

**Purdue University
P3T3 Technology Grant: Year I
Report of the External Evaluation Team**

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Introduction

Purdue University's College of Education has completed the initial year of its PT3 grant from the U.S. Department of Education. Building on the extensive restructuring of the College's teacher education programs, the Purdue Program for Preparing Tomorrow's Teachers, P3T3, has as two major goals: (1) to prepare preservice teachers to demonstrate fundamental technology competencies, and (2) to prepare teacher education faculty in Education, as well as colleagues in Science and Liberal Arts, to teach pre-service teachers in technology-rich environments, modeling approaches that future teachers should use themselves. To achieve these goals the Project established a three-year implementation plan that includes a faculty development program, the development of technology tools and support structures, and the creation of a web-based electronic portfolio system for pre-service teachers.

The External Evaluation Team's major tasks were to determine whether or not the Project, during this first implementation year, had achieved its Year One goals and to respond to several related questions generated by the project leaders. Prior to the campus visit, members of the Team reviewed the project proposal, the initial annual report to the U.S. Office of Education, and read materials on the College of Education and P3T3 web sites. The Team members spent two days on campus meeting with administrators, faculty, and students. Members also attended part of a faculty workshop on integrating

technology into their courses. This report assesses Year One activities with respect to project goals, identifies critical issues for consideration, and makes recommendations for the coming year. The report is a consensus of the three members of the team.

Assessment of Year One

General Impressions: The School of Education is in a transition mode. It has successfully begun the implementation of restructured elementary and secondary teacher education programs. The P3T3 grant is designed to support this major renewal effort and to prepare faculty and students to teach and learn in technology-rich environments. Based on our review, the goals of the P3T3 Project are indeed aligned to the reform efforts of the School of Education and initial Project activities should effectively contribute to the continued renewal of the teacher education programs. Of particular importance are activities related to faculty development and the electronic portfolio. Project leaders and staff are enthusiastic about the various programs and there appears to be wide support among the faculty for the Project. Given the short time between the receipt of funding and this review, Project leaders are commended for the overall progress they have made.

Status of Project Goals: Two major activities, although not the only ones underway, focused the Team's assessment activities. These were the faculty development workshops and the creation of the electronic portfolio that will be used by teacher education students. The first activity is critical if the faculty are to model appropriate technology enriched instruction and the second represents a means for students to demonstrate that they are meeting the goals of the teacher education programs.

Faculty workshops are underway and a significant number of Education faculty have attended as well as several faculty from Science and Liberal Arts. Workshops focus

on enhancing faculty knowledge and skills and on assisting faculty to create a plan for the integration of technology into their classes. Based on our conversations with faculty and brief attendance at a workshop, faculty are energized by the workshops, acknowledge the usefulness of the projects they piloted, and by the possibilities of the electronic portfolio as an alternative assessment for teacher candidates. Follow-up support for technical assistance is available to all faculty and, in our opinion, is critical to successful integration of technology into the classroom.

Limited data from students during the first year suggest that there is a disconnect between faculty and student perception of how technology is currently being used in the School of Education classrooms. Survey data reviewed by the Team suggest faculty have a much more positive view of technology integration in classroom instruction than students. An interview with a student in the program also suggested that students have a different view of technology and technology use than do faculty. The P3T3 project needs to continue to study the reasons for those differences in perceptions and seek to eliminate them.

Considerable effort in the teacher education community nationally is focused on the creation of electronic portfolios as an assessment technique to demonstrate pre-service teacher knowledge and success in teaching PreK-12 students. The development of such a portfolio is a “key aspect of the P3T3 project.”(P.8 Executive Summary). Consequently, considerable time and effort have gone into the development of a model for use in the teacher education program. The Team reviewed a pilot version of the electronic portfolio system and discussed it with selected faculty who are teaching in the teacher education program. The Team was impressed with the pilot system and its

potential. (See additional comments below.) Significant technical and faculty development remain however.

Team members were also able to observe the significant availability of digital technologies for faculty and student use within the School of Education. Equipment, technical support, and classroom facilities are excellent. Project Directors have a clear understanding of what is needed to move the School of Education into a more supportive technology environment and the School of Education is responding positively to those needs.

