

Transforming Assessment and Learning Using Online Tools

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Short History of the Online Essay Evaluation Project

In 1997, Professor Harold Abelson, Professor of Computer Science and Chair of MIT's Committee on Undergraduate Admissions and Financial Aid, suggested that the Freshman Essay Evaluation, a writing placement test administered to all students, be offered to incoming students over the web during the summer and that students receive detailed comments on their writing along with their placement results. Dean Leslie Perelman and Ms. Madeline Brown, Director of Writing Initiatives, saw in the online essay the opportunity to construct assessments that more closely resembled the contexts of actual academic writing, with substantial readings, time for planning and revision, and the opportunity to write on a computer rather than with pen and paper. In the spring of 1998, a prototype system was developed to run on the MIT Registrar's system. Within two years over 75% of the entering class chose to take the evaluation online. Moreover, the online system allowed freshmen advisors access to both their advisees' essays and the comments on them. Almost all advisors found this feature to be extremely helpful. In addition, student complaints about the scoring of the test dropped from over thirty each year to, at most, one or two.

Other universities became interested in using the online evaluation, but, unfortunately, the native MIT system could not be imported into other systems. Consequently, a two-year grant was secured from the MIT / Microsoft iCampus Alliance to develop a flexible, adaptable, and extensible national service. Four partner schools, the California Institute of Technology, DePaul University, Louisiana State University, and the University of Cincinnati, joined the project in the spring of 2001, and assisted in developing the specifications for the service. Under the joint direction of MIT faculty and Microsoft staff, the service was developed using the .Net platform and was first used in the summer of 2002 by MIT and the four partner schools. The service functioned well, eliciting widespread enthusiasm from students, faculty, and administrators at all five universities. Four additional universities, Clemson, Cornell, SUNY Stony Brook, and Olin College joined the partnership and are currently using the service during the summer of 2003.

Description of iMOAT

iMOAT allows students to take assessments or complete assignments anywhere in the world. Moreover, it is a flexible tool that facilitates best practices in writing assessment. It allows universities to define key elements of any assessment instrument or academic assignment, including the number of test elements, their relative weight in determining a final score, scores and grades, online articles associated with specific test elements, the time allotted for reading articles and for writing the essays, holistic scoring

scales, the number of readers for each essay element, what discrepancies among readers will constitute an aberrant score, procedures for resolving aberrant scores, real-time tracking of aberrant scoring, and procedures for online scoring and the writing and vetting of comments. It is also a powerful web service and database tool. Because it uploads and downloads in tab-delimited format, it is able to interface with any registration system and can be easily imported in Microsoft Excel and FileMaker Pro.

Uses of iMOAT as Evaluation Tool

iMOAT is designed to allow schools to define exactly how it will be used. Some schools use it as a placement test required of all students. Other schools offer it to students as an opportunity to challenge placement based on some other instrument, such as ACT or SAT scores. One school also uses iMOAT for standardized assessment of students at the end of each semester of a yearlong freshman composition sequence.

Benefits of iMOAT

iMOAT has demonstrated benefits for students, for writing faculty, and for university administration.

Students. iMOAT transforms a student's first academic contact into an educational experience. Testing becomes learning. Students synthesize information, organize ideas, revise, and then receive detailed feedback. Students are able to write in the comfort of their own homes, rather than in a crowded classroom. This early assessment before students arrive on campus allows students to know placement decisions well in advance. Because students have more time and are responding to longer readings, the writing tasks are often more interesting. Finally, removing writing placement from orientation week reduces student stress during that period.

Writing Faculty. iMOAT allows writing faculty to maintain control of all aspects of the evaluation process within the university and writing program. It allows them to construct essays and questions that reflect the university's and program's specific educational needs, priorities, and goals, reflecting and measuring the writing process used and valued at their institution. Online grading sessions maintain the "staff consensus building" benefit while potentially reducing costs. It is also a useful tool for maintaining consistency of class grading with a large staff. Finally iMOAT encourages the sharing of "best practices" among the writing programs using the service.

University Administration. Because iMOAT is a more reliable and more valid measure of student writing than traditional pen and paper timed-impromptu assessments, more students are placed correctly in writing classes appropriate to their skill level. Consequently, student retention in these classes is increased and the need for extra sections to accommodate shuffling students is eliminated. Furthermore, because disabled students are writing on their own computers with their own adaptive software, iMOAT automatically accommodates students with disabilities at no additional cost. It also produces substantial reductions in paper flow and paper records, eliminates data entry, and, when compared to the cost of a university developing and running its own service, substantially reduces IT costs. iMOAT frees crowded orientation weeks and reduces the time and expense of housing incoming students on campus. Finally, iMOAT significantly reduces the cost and inefficiency of human grading because raters will be reading typescript.

Extended Uses of iMOAT

Although iMOAT was originally developed as an assessment tool, its robust architecture has allowed it to become a powerful tool for other exciting educational innovations.

Portfolios

Because iMOAT combines flexibility in constructing different kinds of writing assignments with a powerful database, it has already been used at Clemson University as a key component in a project to develop four-year portfolios of each student's written work. MIT, LSU, and DePaul are all currently exploring using iMOAT as a device for developing and maintaining portfolios of student work.

Distance Learning and Teaching

Perhaps the greatest potential for iMOAT is in the field of distance learning and teaching. Although designed for writing assessment, the service is equally suitable for delivering readings and receiving writing assignments in any field. Furthermore, the comment feature provides mechanisms both for providing online feedback and for monitoring the quality of that feedback. Finally iMOAT provides for virtual scoring sessions, in which multiple raters situated in different locations can be trained and then reliably score papers.

