

School of Teaching and Learning

Summary of Assessment Accomplishments 2006-2008 Academic Years

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Learning Outcomes:

Upon the completion of the M.Ed. in Classroom Technology program, the student will perform and show understanding of three major areas related to technology and learning: 1) Foundations; 2) Specialty Content in Computing and Technology Literacy; and, 3) Professional Preparation.

Specific learning outcomes follow and are derived from the matrix of 32 standards for Educational Computing and Technology Facilitation generated and approved by the International Society for Technology in Education (ISTE), the National Council for Accreditation of Teacher Education (NCATE) and adopted by the Ohio State Department of Education (ODE). The outcomes are organized below in summary format within the assessment categories defined by NCATE guidelines and specified by ISTE guidelines for reporting program assessment evidence. The full program report, including defined learning outcome assessments and a matrix correlating each of the 32 standards to a specific assessments and courses, is available in the office of the EDHD Associate Dean for Graduate Studies and External Programs and was approved by ODE in collaboration with ISTE (August, 2005) to allow us to offer the Ohio Computer Technology endorsement. Also, the learning outcomes below incorporate additional material derived from specific course outcomes/objectives that go beyond the material required by ISTE/NCATE/ODE.

The categorizations below are aligned with NCATE and ISTE' outcome categories as specified for the ISTE program report.

Program Content Knowledge: *Content Knowledge in the field of Educational Technology.*

Each student will be able to:

Use computer systems/run software for classroom management and planning purposes and for instructional purposes.

Demonstrate significant growth in technical skills, beyond his/her entry-level skills.

Generate and manipulate data and publish results; use technology to enhance professional growth, communicate, collaborate, conduct research, solve problems; evaluate hardware/software performance.

Pedagogical and Professional Knowledge, Skills, and Dispositions: *Planning.*

Each student will be able to:

Apply computers and related technologies to support instruction in his/her grade level and subject areas, plan and deliver instructional units that integrate a variety of software, applications, and learning tools to enhance learning for diverse learners.

Access, cite, explain and interpret professional literature, both pro and con, regarding technology and learning, and apply that knowledge in planning.

Develop model lessons that reflect effective grouping and assessment strategies for diverse populations, as well as integrate technology effectively; collaborate effectively with school or district classroom teachers to plan, design, and model effective learning environments; plan with teachers for use of technology resources to enhance academic content standards-based student learning.

Explain the concepts of multi-literacy and media literacy and create learning opportunities across the curriculum to implement those concepts using a variety of technologies (computer, video, still photography, audio, multimedia).

Pedagogical and Professional Knowledge, Skills, and Dispositions: *Application.*

Each student will be able to:

Effectively plan, deliver, and assess concepts and skills relevant to classroom technology and technology literacy across the curriculum, and facilitate other teachers' planning and use of technology across the curriculum; demonstrate knowledge of selection, installation, and management of the technology infrastructure in a classroom setting.

Use computers and other technologies in research, problem solving, and product development; plan and participate in team and collaborative projects that require critical analysis and evaluation.

Develop the ability to positively implement an acquisition model of media literacy.

Effects on Student Learning: *Impact on classroom practice.*

Each student will be able to:

Develop and implement K-12 student assessment of effect on student learning in lessons that utilize technology; analyze K-12 assessment to determine effectiveness of instruction on all learners with respect to goals and standards; utilize results of assessment to improve instruction.

Utilize research to inform development and assessment of curricular plans involving student use of technology to maximize student learning for diverse learners.

Pedagogical and Professional Knowledge, Skills, and Dispositions: *Understanding and application of legal and ethical issues.*

Each student will be able to:

Understand issues related to, and promote, equitable, ethical, and legal use of computer/technology resources; apply concepts and skills in making decisions concerning social, ethical, and human issues related to computing and technology; develop in-service for his/her school regarding such use of resources; plan and deliver instructional units that involve ethical and equitable use of technology.