Issues for Project Consideration

If the P3T3 Project is to achieve its goals, several overarching issues should to be continuing focal points. Project Directors are cognizant of these issues as they are included in the original P3T3 proposal implementation plan. They are included here to emphasize that these issues must continue to be addressed. In doing so, obstacles that are sure to surface within the School of Education and University in creating a new teaching and learning environments.

■ Faculty Technology Integration Plans

The Technology Integration Plan that faculty create at the end of the workshops should be formalized. Additionally, during the semester monitoring and reporting on the progress of these plans should be strengthened.

Team Members recognize that a well-defined technology integration plan cannot be completed at the end of the now offered workshop. It should be a clear expectation, however, that these plans are to be implemented during the academic year. Further, year-end reports of the impact of these implementation plans on instruction should be

required and these expectations made very clear when the faculty sign up for the workshops. As in inducement to meet these ends, we recommend that project directors consider withholding half of the funds used as participation incentives until faculty members have shown satisfactory completion of their technology integration plans. Frequently plans are prepared and soon forgotten as other priorities surface during the academic year. If the Project hopes to change faculty behavior not only will a more sustained support system be required, but also an accountability system needs to be in place.

We also believe that in providing ongoing technical assistance to faculty members a pool of graduate assistants who could be accessed as needed may be more effective than assignment of individual student support to specific faculty

■ Community Building

The Project should strive to create learning environments in which faculty and students are reciprocal learners. Technical support may be limited when the project reaches its ultimate user participation. It is therefore important that community building be an essential activity of the project. A learning community among all users, say, of the e-portfolio system will have to be nourished and encouraged so that (a) they can learn from each other, (b) newcomers will have access to experts, and (c) all users will gradually move from peripheral engagement with the system to full participation. Thus, we recommend the use of network user groups to share knowledge acquired in developing and restructuring e-portfolios and in using technology enriched instruction. One reference concerning the developmental stages that teachers negotiate as they come to embrace technology (teacher as learner, teacher as adopter, teachers as co-learner, teacher as re-

affirmer or rejecter, teacher as leader) may be found at the following website:

<http://www.rcmcdenver.com/webproject/SITEproc.html>

■ Human Subjects and Property Rights Issues

The impact the project will have on privacy rights, copyright laws, and property rights of participants must be carefully addressed.

Several sub-committees are exploring these issues, and it appears that the project coordinators are "on point" with respect to them. However, it is recommended that coordinators be diligent in obtaining event-specific permissions from parents of K-12 students involved in the project activities, such as video conferencing. Although most schools are careful about getting general and annual permissions from parents for their students to be involved in appropriate co- or extracurricula educational experiences, for rich media projects such as e-portfolios and video-conferencing, event-specific permissions must to be secured.

a) E- Portfolio Considerations

The E-Portfolio must be integrated into the teacher education curriculum.

The e-portfolio is in large measure a comprehensive alternative assessment plan that is integrated with the School of Education's Block system for course requirements.

Although we surmise from our interviews that the assessment system is not totally embraced by all faculty in the School of Education and the College of Liberal Arts and Sciences, the conceptual framework that undergirds the system is pedagogically sound and is in keeping with the demand for performance assessments of teacher candidates.

Project directors are very aware of the necessary curricula development and collaboration that must be satisfied for students to successfully meet the portfolio

requirements within a block and to transition from one block to another. Importantly, the e-portfolio summary page will be a culminating report of the distilled work that students choose as representative of their qualifications to teach. The final presentation to potential future employers should include:

- a) Indiana State requirements for new entrants
- b) Evidence of impact on their learning
- c) Evidence of impact on K-12 student learning
- d) Specific interests
- e) Evidence of interactions with diverse learners
- f) Evidence of effective use of technology

The process by which e-portfolio and artifacts are created, as well as the products themselves, will be an interesting one to document and use as a model for the teaching profession. It will also be valuable to document the accompanying community building that will be necessary to make these products meaningful representations of student work that transcend traditional forms of assessment.

Addressing First-year Issues

The following suggestions will address what reviewers saw as a few first-year shortcomings. The shortcomings are focused in two areas, the faculty technology integration plan and the community building plan.

