as an image.

Can you tell what prevented the students from printing? (See the three FWD's at the end of this message [omitted here].)

From the message you linked, it sounds like the issue is that Windows itself is butting into a security error regarding Clipboard access. Windows Vista has been fairly notorious for excessive warning messages and very limited permissions even for admin users. My guess is that clicking "Yes" to the Windows warning message would be all that prevents a student from using Print Screen to print the test.

Alternatively, after a couple of rounds of testing, it looks like Screengrab will also work (and may circumvent the Clipboard access entirely). Screengrab may be a bonus, since it can make an image of the entire page at once, not just the fraction of it that fits on a student's screen.

If it's easier on you and your students, there is also the option of disabling the Secure Window function. The feature prevents some very basic operations (chiefly selecting text and copy & paste). If you find you aren't worried about students using those particular features to try and cheat on the test,

All of the tests in PHI 340 (and PHI 250 for that matter) are open-source and group work is allowed (and opted for by about half of the students).

then disabling the Secure Window feature costs you nothing, and may save a lot of frustration for both you and your students.

My colleague Gary Merrill (PHI 498/[LOG] 598 Practical Ontology) reports that a student's selecting text in a quiz can cause a radio button to turn on thus changing the student's answer. Cathi Phillips remarked that Anna Howard's students in MAE 206 had encountered that problem too. It appears to be browser-dependent but to affect allegedly supported browsers and so seems accurately classified as a bug. It's unfair to students. And were students to become widely aware of this, it could encourage requests for grade changes based on allegedly unintended answer changes.

That said, given the warning message described, there is no guarantee that the Secure Window is the cause of this particular problem.

I hope that helps! If you find you still have questions or are interested in other options, please let

me know.

I will send an announcement about Screengrab and see what kind of reaction I get.
Thanks.

From: Learntech

Date: October 12, 2010 3:29:51 PM EDT

To: DFA

Subject: Call 1432364: Screengrab! and Moodle

I'm afraid the highlighted text bug is a "feature" of Internet Explorer and how it handles web forms. I've tested with the secure window feature on and off, and it makes no difference for the sake of the bug. If a student clicks on or attempts to highlight the text of the answer rather than the radio button, the answer is still selected. It may be better instead to caution your students if they choose to use Internet Explorer to double-check their answers before saving so that they know they have the right option selected.

As for the printing trouble, it looks like that and the warning message about Clipboard access are also IE-specific. Something about the read-only nature of the page content is causing IE to fail when bringing the page over to printing. When I switched out of secure mode, there was no problem printing.

It looks like the same choice is at the core of both issues: disabling the secure window feature or enabling the use of Screengrab. From what I've been able to test with Screengrab, it's a fully viable alternative, so whichever option you feel more comfortable with should fix the issues your students have been reporting.

If you have any other questions or further issues with Moodle quizzing, just let us know.

➤ *Questions that appear on quizzes disappear from the Question database*

From: GHM

Date: September 13, 2010 8:25:15 AM EDT

To: "Learntech (DELTA Help)" <Learntech>

Subject: Some Moodle quiz questions

I have just given my first online quiz in Moodle and have a few questions:

1) I assume that the students got instant feedback on their grades when they took the quiz. I checked ALL the boxes under Review Options in the quiz settings.

2) In the ~Grades->View->Grader report, all of my assignments appear, but the quiz does not appear. How can I make all of my GRADED assignment and QUIZZES appear in the Grader report, but not have UNGRADED assignments appear there? Where in the Moodle doc can I find where these issues are described? I can see how to go into editing mode and suppress display of columns in the report, but this isn't exactly the same as deleting columns, and then there is also the problem mentioned in point 3) ...

3) The Grader report spreadsheet displayed in the browser window appears to be of fixed maximum size. While the browser window itself is scrollable, the spreadsheet table is still of fixed display size and does not display all of the columns. For example, I can see a fragment of a column in it, but it is not fully displayed; and later columns are not displayed at all. What's going on with this?

4) I created the quiz by creating each question in my question bank and then adding it to the quiz. However at some point noticed that there were questions in the quiz that were no longer in the question bank. So there are 19 questions in the quiz, but some of these are not in the question bank. What happened here? How can I get them back in the question bank?

As an additional remark, I find the Moodle documentation on quizzes to be pretty lame -- particularly given the scattered and disjointed design of the UI for this. What is the best source of information on information about quizzes, how to configure them, and how to use them (including grading, responses to students, etc.)?

Thanks.

➤ *Directories do not upload*

From: GHM
Date: September 27, 2010 12:18:20 PM EDT
To: HELP@ncsu.edu
Subject: Re: Call 1419516: Moodle question
I just got around to trying this, made my directory (which contains subdirectories) and attempted to upload it to Moodle. It appears to refuse in general to upload a directory. There seem to be two possibilities here:
1) This doesn't actually work.
2) There is some MS Windows dependency in Moodle so that it can't do this on a Linux system.
Comments?
On Tue, 2010-09-07 at 10:23 -0400, Learntech wrote:

The easiest way for you to do this is to:
On your computer you can create a folder and put all your documentation for the class there.
Then create a folder for your resources in moodle. Underneath the 'Administration' column you will see an option for 'Files' select that link. You will then see an option in the bottom right that allows you to 'Upload a file'. Upload the folder you made for your class resources.
Then, turn on editing in your course in the top right corner, and in the first box in your outline (the box that has no weekly date or topic number beside the box) select the 'Add a resource' dropdown. In the drop box there will be an option to 'Display a directory' select that option. This will allow you to upload a folder. Display a directory will allow your students to see this folder and access the resources.
In the 'Name' box in the 'General' menu you can type a heading like "Folder for Resources." In the 'Display a directory' menu you will see a dropdown box. Your folder should appear here.
Be sure to save your changes! Hope this helps!

➤ *Extending assignment due dates is a complex process that invites error*

From: GHM
Date: November 5, 2010 11:52:42 AM EDT
To: "Learntech (DELTA Help)" <Learntech>
Subject: Extending Moodle assignment due date?
I have a situation where I would like to extend the due date on an assignment for several (but not all) students. If this were a quiz, it would be possible to change the due date and provide the students with passwords to access the quiz for the new due date. But there appears to be no such mechanism in an Assignment.
This must be a rather common situation. How can I accomplish the goal of extending the due date for a selected set of students?

From: GHM
Date: November 5, 2010 8:53:05 PM EDT
To: HELP@ncsu.edu
Subject: Re: Call 1443470: Extending Moodle assignment due date?
Okay, there are a few things seriously wrong with this:
1. It's an absurd jumping through hoops to achieve a simple goal that will certainly appear frequently in any instructional environment.
2. It is completely different from how the same goal is accomplished with quizzes (which are conceptually just another type of assignment).
3. The whole process is confusing and error prone (*as evidenced by the fact that the instructions provided omit a significant step*).[emphasis added]
4. It actually creates a NEW assignment and gives it a NEW TITLE that is VISIBLE TO ALL STUDENTS. The title of the new assignment is the title of the old assignment with the name of the

grouping added in parentheses. This is both useless and stupid. In short, this is truly an amateur night implementation and should not be tolerated by NC State support; and it is potentially troublesome in a class environment. Thanks for the help and guidance on this, but the "work around" is truly ridiculous. Things like this should have been caught in testing the application prior to deployment. On Fri, 2010-11-05 at 14:35 -0400, Learntech wrote:

Hey Dr. Merrill,

There is a way, but it involves the use of the Groupings feature. Effectively, we place all the students who need extended time into their own Grouping, and then extend the Assignment and limit it to only that group.

To set it up:

1. Click on "Groups" in your Administration block.
 2. Click "Create group."
 3. Name the group "Extended Time," or something to that effect, and click "Save changes."
 4. Click the "Add/remove users" button on the right-hand side.
 5. Select the students you wish to grant an extension to, and use the "Add" button to add them to the group.
 6. Click on the "Groupings" tab, at the top.
Uh, there is not "Groupings" tab at the top. You forgot to add the action "Click 'back to groups'".
 7. Click "Create grouping," and give it a similar name as the Group. It can even be the exact same name, if you like.
 8. Click "Save changes."
 9. Out to the right of the Grouping, click the icon that looks like a cluster of people. It will say "Show groups in grouping" if you hover over it.
 10. Add the group you created in step 3 to the grouping.
 11. Lastly, return to the Assignment, and click "Update this assignment" to bring up the settings.
 12. At the bottom, under "Common module settings," click "Show advanced." If the button already says "Hide advanced," proceed to the next step.
 13. Set the Grouping in the drop-down menu provided. Be sure to check "Available to group members only" below that.
What should be the setting of "Group mode"?
 14. Update the "Due date" setting to the new, extended date.
 15. Click "Save and return to course" to save your changes.
- If you find you have any trouble with the instructions above, or if you have questions before making the change, please let us know.

From: GHM

Date: November 8, 2010 8:25:58 AM EST

To: HELP@ncsu.edu

Subject: Re: Call 1443470: Extending Moodle assignment due date?

I'm afraid that it's things like this that expose some of significant design flaws and, I fear, perhaps design philosophy and methodology, in Moodle -- and seem to imply on even more of a continuing basis that it was designed more from the perspective of software developers than from the perspective of instructors who need to use it on a daily basis. From a software perspective, for example, Groupings may be regarded (in some at least mildly bizarre sense) as a "more general solution". But it is wholly unintuitive and terribly cumbersome from a TASK-ORIENTED perspective -- that is, from the USER perspective. The fact that there is no straightforward mechanism to handle (on a per student basis) the granting of deadline extensions is a fundamental defect. And the fact that such things cannot be done without alerting other students (through the change in display name of the assignment) that such extensions have been given (which should not be of concern to them) makes the problem worse.

The process does not APPEAR complicated. It IS complicated. Any multi-step process of that sort is, by its multi-step nature (and the dependency of some steps on others) complicated. I was not

picking on you for missing a step. My point is that errors such as missing a step in such circumstances are INEVITABLE -- even for someone who is experienced and trying his best to be complete and precise. Users should not need to go through such a process to accomplish a simple TASK that will frequently be part of their work. This is particularly true of users who are not adept at executing multi-step algorithms and will not see why they should have to.

In addition, once the new "view" of the assignment is created based on the grouping, the old view disappears -- which is quite a shock since it appears that all previously submitted material has simply gone away. It is in fact not possible then to view ALL of the submission unless you "update" the assignment back to the original view -- which of course at least appears to change the accessibility to the extended assignment for those who have been granted the extension. So in order to (a) provide access to the extended assignment for those needing it while (b) looking at or downloading submissions from those who submitted them for the original deadline you must toggle back and forth between the views (i.e., you must "update" to one and then "update" to the other") -- or at least so it seems to me. This is nutty. I do wonder what the "specifications" are for an improvement to this, and I wonder more if the designers are actually working on the basis of design scenarios based on user and task analysis -- or just on some "use cases" that the developers have more or less thought up on their own. This is concerning because, so far at least, there is no evidence that Moodle has been developed on the basis of what are now universally regarded as best practices and methodologies in user interaction and UI design.

Based on your comment concerning waiting for an improved "Selective Release solution" expected in Moodle 2.0 I remain concerned that a TASK-ORIENTED approach to Moodle is still not being taken. Even the jargon of "selective release" is not something that will be meaningful to an arbitrary instructor. Rather it is developer/IT/database jargon -- indicating that it is THAT perspective that is driving "features" and "feature enhancement". Certainly the desired solution is to provide instructors with straightforward mechanisms for accomplishing the tasks that they are faced with -- rather than an approach where they can be "trained" to successfully wrestle with an implementation that seemed like a good idea to some developer who never taught a course in his life. I do hope that the new design, features, and implementation are being driven directly by user needs and user input. Currently there is so much wrong with the UI and lack of task orientation for assignments that I remain skeptical of this. But I suppose that we shall see.

On Mon, 2010-11-08 at 07:35 -0500, Learntech wrote:

Dr. Merrill,

I'm sorry that you are unhappy with the Groupings solution. I'm afraid the password solution is unique to quizzes and lessons, as it's actually intended for use by remote proctors and not as an extension. When we saw that it could be used as a simpler solution for selective release (and given that quizzes have been the great majority of extension requests we've received), we saw no reason not to guide faculty toward the simpler solution where it was available. Sadly, Assignments don't offer the same setting. Groupings is the more universal solution, as it allows you to selectively release any content, including Resources. The process, while it appears complicated, typically takes only a few moments to set up. I apologize for missing a step in my instructions. If you would please let me know where you got stuck, I would be happy to help navigate the missing piece.

I'm sorry as well for the confusion on the labeling: when a grouping is assigned to an activity or resource, the grouping's name appears to the right of that item so that you know it is not open to all students. No new item is created, and only group members have access to it (if the "Available to group members only" checkbox was checked). You, as the Teacher, will always retain access to it for grading purposes.

In case I misunderstood what you're actually needing, there is one additional setting in the Assignment itself for "Prevent late submissions." If left at the default setting, it will allow any student to submit after the due date, marking the submission as late. Since you wanted to limit the extension to a set group of students, I suggested the Groupings solution, but if you wanted all students to be able to submit after the due date, changing that setting to "No" will allow them to do so. If that is a better fit for what you were trying to do, it should prove a much simpler solution to implement.

We are looking forward to a more usable Selective Release solution that is planned for

Moodle 2.0, set to release early next Spring. With luck, it will be a far simpler one-click solution than our current groupings model.

➤ *Grade changes can be self-reversing:*

From: GHM

Date: November 8, 2010 8:56:05 PM EST

To: "Learntech (DELTA Help)" <Learntech>

Subject: Yet another Moodleism (changing a grade)

So when you are updating a student's grade (which can include assigning a different grade or adding a response file) in an Assignment, the following unfortunate behavior is exhibited.

You first change the grade to the new grade (this is done at the top and most people work from the top down). Say you change it from a 'B' to an 'A'.

Then you go to the bottom and upload a response file. Works like a charm, but ...

It changes the grade back to the original one! It's a 'B' again!

(Clearly changing the grade by itself doesn't do a submit to the server. But uploading the file does! And it uses whatever was stored in the initial data structure rather than refreshing that off the interface.)

So in order to not screw up, the sequence has to be: (1) Upload response file, (2) Change grade, (3) Save changes.

People who don't actually program browser and web apps are often not aware of the state issues involved -- although that isn't the real issue here since selecting a new grade could easily be made to trigger the submit and avoid a potential problem and confusion; or the upload action could do so as well.

From: GHM

Date: November 9, 2010 4:04:54 PM EST

Subject: Work from the bottom

Of course. "Work from the bottom up." How simple, yet elegant. I will add it to my set of Moodle incantations. Of course, it's really "Work from the middle down, and then from the top". Or something like that. ...

The fully general guideline is "Work in such a way that it is compatible with the stream of consciousness of the programmer who designed or implemented the particular page or portion of page that you are attempting to use." There. That does it.

On Tue, 2010-11-09 at 10:16 -0500, Learntech wrote:

This has actually been a known issue, we try to recommend to faculty to "work from the bottom up" since uploading a Response file refreshes the page. Sorry for the inconvenience!
Thanks!

➤ *Participant display page-turning loses one's place in the participants list:*

From: "David Austin" <DFA>

Date: October 15, 2010 10:39:30 AM EDT

To: <Learntech>

Subject: Moodle PHI 340-001,601 F10 Participant display next page

In Participant display when the "Inactive for more than ..." option is chosen and not all students on the generated list appear on just one page, clicking on the "next" or page "2" link results in display of the entire list rather than the next page of the list of participants generated.

I am using Firefox 3.6.10 and Safari 5.0.2 (6533.18.5) under Mac OS 10.6.4. JavaScriptCore 6533.18 (9/18/2010), JavaVM, JavaNativeFoundation, JavaRuntimeSupport 13.2.0 (6/16/2010)

From: Learntech

Date: October 15, 2010 11:10:58 AM EDT

To: DFA
Subject: Call 1435619: Moodle PHI 340-001,601 F10 Participant display next page
Ah, we encountered the same issue just now. We will add it to our bug tracker and hopefully resolve it. Thanks for pointing that out!
PS - did you ever consider a career in software QA? Maybe in a past life?

➤ One way in which Moodle and Vista are very regrettably alike is that *neither will automatically submit answers that a student has saved for test questions once the deadline arrives* - contrary to what was asserted about Moodle at a workshop that I attended. Saving and submitting answers are two different steps and so students will sometimes forget the latter. Someone else (e.g., me) must force-submit (Vista) or grade the answers manually (Moodle - or technical support can force submit on request but I must still grade manually). It would be possible to refuse all credit to the student, but that seems somewhat heavy-handed when answers have been saved.

From: DFA
Date: September 26, 2010 11:45:08 PM EDT
To: Learntech
Subject: PHI 340-001,601 F10 Moodle Force submit Exam #1
Please force-submit saved answers on Exam #1 for these [nine] students: ...
I have already processed the exam for [one student].
Thank you.

From: Learntech
Date: September 27, 2010 8:46:26 AM EDT
To: DFA
Subject: Call 1427489: PHI 340-001,601 F10 Moodle Force submit Exam #1
All set, all submissions have been completed at this point. They may be listed as "Late" given that they were technically submitted this morning, so you'll want to check and see if you have to override the grades.
If you find you have any trouble doing so, just let us know.

