

SUNY Potsdam
Student Learning Outcomes Assessment Plan – Technology Education

Department Name: Technology Education

Date Submitted and Academic Year: Fall 2009 for 2009-2010

Department Mission Statement:

The ICT department has adopted the Education Unit's Conceptual Framework fully, as this framework was developed jointly with all Education Unit Departments in 2000. The intention of the conceptual framework was to provide a set of core qualities that all SUNY Potsdam Education candidates, including Educational Technology Specialists, should possess. The Education Unit's Conceptual Framework¹ includes three areas:

- Well-Educated Citizen
- Reflective Practitioner
- Principled Educator

Further, the ICT department has developed a set of dispositions that extend and go beyond this core framework, and are specific to the discipline of Educational Technology. The five Educational Technology Specialist Dispositions² include:

- Has a connoisseurial attitude about Educational Technology
- Values core concepts in the discipline of Educational Technology
- Respects and appreciates human diversity
- Willing to be flexible and show comfort with uncertainty
- Willing to work with other professionals to improve the overall learning environment

The projects in our courses are designed to reflect the AECT Standards, the Education Unit's Conceptual Framework, the ICT Dispositions, and the individual course requirements. When designing our evaluation rubrics, we note the AECT standard, the Conceptual Framework item, and the ICT disposition that a particular rubric item addresses.

Faculty Member Completing this Form: Tony Betrus

Update on prior years' "Application of Assessment Results:

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Intended Student Learning Outcome #1

Students will demonstrate content knowledge of Technology Education

Measurable Criteria and Assessment Method(s)

Direct Assessment #1- Content Specialty Test

CST-NYSTCE Subarea	Primary AECT Standards Addressed
Part 1: Foundations of Educational Computing and Technology	Standard 2: Development Standard 5: Evaluation
Part 2: Professional Applications of Technology	Standard 3: Utilization Standard 5: Evaluation
Part 3: Integrating Technology into Education	Standard 1: Design Standard 5: Evaluation
Part 4: Technology Leadership and Resource Management	Standard 4: Management Standard 5: Evaluation

Direct Assessment #2- Standards-Based Portfolio

The portfolio template itself is designed to demonstrate candidate knowledge and skills related to the five AECT standards. Candidates submit work for each of the five standard areas, as indicated in Section III. For their portfolio, candidates write five reflection essays that state how the projects in each category (design, development, utilization, management, and evaluation) meet the given standard, demonstrating their understanding and applicability of the standards.

Data Source/Results & Analysis

Direct Assessment #1- Content Specialty Test

The New York State Educational Technology Specialist Content Specialty Test (CST) is required for those of our graduates who wish to obtain a New York State Teaching Certificate as an Educational Technology Specialist. It was first offered in October, 2003 and is not a graduation requirement.

The CST is divided into five sub-areas, addressing 4 topical areas, with the fifth Sub-area being a Constructed Response addressing the same content at Sub-area III. Each Sub-area has four objectives that students should be prepared to answer questions about.

Direct Assessment #2- Standards-Based Portfolio

For the IT 659 portfolio, candidates create a cross-platform standards-based CD-Rom portfolio (usually in html).

Application of Results/Action Plan for Improvement

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Intended Student Learning Outcome #2

Students will demonstrate pedagogical and professional knowledge, skills and dispositions.

Measurable Criteria and Assessment Method(s)

Direct Assessment #1: Development of Training Materials

IT 651: Systematic Design of Instruction has a primary focus on design and development strategies. This assignment and corresponding assessment deal specifically with:

AECT 1.1 Instructional Systems Design

Assessed in the following assignment sections:

- Learner and context analysis
- Task Analysis
- Objectives
- Strategies
- Evaluation

AECT 1.4 Learner Characteristics

Assessed in the following assignment sections:

- Learner and context analysis

AECT 2.1 Print Technologies

Assessed in the following assignment sections:

- Instructional Materials

Direct Assessment #2: Evaluation of student performance in 100-Hour Technology practicum in a K-12 School by Faculty Supervisor

<i>Criteria</i>
Completeness of journal entries
Timeliness of journal submissions
Accurate descriptions of daily activities
What did the student learn/how can they improve based on the experience.
Transcribing the Journals

Data Source/Results & Analysis

Direct Assessment #1: Development of Training Materials

The primary thrust of IT 651: Systematic Instructional Design is the production of an instructional design project. It demonstrates the candidate's ability to design an original workshop that should take about 7 hours to teach in an organization; such a workshop might be part of a school's staff development programming. The objective of this course is to give our candidates the ability to plan, deliver, and evaluate a mid-sized training program on a specific topic. The length and duration of the course they design is roughly 1-2 days of instruction. This duration was chosen because as Educational Technology Specialists in schools, the approximate amount of staff development time they would be working with would be 1-2 days.