Understand the cultural, educational and political (in a representative democracy) implications of increasingly powerful media (TV, digital TV, movies, music, music video, news outlets) and articulate those understandings.

Pedagogical and Professional Knowledge, Skills, and Dispositions: *School/district technology planning.*

Each student will be able to:

Demonstrate an understanding of processes required to develop, update and implement a multi-year technology plan at the building and district level; demonstrate understanding of the roles of constituents in technology planning; demonstrate an understanding of the variety of selection, installation, management, and maintenance issues involved in planning the technology infrastructure in a classroom setting.

Participate in team planning for use of a school's technology resources.

Annual Report

1. Learning (or Service) Outcomes assessed this year:

Faculty in the M.Ed. in Classroom Technology program started a comprehensive curricular review of the program and of assessment procedures in Fall 2003. The Ohio Department of Education (ODE) determined in August 2004 that the International Society for Technology in Education (ISTE) Educational Computing and Technology Facilitation (TF) Standards would be used as the basis for the Ohio Computer Technology Endorsement, and attention was turned to developing assessments applicable to those standards. Multiple key assessments were developed and submitted in the M.Ed. in Classroom Technology program report to ISTE and ODE in May 2005.

A matrix of key assessments and standards in the report maps each ISTE-TF standard to specific key assessments. The nine assessments specified in the report were designated to be administered in six of the eleven courses in the program, to assess the degree to which the 79 ISTE standards were being met. (ISTE has since reduced these to 32 standards.) Administration of these key assessments was started in the Summer 2005 semester, and was phased in as the courses were offered. Several additional assessments were added during 2006 and 2007 for purposes of providing additional unit data to the College of Education and Human Development (EDHD) for their accreditation purposes.

For students who started the program prior to the report approval, key assessments were phased in as appropriate. For example, an assessment that involved development of a portfolio over seven semesters could not be administered to students in the final year of their program, but pilot activities with cohorts that were in progress could be done. Assessments that were projects in a single course were phased in as courses were offered. The cohort format of the program, which keeps students together in groups as they progress through the program, simplified the phase-in process of the key assessment administration, in that all students in a course section were at the same point in their program.

Data was collected for five key assessments and reported in the Classroom Technology program's Summer 2006 SAAC report. Since that time, one cohort, which started in Summer 2006 and graduated in Summer 2008, has progressed through the full seven-semester cycle of program key assessments. All assessments listed below have been administered at least once, and most have had multiple administrations.

Additionally, since the inception of the program, focus groups have been held with cohorts in their last semester, with regard to graduating students' perceptions of the program, and cohorts have been periodically surveyed regarding program administration and opinions about the program in general.

The data in this report were gathered over the time period since the last program report in Summer 2006. A chart of key assessments, courses in which the assessments were administered, and the primary outcome areas addressed by each assessment is below. The outcomes listed are the primary outcome categories, the categories defined by ISTE/NCATE that most closely align with the specified assessment. As indicated above, the standards addressed by each assessment are

mapped in the ISTE program report. The standards themselves overlap outcome categories and none of the assessments addresses a single standard or outcome category.

Assessment	Outcome Area	Course	Description
Skills Checklist*	Content Knowledge	EDTL 633* thru Su 07 & EDTL 634* F 07 and after; and again in EDTL 638**	A cumulative assessment, created in the first course of the program and developed further in each course. Students self-rate their skills level on a checklist and add evidence of skills learned to their ePortfolios. Instructors rate skills progress based on evidence and skills observed and/or graded in class. The Checklist, as it exists at the end of 634 is expected to provide evidence of a basic technical skill level prerequisite to successful completion of the program.
In-Service Plan**	Planning	EDTL 634	An in-service plan created for instructing peers in a student's school or district in an area of classroom technology.
Issues Project**	Understanding and application of legal and ethical issues	EDTL 634	Research, development of support materials, and presentation of an issue related to classroom technology.
Assessment Project*	Impact on classroom practice	EDTL 635	An assessment of student progress developed to accompany a lesson plan.
Lesson Plan*	Planning	EDTL 636	A student-centered, problem- or project-based lesson plan, incorporating Internet and other technology use and addressing diverse student needs; the plan is developed through learning experiences throughout the semester.
Course Grade*	Content Knowledge	EDTL 636	The course includes steps for lesson planning with technology integration, pedagogy including technical and other adaptations for diverse learners, peer collaboration, research, and ethical issues, with culmination in a lesson plan that can be taught in the student's schools.
Hardware Analysis*	School/District technology planning	EDTL 632	Analysis of interviews and experiences with a tech coordinator in a school or district.
Technology Plan*	School/District technology planning	EDTL 632	Development of a school or district extended-year technology plan, involving participation on a