[Remark (DFA): The score for the 9 students affected still showed as zero, so I needed to grade each of the 25 questions manually. All that the tech support force-submit accomplished was to make it feasible for me to grade these exams manually. This was not difficult, but $9*25=225$ small actions do take some time that would have been better spent in other ways.]

➤ *When files are moved in Moodle, it does not automatically change relevant internal links. The links break, without notice. One cannot update a file by overwriting it by another with the same name. Additional time-consuming steps are needed.*

➤ There is a *glitch in the Calendar* that causes a series of event to time shift if the series spans the transition from EDST to EST. (This was allegedly fixed. But I found that a series of times had shifted in the PHI 340 Fall 2010 Calendar immediately after the time change in November so I fixed them one by one.)

From: DFA
Date: August 15, 2010 10:53:59 PM EDT
To: Learntech
Subject: *Moodle Calendar (EDST->EST?)*; Announcements?; Quiz auto-submit; RSS from Teacher's Lounge?; Global Search?
For PHI 340-001, 601 Fall 2010:

(1) I found that when I added a series of recurring events to the Calendar, and the series spanned the period before and after the change from EDST to EST, the time for the event was shifted back an hour for the events after the switch from EDST to EST. (At least, that's how it appeared. Perhaps it's unrelated to the time change.) While it was not difficult to figure out how to compensate - either modify the affected events one by one or define a two new series - it is unhelpful for the Calendar to be set up in that way.

(2) When I was setting up the course on the moodle-restore server, there was a block at the upper right hand corner for Announcements to students. It now appears that there is a block at the upper right hand corner for only News & Announcements for Teachers. When I try to add an announcement (say, a welcome message), the only option appears to be to make it News & Announcements for Teachers.

(3) When I attended a workshop on Moodle a couple of years ago, I was delighted - even ecstatic - to hear that Moodle, unlike Vista, automatically submits saved quiz answers at the deadline for the quiz whether or not the student has submitted the answers. I happened upon <http://moodle.wolfware.ncsu.edu/mod/forum/discuss.php?d=121201> and learned that the latter is not correct. I will revise the syllabus, already sent to 290 students, accordingly.

(4) When I attempted to add the RSS feed from the Teacher's Lounge I found no button for RSS feed there. (I did subscribe to the forum by email using the Track and Subscribe buttons at <http://moodle.wolfware.ncsu.edu/mod/forum/index.php?id=4171>.) Attempting to add an RSS feed for the General Forum to Google Reader using the RSS button at <http://moodle.wolfware.ncsu.edu/mod/forum/index.php?id=4171> resulted in an error message: "RSS Error from NC State WolfWare Moodle Server Error reading RSS data."

(5) How do I activate Global Search? The block is shown but there is no field in which to enter search terms. Allowing students to do site-wide searches of all files that they can access otherwise is very important in the course.

(6) How do I send messages? I see the Messages block but have not found a way to send messages. Is posting to a forum the only way to do so?

Thank you.

➤ *Downloading Moodle logs in Excel format results in unpredictable changes if the logs are copied and pasted within Excel.*

From: DFA

Date: September 18, 2010 11:10:32 PM EDT

To: Learntech

Subject: Moodle logs in Excel format only show date shift

When I download logs for PHI 340-001, 601 Fall 2010 in .xls format, many entries for future dates are shown. In text, page display and ODS formats, the dates show correctly.

Copying a date from one Excel Moodle log workbook and pasting it into another Excel workbook results in a shift to a future date.

Copying a date from one Excel workbook and pasting it into another Excel workbook does not otherwise result in a date shift.

I've not seen this behavior before in Excel. Is this a bug in Excel? Is it caused by the format of the logs produced by Moodle?

From: Learntech

Date: September 21, 2010 10:20:22 AM EDT

To: DFA

Subject: Call 1424745: Moodle logs in Excel format only show date shift

This is a known issue with 1.9.9, our current version. It is fixed in 1.9.10, but that version has not been released yet. I have submitted the request to apply this patch to our system.

Please let me know if you have any other questions.

➤ *There is no way for an instructor to see things exactly as students do, so when*

students report difficulties, determining what the difficulties are and whether it's their misuse of software, dissembling on their part or a genuine system problem is much harder. This is unfair to students who are honest in their reports, partly because it makes detecting the less-than-honest more difficult. ("The computer lost my test answers" is the new "The dog ate my homework," but there are many modes of computer ingestion and this makes any dishonesty even harder to spot.)

From: Learntech
Date: September 3, 2010 10:56:49 AM EDT
To: DFA
Subject: Call 1418133: Fwd: PHI 340 Quiz Feedback
You are correct. There is not a way to see precisely what the student sees. You can create a secondary account (<http://moodle.wolfware.ncsu.edu/> / Create new account) and then enroll that as a student in your course, if you like.

➤ *In some supported browsers, email cannot be sent only to selected students under the Participants menu, contrary to what configuration and documentation indicate.*

From: DFA
Date: September 20, 2010 4:29:40 PM EDT
To: Learntech
Subject: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
How does one bring it about that emails are sent to all selected participants, as promised in the heading? See attached.[The attachment Message course users.pdf is omitted here][The attachment Message course users2.pdf is omitted here]

From: Learntech
Date: September 21, 2010 8:59:38 AM EDT
To: DFA
Subject: Call 1425333: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
Once you compose your message, there will be a preview button at the bottom of the page. If the preview looks good, then there will be a send button on the bottom of the page. Let me know if you have any other questions.

From: DFA
Date: September 21, 2010 10:06:01 AM EDT
To: Learntech
Subject: Re: Call 1425333: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
On Sep 21, 2010, at 8:59 AM, Learntech wrote:
[Once you compose your message, there will be a preview button at the bottom of the page. If the preview looks good, then there will be a send button on the bottom of the page.](#)
One of the attachments sent with my message shows the page that comes up after I click on the Preview button. There's no send button at the bottom of the page.[The attachment Message course users2.pdf is omitted here]
[Let me know if you have any other questions.](#)

From: Learntech
Date: September 21, 2010 10:09:20 AM EDT
To: DFA
Subject: Call 1425333: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
Whoops, pardon me. It's possible that Moodle loaded a bad page that one time. Have you tried going back in, selecting your folks, and using the add/send message? If you get the same result, please let me know what internet browser you're using.

From: DFA
Date: September 21, 2010 10:37:24 AM EDT
To: Learntech
Subject: Re: Call 1425333: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
On Sep 21, 2010, at 10:09 AM, Learntech wrote:

Whoops, pardon me. It's possible that Moodle loaded a bad page that one time. Have you tried going back in, selecting your folks, and using the add/send message? If you get the same result, please let me know what internet browser you're using.

I tried four times.

Firefox 3.6.10
Model Name: iMac
Model Identifier: iMac11,1
Processor Name: Intel Core i7
Processor Speed: 2.8 GHz
Number Of Processors: 1
Total Number Of Cores: 4
L2 Cache (per core): 256 KB
L3 Cache: 8 MB
Memory: 8 GB
Processor Interconnect Speed: 4.8 GT/s
Boot ROM Version: IM111.0034.B02
SMC Version (system): 1.54f36
System Version: Mac OS X 10.6.4 (10F569)
Kernel Version: Darwin 10.4.0

The Send button is visible in Safari Version 5.0.2 (6533.18.5). Formatting options for the message are also visible in Safari that do not appear in Firefox. But the html formatting facility appears in Firefox and not in Safari.

From: Learntech
Date: September 21, 2010 2:27:38 PM EDT
To: DFA
Subject: Call 1425333: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
One more question for you...did you by any chance click Remove next to any of the student names after you hit the add/send message? The stage I'm referring to is the Message course users.pdf document you sent us. Thanks for your time,

From: DFA
Date: September 21, 2010 4:09:26 PM EDT
To: Learntech
Subject: Re: Call 1425333: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
On Sep 21, 2010, at 2:27 PM, Learntech wrote:

One more question for you...did you by any chance click Remove next to any of the student names after you hit the add/send message? The stage I'm referring to is the Message course users.pdf document you sent us. Thanks for your time,

On the third or fourth try I clicked on Remove for one student. But the problem occurred with the first and second tries as well.

From: Learntech
Date: September 22, 2010 9:17:36 AM EDT
To: DFA
Subject: Call 1425333: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
Great, thanks for letting me know. One thing to check is to make sure you have cookies enabled. We're wondering if them being disabled is preventing Moodle from saving the participants you select. You can check to see if your browser cookies are on by following these steps:
1. Open Firefox, and go to the "Firefox" menu on the far left.
2. Choose "Preferences," and then go to the Privacy tab.
3. Make sure that either "Remember history" is selected in the drop-down, OR if

"Use custom settings" is selected, make sure that "Accept cookies from sites" and "Accept cookies from third-party sites" are both selected.
If that's already set, head to the "Content" tab, and make sure that both "Enable Java" and "Enable Javascript" are also checked, just to make sure.

From: DFA
Date: September 22, 2010 9:25:54 AM EDT
To: Learntech
Subject: Re: Call 1425333: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
On Sep 22, 2010, at 9:17 AM, Learntech wrote:

Great, thanks for letting me know. One thing to check is to make sure you have cookies enabled. We're wondering if them being disabled is preventing Moodle from saving the participants you select. You can check to see if your browser cookies are on by following these steps:
1. Open Firefox, and go to the "Firefox" menu on the far left.
2. Choose "Preferences," and then go to the Privacy tab.
3. Make sure that either "Remember history" is selected in the drop-down,

Yes as always.

OR if
"Use custom settings" is selected, make sure that "Accept cookies from sites" and "Accept cookies from third-party sites" are both selected.
If that's already set, head to the "Content" tab, and make sure that both "Enable Java"

There's no such option there.

and "Enable Javascript" are also checked, just to make sure.

Yes as always.

From: Learntech
Date: September 23, 2010 1:27:49 PM EDT
To: DFA
Subject: Call 1425333: Moodle PHI 340-001,601 Fall 2010 "... emails will be sent instead"
After several rounds of testing with every setup we can replicate, we haven't been able to recreate the problem on our systems here. Has this been happening on your home computer or office computer? If it's been happening here on campus, we'd like to set up a time to meet with you and see if we can get to the bottom of this at last.

There are many problems with the Grade book⁷

➤ *Locking and then unlocking a grade can (under unspecified circumstances) cause a grade to display incorrectly for all students.*

From: DFA
Date: September 7, 2010 2:39:17 PM EDT
To: Learntech
Subject: PHI 340-001, 601 F2010 Moodle Quiz Scores Display/Grading unsubmitted quizzes

⁷ See also, e.g., <http://lisahistory.net/wordpress/?p=117> "... at the same time I am grading exams in Moodle 1.9 and am engaged in a fight to the death with the ... Gradebook. To understand this sucker seems to require an advanced degree in mathematics, and prior intensive participation in its development. ... I have always encouraged Moodle as being great for novices, and all novices start with the same three features (announcements, forums, and gradebook). Such complexity in the name of creating a more "robust" gradebook is unforgivable, and has undermined my encouragement to others to use Moodle. To use a dinner-time analogy, a big hunk of meat on the table is impressive, but it is not much use if you can't cut it with the knife you have. My carving knife broke using this new gradebook, and now I'm looking for a hatchet." This comment remains apt for later versions of the Grade book.

(1) One of the four-choice multiple choice questions on the Sep 3 Handbook Quiz was defective because of a typo and I want to give full credit for all four choices. The defective question is titled, "Advice on taking tests F10."

The quiz had 15 questions each worth 10 points for a total of 150 points. I want the raw score and not the percentage reported to students.

I altered the defective question so that "One answer only" is selected for the menu item "One or multiple choices?", the default question grade is 40 and each of the four choices received 100% credit. This results in a score of 10 irrespective of choice.

The total quiz score displayed when a student accesses the scored quiz with feedback is the correct score.

The total quiz score displayed when a student accesses the Grades item is seven points lower than the correct score. It seems that the student receives 3 rather than 10 points for the defective question.

I must bring it about that the same correct score is displayed in both of these two locations.

How can I bring this about?

Would it work to zero out the score for the question and then add 10 points to every quiz score? (I'd rather not do this since understandably it will result in many questions from students who think that they are not receiving due credit, and there are about 385 students enrolled.)

(2) Some students who took the quiz saved answers and then neglected to submit them for scoring.

How do I manually grade these quizzes?

I seem to recall seeing a discussion of this but now cannot find the discussion.

Perhaps most important, where is there documentation that would have allowed me to discover the answer to these questions myself? (I looked and did not find it. Some of the documentation that I did find tells me to use menu items that I do not see anywhere on the pages to which the documentation directs me.)

Thank you.

From: Learntech

Date: September 7, 2010 4:57:26 PM EDT

To: DFA

Subject: Call 1419978: PHI 340-001, 601 F2010 Moodle Quiz Scores Display/Grading unsubmitted quizzes

The quiz scores being off appears to be a bug. Let me check with Greg and see how we can get the grade book to properly update to match the max grade listed at the quiz itself. The two should never get out of sync. Just to double-check, after you made the change to the question, did you click the "Regrade" link in blue near the top of the quiz options? If so, please let me know.

To manually grade the unsubmitted quizzes, click on the attempt to view the saved answers. Below each answer will be a link for "Make comment or override grade" where you can enter individual grades for each answer. Alternatively, if it's easier for you, you can override the grade directly from the Grade book (using "Turn Editing On") rather than having to grade each question separately. We're working on a "force submission" feature to solve the problem in the future.

From: Learntech

Date: September 15, 2010 3:21:59 PM EDT

To: DFA

Subject: Call 1419978: PHI 340-001, 601 F2010 Moodle Quiz Scores Display/Grading unsubmitted quizzes

I wish I could take credit for the maintenance window fixing the problem, but I think that's unlikely. It sounds like the grade had been locked then unlocked. I've seen that happen once before in an unexpected way when a certain action was done in the quiz itself. I can't remember all of the details about the conditions that caused it though.

As for the unsubmitted quizzes, if you give us the students' names we can force the submission through. If there are several we can just go look at the quizzes in question and find them as well.

➤ *Grade display inconsistency: students get unearned points*

From: DFA

Date: November 12, 2010 7:42:43 PM EST

To: Learntech

Subject: PHI 340-001,601 F10 Grade display inconsistency

AB, a current PHI 340-001 student, brought my attention today to an inconsistency in the display of her microQuiz Twelve score. She showed me the screens that she sees while logged into the course Moodle web site.

When she views the Quizzes page, it contains a blank space where the score for microQuiz Twelve would be.

When she views the Grades page, it shows that she received full credit (1 point) for microQuiz Twelve. When I checked the Results page for microQuiz Twelve, it showed her microQuiz Twelve as still open and unsubmitted.

I randomly selected two other students whose microQuiz Twelve's were also shown as open on the Results page: CD and EF.

CD's Grades page shows him as having received full credit (1 point) for microQuiz Twelve.

EF's page shows her as having received no credit for microQuiz Twelve.

Moodle logs for AB, CD and EF show no submission of answers - no "quiz close attempt" for microQuiz Twelve.

Are the logs inaccurate? The Results? The Grades?

For all I know, similar discrepancies are affecting many other quizzes and grades for many other students as I stopped checking with those three students.

[In Fall 2010 PHI 340, there were over 9200 scores to be recorded and tracked.]

[The attachment MoodleGradeDisplayError.pdf is omitted here]

From: Learntech

Date: November 15, 2010 8:36:00 AM EST

To: DFA

Subject: Call 1446141: PHI 340-001,601 F10 Grade display inconsistency

Both CD's and AB's grades are listed as "overridden" in the grade book. From the grade book view, they should show as highlighted with an orange background. What that means is that a grade was entered into the grade book directly, rather than being generated by the quiz automatically.

Given that submission is still open, the quiz itself does not have a grade listed for them. Are you the only grader for the course? If so, and you did not manually enter a grade for either of them via the grade book, please let me know.

From: DFA

Date: November 15, 2010 9:01:11 AM EST

To: HELP@ncsu.edu

Subject: Re: Call 1446141: PHI 340-001,601 F10 Grade display inconsistency

On Nov 15, 2010, at 8:36 AM, Learntech wrote:

Both CD and AB's grades are listed as "overridden" in the grade book.

Where is that status shown?

From the grade book view, they should show as highlighted with an orange background. What that means is that a grade was entered into the grade book directly, rather than being generated by the quiz automatically.

Given that submission is still open, the quiz itself does not have a grade listed for them. Are you the only grader for the course? If so, and you did not manually enter a grade for either of them via the grade book, please let me know.

I am the only grader for the course.

I did not override either CD's or AB's scores for microQuiz [Twelve]. They both show as blank ("-") in the grade book. They do not show with a highlighted orange background (whether or not editing is turned on).

(There are other grades that I have overridden for other quizzes and they do show with a highlighted orange background.)

From: Learntech

Date: November 15, 2010 11:49:46 AM EST

To: DFA

Subject: Call 1446141: PHI 340-001,601 F10 Grade display inconsistency

I wonder if what Firefox needs a new database request. In essence, if you uncheck the "Overridden" box and save your changes, Firefox should load an entirely new cell with the updated grade (which will then be unhighlighted and show whatever the Quiz has listed as the grade, if any). You can then set it back to 1 by using "Turn editing on" in the grade book, which should highlight the cell.

If you find that still fails to highlight the cell, please let me know, I can dig deeper to find out what else would cause a browser to ignore the changes.