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Direct Assessment #2: Evaluation of student performance in 100-Hour Technology practicum in a K-12 School by Faculty Supervisor

Each Educational Technology Specialist candidate is required to complete **IT 657: Practicum in Technology**, a 100-clock hour practicum experience in their final semester in the program. The objective of the ICT internship is to provide candidates with an opportunity to work side-by-side with a K-12 technology specialist. During this experience, they divided their time relatively equally among Instructional Support, Technical Support, and Network Support. This assessment includes a review of the candidates' reflective journals and by the practicum sponsor's evaluation.

Application of Results/Action Plan for Improvement

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Intended Student Learning Outcome #3

Teacher candidates will demonstrate effects on student learning.

Measurable Criteria and Assessment Method(s)

Teacher Training Workshop

The workshop has a broad emphasis on design, development, utilization, and evaluation. It is intended that the candidate assess a training need, design and develop the instruction, deliver the instruction, and conduct an evaluation and revision of the instruction. As such, AECT standards #1, #2, #3, and #5 are addressed in this assessment.

<i>Criteria</i>
Analysis of training needs documented
Quality of instructional materials
Evaluation by teachers
Self-reflection on workshop

Direct Assessment #2: Program Evaluation Plan

<i>Criteria</i>
Evaluation Focus
Evaluation Questions
Collecting Information
Analyzing Information
Reporting
Managing the Evaluation
Critique
Proposal

Data Source/Results & Analysis

Direct Assessment #1: Teacher Training Workshop

The intern will develop and deliver training to a group of teachers (from 3 to 20) as part of the IT 657 Practicum.

Direct Assessment #2: Program Evaluation Plan

In this assessment, candidates prepare a plan to evaluate a program. The program should be a complex service delivery, instructional, training, or product development effort with which candidate is very familiar, due to past or current personal contact. It is expected that candidates, upon completion of this project, will have the ability to perform evaluations of existing school programs, especially those related to the integration of technology into various school curricula and the overall technology support program in the school system.

Application of Results/Action Plan for Improvement

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Summary of Action Plans for upcoming Academic Year _____
1.
2.
3.
4.
5.
6.
7.
8.

Closing the Loop

Overview and Context

The SUNY Potsdam ICT department is currently NCATE accredited, and has recently transitioned to the new assessment-based review process. Our department has four full-time faculty members, and the responsibility of collecting assessment data, analyzing that data, and suggesting improvements for courses and the overall program is divided relatively equally among them.

- **Assessment #1:** Content Specialty Test – Administered by New York State; responsibility for this assessment is shared among all ICT faculty members.
- **Assessment #2:** IT 659 Standards-Based Portfolio
- **Assessment #3:** IT 651 Systematic Instructional Design
- **Assessment #4:** IT 657: 100-Hour School Practicum
- **Assessment #5:** IT 657: Teacher Training Workshop
- **Assessment #6:** IT 654: Program Evaluation

At this point we have one academic year’s worth of data that we have collected and analyzed. Some assessments are given each semester (#2, #4, #5), while others are given only once annually (#3, #6), so for some assessments we have multiple semesters worth of data, and for others only one semester. Overall, given our low enrollment in the Educational Technology Specialist program, the number of students that have been assessed is relatively low.

Nonetheless, even with the limited amount of data that we have collected, we have been able to make some improvements in our program based on this data and have more improvements planned for the 2006-2007 academic year.

Overall, our program is in a continual state of improvement. We see the improvement of our Educational Technology Specialist program not as an end product, but rather an ongoing process. The collection of assessment data as part of the NCATE accreditation process has served to formalize and clarify which changes are appropriate. Below are some of the major changes that have been made and planned for based on our analysis of assessment data.

As obvious as this may seem, perhaps the most important thing that our assessment data as a whole reveals is that the Educational Technology Specialist program is indeed addressing all of the five AECT standards. That said, *how well* a given standard is addressed by a given assessment has some variation, and improvement is needed in some specific areas. How well a standard is addressed by a given assessment seems to have a strong correlation to the type of course that the assessment is offered in.

Content Knowledge: As demonstrated by our students’ strong performance on both their Content Specialty Test (Assessment #1) and their comprehensive standards-based Portfolio (Assessment #2), our students are in relatively good shape when it comes to overall content knowledge. They are exposed to projects in various classes that address all 5 AECT standards,

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and have done well in articulating what they have learned in their reflection essays in their portfolio. In terms of content *coverage*, we are more-or-less satisfied with the types of courses that students take, as well as the types of assignments that they are completing, although how well the topics are covered is always subject to improvement.

