INDIANA UNIVERSITY

68 – Assessment and Feedback Systems

Action Item Template Response

General Action Item Information

Lead Division/Office: LT
Action Item Number: 68
Action Item Short Name: Assessment and Feedback Systems
Dependencies with other EP Action Items:
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I. DESCRIBE YOUR PLANS FOR IMPLEMENTING THIS ACTION.

Several software development projects are already underway that focus on advanced assessment capabilities (including assessment of learning outcomes at the course, program, and campus levels), providing students with timely and meaningful feedback on their academic progress, and alerting faculty and advisors to students in academic distress so that appropriate interventions can be initiated. To meet the growing demand for these capabilities, UITS should not only continue, but accelerate the development of the following applications, all of which are (or will be) embedded within or tightly integrated with the Oncourse learning management system.

ACCOMPLISHMENTS

UITS will continue the development of the following applications, all of which are (or will be) embedded within or tightly integrated with the Oncourse learning management system.

ePortfolio:
The Learning Technologies and Oncourse Development groups have continued building out the assessment capabilities of the Oncourse ePortfolio tools in response to stated needs of the IUPUI campus. Today, the system allows students to upload examples of the work that exemplify their mastery of specific outcomes; to reflect on those examples in ways that help them see connections between their course work and their personal, academic, and career goals; and to track their academic progress. Students can request feedback on their work from peers, advisors, faculty, or even prospective employers. Integration with the Oncourse Assignments tool allows faculty to link key assignments to specific learning outcomes within the ePortfolio. Faculty, advisors, and administrators can use ePortfolio's reporting function to monitor and analyze student achievement as well as program effectiveness.

FLAGS Early Alert System:
The SIS Grade roster is being used to collect early warning data in the first 3-8 weeks of the semester. This is the first phase of a larger initiative on early alert.

Turnitin plagiarism prevention service:
The Turnitin plagiarism prevention service license was extended another year beyond the current three-year agreement. The tool provides faculty a way to educate students about aspects of academic integrity and methods of citation and paraphrase, to assess student use of outside materials, and to give students feedback on their appropriate use of outside sources.

Activities and initiatives up to 2012 include the following:

ePortfolio
For the last two years, the Learning Technologies and Oncourse Development groups have been building out the assessment capabilities of the Oncourse ePortfolio tools in response to stated needs of the IUPUI campus. Today, the system allows students to upload examples of the work that exemplify their mastery of specific outcomes; to reflect on those examples in ways that help them see connections between their course work and their personal, academic, and career goals; and to track their academic progress. Students can request feedback on their work from peers, advisors, faculty, or even prospective employers. Integration with the Oncourse Assignments tool allows faculty to link key assignments to specific learning outcomes within the ePortfolio. Faculty, advisors, and administrators can use ePortfolio's reporting function to monitor and analyze student achievement as well as program effectiveness.

Future development work on the ePortfolio should focus on the following areas:
- Ability for faculty and students to easily link work produced in other Oncourse tools to learning outcomes (for example, an entire test/quiz or specific test/quiz questions, a forum post)
- Ability for faculty to evaluate linked items directly within the tool in which they are produced
- Long-term storage solution for student learning artifacts, including work linked via other tools

- Improved scalability and performance
- Advanced and custom reporting (including the ability to filter and group based on demographic and academic characteristics)
- Advanced multimedia support (including a turn-key video solution)
- Simplified site management and authoring tools
- Ability for students to specify default and item-specific permissions to control who can access their work and for what purposes.

IUPUI PUL Assessment Tool
Although the campus leadership at IUPUI is firmly committed to using the Oncourse ePortfolio environment for authentic assessment of student learning, they cannot mandate use of the application. Moreover, using ePortfolio effectively for program and/or institutional assessment requires a significant upfront planning and consensus-building effort. At the same time, with a Higher Learning Commission accreditation just three years away, the campus has an urgent need to demonstrate a systematic and pervasive approach to assessing student mastery of the PULs. To encourage faculty participation in and cooperation with campus-wide assessment efforts, IUPUI has asked UITS to develop a very simple Oncourse tool for rating each student on the one or two most important PULs taught in each undergraduate course. Beginning in fall 2009, IUPUI faculty in schools and departments not ready and/or committed to using ePortfolio for PUL assessment will be required to use this new tool to assess and document student mastery of the PULs in all undergraduate classes on a regular schedule. Data collected via the PUL Assessment Tool will be archived in IUIE and available for analysis and reporting by the IUPUI Office of Information Management and Institutional Research.

