

FROM THE TRENCHES

THE DESIGN AND IMPLEMENTATION OF AN ONLINE ASSESSMENT SYSTEM

Where We Were



- In 2006, we passed accreditation and retired the Scantron-based assessment system we had used.
- We wanted an online assessment tool to ease collecting assessments and it needed to be in place by 2008.

Our Options



- ❑ Commercial
- ❑ Outsource, Freelancer or Company
- ❑ Outsource, Intra-Institution Information Technology Support
- ❑ Insource, Internal Department Development

Purchase Commercial System

Positives

- ❑ You can deploy the system rapidly since there is not a need for development time.
- ❑ You will be able to follow in others footsteps.
- ❑ Providers are experienced in assessment and possible challenges.
- ❑ Providers may offer integration with existing software and authentication systems.

Negatives

- ❑ The commercial products are costly and typically there is an initial setup and a recurring fee.
- ❑ The solutions are ready made unless you want to pay for custom extensions.

Hire Freelancer or Company

Positives

- ❑ You can implement your vision.
- ❑ Costs are non-recurring unless you want a maintenance service agreement.

Negatives

- ❑ Your vision may not be implemented to your satisfaction.
- ❑ There is a potential to get caught into a loop of redefining requirements; related costs may get out of control.
- ❑ Future support may not be available.

Use IT Support

Positives

- ❑ You can implement your vision.
- ❑ The cost in resources may be absorbed by the institution.
- ❑ Future support is reasonably assured.

Negatives

- ❑ Your Information Technology Support may be overburdened and/or not able to complete a quality job.
- ❑ There is a potential to get caught in a loop of redefining requirements; deadlines may be redefined due to this.

Internally Develop

Positives

- ❑ You have the most control of any of the solutions to implement your vision.
- ❑ The cost is part of an employee's or employees' salaries and you gain the benefits of having a technically skilled staff member.

Negatives

- ❑ You may be forced to rely upon the skills of a single individual with little redundancy.
- ❑ Future support is dependent upon the continued employment of the developer; another skilled staff member should be able to continue the support, but may have difficulties.

What Did Not Work, Part 1

Commercial Product

- ❑ Great product
- ❑ Great support
- ❑ Costs about \$90,000 per year, based on our size

We decided we could and should try a less expensive approach.

What Did Not Work, Part 2

Freelancer

- We spent a year trying to develop a system working with a freelancer to develop a solution based on Moodle.
- After a year, the system was confusing to students and faculty.
- Each semester, the configuration was going to take over 40 work hours.

We decided we could and should try to do better.

What Worked

Internal Development

- Reassigned staff member to project
- Quick deadlines forced focus on functionality immediately needed
- First year
 - ▣ Basic input functionality
 - ▣ Simple reports run from query data in Excel
- Complete system rewrite after first year
- Subsequent years
 - ▣ Continuous evolution
 - ▣ Maturing system



Our Online System

What Our System Does

- Guides users through completing one or more assessments
- Supports varied user types:
 - ▣ Candidates
 - ▣ Cooperating teachers
 - ▣ Faculty
 - ▣ Inter-department faculty
- Reports data in readable and useful ways
 - ▣ Disaggregates data by student program, distance site, and custom groupings
 - ▣ Allows faculty to generate their own reports
- Helps us approach a 100% response rate

User Experience

Example Instructor Screen

Select a Section to Assess

Semester	Section	Students	Rubrics ¹	Status	Action
Fall 2012	ED 310: 04	30	1	0 / 30 (0 %)	Assess
Fall 2012	ED 310: 05	30	1	0 / 30 (0 %)	Assess
Fall 2012	ED 485: 02	10	1	0 / 10 (0 %)	Assess

¹We have recently introduced rubrics which are specific to a student's program/major. All rubrics are included in this count, but you may be presented with fewer rubrics depending on your students' programs/majors.

User Experience

Example Rubric Screen

Classroom Management Plan

	Distinguished	Proficient	Progressing	Unsatisfactory
Personal Statement 3 2 1 0 ☒ ☐ ☐ ☐	Demonstrates an extensive knowledge of classroom management concepts and practices Shows evidence of a continued search for improved practice Strong examples Exceptionally well written	Demonstrates solid understanding of classroom management concepts Some connections made between classroom management and student behavior Sufficient examples Effectively written with very few instances of incorrect sentence, paragraph and/or grammatical structure	Displays a weak understanding of classroom management concepts and practices Few connections made between classroom management and student behavior Too few and/or weak examples. Some contradictory materials may be present Poorly written and/or organized with some instances of incorrect sentence, paragraph and/or grammatical structure	Unable to design or explain No connections made between classroom management and student behavior Incorrect examples Many instances of incorrect sentence, paragraph, and/or grammatical structure
Preparation and materials for first day 3 2 1 0 ☐ ☒ ☐ ☐	Values importance of preparation, classroom climate and how these connect to student behavior Effectively organized and clearly laid out Materials and/or preparations for all aspects of	Material presented is a sufficient representation of listed practices Organized Materials and/or presentation for most aspects of the classroom included	Little reference to professional ideas and literature Weak. Not clear, logical or well organized Materials and preparations for aspects of the classroom are weak or missing	No reference to professional ideas and/or literature Lack of organization interferes with reader's ability to understand concepts presented No materials and/or preparations for aspects of classroom