■ Resources

In seeking to augment the resource bases for the project and provide support should fiscal resources be jeopardized, the following sources should be considered.

- a) The internal fiscal and human resources of the School of Education.

- b) The existing Professional Development Schools as a resource may be underutilized.
 - c) The University Diversity Centers (Latino Center, the African American Research Center) are possible resources in establishing opportunities for teacher candidates to engage in meaningful activities with diverse students.
 - d) Minority Community and Church Groups also offer these kinds of opportunities
 - e) Other Technology Resources, (i.e. in the Liberal Arts and Sciences School and other Campus Technology Support Centers.
 - f) Clerical University staff as a resource for technical support could be utilized.
 - g) K-12 Schools technology resources can also be seen as resources for joint partnership projects.
- Additional considerations for meeting project goals

The overarching goals of this project are: to be a change faculty behavior with respect to using technology to enrich instructional practices which enhance teaching and learning for pre-service teachers, and to prepare future teachers who will use technology effectively in their teaching. To demonstrate that these goals have been achieved, the following are additional considerations we recommend.

The project should provide:

- a) Evidence of reflective practice in a learning community – students and faculty individually or together.
- b) Evidence of student interactions with diverse learners.
- c) Evidence via artifacts of faculty involvement in planning total program, across blocks, across programs.

- d) Evidence of community building.
- e) Evidence of a commitment to diversity by making a genuine diversity experience a requirement (either prior to entrance into the program or during program completion.)
- f) Evidence of involvement with existing Professional Development Schools.
- g) Evidence that the classroom teachers who work with preservice student teachers have been involved in the decision making process.
- h) Evidence that in Blocks 5 and 6 of the preservice teacher education program that there are portfolio artifacts directly linked to K-12 student learning.

In addition to the foregoing, the project directors may choose to consider the following:

- a) Providing Liberal Arts & Science faculty with content-specific and discipline-specific software.
- b) Ensuring that students are aware of and use content-specific and discipline-specific software.
- c) Planning for Level Two workshops. Initial workshops addressed exposing faculty to the possibilities of computer technology, second level workshops should target examples of faculty integration of technology and addressing student needs.
- d) Offering technical support to K-12 school sites that are used as exemplary models for integrating technology.
- e) Including in the evaluation plan a case study that describes three prototypes of faculty experimenting with technology (faculty in the School of Education, and Arts and Sciences), in addition to the hard data already being collected.

f) Building prototypes for video conferencing activities.

■ Other Comments

Project Directors are alerted to potential resistance on the part of some faculty to assessing student learning using portfolios and the potential to subsequently assess fellow faculty members' delivery of content.

The project should continue to explore the research literature on e-portfolios, communities of practice, and online learning communities (e.g., Tapped-IN.org). Also, and importantly, Project Directors will soon have to address the question, "What will happen to David O'Brien's Co-PI?" The sooner that question is addressed, the better. The existing committees and personnel will be key in advising, managing, and leading the project in the interim, and in selecting a replacement if that is desired.

Concluding Remarks

The P3T3 Project has made significant progress during its initial year of work. Goals and objectives are appropriate and specific activities are underway. Support for the project is widespread among faculty, staff, and students. Project directors appear well aware of issues and challenges.

A major issue relates to the continuing funding of the project by the Federal Government. The Team Members urge the School of Education to continue the work initiated by the P3T3 Project because of its centrality to the School's overall mission. In addition, the work being developed in web-based electronic portfolios is one of the most significant contributions this project can make to the field of teacher education. Given the national focus on performance-based assessments, other institutions will be looking for portfolio models that utilize the convenience of storage, display, and retrieval that

electronic portfolios offer. The e-portfolio development process offers a model for the larger teacher education community as it moves toward performance assessment. Other initiatives of the project (i.e., faculty workshops, video technology) are important considerations and are necessary to successful implementation of project goals; however, they will probably not have the impact on the larger teacher education community, as would the assessment component.

The Team commends the Project for its work during these beginning months and strongly encourages the leaders to stay-the-course during the coming months. The School of Education has an opportunity to move boldly forward. It should not miss this opportunity.