Online Testing
Staff are currently evaluating potential replacements for the Original Test and Survey Tool. Among the many requirements for the replacement tool are several that align directly with Action Item 68, including: The ability to associate learning outcomes metadata with individual questions, sections, or the entire assessment.

- All questions, answers, and feedback elements may contain any type of HTML, inline image, or links to any type of attached file.
- Ability to record audio questions and audio responses to questions.
- Support for complex interactions with multimedia inputs--flash, QuickTime, Lightbox, etc.
- Support for item and assessment statistics. If the selected replacement tool does not offer all of these capabilities out of the box, UITS should enhance the tool with additional multimedia capabilities.

In addition, work should begin on enabling linking to portfolio learning outcomes.

Early Warning System
For students performing poorly in specific classes, early intervention is critical. UITS has been approached by IUPUI and several of the IU regional campuses about building an electronic early warning system within Oncourse. To address IUPUI's immediate need for a replacement of their paper-based system, the UITS SIS team will modify the SIS Grade Roster so it can be used to collect early warning data from IUPUI faculty during weeks 3-8 of each semester. This stopgap application is slated for rollout in fall 2009. In the longer term, Learning Technologies and the Oncourse Development Team will scope out and develop a more flexible and robust system within Oncourse that provides students, faculty, advisors, and administrators with information and feedback on student performance as well as tools for facilitating interventions when necessary.

Redesign Oncourse Site Statistics
In many Indiana University courses, the frequency and nature of interaction with Oncourse tools is an important and valid measure of student participation and engagement. Faculty use Oncourse site statistics to determine which students are logging in regularly to read announcements, opening instructional materials in Resources, starting and completing assignments, etc. We know, however, that the current Oncourse Site Statistics tool does not meet the needs of faculty who use this information to identify students who are keeping up with course work. The tool does not provide sufficient detail for faculty who want to know more about the utilization patterns of individual students and groups over time. Improving and/or completely redesigning the Site Statistics tool has already been identified as a priority by both the FRC and the OPC. Moreover, the availability for faculty to mine Oncourse utilization data will be an important component of the above-mentioned Early Warning System.

iRubric Integration
As part of its National Council for Accreditation of Teacher Education (NCATE) accreditation process, the IUB School of Education is required to establish rubrics for certain key assessments to determine levels of candidate accomplishment. Faculty create rubrics for a specific courses and each rubric is used across all sections of the course. After evaluating technology options for rubric creation and assessment, the School chose iRubric (http://www.irubric.com), an online tool for creating and using rubrics developed and hosted by RCampus. The vendor has already completed integration with the Sakai Gradebook, and UITS is assisting with local integration for a pilot project in fall 2009. In addition to addressing a specific need within the School of Education, the iRubric tool has enormous potential as a general learning assessment tool within Oncourse and Sakai. Many faculty already use rubrics to grade papers, ePortfolios, and other types of open-ended assignments. The ability to create, apply, and share rubrics (as well as report on aggregate assessment results) within other Oncourse tools (e.g., Assignments Beta, Forums, ePortfolio) would benefit both faculty and students.

Classroom Attendance Tracking System

As part of the larger retention initiative, UITS piloted an attendance tracking system during the fall 2009 semester. Working with Gateway course instructors, selected classrooms were equipped with a JagTag "swipe card reader." The swipe card readers were installed at larger classroom doors (e.g., LE101) or attached to the instructor workstation at the front of the room in smaller rooms (e.g., IT159). Students recorded their attendance by swiping their JagTag through the reader. The attendance data were gathered in a single database so that specific reports could be generated for manual upload into the Oncourse gradebook. The results of the pilot suggest that alternate methods for attendance tracking are needed because of logistical and technical problems encountered in the pilot.

Online Course Evaluation System
Online course evaluation is necessary for efficient, accurate collection of evaluation data and subsequent reporting. The Sakai-based EvalSys tool (already piloted at the University of Michigan and Marist College) would be integrated with Oncourse/SIS to allow for continued community source development (as well as further customization to account for IU-specific requirements).

Placement Testing
As noted recently by David Zarat, senior advisor to the provost at IUB:

- Among all CIC institutions, IUB is at the wrong end of the continuum with regard to use of paper tests for placing new incoming students into appropriate-level math and foreign language courses. Nearly all others have an online option, and most have entirely jettisoned the paper.