			team or committee in an actual, or if necessary, simulated situation.
Literature Review*	Planning	EDTL 638	A review and analysis of literature that informs development of a final master's project.
Field Log*	Application	EDTL 638	All classroom technology-related experience in the field, recorded and maintained by each student, with supporting evidence posted in the ePortfolio throughout the program.
Program Portfolio**	Any/All standards	EDTL 638	An electronic portfolio, including all key assessments above plus bi-weekly journals, additional items chosen by students, and reflections related to entries.

* Data collected for both Unit (EDHD) and program reporting

** Data collected for program reporting only

The Skills Checklist, Field Log, and ePortfolio, above, all require that students begin working on the assessment in the first semester and develop the assessment product over the seven semesters of the Classroom Technology program. In their first course in the program, EDTL 631, students record initial skills in their Skills Checklist form, initial field experiences in their Field Log form, upload supporting documents for those assessments into their ePortfolio, and begin building the overall ePortfolio. In six of the succeeding courses (all those in the chart above) students add to each of the three assessment products. Instructors of each of the six courses provide feedback to students. The feedback data is collected by the program for purposes of tracking student progress and advising as needed. This developmental data is included in this report.

Program Goals

Program goals during the period since the last Classroom Technology SAAC report have focused on increasing inclusion of emerging technology, satisfactory inclusion of web-based courses, improving faculty resources and improving management of the program assessment processes.

Curricular content issues have involved greater inclusion of emerging technologies of instructional value, such as iPods, SMART Boards, electronic microscopes, Web 2.0 applications, etc. As the program increased the use of web-based courses, concerns with regard to course quality and satisfaction of students have arisen, particularly when program cohorts took not only courses specifically designed for our program content, but also core (curriculum, statistics, and research) courses. Faculty resources have been a continuing issue throughout the history of the program.

The development of an assessment and data gathering process that runs efficiently for students and faculty became an additional high priority since the last SAAC report. In particular, the data processes for the ePortfolio system, the field experiences, and the skills competencies were new processes that quickly proved to be more complex than anticipated. Because data can't be used well to inform program decisions until assessments can be reliably administered and gathered, program goals have, of necessity, focused largely on managing the transition to a new assessment data system.

2. Assessment Methods and Procedures:

Key Assessments

The following chart describes Key Assessment methods and procedures.

