

**Report of the Review Committee for
The Program for Educational Transformation through Technology**

April 22, 2004

Harry Bruce, Associate Professor and Associate Dean for Research, The Information School
(Chair)

Cynthia Fugate, Director, Bothell Library, and Director, Academic Services, UW Bothell

Stephen Kerr, Professor and Associate Dean for Academic Programs, College of Education

Fred Wolf, Professor & Chair, Medical Education & Biomedical Informatics

Review Summary

The review committee recognizes and applauds the extraordinary creativity and accomplishments of the PETTT team. Dr. Rick Matsen, in particular, has played a significant and special role in directing the accomplishments of this program through his passion and commitment.

Based on our review of the PETTT program, the committee makes the following recommendations:

1. We recommend that PETTT continue in its roles, function and focus.
2. We recommend the appointment of a full-time executive director.
3. We recommend the establishment of a core advisory group for PETTT.
4. We recommend that the University facilitate institution-wide discourse around a vision for the improvement of teaching and learning.
5. We recommend that PETTT be located in the Learning in Informal and Formal Environments (LIFE) Center or alternatively in a newly designed organizational structure stemming from the process outlined in recommendation four above.

Review

A. Introduction

The Program for Educational Transformation through Technology (PETTT) is a UIF funded initiative to explore the interplay of technology and pedagogy and to promote the link between research, design and the effective use of technology in teaching and learning. The overall goal of PETTT has been to promote thoughtful, innovative, and collaborative uses of technology in the service of teaching and learning at the University of Washington (and beyond), and “to conduct rigorous investigations leading to the effective application of technology in teaching and learning across the full range of the University’s educational opportunities” (PETTT Memorandum of Understanding). Optimizing the educational mission of the university relies upon an effective and productive relationship between teachers, learners, researchers and information technology developers. Observing, researching and exploiting the evolutions and innovations of educational technology in relation to educational practice has, therefore, been a key objective of the PETTT program. In short, the PETTT program was set up to “optimize the effectiveness of the University of Washington’s faculty, and thus of the institution itself, by creating a campus framework to promote the exploration, development, assessment, and dissemination of next-generation technologies and strategies for teaching and learning” (PETTT proposal).

B. The PETTT team

Executive Committee - Denice Denton, Dean, College of Engineering and Professor, Department of Electrical Engineering; Louis Fox, Vice Provost, Educational Partnerships and Learning Technologies; Ed Lazowska, Bill and Melinda Gates Endowed Chair, Computer Science and Engineering; Rick Matsen, Chair, Department of Orthopedics & Sports Medicine

Faculty Advisors - Cindy Atman, Director, Center for Engineering Learning and Teaching, and Associate Professor, Industrial Engineering; Philip Bell, Assistant Professor, Cognition & Technology, Educational Psychology; Nana Lowell, Director, Office of Educational Assessment; Reed Stevens, Assistant Professor, Educational Psychology; Jennifer Turns, Assistant Professor, Technical Communication, College of Engineering

PETTT Staff - Greg Bowman, Multimedia Designer; Janice Fournier, Research Scientist; Joan Goldblatt, Administrator; Beth Koemans, Research Coordinator and Webmaster; Kurt Kors, Manager of Program Operations; Cara Lane, Research Scientist; Trevor Leffler, Software Developer; Aaron Louie, Information Architect; Eric Maddox, Database Administrator; William Washington, Interaction Designer

C. PETTT accomplishments

The following is the list of PETTT accomplishments, many of which were achieved in collaboration with Educational Partnerships and Learning Technologies (EPLT), Computing & Communications (C&C), and other units across campus:

1. **UW KnowledgeWorks**, an open-source knowledge-management system. This tool has been used for facilitated referral and patient tracking system in the UW School of Medicine, the Honors Study Abroad Program, Law, and Architecture.
2. **Video Traces**: studied and enhanced the tool developed by Dr. Reed Stevens for use in Dance, Architecture, Music, English, and Athletics, and also in museum settings.
3. **Catalyst Toolkit**: PETTT's and EPLT's research on the Catalyst Toolkit has led to numerous revisions in the interfaces and functionalities of Catalyst tools, including EPost, Portfolio in classrooms, and VirtualCase in classrooms and laboratory.
4. **Catalyst guides**: in collaboration with EPLT, PETTT has produced over 20 Catalyst documents based on their user-centered design approach. These include pedagogical guides, step-by-step instructional guides, profiles, and planning considerations for EPost, VirtualCase, and Portfolio.
5. PETTT sponsors regular community-wide events such as WebEd and the Annual PETTT Spring Symposium, and maintains an online video archive and transcripts of these events.
6. PETTT has produced 55 papers – 24 papers published in journals and conference proceedings, 3 book chapters, 13 studies and reports, 3 guides external to Catalyst, 8 sets of reviews, and 4 data analysis reports.
7. PETTT has successfully implemented its iterative user-centered design process.
8. PETTT has successfully established cross-disciplinary partnerships and working relationships across the campus and community.

D. Challenges:

Whilst the achievements and accomplishments of the PETTT program are many, there are also a number of significant challenges that the program faces, including:

- Finding an appropriate home for this type of activity within the University
- Establishing a more effective leadership and advisory model
- Establishing criteria to transition rapid prototyping to production and wide dissemination
- Identifying a collaborative workspace for the PETTT team
- Defining and refining the collaborative role that PETTT plays in faculty-driven research on the enhancement of teaching and learning through technology
- Identifying externally funded research opportunities to supplement University funding
- Establishing an asset management system to address intellectual property issues

Some challenges are institution-wide and include:

- Establishing campus-wide vision and coordination of efforts to enhance teaching and learning through technology
- Providing a uniform high-quality access to technology to support teaching and learning across campus

E. Recommendations:

Based on our review of the PETTT program, the committee makes the following recommendations:

1. We recommend that PETTT continue in its roles, function and focus. These are:
 - a. Innovation incubator and think tank
 - b. Rapid prototype developer of instructional tools, materials and approaches
2. We recommend the appointment of a full-time executive director for PETTT with the following attributes:
 - a. strong leadership;
 - b. a senior faculty member;
 - c. creativity and vision for the role of technology in the enhancement of teaching and learning;
 - d. excellent interpersonal and communication skills;
 - e. collaborative approach that is respectful of faculty and their disciplines;

and who will perform the following roles:

- f. identify new projects and connect to other university initiatives;
 - g. managing, facilitating, and directing a diverse, creative and innovative group of talented staff;
 - h. work effectively with faculty, directors and deans on the use of technology in teaching and learning;
 - i. promote awareness of and generate enthusiasm for the vision and services available through PETTT; and
 - j. encourage faculty to find questions of scholarly interest about teaching and learning in their disciplines.
3. We recommend the establishment of a core advisory group for PETTT. This group needs to be available for regular consultation and advice on the selection of projects, new initiatives, priority setting, communication, etc.

4. We recommend that the University facilitate institution-wide discourse around a vision for the improvement of teaching and learning. We further recommend an intentional and integrated coordination of programs and units throughout the University that support this vision (e.g. CIDR, EPLT, CTLT/Catalyst, UWired, UWired Health Sciences, Teaching and Learning Centers at UWB and UWT, OEA, C&C, Office of Undergraduate Education).
5. We recommend that PETTT be located in the Learning in Informal and Formal Environments (LIFE) Center or alternatively in a newly designed organizational structure stemming from the process outlined in recommendation four above.