From: DFA

Date: November 15, 2010 2:21:02 PM EST

To: HELP@ncsu.edu

Subject: Re: Call 1446141: PHI 340-001,601 F10 Grade display inconsistency

I checked using Safari.

Around 1 PM, AB's microQuiz Twelve showed as having its answer saved but unsubmitted, as before. In the grade book, the score for microQuiz Twelve is 1 and it was NOT highlighted. (I did not re-check CD's grade book display around 1 PM.)

At the moment (2:12 PM), Safari shows the score for microQuiz Twelve for both AB and CD is 1 and it IS highlighted.

And now (2:18 PM) Firefox shows the score for microQuiz Twelve for both AB and CD is 1 and it IS highlighted. Firefox also shows microQuiz Twelve's saved answer as unsubmitted for both.

On Nov 15, 2010, at 11:49 AM, Learntech wrote:

I wonder if what Firefox needs a new database request. In essence, if you uncheck the "Overridden" box and save your changes, Firefox should load an entirely new cell with the updated grade (which will then be unhighlighted and show whatever the Quiz has listed as the grade, if any). You can then set it back to 1 by using "Turn editing on" in the grade book, which should highlight the cell.

If you find that still fails to highlight the cell, please let me know, I can dig deeper to find out what else would cause a browser to ignore the changes.

From: Learntech

Date: November 15, 2010 2:26:37 PM EST

To: DFA

Subject: Call 1446141: PHI 340-001,601 F10 Grade display inconsistency

The troubling part is where AB's grade showed as 1 but was not highlighted, as it's the one combination that can't be explained by Moodle's default coding. If you'd be willing to, would you mind editing the grade for AB and unchecking the "Overridden" setting, and then saving your changes? I'd like to ensure that Moodle still puts a "-" in place for the unsubmitted quiz. If it instead shows an un-highlighted "1," please let me know.

From: DFA

Date: November 15, 2010 2:41:54 PM EST

To: HELP@ncsu.edu

Subject: Re: Call 1446141: PHI 340-001,601 F10 Grade display inconsistency

Now, if I change the score and then uncheck Overridden, the field in the grade book is blank. If I change the score and leave Overridden checked, then the score displays as entered and highlighted.

On Nov 15, 2010, at 2:26 PM, Learntech wrote:

The troubling part is where AB's grade showed as 1 but was not highlighted, as it's the one combination that can't be explained by Moodle's default coding. If you'd be willing to, would you mind editing the grade for AB and unchecking the "Overridden" setting, and then saving your changes? I'd like to ensure that Moodle still puts a "-" in place for the unsubmitted quiz. If it instead shows an un-highlighted "1," please let me know.

From: Learntech

Date: November 15, 2010 2:58:32 PM EST

To: DFA

Subject: Call 1446141: PHI 340-001,601 F10 Grade display inconsistency

I'm glad at least it's functioning properly now. I've been doing some research with our Moodle partners on what might've caused the momentary glitch (where the grade showed as 1 but was not highlighted), but I haven't gotten any worthwhile responses yet. If I learn of anything that might explain it, I'll send you the details so that we can hopefully avoid the same thing happening in the future.

At current, is there anything about the grade for microQuiz twelve that's still not behaving as desired? If so, just let me know.

[November 15, 2010 3:57:15 PM EST **GHM remarks to DFA:**

... [learntech] posted a query to a mailing list or forum and hasn't got any responses yet. ... apparently there is no point in consulting anyone else at NC State about it. Access to the open source code does not seem to play a role in this scenario.

And once again the approach is to try to find out something that will (through user contortions) "avoid" the problem in the future. No hint of genuinely attempting to diagnose or fix the problem. ...]

➤ *Grades become invisible:*

From: DFA

Date: November 28, 2010 3:57:26 AM EST

To: Learntech

Subject: MOODLE PHI 340-001,601 F10 Grades not visible in student view

Two students have contacted me to say that they can see no grades on their Grade pages.

I cannot see any grades when on my Grade page when I change my role to Student.

I can see grades in the grade book.

What needs to be reset to fix this?

From: Learntech

Date: November 29, 2010 10:07:20 AM EST

To: DFA

Subject: Call 1450556: MOODLE PHI 340-001,601 F10 Grades not visible in student view

As for the students reporting trouble seeing grades, I believe I know what they're referring to: the "Course Total" grade is hidden currently, because some of the grades which could potentially factor into it are hidden.

If you would like students to see the Course Total:

1. In the grade book, go to the "Choose an action..." menu.
2. Scroll down near the bottom of the list and select "Course" under the Settings heading.
3. Change the very last option in the list from "Default (Hide)" to "Show."
4. Click "Save changes."

The Course Total will then be immediately available for your students. To see what they see, return to the Choose an action menu, and select the "User Report." You can view a particular student's grades via the drop-down menu on the right. The User Report will show you the grades as the students see them. Any grade listed in grey is currently hidden.

If your students reported difficulty seeing something other than the Course Total, please let me know which students reported trouble so that we can take a closer look and ensure there isn't some larger visibility issue at play.

Date: November 29, 2010 3:18:18 PM EST

To: HELP@ncsu.edu

Subject: Re: Call 1450556: MOODLE PHI 340-001,601 F10 Grades not visible in student view

I recalled the FAQ after I sent the report.

http://delta.ncsu.edu/get_help/faq/solution.php?solution=3695

I don't recall changing the Course Total from hidden to unhidden, but my recollection may be faulty, so I think that your account may be a correct account of the cause.

[It's good that it's covered in a DELTA FAQ. It's not good that Moodle is designed in this way.]

➤ *Grade book shows incorrect scores:*

From: DFA
Date: November 27, 2010 9:49:29 AM EST
To: Learntech
Subject: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results
For PHI 340-001,601 F10 Moodle: Exam #2, the scores are displayed correctly in Results but many, though not all, were displayed incorrectly in the Grade book.
Over 250 scores - about 80% - were affected; see the attached. If there is a pattern in the discrepancies, I have not been able to find it.
I have corrected the incorrect scores myself. This took quite a while. (I would suggest adding a column to Results for ID#'s.)
Why did the discrepancy occur?
What will be done to prevent a recurrence?
As the end of the semester approaches, what will be done to publicize the bugs and "features" in Moodle that affect scores so that students get the grades to which they are entitled?
Thank you.[The attachment PHI340Exam#2ScoreDiscrepancies.pdf is omitted here]

From: Learntech
Date: November 29, 2010 9:59:50 AM EST
To: DFA
Subject: Call 1450505: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results
After looking at the described discrepancy, this definitely looks like an error with Moodle's rounding. The inconsistency suggests an unintentional bug, as nothing in the quiz or the grade item settings limit the displayed decimals. Unfortunately, since this is the first quiz we've seen that has a final grade with a non-whole number, I can't yet say if this is universal. We're setting up a large-scale test now to examine exactly that possibility.
Just to double-check, when you first noticed the inconsistency, was the grade listed in the grade book displaying with ".00" on the end of the grade, as in 102.00? Or was the grade listed simply "102" at the time? Since none of the possible decimals are .5 or greater, the integer won't have changed, which means this could be triggered either by a rounding error or a simple display issue. The inconsistency still suggests a larger bug, but it will help us greatly to know where to look to get it fixed.
As for preventing it, I may be able to answer that before we have a permanent code fix in place. In this particular case, it looks like the decimal place was intended as an indicator to how students answered the last question, a means of sorting them by the amount of help received, is that correct? If so, there may be a simpler way to do it:
If we instead create a multiple-choice question with "One answer only" selected, and then set the "Grade" for each answer to 100%, students are guaranteed to get one point regardless of what they answer. You can then use the "Item Analysis" under the Results tab to gauge which students and how many answered which option.
If that does not address the need you were hoping for, please let me know, I'd be happy to look for an alternative solution as we work on fixing the larger problem in Moodle's code.
As to publicizing our list of issues, our LMS Liaison ... is working on polishing up our list of known issues and feature requests to be made public so that all faculty and staff can see the complete list of bugs and reported issues. Unfortunately, I don't have a precise ETA on when that will go online, but I do know that it's at the top of [our LMS Liaison's] list of priorities.
If you have any other questions in the meantime, please let us know. I'll be responding to the other two issues you had reported over the weekend shortly.

From: DFA
Date: November 29, 2010 3:08:07 PM EST
To: HELP@ncsu.edu
Subject: Re: Call 1450505: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and

Results

On Nov 29, 2010, at 9:59 AM, Learntech wrote:

After looking at the described discrepancy, this definitely looks like an error with Moodle's rounding. The inconsistency suggests an unintentional bug, as nothing in the quiz or the grade item settings limit the displayed decimals. Unfortunately, since this is the first quiz we've seen that has a final grade with a non-whole number, I can't yet say if this is universal. We're setting up a large-scale test now to examine exactly that possibility.

Just to double-check, when you first noticed the inconsistency, was the grade listed in the grade book displaying with ".00" on the end of the grade, as in 102.00?

Yes. See the attached txt file. I've not changed that setting though I overwrote the old scores with my corrective upload.

[The attachment PHI_340_Philosophy_of_Science_Grades copy.txt is omitted here]

Or was the grade listed simply "102" at the time? Since none of the possible decimals are .5 or greater, the integer won't have changed, which means this could be trigger either by a rounding error or a simple display issue. The inconsistency still suggests a larger bug, but it will help us greatly to know where to look to get it fixed.

As for preventing it, I may be able to answer that before we have a permanent code fix in place. In this particular case, it looks like the decimal place was intended as an indicator to how students answered the last question, a means of sorting them by the amount of help received, is that correct? If so, there may be a simpler way to do it:

If we instead create a multiple-choice question with "One answer only" selected, and then set the "Grade" for each answer to 100%, students are guaranteed to get one point regardless of what they answer. You can then use the "Item Analysis" under the Results tab to gauge which students and how many answered which option.

Thanks - I'll do that.

[December 2, 2010 6:39:52 PM EST, **GHM remarks to DFA**: One thing to think about here (and someone should be thinking about it) is that the sorts of errors now permitted in (or by) the gradebook result in some legal exposure for the university. If a student should learn about the gradebook problems (and it is not difficult to imagine a good computer science student doing so), this certainly could provide the basis for requests to change grades (indefinitely into the future) or for legal action of some sort ("These errors, of which I was not made aware by NCSU, resulted in my not being accepted by the graduate schools (medical school, law school) of my choice.", etc.). In industry (and in this case education is an industry), such applications as the gradebook would be required to be "validated" in order to ensure the absence of such error. I suppose it is far-fetched to really imagine a suit being brought, but if it were, then demonstrating the complete failure of any validation process (in conjunction with continued knowledge of fundamental, and at times unpredictable, errors) would be a slam dunk.]

➤ *Grade book shows incorrect scores: scores are capped 62.5% below the actual maximum*

From: Learntech

Date: November 29, 2010 10:03:14 AM EST

To: DFA

Subject: Call 1450557: MOODLE PHI 340-001,601 F10 Uploaded scores incorrect in grade book
Regarding the scores capping out at 100, given the Max Grade listed, there's no reason I can see why they would be capping out. Do you recall if the Max Grade had been set to 160.54 before or after the upload? If before, would you be willing to forward us a copy of the grade book file you uploaded? I'd like to see if there's anything in the file itself that might help us explain why the grades did not upload correctly.

➤ *Grades for course not computable in Grade book and the Moodle Grade Submit tool does not allow an efficient workaround "given Moodle's innate design":*

From: DFA
Date: November 30, 2010 1:10:44 PM EST
To: Learntech
Subject: Moodle Final Grade Submission
I'll have 344 course grades to submit - about the usual for me (no TAs).
I've checked the DELTA FAQs, Teaching with Moodle, the Registration and Records SIS Tutorials & Training page and looked at the updated MyPack but haven't find any analogue of the Vista Grade Submit tool.
Where can I find it?
Thanks.

From: Learntech
Date: November 30, 2010 1:18:34 PM EST
To: DFA
Subject: Call 1451551: Moodle Final Grade Submission
Hi David,
Just to better diagnose your problem, I'm going to ask you a few questions.
Have you submitted any grades with vista before this? Do you have a grade form set up in your Vista course? How have you been going about submitting grades in the past?
Thanks,

From: DFA
Date: November 30, 2010 1:52:20 PM EST
To: HELP@ncsu.edu
Subject: Re: Call 1451551: Moodle Final Grade Submission
On Nov 30, 2010, at 1:18 PM, Learntech wrote:

[Just to better diagnose your problem, I'm going to ask you a few questions.](#)
[Have you submitted any grades with vista before this?](#)

Yes. I used the Vista Grade Submit tool as soon as it became available and used it for as long as it was available to me.

[Do you have a grade form set up in your Vista course?](#)

I'm not using Vista this semester.

I'm using Moodle.

That's why I asked a question about Moodle.

[How have you been going about submitting grades in the past?](#)

By using the Vista Grade Submit tool, since I was using Vista.

[Thanks,](#)

You're welcome.

From: Learntech
Date: November 30, 2010 3:34:08 PM EST
To: DFA
Subject: Call 1451551: Moodle Final Grade Submission

I talked to my supervisor about the equivalent of the Vista grading tool for Moodle. By the beginning of next week there should be a tool available for Moodle. If your grades need to be turned in before then we can work with you on exporting your files to My Pack to get them to registration and records.

From: Learntech
Date: November 30, 2010 3:42:00 PM EST
To: DFA
Subject: Call 1451551: Moodle Final Grade Submission
To follow up ..., our developers just put the finishing touches on the Grade Submit feature for Moodle. The plan is to link it from the main WolfWare page:<http://wolfware.ncsu.edu/>
If you click on "For Instructors," and select "WolfWare Toolbox," you should see a link for "Grade Submit" on the right.
The original estimate was to have it done this coming weekend, but I've been informed that it passed

code review late last week and is now available early. If grade submission is open from the Registration & Records office, you should now be able to submit grades.

If you have any trouble using the tool, please let us know, we'd be happy to walk you through it step-by-step while we work to finish our help documentation for it.

From: DFA

Date: November 30, 2010 6:26:58 PM EST

To: HELP@ncsu.edu

Subject: Re: Call 1451551: Moodle Final Grade Submission

Thank you for your quick response.

I won't need to submit my grades until Dec 13 at the earliest.

I'll pass the information on to my colleagues.

On Nov 30, 2010, at 3:34 PM, Learntech wrote:

I talked to my supervisor about the equivalent of the Vista grading tool for Moodle. By the beginning of next week there should be a tool available for Moodle. If your grades need to be turned in before then we can work with you on exporting your files to My Pack to get them to registration and records.

From: DFA

Date: December 13, 2010 2:24:18 PM EST

To: Learntech

Subject: Re: Call 1451551: Moodle Final Grade Submission

I will be submitting grades for PHI 340-001 in less than 12 hours and grades for PHI 340-601 around 1:00 AM 12/16.

When I checked the Moodle Grade Submit page at wolfware, I found it populated by incorrect scores and grades.

The scores come from the Course Total which I don't want to use. I don't know where the displayed grades come from or why a ratio that I tell students repeatedly and emphatically never to pay any attention to is displayed. (I trust that the ratio will not be seen by students or by anyone else.) The grades are not from the curve that I use. (I could not get Moodle to implement the grade boundaries that I use:

Lowest score for letter grade Letter Grade

0.00 F

59.33 D-

65.33 D

70.33 D+

74.33 C-

79.33 C

83.33 C+

88.33 B-

96.33 B

104.33 B+

114.33 A-

124.33 A

149.33 A+

and deleted any Custom scales that I created in the process of testing the Grade book.)

I need to be able to upload letter grades that I compute reliably, off-line, using $=0.06*HQ+0.28*(E1+E2+E3+microSum-MIN(E1, E2, E3)+OF)+0.1*DQ+(II1/2)*(II1+II2)$ with a maximum possible score of 160.82.

I have been unable to find the relevant Help files despite looking at all DELTA FAQs and searching ncsu.edu with its internal search facility and with Google.

On Nov 30, 2010, at 3:42 PM, Learntech wrote:

To follow up on what [the other Learntech respondent] was saying, our developers just put the finishing touches on the Grade Submit feature for Moodle. The plan is to link it from the main WolfWare page:<http://wolfware.ncsu.edu/>

If you click on "For Instructors," and select "WolfWare Toolbox," you should see a link for "Grade Submit" on the right.

The original estimate was to have it done this coming weekend, but I've been informed that it passed code review late last week and is now available early. If grade submission is open from the Registration & Records office, you should now be able to submit grades.

If you have any trouble using the tool, please let us know, we'd be happy to walk you through it step-by-step while we work to finish our help documentation for it.

➤ *Grade book will not display uploaded scores and grades correctly:*

From: DFA

Date: December 4, 2010 3:21:13 PM EST

To: Learntech

Subject: MOODLE PHI 340-001,601 F10 More uploaded scores incorrect in grade book

After several hours of preparation, I attempted (12/4, about 2:25 PM) to upload some scores and other information using the attached PreOFCourseScores.csv. The very same problem as described below (Call 1450557, initiated Nov 29) occurred with new column CourseScorePreOF (see attached .txt file): scores are incorrectly topped at 100 despite a maximum set at 160.54, and no uploaded score over 150. In the other new columns:

CourseGrade PreOF - contains letter grades

Could OF_0 Help? - contains Yes or No

Could OF>95 Help? - contains Yes or No

zeroes appear where the indicated text should appear. Selecting None or Text for the column (in Simple View or Full View) blanks out the columns, as I've learned to expect.