Assessment	Outcomes	Description of assessment procedures
Skills Checklist*	Content Knowledge	<p>A cumulative assessment designed to demonstrate basic and advanced skills (technical content). The Checklist is created in the first course of the program and developed further in each succeeding course. Students self-rate their skills level as beginner, intermediate, and advanced on a checklist and add evidence of skills learned to their ePortfolios.</p> <p>Instructors, in each of the seven courses specified above, rate skills and progress, based on evidence in the ePortfolio and on skills observed and/or graded in classes. Instructors provide feedback to students and report ratings to the Cohort Coordinator, so that student advising as assistance can be provided, if necessary. The Checklist, as it exists at the end of ECTL 634 is expected to provide evidence of a basic technical skill level prerequisite to successful completion of the remainder of the program. The Checklist, as it exists during the last course in the program, is expected to demonstrate advanced skills appropriate for program completion. For the ECTL 634 assessment, instructors determine whether the portfolio evidence adequately supports the indicated levels of skills and if so, scores the checklist based on percentage of skills at the Intermediate or Advanced levels. If not, more evidence has to be supplied or the student fails to meet the standard. In that event the program coordinator would counsel the students. For the ECTL 638 assessment, students have been rated as satisfactory if all instructors rating their technical skills have reported satisfactory progress or if unsatisfactory progress has been remediated, the assessment is considered to satisfactorily meet standards.</p>
In-Service Plan**	Planning	An in-service plan created for instructing peers in a student's school or district regarding a classroom technology topic. When possible, the lesson is taught. The plan is graded by rubric.
Issues Project**	Understanding and application of legal and ethical issues	Research, development of support materials, and class presentation of an issue related to classroom technology, graded by rubric.
Assessment Project*	Impact on classroom practice	An assessment of student progress developed to accompany a lesson plan, analysis of results, and modification of the original plan. If it is not possible to teach and evaluate the plan, a simulated situation is used. The project is graded by rubric.
Lesson Plan*	Planning	A student-centered, problem- or project-based lesson plan, incorporating Internet and other technology use and addressing diverse student needs; the plan is developed during a series of learning experiences provided during the semester. The plan is graded by rubric.
Course Grade*	Content Knowledge	The course includes steps for the Lesson Plan project above, encompassing various aspects of technology integration; pedagogy; use of technical and other adaptations for diverse learners; peer collaboration; research; and ethical issues.
Hardware	School/District	Hardware-related interviews and experiences with a

Analysis**	technology planning	technology coordinator in a school or district are analyzed by the student. The project is graded by rubric.
Technology Plan*	School/District technology planning	Development of a school or district extended-year technology plan, involving participation on a team or committee in an actual, or if necessary, simulated situation. The project is graded by rubric.
Literature Review*	Planning	A review and analysis of literature that informs development of a final master's project. The project is graded by rubric.
Field Log*	Application	All classroom technology-related experiences that address ISTE Technology Facilitation standards in which the student participates in an educational setting. Information is recorded by the student in a log format throughout the program. The Log includes comments and reflections on experiences and is supported by evidence entered in the ePortfolio. Evidence depends on the experiences and includes, at a minimum, critiques, statements, and signatures by peers, administrators, and/or mentors with whom the student worked, as well as products created, and other evidentiary documents, as appropriate. In the seven courses specified above, instructors provide feedback regarding the progress demonstrated in their log. Minimal field time requirements must be met and experiences must be varied across a specified range of outcome categories when the Field Log is reviewed in the ECTL 638 course at the end of the program. Grading is by rubric.
Program Portfolio**		An electronic portfolio, including all key assessments above, bi-weekly journal entries made during the seven courses specified above, plus additional items chosen by students and reflections related to entries. Feedback regarding progress in building the ePortfolio is provided by instructors in each of the seven courses specified above, with final grading in ECTL 638. The ePortfolio is graded by rubric.
Cumulative Assessments**		Three assessments above, the Skills Checklist, the Field Log, and the ePortfolio, are each reported as unit data at a single point in the program. However, students begin these activities in their first course, ECTL 631, and continue to add to these assessment products over the course of the full program. Instructors provide feedback to students with regard to their progress in developing each of the three assessments during each of the courses listed in the chart above, as well as during ECTL 631. This data is reviewed by program coordinators to determine advising needs, if a student is having trouble.

* Data collected for both Unit (EDHD) and program reporting

** Data collected for program reporting only

With the exception of the Field Log experiences, each of the above assessment activities is embedded within the context of a course and performed along with other course activities and projects. Rubrics are used for scoring/grading each assessment, with the exception of the course grade.

Instructors report percentage scores to the EDHD via Blackboard for courses that fall within the Unit assessment category for NCATE purposes. Point scores or percentage scores are reported to the Cohort Coordinator for data that is collected only by the program. All points are converted to percentage scores by program faculty before program data calculations are done.

