Chapter 10 – Professional Development

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1 — Introduction

Some of the information contained in this chapter is based upon preliminary work by the *Technology for All Americans Project* (TfAAP) staff. Please obtain the current document from the International Technology Education Association (ITEA). Consult their web site at:

http://www.iteaconnect.org/

Advancing Excellence in Technological Literacy: Student Assessment, Professional Development and Program Standards for Technology and Engineering Education Teachers describes outcome-based criteria: it is intended for use by teachers and by local, district, state/provincial/regional, and federal agencies to insure effective and continuous in-service and pre-service education for teachers of technology. These professional development standards are aligned with *Standards for Technological Li*teracy: Content for the Study of Technology (STL): they are engineered to be implemented in conjunction with STL as well as the student assessment and program standards available from ITEA.

Professional Development Standards are best used when curriculum and instruction have incorporated the concepts and principles identified in STL. These standards apply to every teacher who educates students on any aspect of technology, not just teachers who operate primarily within the Technology and Engineering program – for example, these standards are eminently suitable for a social studies teacher who is teaching the social influence of technology or the history of technology. The ultimate goal is for all students, not just the college-bound, to achieve technological literacy. (ITEA, 2003)

2 — Definition of Professional Development

For the purposes of this document, professional development is a continuous process of life-long learning and growth, beginning in the undergraduate, pre-service years and continuing through the in-service years and beyond.

3 — The Continuous Nature of Professional Development

Professional development of teachers is an ongoing process in which teachers acquire levels of content knowledge, pedagogical skills, and knowledge of how students learn. This process of continuous development begins at the pre-service level and continues throughout the teaching career. The standards for professional development presented here should be considered outcomes of the professional development continuum.

These standards describe the attributes and skills that teachers should have as a result of engaging in professional development.

Furthermore, teachers of technology go through many career pathways toward the classroom – traditional, university-based programs and a variety of alternative routes. Thus, it is not practical to specify in this document when these target outcomes will be met or achieved. Teachers who have completed a traditional technology teacher training program should have attained these standards at a basic level and should, over time, achieve greater breadth and depth of knowledge and capability.

(ITEA, 2003)

ITEA

Listing of *AETL* Standards

Student Assessment Standards

Standard A-1. Assessment of student learning will be consistent with *Standards for Technological Literacy: Content for the Study of Technology (STL)*.

Standard A-2. Assessment of student learning will be explicitly matched to the intended purpose.

Standard A-3. Assessment of student learning will be systematic and derived from research-based assessment principles.

Standard A-4. Assessment of student learning will reflect practical contexts consistent with the nature of technology.

Standard A-5. Assessment of student learning will incorporate data collection for accountability, professional development, and program enhancement.

Professional Development Standards

Standard PD-1. Professional development will provide teachers with knowledge, abilities, and understanding consistent with *Standards for Technological Literacy: Content for the Student of Technology (STL)*.

Standard PD-2. Professional development will provide teachers with educational perspectives on students as learners of technology.

Standard PD-3. Professional development will prepare teachers to design and evaluate technology curricula and programs.

Standard PD-4. Professional development will prepare teachers to use instructional strategies that enhance technology teaching, student learning, and student assessment.

Standard PD-5. Professional development will prepare teachers to design and manage learning environments that promote technological literacy.

Standard PD-6. Professional development will prepare teachers to be responsible for their own continued growth.

Standard PD-7. Professional development providers will plan, implement, and evaluate the pre-service and in-service education of teachers.

Program Standards

Standard P-1. Technology program development will be consistent with *Standards for Technological Literacy: Content for the Study of Technology (STL)*.

Standard P-2. Technology program implementation will facilitate technological literacy for all students.

Standard P-3. Technology program evaluation will ensure and facilitate technological literacy for all students.

Standard P-4. Technology program learning environments will facilitate technological literacy for all students.

Standard P-5. Technology program management will be provided by designated personnel at the school, school district, and state/provincial/regional levels.

(ITEA, 2003)

(Revised, 2001) http://www.nsdc.org/

Context Standards

Staff development that improves the learning of all students:

♦ Organizes adults into learning communities whose goals are aligned with those of the school and district. (Learning Communities)

♦ Requires skillful school and district leaders who guide continuous instructional improvement. (Leadership)

♦ Requires resources to support adult learning and collaboration. (Resources)

Process Standards

Staff development that improves the learning of all students:

♦ Uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement. (Data-Driven)

♦ Uses multiple sources of information to guide improvement and demonstrate its impact. (Evaluation)

♦ Prepares educators to apply research to decision making. (Research-Based)

♦ Uses learning strategies appropriate to the intended goal. (Design)

♦ Applies knowledge about human learning and change. (Learning)