- This has implications for emergency planning (if a pandemic disrupts summer new student orientation/registration) and, more importantly, for the quality of the summer orientation/registration experience. Currently, students arrive and they are greeted with #2 pencils and paper tests. If they completed online tests before coming to the summer orientation, more time can be devoted to advising.
- Karen Hanson and Brad Wheeler both want to move ahead quickly with this. The Provost will initiate this, communicating directly to the relevant department chairs (all in the College of Arts & Sciences) about an administrative decision to no longer include testing as part of summer orientation/registration. Many departments are currently looking into online options, and her memo should suffice for any lingering reluctance. As you probably anticipate, this includes reassurance about providing units with development assistance.

We are currently meeting with administrators in the College to discuss support for and assistance with online testing for all placement tests.

Comprehensive Testing Center at IUPUI
Online testing, from assessment design to the technology that supports it, continues to experience strong growth in the university environment. The pedagogical advantages are real, including more time for classroom instruction and the ability (through more detailed, efficient feedback) to use assessments as powerful learning tools.

Comprehensive testing facilities are a central component of any strategic initiative aimed at enhancing the overall assessment process. Indeed, the IUPUI Testing Center has a clearly articulated vision statement that speaks directly to the aforementioned logistical and pedagogical goals, as well as providing outreach testing services and helping to develop/conduct project and program evaluation studies across a wide spectrum of disciplines including education, health and human services. Similarly, the School of Science has played a key leadership role in providing online testing for psychology students that is inextricably linked to the pedagogical goals of the course.
An opportunity now exists at IUPUI to create integrated and comprehensive testing centers that would build on the strong foundation of the current testing facilities. Through a leveraged technology infrastructure, these testing centers would offer IUPUI students, faculty, and external constituents,

state-of-the-art facilities in which to further a wide assortment of academic, administrative and professional objectives.

To meet these requirements, a new test and survey tool is currently in development for Oncourse that will significantly enhance the functionality of assessment development and delivery in various modalities. Also, the use of a virtualized desktop infrastructure, where computer workstations connect to a central server, will significantly enhance the online testing environment, as a student can take any test, on any computer, in any testing center.

Turnitin plagiarism prevention service
With no open-source solution in sight and integration with Oncourse/Sakai nearly ready for pilot this fall in Assignments2, we anticipate the need to continue licensing the Turnitin plagiarism prevention service beyond the current three-year agreement. The tool provides faculty a way to educate students about aspects of academic integrity and methods of citation and paraphrase, to assess student use of outside materials, and to give students feedback on their appropriate use of outside sources. The current agreement has been financed with one-time funds that will not be available in the future. Therefore, we are requesting EP funding for a likely future agreement.

II. WHAT ARE THE POLICY AND PRACTICE IMPLICATIONS OF YOUR PLANS?

- Collecting, storing, and presenting student work to program evaluators and accrediting bodies as evidence of leaning has significant ownership and privacy implications that deserve further study.

- Current policy restricts Oncourse access to registered students, only. Many students need access to their portfolio materials after graduation.

- Departments and programs need long-term access (5-10 year) to portfolio data including student artifacts. Currently, course sites are archived after eight semesters, after which artifacts submitted via linked tools in course sites are no longer accessible. An alternative storage solution or revised archiving policy is needed.

- Resources in Learning Technologies are already overcommitted for gathering and analyzing functional requirements, creating and maintaining test scripts, and conducting functional quality assurance testing. With a single person focused full-time on this (Senior Functional Analyst), assisted by 5-10% of most of the instructional technology consultants in the teaching and learning centers on the two main campuses, we still do not have the capacity to do as thorough and systematic an effort as needed. With major releases 2-3 times a year and regular fixes that are required for the stability and performance of Oncourse, with many new initiatives in this and other action items, not to mention the looming demands of a totally new architecture and interface of Sakai 3, we need additional full-time resources for functional requirements gathering, detailed requirements analysis, test script writing and maintenance, and quality assurance testing.

- The early ewarning system will have privacy and significant data stewardship implications, as it involves collecting, tracking, and reporting data about academic progress (or lack thereof).

III. IDENTIFY STAKEHOLDERS.

- Students
- Faculty
- Advisors
- Academic program administrators
- Parents