With regard to meeting standards, the Unit data assumptions are: 90%-100% on an assessment = Exceeds Standards; 80%-89.9% = Meets Standards; and less than 80% = Fails to meet standards. However, ISTE instructions for reporting include an additional category for "Approaches Standards." Therefore, instructors in the program have additionally been given the option, when reporting data to the Cohort Coordinator, of separately rating the key assessment products in terms of success toward meeting standards. The ratings used are: 3 = Exceeds Standards, 2 = Meets Standards, 1 = Approaches Standards, 0 = Fails to meet standards, in accordance with instructions from ISTE. If standards are not rated by an instructor, for program reports the assumption is that the College scale applies, except that 75% - 79.99% = Approaches Standards. Cumulative assessments may be rated for feedback to the student, without being graded, at the option of the instructor. When only standards ratings, 0 – 3, are used, the ratings are translated to percentage grades for reporting purposes, as follows: 3 = 100%, 2 = 85%, 1 = 77%, 0 = 60%.

Cumulative Assessments

Cumulative assessments may be rated for feedback to the student, without being graded, at the option of the instructor. When only standards ratings, rather than points or percentages are used, the ratings are translated to percentage grades for program reporting purposes, as follows: 3 = 100%, 2 = 85%, 1 = 77%, 0 = 60%. Data collected from cumulative assessment feedback are reported in this report.

Self-Report Assessments of Student Attitudes Toward Program

In addition to key assessments, the program, overall, is assessed through 1) a self-report survey of attitudes toward administrative services, facilities, web-based courses, and quality of instruction, and 2) through a focus group and written narratives from graduating students.

With the exception of the past year, the survey data has been gathered annually from each cohort since the program has been taken off campus, and has served to inform Continuing and Extended Education (CEE) regarding their services, as well as to inform our program decisions. In the past year an online version of the survey has been in development by the College of Education. It was recently piloted, but not all the cohorts were surveyed in the past year, and some data is still being processed by EDHD. The survey has been administered at least once to each cohort during the period of this report.

At the end of their program, each cohort takes, as one of their last two courses, EDTL 638 - Seminar on Technology and Learning. During the seminar, students complete a written narrative assessment regarding the program. They also participate in a focus group session, held during one of the meetings of EDTL 638, to gather further data about students’ experiences/insights/feelings regarding the overall program and the effect the program has had on their professional lives. This process yields a set of assessment data once per year from each graduating cohort.

3. Inferences from Assessments:

Assessment was performed at least once for each of the key assessments above during this reporting period. Data from the key assessments follows:

Assessment	Outcomes	Assessment Averages	Cohort	Cohort Averages
Skills Checklist	Content Knowledge	99.45 (mid-program)	L	100.00
			A2	100.00
			C10	100.00
			N2	99.40

			P1	97.58
		94.65, (exit)	B1	98.20
			N2	92.67
			O	100.00
			A1	90.31
In-Service Plan	Planning	98.52	N1	100.00
			P1	92.71
			C10	98.64
Issues Project	Understanding and application of legal and ethical issues	97.17	N2	98.40
			C10	97.14
Assessment Project	Impact on classroom practice	97.55	N2	100.00
			P1	97.50
			P2	99.00
			A1	99.38
Lesson Plan	Planning	98.68	N1	100.00
			P1	94.00
			L	98.00
Course Grade	Content Knowledge	97.34	A2	100.00
			C10	100.00
			N2	99.40
			P1	97.58
			L	96.73
Hardware Analysis	School/District technology planning	95.59	N2	97.20
			B1	100.00
Technology Plan	School/District technology planning	97.81	P2	99.21
			N2	100.00
			P1	99.00
			Sy	88.89
			B1	100.00
Literature Review	Planning	96.18	A1	89.67
			N1	100.00
			P1	97.92
			US	97.82
Field Log	Application	95.71	A1	89.67
			N1	100.00
			P1	97.92
			US	97.82
Program	All Standards	96.31	C10	100.00