♦ Provides educators with the knowledge and skills to collaborate. (Collaboration)

Content Standards

Staff development that improves the learning of all students:

♦ Prepares educators to understand and appreciate all students, create safe, orderly and supportive learning environments, and hold high expectations for their academic achievement. (Equity)

♦ Deepens educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately. (Quality Teaching)

♦ Provides educators with knowledge and skills to involve families and other stakeholders appropriately. (Family Involvement)

5 ─ Evaluating TE Teacher Effectiveness

Invariably TE instructors will find their own performance being evaluated both formally and informally. TE instructors will typically find themselves evaluated on a wide range of criteria. Usually they include:

♦ Instructional effectiveness

♦ Motivational ability

♦ Facility management

♦ Overall program quality

♦ The extent to which one contributes to the school

It is recommended that TE instructors deliberately seek formal supervisor and administrator evaluations each year. It is important that such evaluations are carefully done, that they represent an effort commensurate with the importance of instructor evaluation and that they highlight the instructor's strengths and weaknesses. Then, it is vital that all identified weaknesses also be accompanied by a list of recommended actions that could eliminate the weaknesses. As Missouri moves towards more accountability it will be important to keep careful records of such evaluations and to systematically document all progress towards improvement.

As with program evaluation, it is thought that the most effective (in terms of promoting improvement) form of evaluation is self-evaluation. Individual TE instructors might wish to consider how well their teaching meets the criteria set out in the ITEA Professional Development Standards.

Perhaps one of the more effective ways to evaluate one's teaching performance is to have a respected colleague sit in during several of your classes. Thereafter, ask him/her to critique what they observed. It is often useful to have this done by both other TE instructors and also by non-TE teachers. Both can yield unique and valuable perspectives. Instructors may also find it useful to videotape their lesson and then analyze what they see themselves.

6 ─ Performance-Based Evaluation

Missouri's legislature in 1983 created a law (section 168.128) detailing the requirements for teacher evaluation. The relevant section is quoted in Guidelines for Performance Based Teacher Evaluation in Missouri, a publication available from the Missouri DESE. This document also highlights the background, philosophy and procedures of the recommended teacher evaluation process. Essentially it states that:

- ♦ The principal is responsible for the performance-based teacher evaluation system.
- ♦ Performance-based teacher evaluation systems should include a formative evaluation phase. The formative phase should include both scheduled and unscheduled classroom observations.
- ♦ A pre-observation conference should occur prior to scheduled observations. Formative evaluation includes the classroom observations designed to help teachers improve their performance by providing feedback and suggestions regarding their teaching skills.
- ♦ The summative phase of the evaluation process is a composite of information obtained through the formative observations and may serve as the basis for administrative decision making.
- ♦ A summative evaluation should be completed for a probationary teacher each year. For tenured teachers, a summative evaluation should be completed at least once every three years or as necessary to best serve the instructional process.
- ♦ A post-observation conference should be conducted within a reasonable period of time following each classroom observation. This conference should include a discussion of identified strengths and weaknesses. Job targets for maintaining and improving teacher performance should be completed for a probationary teacher each year.
- ♦ The evaluation system should include an appeal process defined within local school district policy.

Figure 10-1 presents 19 criteria suggested for performance based teacher evaluation systems. The original document then provides useful descriptions for each of these criteria. It is important for the TE instructor to point out to his/her administrator the differences in operating a laboratory-based program from one that is conducted in a typical "normal" classroom.

Figure 10-1
Suggested Criteria for Performance-Based Teacher Evaluation[1]

I. Instructional Process

The Teacher
    A. Demonstrates appropriate preparation for classroom instruction.
    B. Implements a variety of effective teaching techniques.
    C. Provides opportunities for individual differences.
    D. Implements instructional objectives effectively.
    E. Demonstrates knowledge of subject matters.
    F. Uses a variety of teaching materials effectively.
    G. Uses instructional time effectively.
    H. Demonstrates ability to motivate students.
    I. Demonstrates ability to communicate effectively with students.
    J. Provides students with specific evaluative feedback.

II. Classroom Management

The Teacher
    A. Organizes classroom environment to promote learning.
    B. Manages student behavior in a constructive manner.

III. Interpersonal Relationships

The Teacher
    A. Demonstrates positive interpersonal relations with students.
    B. Demonstrates positive interpersonal relations with parents/patrons.
    C. Demonstrates positive interpersonal relations with education staff.

IV. Professional Responsibilities

The Teacher
    A. Participates in professional growth activities
    B. Follows the policies and procedures of the school district.
    C. Assumes responsibilities outside of the classroom as they relate to the school.
    D. Demonstrates a sense of professional responsibility.

[1]Guidelines for Performance Based Teacher Evaluation in Missouri. 1984.

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