I tried a second upload of PreOFCourseScores.csv and got an error message:

t0 is 154325

grade is B+

Supplied Grade is invalid

(see attached .pdf)

Since for no known reason, scores referenced in Call 1450557 displayed correctly after the 4th attempt, I will keep trying.

Thanks.

[I told my 343 anxious students that this information, which help them sensibly to plan the end of their semesters, would be available by tomorrow. ... At any rate, I'll include this latest issue in my report to my department head and others about Moodling through this semester.]

[The attachment SUPPLIEDGRADEISINVALID120410-1432.pdf is omitted here]

[The attachment PHI340Grades110410-1427.txt is omitted here]

[The attachment PreOFCourseScores.csv is omitted here]

On Nov 30, 2010, at 3:33 PM, Learntech wrote about Call 1450557:

I've added that to our list of bugs to research. I haven't seen it present itself in any of the repeated tests this afternoon (I was worried it might be tied to the error Excel gave for having "ID" as the first two letters in the file). So far, I haven't been able to track down any similar reports, so I'll be posting to the Moodle community site as well to see if anyone else may know what could have caused the glitch.

I'm glad that the grades have at least updated to the correct values this last time around. I'm going to continue testing with a few different scenarios in Moodle to see if it was somehow tied to database caching or a similar "black hole" of the system that would suddenly disappear like that.

If I'm able to find anything the points to a set cause, we'll get the code or database setting corrected as soon as possible.

From: DFA

Date: December 6, 2010 4:01:32 AM EST

To: Learntech

Subject: MOODLE PHI 340-001,601 F10 More uploaded scores incorrect in grade book Part 2

After about six hours of looking at documentation, forum discussions and bug reports at moodle.org, I gave up and began trying various combinations of menu choices under Categories and Items Grade Type, Scale (where seemingly appropriate), Grade Display Type for the columns CourseScorePreOF, CourseGradePreOF, Could OF=150 Help?, Could OF>95 Help?. There are hundreds of possible combinations and I did not try them all.

About an hour of such effort yielded success. Why the particular selections worked, I have little or no idea. Indeed, I can't be confident that what I did was the cause of the observed outcome.

One possibly non-visible change that may not have mattered - I've not tested to find out - is that I changed the items in CourseScorePreOF, which had been lopped off at 100, from General to Text in Excel before uploaded the .csv file.

[December 6, 2010 7:12:05 AM EST , **GHM remarks to DFA and dept. head:** (I include the dept. head just in case at this point he has any doubt how much time is being devoted to this. If there were any way to cross-charge DELTA or OIT for this time ...)

An heroic effort to be sure. But you must also realize that the skills you are developing are highly valued in industry -- where people actually test the software they produce. Since you are now devoting a substantial portion of your time to testing, and presumably less to teaching,⁸ perhaps I could put you in contact with some people at SAS who would be interested in offering you a paid position to continue such work.

"There are hundreds of possible combinations and I did not try them all." Yes, and this is one of the most difficult aspects of testing an application of any complexity. But do you think that ANYONE has made any attempt to test them? How many combinations do you suppose HAVE been tested? How many are regression-tested with each release or bug fix?

And finally ... despite your efforts, do you suppose they are recording these results somewhere in, say, a tracking and bug-fix system? (... they don't actually have one. But they're working on it.)

However, keep in mind that overall feedback has been positive. This can only be, again, because their selected pilot group (and most instructors) have not used the features of Moodle (the Learning Management System features) for which it was specifically adopted. ...]

[December 6, 2010 9:02:03 AM EST **GHM remarks to DFA:** If you're doing this on a Mac, there may be an issue about end-of-line terminators if Moodle is expecting Windows/MS-DOS conventions ("\r\n") in this regard. If the Mac is using the UNIX convention (newline only: '\n') and Moodle is not recognizing these as EOL markers, then there would be odd results. But that's only speculation.

I gather at this point what you're looking at is a workaround to fix a workaround. So how many man-hours have been devoted to diagnosing and fixing this one problem that arose from a feature that should be completely bullet-proof in an LMS? Try to cost it out: the sum of your time multiplied by your hourly rate (which you can figure out based on salary and a 40-hr week) plus the similar (estimated) aggregate time of the Learntech people who have participated (low-balled at \$25/hr -- based on \$50K annual salary over 50 wks. of ... work). That's what this ONE problem has cost -- with no solution yet.]

From: Learntech

Date: December 6, 2010 8:52:15 AM EST

To: DFA

Subject: Call 1453915: MOODLE PHI 340-001,601 F10 More uploaded scores incorrect in grade book Part 2

I'm sorry to hear you were having the same trouble. Given what your testing yielded, and the Excel error we saw last time, I'm starting to wonder if it might be something within the formatting of the file that's been leading to this strange issue. I still have the original file to compare to, I'll begin scouring the base code behind it and see if we can find out what's at the cause of the grade-capping issue.

Once I know more, I'll email you back with the details. If you run into any further trouble with it in the meantime, please let us know.

⁸ -no less time to teaching; instead less time to sleeping and other restorative activities

From: Learntech

Date: December 9, 2010 11:25:22 AM EST

To: DFA

Subject: Call 1453783: MOODLE PHI 340-001,601 F10 More uploaded scores incorrect in grade book
Unfortunately I haven't been able to replicate the capping error you started seeing again. I tested with three separate sites, different column types under different aggregations and can't get it to fail on Import. Oddly enough, I was also able to upload the "CourseGradPreOF" column (containing letter grades) to a column using the same Letters scale.

I'm sorry that we still haven't been able to pinpoint why this has been failing for you. If you're still seeing the same issue today, let me know, I'd be happy to try the import myself in your course with the same grades and see if there's any difference.

[December 4, 2010 3:40:42 PM EST, **GHM remarks to DFA**: ... there is, I fear, some possibility that in trying to fix some things they are breaking others. If they do not have a clear testing methodology where they run regression tests prior to releasing fixes (or if indeed they don't have regression tests or don't even know what these are), then -- especially in a system such as Moodle which I think we have to concede at this point suffers from terrible design -- the probability of introducing new bugs while fixing old ones is not inconsiderable. But of course, we have no way of knowing.

I am reminded of a summer job I had when I was an undergraduate (circa 1967/1968). It was in a metalworking factory in St. Louis and one of the contracts was to produce large 4'x4' grills for large air conditioning ducts. They were made (electrowelded wire on steel frame), shipped out, and back they came: some of the welds had broken. No problem. They had the welder hand-weld (with a torch) the broken welds. Out they went, and back they came. After a couple of cycles of this one of the foremen then observed that the welder's methodology was to stack a dozen or so of the grills flat on top of one another and then work his way down through the stack, welding the known breaks as he went, and then removing the top grill to get to the next. It became apparent that in welding one broken joint he was heating the one directly below it in the next grill and breaking that weld. I have at times used this as an illustration when I have taught a bit of software engineering.

From what I see on the Moodle site (moodle.org), I would have no confidence that the gradebook is anything other than a set of interlocking disasters of design and implementation.]

From: Learntech

Date: December 13, 2010 3:44:49 PM EST

To: DFA

Subject: Call 1451551: Moodle Final Grade Submission

Reply-To: HELP@ncsu.edu, DFA

Regrettably, given Moodle's innate design, the builders of the grade submit tool hadn't coded in how to select which column to draw grades from. I've added it our list to be coded, but since it likely won't be finished before grades are due, I'd be happy to work with you to get Course total to display the proper final grade for your students so that it can be submitted.

If you'd be interested, just let me know, I can take a look at the grade book as it is and engineer a way to get the Course total to display the accurate final grade.

[December 15, 2010 6:45:51 PM EST **GHM remarks to DFA**: On Wed, 2010-12-15 at 17:52 -0500, David F Austin wrote:

I was struck by the fact that Learntech had to find out from the developers if the Moodle Grade Submit tool would work with custom scales. Apparently even the internal documentation - the nonexistent Help files referred to in one of the messages to me - if any didn't allow Learntech to discover that. That's pretty bad. Even in my day, when we had to trek 50 miles through 12 foot high confetti drifts just to get to the keypunch machines, we knew what our own stuff could(n't) do.

The support model is a popular "open source" one. The scenario is that you adopt an open source application and then assign staff to "support" it. When a problem is reported, you access the open source communal support site to see if it has already been reported. In general, you believe that it will already have been reported. You then (this verges now on a matter of faith) retrieve the response that the "open source community" has made to this report, which will (more faith) include a "solution" (which

may in fact be a workaround pending fixes to the actual open source). If there is such a solution, you then apply it (testing it if you are so inclined, but after all, it has been recognized as a solution). If there is not such a solution, then you may take the additional step of posting your problem to various fora in the hope that some will respond to it with a "solution".

Now where in this does the actual "support" occur? Where is the determination and precise characterization of the problem? Where is the methodology leading to steps to a solution? And what happens if your appeal to the open source community and the fora does not result in a "solution"? Don't mistake me. I am supportive of the open source concept -- as far as it goes and it can be used effectively. I've developed some significant systems myself by using open source. I know the scope and limits. When it came time to turn those prototypes into real applications, open source was abandoned and money was spent on commercial tools, libraries, and applications. An alternative is to organize and fully support a genuine open source support department within your support organization. There is no middle ground. If you don't have the in-house capability of fixing significant problems yourself, then there will be circumstances in which they will not be fixed. If you are dealing with a poorly designed and implemented system (and Moodle is unquestionably one of those), you will be sliding down the slope from the beginning. And they have been.]

From: DFA

Date: December 14, 2010 3:57:24 AM EST

To: HELP@ncsu.edu

Subject: Re: Call 1451551: Moodle Final Grade Submission

On Dec 13, 2010, at 3:44 PM, Learntech wrote:

Regrettably, given Moodle's innate design, the builders of the grade submit tool hadn't coded in how to select which column to draw grades from.

??[!!!!]

I've added it our list to be coded, but since it likely won't be finished before grades are due, I'd be happy to work with you to get Course total to display the proper final grade for your students so that it can be submitted.

If you'd be interested, just let me know, I can take a look at the grade book as it is and engineer a way to get the Course total to display the accurate final grade.

Excellent!

The attached contains all of the section 001 Course Grades (and Course Scores). I have insured that the Course Scores are the same as the Course total in the Moodle Grade book for PHI 340-001,601 Fall 2010. The relevant grade scale is also included in the attached. Dashes ("-") indicate Section 601 Course Grades (and Course Scores) that have yet to be computed.

I will supply the section 601 Course Grades (and Course Scores) after those students complete their Optional Final 601 at 11:55 PM Dec 15.

I continue to get Script error messages and to experience longer and longer delays (>4 mins) with Grade book operations.

[The attachment Screen shot 2010-12-13 at 5.59.06 PM.png is omitted here]

[The attachment Screen shot 2010-12-14 at 3.46.25 AM.png is omitted here]

[The attachment Screen shot 2010-12-14 at 3.49.55 AM.png is omitted here]

[The attachment PHI340F10Sec001Grades1214100218.xlsx is omitted here]

From: Learntech

Date: December 15, 2010 9:53:31 AM EST

To: DFA

Subject: Call 1450505: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results
Great news! I just heard back from the designers behind Grade Submit, and the system will take a local letter scheme if one has been entered. All we have to do is tell Moodle where to put the thresholds for letter grades, and we're all set.

It looks like you may have found this once already, but you can edit the letter scale by going to the "Choose an action..." menu in the Moodle grade book, and then selecting "Edit" under the Letters heading.

All that remains is setting the percentages for where each letter grade begins. Given what you had listed in the file you sent previously, it looks like the thresholds are roughly as follows:

A+ 93%
A 77%
A- 71%
B+ 65%
B 60%
B- 55%
C+ 52%
C 49%
C- 46%
D+ 44%
D 41%
D- 37%

If that doesn't match with what you were looking for, just let me know, I'd be happy to look for another solution.

As for the script errors and delays, I forgot to ask last time: is your number of students per page limited at all, or is Moodle displaying the full list of students at once?

If it's the latter, there may be a way to fix both problems rather quickly:

1. Go to the "Choose an action..." menu again.
2. Scroll to the bottom of the list of options and click "Grader Report," under My Preferences.
3. The last option in the list should say "Students per page." Set that to 10 or 15, enough to fit on the monitor at once, and then click "Save changes."

Moodle will then paginate the grade book, making it easier to work in batches of students without having to reload the entire list every time you make a change. If you've already set that value and are still getting the script errors, just let me know.

From: DFA

Date: December 15, 2010 4:33:24 PM EST

To: Learntech

Subject: Re: Call 1450505: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results

On Dec 15, 2010, at 9:53 AM, Learntech wrote:

Great news! I just heard back from the designers behind Grade Submit, and the system will take a local letter scheme if one has been entered. All we have to do is tell Moodle where to put the thresholds for letter grades, and we're all set.

It looks like you may have found this once already,

Yes. See below.

but you can edit the letter scale by going to the "Choose an action..." menu in the Moodle grade book, and then selecting "Edit" under the Letters heading.

All that remains is setting the percentages for where each letter grade begins. Given what you had listed in the file you sent previously, it looks like the thresholds are roughly as follows:

A+ 93%
A 77%
A- 71%
B+ 65%
B 60%
B- 55%
C+ 52%
C 49%
C- 46%
D+ 44%
D 41%
D- 37%

If that doesn't match with what you were looking for, just let me know, I'd be happy to look for another solution.

"Roughly" is wholly unacceptable when the boundaries are that rough.

As I said in a previous message, setting grade boundaries was the problem and the reason I gave up on

Moodle for this purpose.

Setting boundaries roughly is setting them incorrectly; it gets some grades wrong.

For example, $59.25 < 59.33$.

59.25 is an F; 59.33 is D-.

$59.25/150 = 39.50\%$.

$59.33/150 = 39.55\%$.

Without being able to recognize a difference in the second decimal place, the Moodle scaling will get some grades wrong.

Students were told in writing on the first day of the semester and many, many times thereafter that the grades are determined as specified in my previous message. Students will sometimes complain, "But my score's only 0.08 points from an ...! Can't you give me the extra I need?" I then remind them that every well-ordered system must draw precise lines, that some will likely be on the lower side of a line and that it would be unfair to the other 300 or so students to give away unearned points. They don't like that but they do understand it.

Using another scale would thus be breach of contract, both illegal and immoral.

Even if it were possible manually to correct the affected grades after submission - thus defeating the main purpose of the Moodle Grade Submit tool - that would require a multi-step process that increases the likelihood of errors and is yet another workaround that costs users time, attention and energy and should be unnecessary.

[It looks to some users as if the developers had never heard of user-testing. (That of course is not the fault of those in user-support. So it also looks as if it's left to those in user-support to clean up after and take the heat for the developers' messes.) I hope that none of the developers is inclined to tell instructors that they should adapt their grading to what Moodle needs. That would be to stand the Good on its head, Moodle-wise.]

As for the script errors and delays, I forgot to ask last time: is your number of students per page limited at all, or is Moodle displaying the full list of students at once?

-the full list all at once. When I found it took a great deal of time to examine page after page after page for many purposes I upped the number per page.

Looks like either way I go, I'll spend time Waiting for the Grade book. Samuel Beckett would have been bemused at the surreality.

If it's the latter, there may be a way to fix both problems rather quickly:

1. Go to the "Choose an action..." menu again.
2. Scroll to the bottom of the list of options and click "Grader Report," under My Preferences.
3. The last option in the list should say "Students per page." Set that to 10 or 15, enough to fit on the monitor at once, and then click "Save changes."

10 or 15 per page would yield 23-34 pages for PHI 340. I'll revert to the previous 100 per page.

Moodle will then paginate the grade book, making it easier to work in batches of students -easier for some purposes, not easier for others.

Overall though responses to Moodle have reportedly been positive; or reportedly, overall though responses to Moodle have been positive.

"I can't go on. I'll go on." (Beckett, *Waiting for Godot*)

without having to reload the entire list every time you make a change. If you've already set that value and are still getting the script errors, just let me know.

[December 15, 2010 4:57:28 PM EST **GHM remarks to DFA**: ... it appears that you are now well beyond the point of outrageous behavior of Moodle and responses to it. And at this point you should no longer be involved (as a PROFESSOR responsible for a significant number of students) in thrashing this out (try this ... no, try this, ... no, wait, try this) with Moodle support. Someone at a higher level should be directly involved. Wasn't Moodle adopted in large part because it was claimed that use of it would avoid precisely this sort of situation?]

From: Learntech

Date: December 15, 2010 9:05:13 AM EST

To: DFA

Subject: Call 1451551: Moodle Final Grade Submission

I'm very sorry for the wait, I wanted to check with our designers to find out whether custom letter scales

would be properly read by the Grade Submit tool for submission. Once I hear back, we'll either have a very easy solution, or another feature request to add.
I apologize for the continued wait in the meantime.