In particular, the assessment data for the IT 659 Standards-based portfolio (Assessment #2) is among the most consistent and highly scored. As a department, we made a choice in the Spring 2005 semester to take the IT 659: Project Development course, and turn it into a seat-based course, rather than an independent study course (which it formerly was). Basically, this meant that both the instructor and the students took the course more seriously, and the candidates did a better job on their portfolios. In terms of assessment data, this resulted in higher assessment scores for the IT 659 Portfolio and seems to indicate that our decision to make it a seat-based course was a good one.

Pedagogical and Professional Knowledge, Skills, and Dispositions: Overall, we feel that we are doing relatively well in this domain, as measured by the students' high performance on: a) their Development of Training Materials in IT 651 (Assessment #3), b) their performance in their IT 657 Internship (Assessment #4), and c) their performance on their final project in IT 654 Program Evaluation (Assessment #6). Our assessment tools have been integral in measuring and assuring that our students are successful in these courses. Specifically, when instructors find that a given criteria on a given assessment generates scores that are relatively low, they seek to improve their instruction the next time that assessment is given. For example, relative to the quality of the other areas in the Instructional Design Project (Assessment #3), the *quality* of the instructional materials was somewhat low. In order to improve the quality of the candidates' projects, the instructor of IT 651 plans to provide added emphasis on their quality in the Spring 2007 semester (the next time that IT 651 is offered), including better font choices, spacing, and overall typography.

Another example would be the relatively low scores on Analyzing and Reporting Data in the Program Evaluation assessment (Assessment #6). In the Fall 2006 semester, additional readings and in-class activities related to analyzing and reporting data will be added to the IT 654 Program Evaluation course. The goal is to improve the candidates' understanding and application of their knowledge of analyzing and reporting data as represented in their program evaluation project.

Some of the lowest scores among all of our assessments came from our IT 657 Internship Course (Assessment #4). This is the only assessment that does not involve an on-campus seat-based course. Rather, in this case our student interns work relatively independently with their on-site supervisors. What this communicates to our department is that we need to improve our IT 657 practicum experience through better structuring of the internship experience and better communication of expectations to our interns and on-site supervisors. We will start in the Fall 2006 semester with a joint meeting of all IT 657 students, the college supervisors, and all on-site supervisors. This will be an informal meeting that will take place at the beginning of the semester before the internships begin. We will have food available for the on-site supervisors as an incentive to come to campus for the meeting. Additionally, we are updating the internship handbook to include added detail about the practicum requirements, which will be distributed and discussed during this meeting. We also plan to hold a mid-semester meeting of internship candidates and their college supervisors, as well as a similar end-of-semester meeting, to better monitor the interns' progress. The goal of these three meetings is to assure that the requirements of the internship are clear to everyone, and that communication among the candidates, college supervisor, and on-site supervisors will be improved. Of course we expect that there will also be a corresponding improvement in our assessment data as an indicator that the quality and relevance of the internship is improving.

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Effects on Student/Client Learning in a Supportive Environment: In our case, the effect on client learning is for the most part measured by our candidates' ability to support and assist teachers and staff in K-12 schools through the creation of a supportive learning environment. They are prepared throughout their coursework to do this in their 100-hour practicum experience. During their practicum they divide their time relatively equally among Technical Support, Network Support, and Instructional Support.

In the context of Instructional Support, the most direct and visible effect on client learning is through the teacher training workshop (Assessment #5). This is a new requirement in our internship, and the nature and structure of this requirement needs some attention. Specifically, better communication among our college faculty, the school on-site supervisors and our interns regarding the nature and importance of the teacher training is the obvious first step.

In addition to this formal training, our interns have communicated to us that they are frequently engaged in a form of "just-in-time" instruction as they field teachers' questions about specific technology issues and help them solve problems as they arise. The overall preparation they receive throughout our program of studies has prepared them relatively well for this task. In addition to direct interaction with the teachers, they also affect client learning indirectly by providing technical and network support as it is needed. However, we have not developed a comprehensive method of assessing this "just-in-time" learning, but we will be developing a measure in the Fall 2006 semester as we revise our materials and procedures for our practicum.

Conclusion: As a department, we have determined that we are doing well in some areas and have some room for improvement in others. The important thing is that we have recognized that the improvement of our Educational Technology Specialist program is an ongoing process. This accreditation process focused our attention on specific areas that can be improved, and we expect that as we continue to collect data, we will start to see longitudinal trends as well (as opposed to the relatively short-term data that we have collected to this point). By continuing to collect and analyze our assessment data, we fully expect our program to continue to improve long into the future.