Reporting Features

- Course-based reporting
 - ▣ Always available to faculty for on-demand reporting
- Program-based reporting
- Standards-based reporting
- Disaggregation Options
 - ▣ Rubric
 - ▣ Campus
 - ▣ Semester
 - ▣ Academic Year

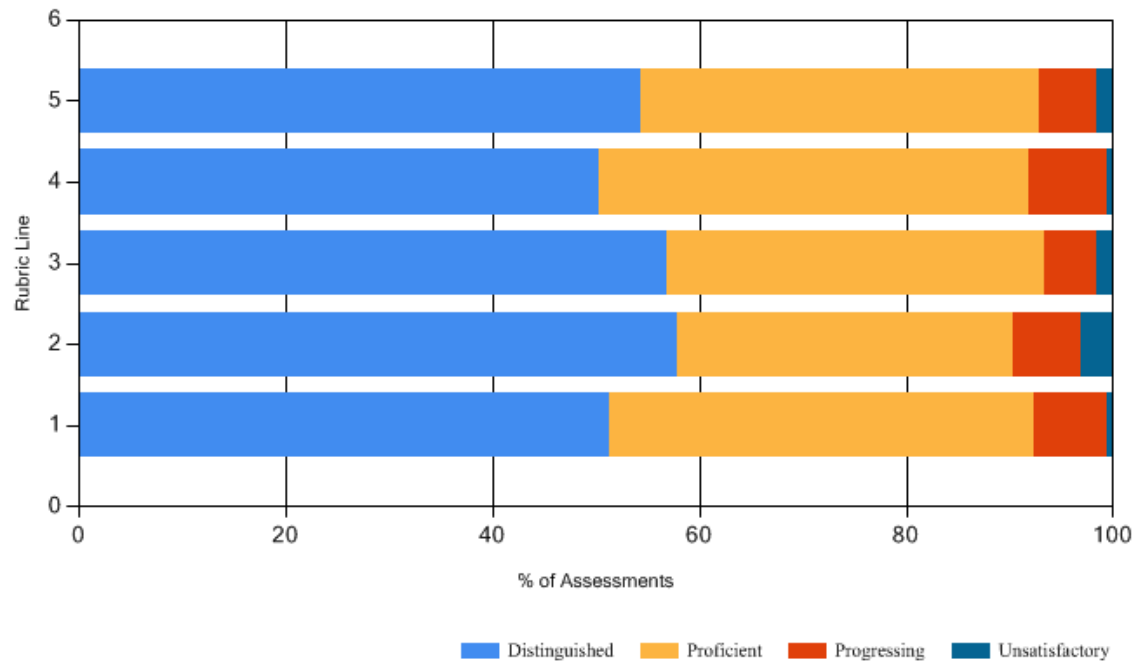
Report Structure

- Header defines disaggregation options selected
- Graphic to aid in analysis and interpretation
- Data table
 - N-value
 - Breakdown of responses
 - Percentages
 - Mean
 - Sample standard deviation

Report Structure

Interpretation Aid

Fall 2012 Semester
ED 310 - Organizing and Managing Classroom Environments
Classroom Management Plan
Assessments by Instructor



Report Structure

Data Table

Fall 2012 Semester ED 310 - Organizing and Managing Classroom Environments Classroom Management Plan Assessments by Instructor (N = 197)							
Rubric Line Description	Rubric Line #	Distinguished (3)	Proficient (2)	Progressing (1)	Unsatisfactory (0)	Mean	Sample Std. Dev.
Personal Statement	1	101 (51.3%)	81 (41.1%)	14 (7.1%)	1 (0.5%)	2.431	0.648
Preparation and materials for first day	2	114 (57.9%)	64 (32.5%)	13 (6.6%)	6 (3.0%)	2.452	0.752
Community/ climate building activities	3	112 (56.9%)	72 (36.5%)	10 (5.1%)	3 (1.5%)	2.487	0.667
Samples/visuals	4	99 (50.3%)	82 (41.6%)	15 (7.6%)	1 (0.5%)	2.416	0.654
Interviewing	5	107 (54.3%)	76 (38.6%)	11 (5.6%)	3 (1.5%)	2.457	0.673

Semi-Automated E-mail Invitation Tool

- We e-mail over 1 500 candidates, cooperating teachers, and faculty each semester
- Each user group receives a different type of e-mail
- Each user receives a customized e-mail specifying the assessments available for them
- Reminder e-mails sent to only users with incomplete assessments
- E-mail tool is built into the system and is available to site administrators



Culture of Assessment

Building a Culture of Assessment

- Start slowly
- Provide support for users
- Have “Data Parties”!!
- Demonstrate how results can be used
- Explain expectations to new users
- Share results across audiences

What We Learned



- Assessment is more than the software used or going through the motions.
- Develop rubrics early and do not be afraid of changing them when appropriate.
- Support during peak assessment periods can be in high demand.
- Supporting cooperating teachers is one of our hardest administrative tasks.

What We Learned, continued

- Program coordinators need the ability to review rubrics assigned to courses.
- Have someone else other than the developer share or lead on administration.
- We have not developed an ePortfolio system, but edTPA may dictate the necessity of creating one.
- A custom system able to rapidly adapt to standard and accreditation changes, new reporting needs, and institutional needs is a worthwhile investment.

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