From: DFA
Date: December 16, 2010 2:36:30 AM EST
To: Learntech
Subject: Re: Call 1450505: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results
These are the course grades for PHI 340-001 and PHI 340-601 Fall 2010.
Since it appears that the Moodle Grade Submit tool and Moodle itself make it infeasible to submit grades efficiently and accurately, I hope that someone can supply these 345 grades to the Registrar's Office by the deadline.
Dealing with Moodle has made the process of providing students with these grades more difficult and time-consuming for me than at any other time during the past ten years. This includes a period of time during which I used Wolfware Classic, Microsoft Excel, Microsoft Word and Microsoft Entourage mail merge to process quizzes and report grades to students and filled in bubble sheets to supply grades to the Registrar's Office. It also includes the infamous 2007 Vista "slowdown" during final exams.
I do not believe that any of this is the fault of any Learntech user support personnel who also appear trapped in the same system.
[The attachment PHI340F10FinalCourseGrades.xlsx is omitted here]

From: Learntech
Date: December 16, 2010 10:52:22 AM EST
To: DFA
Subject: Call 1450505: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results
I'm sorry that this has been such a frustrating process. I've forwarded your comments along to my director and our LMS liaison in case they can be of help with the guidance of Moodle changes in the future.
In the meantime, I will set up a system to submit the grades. I hope to have them posted this afternoon.

From: Learntech
Date: December 16, 2010 10:53:22 AM EST
To: DFA
Subject: Request Received: Vista section for PHI 340 001 FALL 2010
This message is to confirm that your request for PHI 340 001 FALL 2010 was received and is being processed.
Your new section will appear in Blackboard Vista by tomorrow, ...

[Yes, Vista was used to submit the grades that Moodle could not be trusted to submit.]

From: Learntech
Date: December 16, 2010 11:24:53 AM EST
To: DFA
Subject: Call 1450505: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results
The grades have now been submitted. It looks like the "IN" and "W" grades didn't match up with what Registration & Records had, so I'm afraid those may need to be entered manually through MyPack, which I don't have access to directly. If there's a large number of those to enter, let me know, I can talk with R&R to find out if there's an easier upload method.

From: DFA
Date: December 16, 2010 2:05:32 PM EST
To: HELP@ncsu.edu
Subject: Re: Call 1450505: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results
Thank you. Using Vista seems to have worked.
The IN had already been posted and the "W"s are supplied by R&R.

On Dec 16, 2010, at 11:24 AM, Learntech wrote:

The grades have now been submitted. It looks like the "IN" and "W" grades didn't match up with what Registration & Records had, so I'm afraid those may need to be entered manually through MyPack, which I don't have access to directly. If there's a large number of those to enter, let me know, I can talk with R&R to find out if there's an easier upload method.

[December 17, 2010 10:39:10 AM EST **GHM remarks to DFA:** Is this the kind of thing you've been running into?:

So one of my students turns in an excellent final project although he's been doing only moderately well in the other course assignments (B's and C's). I want to see what his grades are. I go to Grades->Grader Report to see all the students' grades. Of course this spreadsheet/table is useless and you can't configure it reasonably. ... for each student there's a little icon that has the title 'Grades for <student name>'. I click it. Sure enough, it lists his grades on all the assignments and quizzes. For the first quiz he has a zero.

I remember that he took the quiz and couldn't have a zero. So in that row of the "User report - <student name>" I click the link in the first column ("Quiz on the nature of ontology"). It takes me to yet another table display of all the students' grades for that quiz (this is under the "Quizzes" part of the site). It lists (for each student) the grade on each question on the quiz and also the quiz grade itself. His grade is 89.47 (which is not equivalent to zero, *even for very large values of zero*). I am befuddled. I cannot imagine why the quiz grade displays correctly under the quiz itself but displays as a zero in the student's list of grades. His other grades display correctly in both contexts (except that in the student's grades list a C appears to be worth only 45.45).

I'm sure that there is some bizarre explanation of this that may make (modulo the alien psychology and orientation of the Moodle developers) some degree of sense. My guess is that it has something to do with the various "parameters" that can be set for (a) mapping a grade to/from a range, and (b) displaying a grade. However, in looking at anything pertaining to the quiz that I can see, I cannot get the foggiest idea of what to change to make things come out "right" (and beyond that to have any confidence that other things will then be "right" as well). The broader point is that an average user shouldn't be confronted with something even remotely like this. I have some hope ... that someone understands the potential legal exposure this invites for the university.

I was planning on using the individual grade list for each student in calculating the final grades for the course (since we know that Moodle's automated gradebook mechanism seems capricious and senseless in so far as it yields any results at all). But clearly I cannot do this. In addition, I now feel that I need to double- and triple-check every grade I see. Luckily, I have only 13 students to deal with at this point {<4% of the number of students in PHI 340}.] (*italics added*)

From: DFA

Date: December 20, 2010 4:31:06 AM EST

To: [an administrator]

Subject: Re: Grade Submission for PHI 340

Thank you for your response.

On Dec 19, 2010, at 11:57 PM, [an administrator] wrote:

The help desk staff brought to my attention the challenges you are having in mapping your grading scale to the Moodle gradebook. My understanding from the staff is that the current implementation of the Moodle gradebook (and I believe this was also true of Vista) is unable to precisely match the number of decimal points used in your customized scale to the Moodle letter grade scale. The ability for Moodle to handle this type of customization is a limitation of its current functionality, and we apologize for the inconvenience this causes you in having to enter grades manually.

We will continue to work with the Moodle community on gradebook improvements, and as time/resources allow, investigate other gradebook possibilities. As this may remain an issue for a while, we will work on communicating better with our users the gradebook constraints.

We appreciate the feedback indicating we need to take a closer look at how we implement the Grade Submit Tool in light of this limitation - we are gathering feedback for that tool and can look at changes prior to grade submit to the spring.

➤ *Results show disallowed second attempt of quiz as allowed:*

From: "David Austin" <DFA>
Date: December 1, 2010 11:05:42 AM EST
To: <Learntech>
Subject: Moodle PHI 340-001,601 F10 Second attempt on one-attempt quiz allowed
The Results for Intuition Inventory 2 show that [student YZ] has a second attempt of Intuition Inventory 2 open, despite the fact that the settings allow only one attempt. The first attempt was submitted 11/27 12:26 AM. The first attempt was started 11/27 12:27 AM. This is also reflected in the logs for YZ.
Intuition Inventory 2 is an extra credit survey and the number of points associated is small. However, I'd not want a second attempt on an exam to be allowed when it's set to allow just one attempt.

From: Learntech
Date: December 1, 2010 12:54:12 PM EST
To: DFA
Subject: Call 1452047: Moodle PHI 340-001,601 F10 Second attempt on one-attempt quiz allowed
I asked our database admins to confirm, it looks like the issue was a hiccup communicating with the database itself. The student never saw a second attempt on their end, the database created a new entry for one by mistake. You should be able to delete the bogus attempt by checking the checkbox beside it in the Results tab, and then using the "Delete selected attempts" button at the bottom of the page.
Sorry for the confusion!

➤ *Students who have withdrawn re-appear when deleted from the Grade book:*

From: DFA
Date: December 2, 2010 1:34:23 PM EST
To: Learntech
Subject: Moodle PHI 340-001,601 F10 Return of the Deleted Student
Yesterday, I deleted student [BS] from the Participant list in PHI 340-001,601 F10. (S/he has been withdrawn from the course and is indicated as such on the official class roll.)
Today, s/he is back on the Participant list and Grade book.
I can continue to delete the record for her when I download the Grade book.

From: Learntech
Date: December 2, 2010 1:43:26 PM EST
To: DFA
Subject: Call 1452739: Moodle PHI 340-001,601 F10 Return of the Deleted Student
I'm afraid this is part of an outstanding issue Dr. Merrill had reported earlier this semester [August 16]. Thankfully, we were finally able to pinpoint the code that was causing users to become "stuck" in the registration system (and thus be added back to the course). We'll be testing the change later this week and plan to roll it out this Saturday.
I apologize for the confusion in the meantime. If you run into any other quirks with Moodle enrollments, please let us know.

[December 6, 2010 10:02:50 AM EST **GHM remarks to DFA:** I told them it was a database synchronization problem from the beginning and that their updating procedures were not working correctly. Geez, I've been doing this stuff for over 25 years. Had they ... actually tried to diagnose the problem -- determining its cause -- this would have been fixed four months ago. However, this does seem to concede that this was (a) a bug, and (b) in code written at NC State (to integrate with their databases).]

➤ *There are interminable waits for Grade book page refreshes for higher numbers of records displayed:*

From: DFA
Date: December 6, 2010 3:00:34 AM EST
To: Learntech
Subject: Moodle Continued Script Error Messages
-as in the attached [omitted here], while waiting for the Grade book to refresh; dates/times in [attached] file name
Hardware Overview: ...
Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10.6; en-US; rv:1.9.2.12) Gecko/20101026
Firefox/3.6.12
Java Web Start and other Java-related components: Version:13.3.0Last Modified: 10/25/10 5:14
PMKind:Universal64-Bit (Intel):Yes

From: Learntech
Date: December 6, 2010 9:21:51 AM EST
To: DFA
Subject: Call 1453913: Moodle Continued Script Error Messages
Regarding the script errors, it looks like Firefox is running into a loop with the window loading script. Is this happening each time the grade book refreshes, or does it appear to be random?

From: DFA
Date: December 6, 2010 9:34:58 AM EST
To: HELP@ncsu.edu
Subject: Re: Call 1453913: Moodle Continued Script Error Messages
On Dec 6, 2010, at 9:21 AM, Learntech wrote:

[Regarding the script errors, it looks like Firefox is running into a loop with the window loading script. Is this happening each time the grade book refreshes, or does it appear to be random?](#)

It's at random, though as reflected in the recent spate there were four in a row while executing Grade book actions. It happened the first time with Moodle months ago, then a few weeks ago. The first few times, no moodle scripts were referenced. Were I forced to guess, I'd say the problem's accelerating but there's really not enough of a pattern to be confident. I've seen it before occasionally on older, slower Macs when loading my Google home page or Google Mail page. Perhaps I should also mention - it's hard to keep track of all the glitches - that when the Grade book displays, cell border-lines for the left-most column are often missing in a somewhat scattered way near the top of the page. There might be a correlation with the above error messages. (I usually set the preferences so that all students display on a single page; my machine is fast enough so that does not engender long delays.)

From: Learntech
Date: December 6, 2010 10:16:46 AM EST
To: DFA
Subject: Call 1453913: Moodle Continued Script Error Messages
The two are definitely related, those lines are drawn by the "window mapper" script referenced in the error message. I'll have our developers look into what could be causing that script to lock up. Since it is a Javascript function, there's a chance it may be tied to Mac's unique version of Java as well. I'll begin testing later today to see if I can replicate the problem in similar conditions. Once we find anything conclusive, I'll email you back with the details.

From: Learntech
Date: December 9, 2010 11:33:34 AM EST
To: DFA
Subject: Call 1453913: Moodle Continued Script Error Messages

It looks like the script error messages are actually just tied to slow processing times. Because of the sheer number of students (and thus the number of cells loading), the script is taking longer to propagate than Firefox thinks is "normal" for a script. To stop getting the errors, simply click "Don't ask me again" checkbox the next time the error pops up, and then click "Continue" to allow the script to finish processing.

If you run into any further trouble with the scripts beyond that, just let me know.

4. Tracking bugs and flaws in Moodle

To date tracking of Moodle's flaws at NCSU has been scattered and incomplete.

Some data on Moodle issues are available at these five locations:

- the LMS Feature Request page <https://wolfware.ncsu.edu/feature-request/> linked from <https://wolfware.ncsu.edu/>;
- the Teaching with Moodle page at <http://moodle.wolfware.ncsu.edu/course/view.php?id=4171>;
- the Teacher's Lounge bulletin board <http://moodle.wolfware.ncsu.edu/mod/forum/view.php?id=110917> linked from the Teaching with Moodle page;
- DELTA FAQs http://delta.ncsu.edu/get_help/faq/index.php?keyword=moodle;
- and
- the list of Remedy calls.⁹

But no one of these contains a complete list of all flaws. GHM first suggested a unified bug-tracking system on **September 9**. On Sept 11, there was a sysnews announcement (<http://sysnews.ncsu.edu/news/4c8a7a7d>) that an **LMS Features Request** button had been added to <http://wolfware.ncsu.edu> home page (but not to <http://moodle.wolfware.ncsu.edu>):

We will be 1. adding an LMS Feature Request page to WolfWare, 2. changing the sorting criteria for announcements on WolfWare to allow more flexibility, 3. switching to the SSL version of the NCSU Branding Bar in Moodle to avoid unnecessary browser warnings.

September 23, 2010 6:10:22 PM EDT **GHM remarks to DFA**, *with an optimism soon diminished by later experience with Moodle*:

I had no need for migration, have substantial experience with web applications and interfaces (including designing and implementing them myself over a period of over ten years), and I encountered what I regard as significant issues in using Moodle. This isn't to say that Moodle isn't a good choice for NC State. But it does say that a more realistic appraisal might be done. The range of requirements for a course management system is broad -- both in terms of features needed and the scope and sizes of classes. However (based on over twenty years experience as an IT and development manager and developer) I would say that it's clear to me that Moodle was not particularly thoroughly tested by a broad enough range of intended users prior to its adoption. There could be several reasons for this, and it might have been necessary; but that fact remains. There are a number of unintuitive, surprising, or unexpected features of the UI that are encountered as well as some genuine bugs with how Moodle interacts with other NC State systems such as Registration and Records. I don't believe that any of these are truly insurmountable, but they need to be acknowledged quickly and addressed in some programmatic manner when they are encountered. Somewhat more unsettling is that it's not obvious to me exactly how (or whether) problem reports are being tracked -- whether a bug tracking system is being used and whether each faculty report is logged in it. If so, then it is only reasonable to make such bugs or problems known broadly to the faculty who are (or who may be) using Moodle. Email is certainly not the best mechanism for this,

⁹ The reader might like to try finding this list using the Search function at the NCSU web site, by for example searching on "remedy list," "inurl:remedy," or "remedy call."

but if that must be used, then some compilation and aggregation of the results should also be available. Some kind of "problem knowledge base" would be of great value and would reduce the amount of email and support traffic for those doing Moodle support. NC State IT obviously has a general problem report database, but I've not seen anything to suggest that there is a separate Moodle problem report and "known bugs and problems" list that Moodle users have access to and that would answer a number of confusions and problems. Simply implementing a "Moodle Users" web site with such a list of reported problems and responses (and current status) would be very helpful.

September 23, 2010 7:23:06 PM EDT **GHM remarks to DFA and dept. head:** I have encountered a number of the same problems that David has. In addition, there are other problems that testify to the rather simplistic, unthoughtful, and outmoded design and implementation of Moodle (particularly the UI and database interaction). One example was from an experienced web app user who mentioned that when he highlighted a block from a quiz to copy it, it changed the selection he had made (unnoticed to him until after he had submitted the quiz). The Moodle support response was that this is how the browser works and people should be accustomed to it. Ah, well ... yes, that may in fact be the DEFAULT action of simplistic Javascript code (that when a line for a radio button is selected, then the button is toggled), but this is not a feature that must be tolerated. However, this "feature" and the support response is symptomatic of situations in which (a) an open source product is adopted, while (b) the adopting organization does not have the resources (in terms of people, skills, experience) to perform actual development tasks itself -- or perhaps to understand even what it is reasonable or possible to request.

I think that in general I'm a bit happier with Moodle than David is since the problems I've encountered have been largely minor irritations that have "work arounds". In a commercial environment (even as an open source application) I would not tolerate it, but this is a university environment and I'm inclined to be more forgiving. However, Moodle definitely shows its age and limitations (relative to technology available for web apps today -- contrast it to Elluminate), and the constrained vision of both its original design and anticipations of current needs for anything other than small undemanding courses. It has been designed by software developers rather than by instructors, and the typical response to problems is to attempt to "educate" the user that he shouldn't really be asking for or expecting something different. I seem to be able to live with it, but it could be so much better with a little thought about better design. However, I don't know that there is anything else that is better and easily available.

A major concern that David does not seem to have mentioned does not apply to Moodle itself, but to the confusing lack of integration among the various NC State systems in which your course must have its fingers. These include e-reserves, Moodle, MediaSite (recorded lectures), and Registration and Records. There is very little integration here, and what there is exhibits some fundamental problems. The consequence is a significant burden on the instructor to ensure that everyone who should have access to each of these in a given course indeed does have that access -- and currently that now requires manual intervention in certain obvious cases, and at time requires administrative intervention by the Help Desk. There is no overall unified "vision" of how these all fit together in a course where much or all of the material is managed and available online, and each system maintains its own database and its own access list. Fixing this faces some significant stumbling blocks (administrative and political as well as technical), but until that is done, it's pretty much a house of cards.

September 27, 2010 2:55:19 PM EDT **GHM remarks to DFA:** I think that Moodle is probably a workable system. I think that for many instructors it is probably pretty much usable as-is -- with a bit of pain thrown in because of general usability issues. However, as a commercial-quality system it is significantly deficient in several ways. And as a system on which potentially hundreds of instructors and thousands of students would depend, it is a bit scary. However, I don't know that there is anything better at the moment.

It suffers in part from a problem that you run into with a lot of academically designed systems, which is lack of a solid overall design, careful implementation, and thorough testing. So you get "design by the incremental addition of features" [see *the comments of Moodle developer Tim Hunt on usability, below*] and then redesign by ad hoc response to problems. Each feature may be tested, but only by

the designer/implementer of the feature, little or no "integration testing" may be done, and testing of scalability may not be done. And of course the designers (or worse, the people who are now responsible for the maintenance and so find themselves doing design work as well) may be designing on an a priori basis, or on the basis of severely limited experience, or on the basis of responding to post hoc complaints and problems. As a consequence, the support staff must continually respond to problem reports with "workarounds". For anything beyond the truly mundane, it may run into serious usability problems simply because users will deviate from the model of "expected use" clung to by the designers and implementers -- most of whom may have moved on to other projects. But who knows? Kind of anarchistic socialism in a microcosm.