Portfolio			A1	93.75
Cumulative assessments for developing the Skills Checklist, Field Log, and the ePortfolio	Skills Checklist, EDTL 631	87.80	A2	93.40
			L	85.00
			P2	85.00
	Skills Checklist, EDTL 635	91.00	N2	91.00
	Field Log, EDTL 631	87.93	P2	85.00
	Field Log, EDTL 633	99.00	A2	99.00
	Field Log, EDTL 634	100.00	L	100.00
			O	100.00
	Field Log, EDTL 635	73.75	N2	73.75
	ePortfolio, EDTL 631	88.00	A2	94.00
			L	85.00
			P2	85.00
ePortfolio, EDTL 634	100.00	L	100.00	
ePortfolio, EDTL 635	83.57	N2	83.57	

The average score for each student was also calculated. (Note that number of assessments taken by students varied by cohort.)

Total number of students	203
Students with an average above 90%	187
Students with an average from 80 - 89.99%	15
Students with an average from 75 - 79.99	1
Standard deviation of averages	4.03

Clearly, the key assessment data provide indication that M. Ed, in Classroom Technology students have been successful with the key assessments in their program. As the program assessments were designed to address ISTE standards, the data, then should indicate that all students in the program are successfully meeting or exceeding all standards, with rare exceptions.

The survey data gathered by the program supplements the key assessment data by providing program-related information beyond individual and group performances related to standards. The survey shows students' reactions to the instruction, content, and administration of the program. The data from this time period come from responses from 83 students in seven cohorts. The curricular and administrative item responses pertinent to this report (as opposed to being pertinent to CEE administration) are charted below. Items reported are rated on a 1 to 5 scale, with 1 being "Low" and 5 being "High." Space is provided for comments on each item.

Items reported here are (as written on the survey):

- A. Quality of instruction--Overall program
- B. Value of cohort format (of being in a consistent group)
- C. Appropriateness of computer lab, for course utilizing a computer lab.

- D. Experience with web-based courses
- E. Quality of overall experience

	1	2	3	4	5	Average	% of 4's & 5's
A	0	4	18	51	10	3.81	73.5%
B	0	0	7	22	53	4.56	91.5%
C	1	4	14	33	28	4.04	74.4%
D	11	7	16	11	3	2.75	22.2%
E	0	3	10	50	18	4.02	84.0%

As shown by the data, 84% of the students indicated they were satisfied or highly satisfied with the program as a whole, they enjoyed the cohort format, and they were happy with most of their instruction. This provides some support for the key assessment data and is further supported by student comments in the survey, the written narratives written by exiting students (six cohorts during this time period), and by focus group comments of exiting students, as well as by instructors' observations.

The anecdotal reports from focus group participants plus faculty observations of, and discussions with, students also support the key assessment data. Students comments indicate that students are not only actively and successfully integrating technology into their own classrooms, but they are assisting other teachers, offering in-service training, participating in technology committees, and in multiple other ways positively impacting, and becoming leaders in, their local schools and districts.

Comments by students, such as the following are typical of comments from the exit narratives and focus groups:

"I think from a different point of view. I know how to make learning more exciting."

"I integrate technology more. I'm more willing to try. And I take risks. I needed a push, and now I have confidence. I've gone to being a facilitator in the classroom. I let kids come up with ideas and do more collaboration."

"I came out of my cave more to help other teachers with their dilemmas."

"I'm more knowledgeable regarding the topic [classroom technology]; I've added more to staff meetings."

"I'm more able to use technology now; not afraid to hunt and seek what's available. I started using the SMART Board and now all the Special Ed. teachers use it. [My peers] tend to respect me more."

"I got some of my colleagues to turn on their computers. Now--that's huge!"