To a significant degree this is what you get with "open source". And this is why commercial organizations were so slow to move to Linux (and still are). It's free! But making it work right is far from free since it requires a knowledgeable and skilled support staff that can fix holes in the design, fix problems, and manage all of those fixes across new releases of the system. But think of all the money you save because it's "free". About six or seven years ago I had a senior VP in GSK IT tell me that within two years GSK would be using Linux on the desktop. I just laughed out loud at him. You can successfully use "free" software if you're prepared to create a skilled and permanent support staff to do so. But then, of course, it's not really free, is it?¹⁰

It's not necessarily a bad idea for NC State to use Moodle, but management of it could be done better. They need an active faculty involvement and they need to take a pro-active stance about anticipating and responding to problems. If they really were to achieve their goal of getting most of the faculty to use Moodle, I think they'd be WAY in over their heads in terms of facing problems and support. What concerns me most is that I'm not at all sure how well they're doing with recording, tracking, prioritizing, and addressing the problems that are reported. But one problem is that we have no clue about that since we have no access to their problem report database and to the various workarounds or solutions they've recommended. I confess to being somewhat mystified that they would roll out such an important system and not provide a better public forum for raising and dealing with questions. ...

September 27, 2010 7:42:20 PM EDT **GHM remarks to DFA:** By the way, have you used the Moodle HTML editor much? I spent a frustrating hour with it today attempting to convert a Word doc (table format) to a web page in Moodle. Finally gave up. E.g., couldn't adjust table column sizing once the table was defined. And the HTML code it generates is so horrific that I couldn't even edit THAT reasonably (I would have had to make editing changes in each line individually and then add code). This smacks again of a design philosophy according to which "Hey, there's this lame Javascript module that provides rudimentary editing features. Let's just use that and we won't have to actually implement anything for editing."

And then ... You can only upload single files. So to upload a directory structure you have to (a) create it on your machine, (b) zip it, (c) upload it, and (d) unzip it. Just the sort of thing a junior developer would think is a cool and easy way to accomplish uploads. And only some of their support people seem to know this.]

November 15, 2010 11:48:41 AM EST **GHM remarks to DFA:** Well, there's testing and there's testing. Standard procedure in such cases (for potentially adopting a major system) is to develop one or more detailed "test plans". One of these would include a number of "use cases" to thoroughly test all the functionality and combinations of options. This is very labor intensive and time consuming -- and it requires experienced and skilled software and system testers. At SAS, just for our compiler development, we had a separate group dedicated to just this (four to five people in the group). They did no development. They were professional testers and terribly good and thorough at the job. A number of problems that I've encountered with Moodle would have been noticed quickly by such testing.

Then there is "user testing". This is something that you don't want to do until you have confidence (based on the testing just described) that the system is in solid enough shape to take the users' time

¹⁰ GHM was not around during the discussions of whether or not to adopt Moodle at NCSU. I told GHM later that presentations in public fora emphasized the fact that adopting Moodle was not expected to result in cost savings over Blackboard.

to test it. It is quite difficult for me to believe that most of the issues I've encountered would not also have been encountered in user testing.

However, most IT (as opposed to development) organizations are primarily concerned with what you might call "installation and maintenance testing" -- since their primary concern is the installation and updating of the system. They care a lot less about the use and functionality of the system since they don't really see that as their remit. The quality of the system itself is of relatively little concern to an IT organization since they are not the developers and in general have neither the skill nor the interest in actually modifying or repairing the application. They will simply pass on bug reports and feature requests to the developers and await their results in a later release.

DFA wrote:

The way that the task force members who recommended adoption of Moodle talked at public fora and wrote in their reports suggest that they were aware of these cost items. I remember early on in the discussion - must be over two years now -- [one administrator] said that Moodle (and Open Source LMSs generally) could not be expected to save money over Vista. Rather the advantage was that when problems arose, NC State technical staff could solve them since it could "see inside" the open source system.

Of course, to "see inside" is not to actually "modify", "repair", or "enhance". So I'm not sure what advantage is gained by seeing inside a system if you are not prepared and able to act on what you see. From the responses I have seen so far I have seen NO evidence that NC State has any DEVELOPMENT staff committed to Moodle. In fact, I would be quite surprised if they do -- and certainly surprised to learn that such a staff is actually capable of significant development or bug fixes in such a large and complex system. Every response I have gotten concerning a reported problem is either to point to a workaround or to say that they are hoping the problem will be fixed in a future release. This indicates that however much they may "see", they do not seem to be actually making any changes themselves. And indeed -- from an IT perspective -- you want to avoid making such changes because you then have to maintain your own source base and ensure that YOUR changes are reintegrated with each new standard release. So then you need a serious source control and development system and someone who knows how to manage it. Of course, this is what real support organizations do, but it is costly and requires competent staff. (Note, however, that even for developing the internal tools we created within GSK, Natalie, Jeff, and I enforced a rigid approach to source and development control -- including daily incremental backups of the source control and build system itself. This is what you have to do if you're serious about application development).

I think there is perhaps a significant degree of what might be called "open source fantasy" here. This involves the beliefs that (a) the system is generally sound and contains no fundamental problems (because look at how many people are contributing to it and using it), (b) Bugs that are critical to your environment (and feature requests) will be quickly acted upon by the (open source) developers, and (c) because the system is open source, you can make any necessary changes yourself without problematic consequences.

... Just the problems that you and I have encountered, though not show stoppers, must make one suspicious that either thorough testing was not done or that results of that were under-reported and not made public, and that this may well have been testing of a system whose adoption had already been decided (another common IT phenomenon). But this is all speculation since we are in an information vacuum concerning the true state of the application and the status of problems that have been reported. However, if you look on the Web (and even in the Moodle groups themselves) you continue to see a number of "known problems" that leave users irritated and astonished. And these things were known prior to the adoption of the product by NC State.

We of course can't expect perfection. But a much higher degree of openness and fewer bizarre workarounds and "that will be fixed in a future release" claims or implications that you should just get used to odd application behavior would go a long way towards more confidence in the application.

November 15, 2010 11:48:41 AM EST **GHM remarks to DFA:** I have come to believe that the web app programming skills of whoever implemented a lot of this stuff are significantly limited. However, I also think that it is showing its age both in terms of design and implementation. Moodle was designed and written almost ten years ago -- and even at that point the web (and particularly UI) technology it was using was relatively simplistic and somewhat dated compared to productions (at

exactly that point [my wife] ... and I were developing a highly sophisticated reimplementaion of Novartis Knowledge Miner, moving from a pretty vanilla HTML approach to a more interactive user friendly Javascript implementation). Over those years (i.e., since about 2000/2001) web and browser technology has improved dramatically to the point that Moodle (to a professional developer) appears to be literally childish. But beyond the appearance, the use of that older technology -- and the skill with which it was originally applied and then stretched time after time to accommodate new "features" -- has created a lot of thin ice. And one problem you ALWAYS seem to see with open source is a failure to FULLY TEST in environments (e.g., different browsers) DIFFERENT FROM what the developer's favorite one is. "Oh, yeah, we tested that" But just in one or two browsers or one or two versions, or with a given set of add-ons, or ... This is not commercial software development. A sign of that is when you test your users as your testing group.

November 15, 2010 1:30:26 PM EST **GHM remarks to DFA:** Support is speculating about browser behavior and you have now become an integral part of their debugging procedure. If there is a mechanism for doing so, I might suggest you report this to our dept. head so that the department can cross charge Moodle support for your time. :-). They at least ought to give you a nice title, like "adjunct software system tester".

[Learntech wrote,] "[I wonder \[what's going wrong in Moodle\]](#)"? What happened to looking inside of Moodle? "Find out what else would cause a browser to ignore the changes"? Well it's always nice to understand how browsers behave if your role is to support a web app that is browser-delivered. But finding out facts like this about browsers does not fix the problem IN MOODLE or FOR THE USER. So what he would be hoping for then is to provide you with yet another work-around that you could accomplish by tweaking something in your browser...maybe. "Try this. If it doesn't work, we'll look for something else for you to try."

In all of this, what is missing is: "We will determine exactly what your problem is by replicating it, debug this problem, and fix it." That's what a support organization does. That's why they call it "support". I sense that no one will actually be looking inside Moodle for anything. When I had my continuing problem (still have it, by the way) with being unable to remove students from my Moodle course without them resurrecting themselves, it took several weeks for support to even look at it closely enough to see that it was a genuine problem with how their databases were communicating. And then they had to talk to the actual Moodle support people (i.e., at Moodle) to determine that some further diagnosis need to be done. So far as I know, this is another problem that is waiting on a new release.

November 17, 2010 4:28:31 PM EST **GHM remarks to DFA:** I am skeptical of the use of MySQL. MySQL does not, in my experience, scale well. It may support something the complexity of Moodle, but if there are more Moodle servers involved, MySQL may itself turn out to be a problem. You see the same thing with Lotus Notes. If you're supporting 50 or 100 people, it works reasonably efficiently. If you're supporting 5,000, you're looking at trouble. Of course, MySQL is "free". (We tried using it for one or two serious applications, but gave up. On the other hand, some people seem happy with it.)

More upsetting to me is the approach to diagnosis, debugging, and problem solving that I have seen repeatedly during the past ten years that I have been working with NC State computer science students.

Whatever you do, don't spend the time actually debugging the problem (web stuff, by the way, is truly a pain to debug, but it has to be done). Rather find some news group where someone has reported a similar problem, implement their solution, test it a bit, and let 'er fly. In part, this is the difference between IT and real development people. But it's also an intellectual culture where good engineering practices are not taught or valued.]

In his message to GHM of **November 30**, an administrator says that the **LMS Features Request** button should also be used for reporting bugs. But it took a while to get there:

From: GHM
Date: November 16, 2010 3:58:39 PM EST
Subject: Re: Activity Reports in Moodle

Well, there is, of course, the old developer's joke "It's not a bug; it's a feature!" (followed by hysterical laughter). My wife and I, and two of my children (all of whom are commercial software developers or managers) use this joke a lot. But it is, after all, a joke.

I would have thought there are a number of open issues that I'm assuming are being tracked as bugs. I know that David Austin and I have, over the past couple of months reported several such issues (One example is the continuing problem I have had from the beginning of the semester of being unable to remove a student from my Moodle section without the student reappearing the next day. Once this was finally acknowledged as a problem, I was told it was being worked on. This would be a bug and not a feature.)

Are you saying that there are in fact NO bugs recorded against Moodle at NC State? I would definitely not expect these to appear in a "features" list, and from a development or support role the line between a bug and a feature is in general very distinct -- and feature requests are NEVER entered into a bug tracking system. Does this mean that Moodle support at NC State is not using a bug tracking system? Or that it is treating bug reports as equivalent to feature requests? And does that mean that your current features list is an exhaustive list of problems with Moodle that you are tracking?

I know that Remedy is being used to track reports of problems with Moodle, and we (David [Austin] and I at least) know that there are problem reports in Remedy that do not appear in the feature request list. So if these are not feature requests and there aren't any bugs, what is being done with those problems? Do they never migrate out of Remedy into a bug tracking system where they are prioritized and resourced? The support folks seem to indicate that they are working on them.

From: GHM

Subject: Re: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results

Date: November 27, 2010 12:02:51 PM EST

To: DFA

Cc: Learntech, yet another administrator

As the semester has progressed, I have become increasingly ... concerned with the continuing problems we have encountered with Moodle, many of which I would have been expected to be detected in a very early testing phase and to at least be made known to instructors in a direct and detailed manner. Initially I regarded Moodle as a workable, though very dated (in terms of its 1990s-ish crude design and PHP implementation) and clumsy system. However, looking back, it seems that virtually every time I wanted to accomplish what should have been a simple instruction-oriented task, either it didn't work or some rather unnatural (from a user's point of view) "work-around" needed to be provided. The last example of this is when I attempted to employ Moodle's grade calculation features to display what the students' grades would be under a simple weighted mean approach that should be (and apparently is INTENDED to be) built-in and problem-free. It was so frustrating and the results so inconstant and mysterious that I simply gave up. I did not, at that point, even attempt to seek help from the Learntech people because I know that any work-around provided would be equally frustrating and simply take me more time than accomplishing the same result by hand for my relatively small class. It was also disheartening to discover (by searching for Moodle problems and solutions on the web and the Moodle site) that a number of others had encountered similar problems and have looked upon them with bewilderment.

Even more puzzling -- given that history and context -- was being informed (in response to a request to access to the current bug list for Moodle at NC State) that

"We don't have any open issues where the software does not work correctly but that is not to say that we don't have many areas where improvements to the interface or functionality are sorely needed." (an administrator)

This makes it appear as though (a) no genuine bugs are being recorded (since certainly some have been identified), or (b) there is no list of these with their priorities, assigned resourcing, and current status. At the very best, I must attribute this appearance to some kind of communication problem or lack of information sharing between OIT and DELTA -- which in itself is discouraging with respect to a system that has been deployed university-wide and is what faculty must use.

It is true that part of my frustration is as a developer with over twenty-five years experience (including server-based web-delivered apps like Moodle) and an in-depth knowledge of good software engineering, design, and implementation practices -- and seeing how these are so often lacking in Moodle. (And it is for this reason that I have come to suspect that Moodle may not in fact be fixable by any localized or "band-aid" approach to "features".) But if I take off my developer's hat and wear only my humanities faculty

hat, I think the concern and frustration are even greater, since there the concern is for wasted time in grappling with a system that should in fact make one's job easier, and with a concern for the impact that a continuing chain of problems has on the quality of instruction and on the students.

I am voicing these concerns now because the semester is coming to a close and I feel I've pretty much run the gamut in terms of my Moodle use for that period of time so that some obvious conclusions can be drawn. And because I know that David [Austin] and others have encountered both similar and additional problems. It is also difficult to determine exactly what the proper venue is in which to raise such issues and ensure that they are seen at a high enough management level. The Learntech people are doing their best to provide support for a large and fairly complex system that is in several obvious ways -- or certainly appears to be -- either broken, severely deficient, or not scalable within the context of NC State. But DELTA seems unaware that there are even genuine bugs that have been reported and whose solutions are still pending (if they have been recorded and are being addressed at all -- or are simply living a low-level existence in a low-income ghetto in the Remedy system). And I'm sure that DELTA management has (or would have, if all be known) a FUNDAMENTAL interest in addressing these problems since for DELTA -- even more than for faculty teaching on-campus courses -- Moodle is an absolutely critical component for delivering instruction and services to its students.

David has just raised some important questions (as I know he has done in previous instances as well), and he is facing even more severe difficulties because of the size of his classes and because some of the workarounds necessary are truly odious in those circumstances. But a big part of the frustration (and I can't believe that we are alone in this) is wondering, with respect to Moodle, "Who is really in charge? What is being done to address these fundamental problems (which often are genuine bugs and not issues about 'features')? Who takes ultimate responsibility for the adequacy and usability of this critical system? And why does information about the existence and status of these problems not appear to be readily available?" It may be that a lot of the frustration could be addressed by a simple sharing of information (among OIT, DELTA, and faculty) concerning exactly what the problems are and in each case what the status and projected solutions are. That in itself would be a significant advance, I think.

From: (an administrator)

To: GHM

Subject: Fwd: Call 1450510: Re: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results

Date: Tue, 30 Nov 2010 13:49:30 -0500

... I was not trying to imply that there are no bugs in the Moodle core product; rather, I was attempting to convey there are currently no known bugs in the implementation and integration code we custom wrote to adapt Moodle into the NC State campus. This affects things like course creation, integration to SIS, class rolls, etc..., and we fix bugs in that code as soon as we are aware of a problem.

You can continue to help us by submitting your feature/bug fix requests to the url above, and also by working with the Learntech staff so we can document any problematic use cases as they arise. I would be happy to meet with at your convenience if you would like to discuss this in more depth or feel free to express your concerns to one of the representatives on the LMS committees

(<http://spreadsheets.google.com/pub?key=tvrGJs4-yD9KYKQc0calcYg&single=true&qid=0&output=html>)

and we will make sure your feedback is considered.

GHM responded that users would not naturally think of *bugs* as appropriate for a *features* list and that bugs known to Learntech were still missing from the report generated by submissions through the **LMS Features Request** button:

From: GHM

Date: December 1, 2010 8:42:09 AM EST

To: (an administrator)

Cc: DFA

Subject: Re: Fwd: Call 1450510: Re: Moodle PHI 340-001,601 F10 Inconsistency between Grade book and Results

... I do not want to prolong this as a debate in which broad justifications for the adoption for Moodle are repeated and descriptions of policy implementation and committee decisions are advanced as evidence

that a software system is functioning appropriately. My primary focus has been on the fact that there appear to be a number of "flaws" (I will use that term rather than "features", which is wholly inappropriate, or "bugs" which seems to be regarded as a dangerous concession by OIT and perhaps DELTA) that are not obviously being tracked in any clear manner; and this is concerning to us as users who have reported such "flaws".

Rather than, at this time, enumerating the various "flaws" that both David and I have encountered from the very beginning of the semester (though I think you will probably see a summary of these soon enough), I will mention a single example at this point.

When you write that

"I was not trying to imply that there are no bugs in the Moodle core product; rather, I was attempting to convey there are currently no known bugs in the implementation and integration code we custom wrote to adapt Moodle into the NC State campus."

you must understand that a user will see this at best as a hair-splitting attempt to deflect responsibility for the performance of the product from NC State to somewhere else. [See *however page 37 above on what seems clearly to be a bug in the integration code which causes dropped, deleted students to reappear on class rolls in Moodle.*] But NC State -- having adopted the product, deployed the product, and committed to its use -- cannot now simply take the attitude that there may be fundamental "flaws" in the product, the addressing of which is not their rather direct responsibility. There appears now to be a substantial concern for "governance" within OIT and DELTA -- which is a good sign. But attempts to draw fine lines in order to avoid responsibility are not a hallmark of governance. As a user of this application that NC State has adopted, I do not care (and should not be expected to care) who coded a particular "flaw" into the system. I do care that the "flaw" is eliminated, and even prior to that I care that the "flaw" is acknowledged and tracked.

So here is my example:

On 08/16/2010 I sent an initial email to Learntech describing a problem I had in attempting to remove participants in my Moodle course who had dropped the course and no longer appeared in the R&R list. The phenomenon was that I would remove the student from the Moodle course and then the next day the student would be back as a participant in the course. A number of emails were exchanged with Learntech and Help concerning this and several explanations of it were offered (I just had to wait for database updating to take effect, there was some problem with the server, ...) but in general the attitude was that there was really no problem here. The Learntech people at one point intervened manually to remove a set of students, but in subsequent cases the problem reappeared. Finally (!), and after my insisting that this "flaw" was clearly a fundamental bug in database communication and updating processes, it was acknowledged that there really was a problem here, and Moodle support had been contacted and consulted to address the problem. (Again, whether this a a "flaw" in a Moodle library or in NC State's implementation of Moodle and integration with NC State databases, I -- as a user -- do not care.) I have looked for a report of this "flaw" in the Moodle core product, but do not see it. It does not seem to appear on your feature/bug list. I worked rather intensely with Learntech staff in reporting and documenting this "flaw". So where is it? What is its status? Where is it documented and how is it being pursued? This is just one example. What have I missed here?

And, oh yes, I tried to remove a student from the course yesterday (he had dropped the course some time ago and was removed from the R&R list, as in the other cases). Again, he was removed from the list of Moodle participants. This morning he is back. So this feature/bug is still with us. How is it being tracked?

In his response of 12/1/10 to GHM, another administrator, says that a bug-and-feature tracking system is being constructed.

On Wed, 2010-12-01 at 12:59 -0500, [another administrator] wrote:

Thank you for bringing this issue to our attention. We have identified the problem as well as the corrective action to take. As soon as it's tested in our staging environment we will push it to production. You may see [the student] show up in your roll again until the script is deployed and run on the production environment. Please don't hesitate to contact us if you continue to experience problems.

From: GHM

Date: December 1, 2010 2:10:04 PM EST

To: [another administrator]

Subject: Re: Fwd: Call 1450510: Re: Moodle PHI 340-001,601 F10Inconsistency between Grade book and Results

Thanks, however my mentioning of this to (an administrator) was not in the way of either complaining about it or expecting it to be fixed (which at this point at the end of the semester is irrelevant). Rather it was as an example of something (what I would be inclined to refer to as a "bug") that did not appear to be in the "feature request list" being kept by DELTA, and also did not appear to be in any Moodle bug list that I could see. So I continue to wonder how such items are being tracked -- especially in the context of assertions that there are no outstanding bug reports for NCSU-implemented Moodle features and my failure to find it amongst the Moodle-managed bug list[s].

On Thu, 2010-12-02 at 08:20 -0500, (another administrator) replied:

We currently use the NC State Remedy call tracking system and an internal developers wiki to track issues, separate from the current feature request list. As we are striving to be as transparent as possible in running our LMS, we are in the process of moving to a more robust tool for feature requests (where clients will be able to track the status of these requests), and if it works out, we also hope to use the tool in a way that gives our clients more insight into issue/bug tracking as well (without sharing certain details that might compromise security).

I hope this answers your question.

Subject: Re: Fwd: Call 1450510: Re: Moodle PHI 340-001,601 F10Inconsistency between Grade book and Results

From: GHM

To: (another administrator)

Date: Thu, 02 Dec 2010 09:39:41 -0500

Thanks. It does, and it removes some puzzlements and concerns that were induced by what appeared to be vague and conflicting information from other sources.

I should think that neither Remedy nor a wiki is providing you with a very happy or effective environment for tracking bugs or development issues. There are several decent systems around, but, as I'm sure you know, it is wise to give that choice some thought and experimentation before committing.

You should be able to provide easy access to the system for users as well (which I highly encourage) without allowing them to meddle in your decisions, internal communications, and processes. I think this will be very important in the future for the acceptance and use of Moodle in particular because it is such a poorly designed and implemented system. And as use of it increases (and use of more components of it -- like the gradebook, which appears largely to be a disaster -- increases), transparency and easy availability of information to users will defuse a lot of frictional issues.

Often organizations that adopt "open source solutions" don't realize the hidden costs (particularly in terms of local resourcing) of doing so. And so the support organization gets overburdened in trying to support a "free" system that requires constant tending and improvement -- without the chance to increase their own resources because that was part of the whole "cost saving" idea of adopting the "free" system. I hope you are not deeply in such a situation, but I suspect that at least to some degree you are.

From: (A third administrator)

To: GHM

Subject: Re[2]: Fwd: Call 1450510: Re: Moodle PHI 340-001,601 F10Inconsistency between Grade book and Results]

Date: Thu, 02 Dec 2010 13:22:44 -0500

(Another administrator) brought me up to date on the concerns you have raised regarding bugs in the NCSU Moodle implementation, and the more general issue of bug tracking and transparency. I know that our staff has identified the source of the bug you reported and has a fix in process. Hopefully, [the] answer concerning bug tracking also makes sense. I agree that Remedy may not be the best tool for this, but as it is firmly entrenched in NC State's IT systems management infrastructure it is the most reasonable choice for us at present. ... we are aware that we need a better set of interfaces for exchanging this sort of information with the user community, and we're working on that.

... As you point out, the "hidden costs," local resourcing in particular, can be overwhelming if not carefully considered from the beginning. Unfortunately, the timing of the state budget crisis has coincided

with the transition and has had a significant impact on our plans. Our personnel losses as a result of the budget cuts have significantly impacted our ability to address issues such as the ones you have raised as expeditiously as we would like. Fortunately, I've been able to convince the Provost that we must restore those positions to meet the campus demand for LMS services and capabilities, and he has given us permission to fill those positions, which we are in the process of doing. Additionally, when Vista reaches end-of-life in June and we are no longer obligated to licensing and maintenance fees, we plan to reinvest those resources in our Moodle implementation through a combination of personnel and contract services.

I appreciate the thoughtful comments and concerns that you have raised. I can tell you've done your homework on the larger issues surrounding open source software. While there will continue to be bumps in the road, exacerbated by the challenges of the state budget situation, I'm confident that we are on the right path. Overall, faculty and student feedback has been very positive. Moodle has been or is being adopted by many of the UNC institutions, the NCCCS, and other public education entities in North Carolina, and it is likely that a state-level collaborative support model will emerge from that. While not yet as mature and robust as Linux, Apache, etc., its very wide-spread and growing adoption makes it one of the safer bets for the long term.

Again, thanks for expressing your concerns and comments. Please be assured that we're committed to providing a robust, secure, and functionally rich LMS environment for all of our stakeholders. Informed feedback such as you have provided is helpful in getting there.

From: GHM

Date: December 6, 2010 8:50:17 AM EST

To: (a third administrator)

Subject: Re: Moodle issues

Thank you for this considered response and your attention to this situation. I do understand that NC State is committed to Moodle and, on the basis of recent experience, I fully understand the effort that it will take to provide and support this as a university-wide learning management system. I know that you and your staff will do their very best in this regard, and it may take time to reach a stable state.

I also wonder if the depth of the problems facing this support is known at all levels. We have been told on several occasions that overall response to Moodle at NC State has been positive. Yet it is difficult to square this with the litany of fundamental problems that David Austin and I have encountered from the beginning of the semester, even in attempting to use features of Moodle that we would expect virtually any instructor to employ in making use of such an LMS. My only speculation regarding this dissonance is that, at least up to this point, most Moodle users have confined their use to those relatively simple features that allow them to create a course web site, upload documents, and participate in Moodle fora. With respect to those uses, I have encountered few problems; and often those were problems pertaining to poor UI design. In addition, there may be (as is often the case) some issue of "reporting bias" in getting a true picture of an overall use of a product like Moodle in a heterogeneous application environment.

But when it has come to genuine LMS features we have (as our interchanges with Learntech testify) encountered problems at virtually every turn. These have been fundamental problems quite independent of the UI, and of a sort that it is difficult to imagine others would not have encountered in attempting to use the basic LMS features of Moodle (again suggesting that at this point few have attempted to use these features). Indeed, a study of the information available on the Moodle site itself suggests, for example, a number of long-standing and apparently unresolved problems related to the gradebook -- an absolutely critical feature that demands (for both administrative and potentially legal reasons) the highest degree of reliability and robustness. I append below -- again, just to indicate the severity and immediacy of such problems -- a recent note from David Austin detailing the hours that he has spent in experimenting with the gradebook in order to make use of its basic features in his course (where, because of the number of students, it is desperately needed). Problems with the gradebook are not the only difficulties we have encountered, but I think that overall these are illustrative of the broader range of such problems, are the most critical for several reasons, and certainly are the most frustrating since they introduce a high degree of uncertainty and confusion to the students concerning their grades and (for large classes) impose a heavy burden on the instructor.

Again, I know that DELTA and Learntech will do their best in these matters. For my part, I have been able to restrict my use of Moodle to its largely non-LMS features that provide basic web site creation and management capabilities, working around any problems that have arisen in that context. But there is serious concern among at least some of us that the LMS features are dangerous ice on which to tread, and

I know that you don't want professors to be devoting hours and days of their time to testing the LMS that is intended to make their jobs easier. Thanks again for your concern and commitment to improvement.

From September 9 to December 2 is longer than it should have taken to get such a carefully considered response to GHM's concerns.

Yet it is still not entirely clear what is being done to put an adequate bug-tracking system in place. A December 15 email message sent to the NCSU webdevelopers listserv requests recommendations for a "Bug Tracking/Project Management System" that would allow effective tracking of feature requests and improvements to Moodle at NCSU. In response to my inquiry, it was confirmed that the system would not be used for bug-tracking and that Remedy would continue to be used for any bug-tracking in Moodle.

5. Is it Feasible to Fix Moodle's Flaws as an LMS?

There is good reason to doubt that it is feasible to repair Moodle's flaws.

The extensive bug-tracking system at <http://tracker.moodle.org> is of course not a substitute for an NCSU-specific flaw-tracking system.

But <http://tracker.moodle.org> does yield useful information. Using it, GHM generated a 4.5MB, 618 page (-"618" is not a typo) report on bugs and desired features affecting the Moodle 1.9 versions Grade books. Three of the bugs were identified as Critical and 54 as Major. Some of the bugs identified as "Minor" were said by the users affected to be decidedly non-minor from their point of view. Using tracker.moodle.org, I generated a shorter report of bugs affecting Moodle 1.9.9, the then current version at NCSU. It listed 130 bugs, of which 3 are classified as Critical, 51 as Major, 63 as Minor and 3 as Trivial. Again, what system developers classify as Minor or even Trivial may be experienced by users as something more. If a user is affected by numerous Minor bugs, the effect will be a major one by any reasonable standard, even if the collection of those bugs is deemed Minor from a developer's perspective. This is a small part of the evidence for the claim that there is good reason to doubt the claim that it is feasible to repair Moodle's flaws.

It's estimated that Moodle consists in about a million lines of coding. Moodle 2.0, released in November 2010 after a long delay (about 2.5 years; Moodle 2.01 was soon released with over 80 bug fixes) and a more stable version (it is hoped) is scheduled for implementation at NCSU during Summer 2011. Moodle 2.0 does not resolve some long-standing issues and it introduces new ones.¹¹ Moodle developers allowed serious problems, at least one of which compromised password security, to remain unfixed for

¹¹ See, e.g., <http://moodle.org/mod/forum/discuss.php?d=165115>, <http://moodle.org/mod/forum/discuss.php?d=164112>, <http://moodle.org/mod/forum/discuss.php?d=153317#p723548>, <http://moodle.org/mod/forum/discuss.php?d=165065>, <http://educhalk.org/blog/2010/12/its-official-upgrading-to-moodle-2-0-not-recommended/>, <http://educhalk.org/blog/2011/01/part-i-why-moodle-is-dangerous-years-of-moodle-porn-doesnt-go-away-easily/>

several years (until November 2009).¹² It is apparently a commonplace among some support and development personnel that Moodle does not scale well, with problems increasing noticeably once the number of concurrent users exceeds sixty or so.¹³ (But even as small a group as 14, as in PHI 498/LOG 598, encounters problems, so larger classes, like PHI 340 with over 250, are not the only ones bedeviled by Moodle's flaws.)

In a [posting](#) at his blog, Tim Hunt, a key Moodle developer for the UK's Open University, says that Moodle's "not being a text-book example of software design" is a consequence primarily of the fact that "Moodle has always practiced user-centred design." A highly spirited discussion of this assertion can be found at "[Why open source software usability tends to suck" - how do we work around this?](#)"

See also Olli Savolainen, [User experience design in open source development: Approaches to usability work in the Moodle community](#) (September 2010); esp. page 24 on reactions of the community of Moodle developers to Savolainen's proposed improvements to the user interface for the Quiz module; and pages 46-47, on determining the usability of Moodle. See also: Martin Dougiamas (Managing Director, Moodle Pty Ltd.) "[Moodle: a case study in sustainability.](#)" (updated December 7, 2010), cited by Savolainen.

Some (not all) Moodle developers exhibit an almost evangelical attitude toward this open-source product, and thus tend to take a dismissive or hostile attitude towards some of the concerns noted herein – "*kill the messenger*" as some moodle.org fora participants have characterized responses to questions about some flaws and design decisions - but that of course does not invalidate the concerns.

If Moodle is flawed, why is it so well regarded and widely used?

While this question is strictly speaking outside of this report's scope, it is so likely to be asked that a preliminary answer sketch might be of some interest. So here are four conjectures: (i) Moodle may be the least bad open-source alternative without being a good one. It might even be the least bad LMS. [It's not for example unusual for technically sophisticated Windows users to express serious reservations about Windows, a product that has enjoyed considerably greater support and popularity than Moodle.] (ii) The vast majority of users rarely if ever avail themselves of the capabilities proffered by LMS's, and individual sections are typically under the 60 or so beyond which the worst problems become more obvious. (iii) Antipathy towards commercial products and open source over-enthusiasm can foster the evangelical attitude mentioned above. (iv) Once on a large, heavy bandwagon, it can be difficult to jump off.

¹² <http://educhalk.org/blog/2009/11/a-critical-moodle-lms-security-vulnerability-all-versions/> and http://educhalk.org/blog/wp-content/uploads/moodle_md5_hash/moodle_md5_hash.html

¹³ <http://zaidlearn.blogspot.com/2009/11/moodle-is-airport-not-total-solution.html>

"Moodle increasingly becomes a pain when the [concurrent users](#) size increases (say 60 or more!). I have heard and read that people have solved this problem, but again and again the number one complaint about Moodle is that they struggle to deal with scalability and large concurrent user sessions (e.g. 200 students doing online quiz at the same time). So, what is the problem? Is it the CPU or RAM specs issue, perhaps its' the network, database, or even a combination of things mentioned, or what? [Click here](#) for a white paper (PDF) from [Moodlerooms](#) to help you deal with it." November 13, 2009

Savolainen and GHM strongly recommend Alan Cooper, [The Inmates are Running the Asylum](#) (Sams, 2004).¹⁴

6. Concluding Remarks

Using Moodle has cost me about 300 hours to date. While I tend to think of some of those hours spent as (a painfully dulling and draining) "part of the job" – a part that alas has nothing to do with course content or research - that determination of waste is not entirely mine to make. It might be that from my department's point of view, the hundreds of hours not spent on other matters is time taken from the department - much as time spent by a faculty member in one department teaching a course in another department would be regarded as requiring some sort of compensation from the other department.¹⁵

What I find most disturbing is that not all of the bugs may be apparent and they may affect student grades. One simply cannot address this concern by responding, "There have been no such reports" or "There is no evidence of that," since by hypothesis, instructors cannot report occurrences of which they are unaware. For the same reason, is it not helpful to be told that overall, the response to Moodle has been positive.

What *could* help is what GHM suggested months ago and should have been in place well before he made the suggestion: a centralized, well-publicized bug-reporting system, *linked to the login page*, that instructors were periodically reminded to check, where all of the necessary workarounds (if they exist for the issue in question) were readily available. If there is something unacceptable about naming such a system "a bug tracking system" (as <http://tracker.moodle.org> itself does!), then please label it something else – "Problems and Improvements," "Usability Issues," "The Good, The Bad and the Broken," - but *don't* name the main link to it **LMS Features Request button** on *another* web page three clicks, a WRAP login and a form away since that is grossly misleading to speakers of (ordinary, non-IT) English.

Finally: If you have made it this far and found the journey disheartening and numbing, imagine the effect on those who have been through the process described.