The key assessment data and the self-report data indicate that the M. Ed. in Classroom Technology program is very successful. However, and the very positive survey ratings of prior program reports were consistently even higher than those of the past two years. This report's survey data showing 84% of the students rated the overall program experience as 4 and 5 points out of 5, with 62% of the ratings at 4 and 18% at 5 indicate a drop from the prior SAAC report in which 26.6% rated their Overall Experience with the program as 4, and 63.3% rated it as 5, with a total of 89.9% rating it as either 4 or 5. Additional information regarding specific areas of satisfaction and dissatisfaction were also present in the survey data and the self-report comments, and help to give insights into the reasons for students' attitudes toward the program.

The cohort experience, as in all prior years, was consistently seen as a major benefit of the program in all cohorts: "I learned as much or more from peers as instructors; everyone brought different experiences," and "The cohort is the strength of the whole program."

Comments also indicated that two instructors were quite disliked, as much for their attitudes as for their teaching skills. One was from another department, teaching one of the core courses (statistics, research, curriculum) and the other had previously taught for us successfully, but had agreed to take the course online and to teach two cohorts. The instructor didn't sufficiently prepare, and apparently made it clear that teaching the sections was not a pleasant experience. This may have contributed slightly to the 22% of the students who reported dissatisfaction with web courses, but the dissatisfied students were actually spread relatively evenly through the cohorts. The data and comments seemed to indicate that, as with face-to-face instruction, the quality of web-based instruction can vary greatly, but that there may be other reasons why some students like online instruction and a few find it to be quite difficult and/or do not like it.

Another comment that surfaced within the focus groups was that a cohort shouldn't have web-based courses consecutively, because the cohort coordinator couldn't visit the cohort. The comment was made in a cohort that took a total of five web-based courses during their seven semesters, two of them together in one summer and three web-based courses back to back in spring, summer I, and summer II, with one face to face course at the same time in summer II. This is the most web-based courses any of the Classroom Technology cohorts has taken.

A number of students seemed to agree that they wanted more hands-on courses and more in-depth skills in using software, and some, but "not too much" hardware experience. As in the prior program report, some students also requested more emerging technology, particularly SMART Boards, although, there didn't seem to be as much agreement as in the past.

As anticipated by faculty, one issue that came up consistently and strongly was dissatisfaction with the ePortfolio processes. Getting faculty and students up to speed with a portfolio, portfolio software, and the Key Assessment requirements for portfolios, logs, and the skills checklist was more demanding than anticipated.

About a third of those surveyed for this report started the program before we had word of approval of our key assessments. All of the students had some involvement in pilots or an exploratory process for determining the logistics of how the program should create and store the portfolio. Initially documents were linked via hypermedia links in Excel and stored on disks. After a semester of this attempt, it became clear that other storage means were necessary. After another month or so, it was determined that the Epsilon portfolio (ePortfolio) program purchased by the University was the only realistic and quickly implementable solution to the problem. Though not optimal, it offered good potential for tracking standards, per the ePortfolio administrator.

Unfortunately, the students assessed in the past two years experienced multiple instances of floundering and confusion related to implementation of the portfolio. In addition to the change to the ePortfolio system, some issues encountered included an unexpectedly high learning curve for the ePortfolio and multiple changes in instructions for using the ePortfolio. The instruction changes were relatively minor, when considered individually. They were due to various problems that were encountered along the way, such as upload failures when file names were too long, and to a coding system for key assessments that had minor changes three or four times, when plans for data gathering within the ePortfolio required particular codes and when new Unit level NCATE requirements called for addition of assessments. Also, students were told multiple times that updates to the system were postponed due to circumstances uncontrollable by the university ePortfolio administrator. The learning curve for faculty was also unexpectedly high, and students commented that a number of faculty were not adequately familiar with the ePortfolio system and requirements.

Coordinator attempts to simultaneously phase in the Field Log requirements and the Skills Checklist further compounded the difficulties, as did faulty initial attempts to organize Field Log records. There were also issues for students with regard to leniency allowed for those who failed to understand or correctly perform ePortfolio requirements by faculty who felt they couldn't

penalize students for their failure to provide adequate direction. It was not surprising that one student commented on that "Stupid Portfolio."