Now, when I hear the term "workaround," I naturally think of "death of a thousand cuts."

What all of us need is a system "around" which we don't have to work, and that is designed for its users (not its developers), one that works reliably for students, faculty and staff.

¹⁴ Though not focused on software development, I'd recommend Carol Tavris and Elliot Aronson, [Mistakes Were Made \(But Not by Me\): Why We Justify Foolish Beliefs, Bad Decisions, and Hurtful Acts](#) (Harcourt, 2007), on cognitive dissonance theory.

¹⁵ GHM's contribution should not go unnoticed. His position is largely that of a volunteer. As an appropriately highly paid consultant, he would have earned substantial fees for his generous advice.

DISCLAIMER: The views expressed in this report are those of the authors and do not necessarily reflect those of any other person or any NCSU administrative entity.

David F. Austin

Systems analyst, Bradford National Corporation, NYC, 1970 – 1977

Excerpt from resumé prepared for Bradford National Corporation, NYC (subsequently Fidata Corporation)

- Responsible for investigation of applicability of discriminant analysis for automated fraud detection through the Surveillance and Utilization Review Subsystem of the NY State Medicaid Management Information System
- Developed technical approach for reliability analysis portion of proposed safety analysis of large liquid natural gas storage facility
- Participated in cost–effectiveness study of waste management systems for Coast Guard ships. Responsible for ship mission profile data gathering and analysis; and certification of effectiveness assessment methodology
- Assisted in preliminary study to develop mathematical techniques for maintainability modeling
- Participated in feasibility design study of superconductive ships propulsion systems (performed for NSRDC/ARPA). Responsibilities included maintenance, upgrading and documentation of computer models of propeller performance and superconducting magnet design
- Participated in the coordination and development of a Design/R&M–oriented ILS dependency network for ship acquisition programs
- Performed statistical analysis of data from spectrophotometric analysis of oil–water samples
- Participated in a cost–effectiveness analysis of marine sanitary devices for various classes of Navy ships. Responsible for development and detailed application of a methodology for cost–effectiveness assessment.
- Assisted in data validation for Ships Waste Management Study
- Participated in update of ILS plan for automated tester of electronic hardware
- Participated in development and evaluation of RMA test plans for oil–water separators using techniques of sequential data analysis and statistical design of experiments
- Conducted mathematical modeling, for RMA analysis, of complex series–parallel equipment configurations and developed closed–form analytic solutions and approximations for RMA evaluation of these configurations
- Participated in the testing and debugging of Generalized Effectiveness Methodology computer program (compiler and formula library) on NYU CDC6600, and in documentation of program capabilities
- Participated in cryogenic experimentation studying spin–spin interactions in indium–doped lanthanide–actinide series alloys
- Assisted in evaluation of existing mathematical techniques for short–range forecasting of industrial electricity demand
- Assisted in writing report on automated contour–map generation from digitized photogrammetric data

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Research Interests

In philosophy: Logic, formal semantics, metaphysics, philosophy of language, philosophy of science.

In informatics: Formal ontology, biomedical coding schemes, application of formal ontologies to knowledge discovery and knowledge exploration.

Summary of Qualifications

- 12 years experience in teaching at the university level, from introductory undergraduate courses through advanced Ph.D.-level graduate courses, including classroom training of graduate students in teaching sections and courses.
- Over ten years experience in curriculum development and teaching of programming, software design, operating systems, history and philosophy of science, formal logic, artificial intelligence and computability.
- Development and use of computer-assisted instruction software for formal logic and for introduction to the UNIX operating system.
- Experience in curriculum development and teaching within a university setting (both undergraduate and graduate courses) and within a commercial business environment.
- Direct involvement in creating the Logic and Cognitive Science Initiative at NC State University; development of the GSK Internship in Knowledge Exploration; employment, education, and direct work with both undergraduate and graduate interns; contributions to enhancement of the curriculum pertaining to Logic and Cognitive Science at NC State; curriculum design and development consulting for a course offered in the NC State Institute for Advanced Analytics.
- Twenty-five years experience in software development, product definition and development, strategy, management (including project management), and the development of infrastructure for advanced technology solutions to business problems.
- Experience (with publication history) in knowledge management and knowledge based systems, applied computational linguistics, and text and data mining technology and applications.
- Over fifteen years experience in the areas of compilers and software tools, interactive development environments, and graphical user interface development on a variety of hardware and operating systems. Familiarity with a wide spectrum of programming languages, development environments, client-server technology, web

technology, artificial intelligence applications, text/data mining, knowledge representation and management, search and retrieval, and project management tools.

- Substantial experience in the design and writing of technical documentation, including paper documentation, on-line documentation, and hypertext help. Management of documentation development for a variety of products.

Education

- 1996 On site course in Object Oriented Analysis and Object Oriented Design by First Principles Engineering.
- 1990 Center for Creative Leadership course in creative management.
- 1984 Western Institute in Computer Science. Stanford University.
- 1983 All course work completed for M.S. in Electrical Engineering and Computer Science (University of Illinois at Chicago). Thesis Topic: *A Computer-Aided Instruction Program for Derivations in First-Order Formal Logic*.
- 1974 Ph.D.; University of Rochester (Philosophy). Area of specialization: formal logic. Thesis Title: *A Semantically Closed Theory of Truth*.
Dissertation director: Rolf A. Eberle. Second Reader: John L. Pollock.
- 1973 M.A.; University of Rochester (Philosophy).
- 1969 B.S.; Rensselaer Polytechnic Institute. Thesis title: *Anscombe's Theory of Action*. Thesis director: Gail C. Stine.

Employment History

- Present President: Ontolytics, LLC
Visiting Scholar: Department of Philosophy and Religion, North Carolina State University
- 2005-2010 Director and Head
Semantic Technologies Group
GlaxoSmithKline Inc.
- 2002-2005 Director and Principal Scientist
Analysis Applications, Research, and Technologies
GlaxoSmithKline Inc.
- 2001-2002 Associate Director of Knowledge Engineering
Novartis Pharmaceuticals Corp.
- 2001 Principal Scientist (Associate Director Level)
Data Exploration Sciences (Research and Development)
GlaxoSmithKline Inc.
- 1997-2000 Principal Consultant
Emerging Technologies Group (Information Technology)
GlaxoWellcome Inc.
- 1996 Training Consultant to Imonics, Inc. for course development and teaching of *A User's Introduction to UNIX*

1992-1997	Principal Systems Developer SAS Institute Inc.; Cary, NC
1987-1992	Manager, Language Features and Environments Department SAS Institute Inc.; Cary, NC
1984-1987	Senior member of the Technical Staff Lattice, Inc.; Oak Brook, IL
1982-1984	Bell Laboratories; Naperville, IL (On contract from Lachman Associates.)
1978-1982	Associate Professor (tenured), Department of Philosophy Loyola University of Chicago
1973-1977	Assistant Professor, Department of Philosophy Loyola University of Chicago

Awards

- 2009: SafetyWorks/SAEfetyWorks received industry *Bio-IT World* award for *Translational and Personalized Medicine*.
- 2008: GlaxoSmithKline Gold Award for “Exemplary contributions that resulted in the delivery of the SAE-fetyWorks tool for GSK.”
- 2007: GlaxoSmithKline Gold Award for “Theoretical and material contributions in leading the SafetyWorks observational pharmacovigilance project.”
- 1972-1973: Woodrow Wilson Dissertation Fellowship

Publications

A 'P' indicates a publication in the area of philosophy, 'C' indicates computer science, artificial intelligence, or software engineering, and 'I' indicates informatics. Some papers span multiple disciplines and therefore have multiple subject indicators associated with them.

This list does not include book reviews or abstracts of talks given at meetings of the Association for Symbolic Logic.

Articles in preparation

P,C,I “Ontological semantics for the empirical sciences”

Articles submitted and currently under review

P “Ontology, ontologies, and science” (submitted to *Applied Philosophy*)

Published articles and presentations

- I,P,C 2010 "Ontology Development in the Sciences: Some Fundamental Considerations", invited presentation, *BioSynC Workshop: Integrating ontologies with biodiversity research* (organized by the *Encyclopedia of Life*), Raleigh, NC, Oct. 16, 2010.
- I,P 2010 "Realism and Reference Ontologies: Considerations, Reflections, and Problems". *Applied Ontology*, Vol. 5, No. 3, 2010, pp. 50-79.
- I,P 2010 "Ontological realism: methodology or misdirection". *Applied Ontology*, Vol. 5, No. 2, 2010, pp. 79-137.
- I, P 2009 "Concepts and Synonymy in the UMLS Metathesaurus". *Discovery and Collaboration* (online), Vol 4, 2009.
- I,P 2008 "The MedDRA Paradox". *AMIA Annual Symposium Proceedings*, 2008 Nov 6:470-474.
- I 2008 (with Patrick B. Ryan and Jeffery L. Painter) "Applying a UMLS/SNOMED-based Drug Ontology for Observational Pharmacovigilance". IDAMAP 2008 Intelligent Data Analysis in Biomedicine and Pharmacology (Washington, D.C., Nov. 7, 2008. Available in the *Working Notes* (ed. John Holmes and Alan Tucker) at <http://www.ailab.si/idamap/idamap2008/IDAMAP2008Proceedings.pdf>.
- I 2008 (with Patrick B. Ryan and Jeffery L. Painter) "Using SNOMED to Normalize and Aggregate Drug References in the SafetyWorks Observational Pharmacovigilance Project." KR-MED, 2008 poster session. Phoenix, AZ.
- I 2007 (with Patrick B. Ryan and Robertino Mera) "Opportunities and Challenges in Leveraging Observational Data for Pharmacovigilance." AMIA Pharmacovigilance and Informatics Summit, Washington DC, June 2007.
- C,I 2006 "Inter-translation of Biomedical Coding Schemes Using UMLS" (with GSK/LACSI interns Jeffery Painter and Kristoph Kleiner), *Fall Symposium of the American Association for Artificial Intelligence on Semantic Web for Collaborative Knowledge Acquisition*, Arlington Va., October, 2006.
- C,I 2006 "Engineering a Development Platform for Ontology-Enhanced Knowledge Applications", Ch. 28 (invited) in *Ontologies: A Handbook of Principles, Concepts and Applications in Information Systems* (Integrated Series in Information Systems), ed. by Raj Sharman, et. al., Springer-Verlag.
- I 2004 "A Practical Multi-Ontology Approach to Knowledge Exploration", presented at *Technology for Life*, North Carolina Symposium on Biotechnology and Bioinformatics, Oct. 12-15, 2004.
- C,I 2003 "The Babylon Project: Toward an Extensible Text-mining Platform", *IEEE IT Professional*; March/April, 2003.
- C 1999 Interface-guided Ontology Design, in *Technical Notes on Ontology Management* (AAAI-99 workshop); the American Association for Artificial Intelligence.
- I 1998 Editor of *Technical Notes on Knowledge Sharing Across Medical and Biological Knowledge Bases* (a AAAI-98 workshop); the American Association for Artificial Intelligence, Gary H. Merrill and Dhiraj K. Pathak, organizers.
- C 1993 "Parsing Non-LR(k) Grammars with Yacc", *Software Practice and Experience*, Vol. 23(8), 829-850 (August, 1993).
- C 1990 "Porting C to the IBM Mainframe Environment", *SUGI Conference Proceedings* (15), 736-740.
- C 1990 "Introduction to the C Programming Language", *SUGI Conference Proceedings* (15), 745-751.

(Various other articles and presentations on the C language and programming in C elided.)

- P,C 1984 "Truth, Proof, and Program Correctness," *SIGPLAN Notices*, Dec. 1983.
- P 1981 "Extensional modal logic" (Abstract, Meeting of the Association for Symbolic Logic), *Journal of Symbolic Logic*, Vol. 46, No. 3 (Jun., 1981), p. 686.
- P 1980 "Three Forms of Realism," *American Philosophical Quarterly* 17, 229-235.
- P 1980 "The Model-Theoretic Argument Against Realism," *Philosophy of Science* 47, 69-81."
- P 1980 "Moderate historicism and the empirical sense of good science," *PSA 1980*, edited by P. d. Asquith and R. N. Giere. 223-235."
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- P 1979 "Marginal Notes on the Theory of Reference," *Grazer Philosophische Studien* 9, 35-50.
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- P 1977 "On an enduring non sequitur of Quine's," *Notre Dame Journal of Formal Logic* 18, 613-615.
- P 1976 "Natural deduction in the style of Kalish and Montague" (Abstract, Meeting of the Association for Symbolic Logic), *Journal of Symbolic Logic*, Vol. 41, No. 2 (Jun., 1976), pp. 553-554.
- P 1975 "A Free Logic With Intensions As Possible Values of Terms," *Journal of Philosophical Logic* 4, 293-326.
- P 1975 "A free modal logic with intensions as possible 'designata' of terms" (Abstract, Meeting of the Association for Symbolic Logic), *The Journal of Symbolic Logic*, Vol. 40, No. 2 (Jun., 1975), pp. 303-304.
- P 1975 "Peirce on Probability and Induction," *Transactions of the C. S. Peirce Society* 11, 90-109.
- P 1974 "Identity in free modal logic" (Abstract, Meeting of the Association for Symbolic Logic), *The Journal of Symbolic Logic*, Vol. 39, No. 2 (Jun., 1974), pp. 397.

Appendix: List of URLs Cited

Topic	URL cited
Practical Ontology [for Data-Mining] PHI 498/LOG 598	http://www4.ncsu.edu/~ghmerril/PracticalOntology/about.html
Vista to Moodle: Everybody's Doing It	https://deltawire.delta.ncsu.edu/around-campus/vista-to-moodle-everybody%E2%80%99s-doing-it/
NC State University Enterprise Learning Technologies update 12/14/2010	https://deltawire.delta.ncsu.edu/around-campus/nc-state-university-enterprise-learning-technologies-update/
NCSU Code of Student Conduct	http://www.ncsu.edu/policies/student_services/student_discipline/POL11.35.1.php
EAC 583-601 F10 Needs Assessment and Task Analysis In Training & Development	http://moodle.wolfware.ncsu.edu/course/view.php?id=6541
"It's a matter of philosophy," <i>News & Observer</i> 7/10/2006 about Dr. Merrill's seminal role in the Logic and Cognitive Science Initiative at NCSU	http://www.ncsu.edu/chass/philo/LACSI.Internship%20Article.pdf
Logic and Cognitive Science Initiative at NCSU	http://www.ncsu.edu/chass/philo/phil_lcsi.html
NCSU LMS Report Spring 2010	http://wikis.lib.ncsu.edu/images/c/c0/LMS_Report_spring_2010.pdf
Moodle	http://moodle.org
Multiple actions module for Moodle	http://www1.umn.edu/moodle/about/development.html
Drag and drop in Moodle	http://moodle.org/mod/forum/discuss.php?d=114148&parent=501198
Downloading individual answers to test questions in Moodle	http://download.moodle.org/download.php/plugins19/mod/quiz/report/responses.zip
Downloading in core of Moodle 2.0	http://moodle.org/mod/data/view.php?d=13&rid=96
Invalid field name in Moodle	http://docs.moodle.org/en/error/moodle/invalidfieldname
Groups – Moodle help file	http://docs.moodle.org/en/course/import/groups/index
Upload user names	http://docs.moodle.org/en/Upload_users
Screengrab	http://www.screengrab.org/
No auto-submit after deadline in Moodle	http://moodle.wolfware.ncsu.edu/mod/forum/discuss.php?d=121201
Teacher's lounge NCSU	http://moodle.wolfware.ncsu.edu/mod/forum/index.php?id=4171
Moodle at NCSU	http://moodle.wolfware.ncsu.edu
Comment on battling Moodle 1.9 Grade book	http://lisahistory.net/wordpress/?p=117
DELTA FAQ on hiding all scores by hiding Course Total	http://delta.ncsu.edu/get_help/faq/solution.php?solution=3695
Wolfware NCSU	http://wolfware.ncsu.edu/
LMS Feature Request button	https://wolfware.ncsu.edu/feature-request/
Teaching with Moodle NCSU	http://moodle.wolfware.ncsu.edu/course/view.php?id=4171
Teacher's Lounge Bulletin Board Moodle	http://moodle.wolfware.ncsu.edu/mod/forum/view.php?id=110917
DELTA Moodle FAQs	http://delta.ncsu.edu/get_help/faq/index.php?keyword=moodle
Sysnews announcement about LMS Features Request button	http://sysnews.ncsu.edu/news/4c8a7a7d
Moving to Moodle at NCSU	http://wikis.lib.ncsu.edu/index.php/LMS_Strategy

Appendix: List of URLs Cited

Topic	URL cited
LMS Features Requests	http://spreadsheets.google.com/pub?key=tvrGJs4-yD9KYKQc0calcYg&single=true&gid=0&output=html
Moodle bug tracker (not at NCSU)	http://tracker.moodle.org
Problems with Moodle 2.0 Updating from moodle 1.9 to 2.01+	http://moodle.org/mod/forum/discuss.php?d=165115
Problems with Moodle 2.0 Moodle 2.0 headers and footers	http://moodle.org/mod/forum/discuss.php?d=164112
Problems with Moodle 2.0 file handling in Moodle 2.0	http://moodle.org/mod/forum/discuss.php?d=153317#p723548
Problems with Moodle 2.0 "Moodle is destroyed"	http://moodle.org/mod/forum/discuss.php?d=165065
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