It's also not surprising that despite the very positive survey ratings showing 84% of the students rated the overall program experience as 4 and 5 points out of 5, 62% of the ratings were 4 and 18% were 5. This indicates a drop from the prior SAAC report in which 26.6% rated their Overall Experience with the program as 4, and 63.3% rated it as 5 and, with a total of 89.9% rating it as either 4 or 5.

Given the above issues, it is clear that aspects of the initial implementation of the key assessments have been problematic. The difficulties and time involved in troubleshooting, attempting to gather all the data, training instructors and communicating with students have forced program faculty to focus on implementing managerial and training processes for the assessments. Relatively little time has been available to evaluate the quality of the key assessments. Considerations of reliability and validity of the data are important next steps. The lack of variety that the key assessment data has provided makes the data minimally helpful for making curricular decisions and shows only extreme outliers for advising purposes.

The many Technology Facilitation standards (79) that ISTE initially specified had to be met, individually, at an 80% level of accomplishment, lead our program faculty to design key assessments that address multiple standards and are graded by rubrics that are broad, and therefore fairly subjective. It also lead to the choice of a portfolio to provide a format for students to demonstrate their personal strengths within the standards. Since that time, ISTE changed the requirements to 32 standards for Technology Facilitation and instructors have had enough experience with the assessments to have better ideas of what works, what should be adjusted or moved to other points in the program, and what needs to be better designed for reliability and validity. Revisiting the key assessments would be a productive goal.

Overall, the collection of assessments done by the program do help to focus some areas of concern while providing confirmations of the success of the M. Ed. in Classroom Technology program.

4. Actions Taken/Program Improvements:

Actions Toward Implementation of Program Goals

The areas cited in Section 1 of this report have been addressed on a continuing basis over the past two years with varying levels of success. Those areas were increasing inclusion of emerging technology, satisfactory inclusion of web-based courses, improving faculty resources and improving management of the program assessment processes. Due to the on-going collection of data, both key assessments and self-report data, program faculty have been aware of, and putting attention on these issues throughout this report period.

The program has increased the use of emerging technology in our courses primarily through 1) assigning the same instructor to both of the two courses in the program, Hypermedia I and II, that address higher levels of technology and focus more extensively on technical skills than on theory and pedagogical concepts, 2) by searching for and selecting instructors for those courses who have stronger and more varied skills, and 3) by incorporating Web 2.0 applications into a variety of activities in both the first course, EDTL 631, and EDTL 636 Networks for Learning.

By using the same instructor for both courses, class time in the second course is not spent on instruction the students have already had, or for which prerequisites weren't completed in a previous course, and the instructor does not have to take time to learn where each student's skills, strengths, and weaknesses are. Although data was not collected on this, it appears to have made a noticeable difference in the success of the students in those courses and on the amount that they learned. However, those more highly skilled instructors who have been teaching Hypermedia I and II also have contributed to the coverage and the depth of skills that could be taught.

Most of the current labs in both our off-campus and on-campus locations have been updated within the past year to two years with new hardware and updated software. Almost all now have SMART Boards in their labs and all have SMART Boards available to our program in other classrooms. Current locations that haven't been updated will not be used for future cohorts. Sites newly chosen for the program are equipped with newer hardware.

Additionally, the program has purchased a set of four new digital video cameras to supplement the older set of eight, but instructors are finding that most often students have their own. This is also true of iPods and MP3 players. The program faculty have not yet found a need to purchase these.

With regard to previous program goals related to web-based courses, progress has been mixed. As a whole, the quality of web-based courses has improved since our last report, based on course evaluations done by students and on student comments. As noted in the findings from this report data, however, there are still some problematic issues with web-based courses. The issue of a poor instructor was addressed by not re-hiring the instructor. The issue of students who do not do well with web-based courses is more difficult to address in an off-campus cohort. When no other course alternatives are offered by the university in the vicinity, the options for the student are to: drop out of the program; take a course on campus, possibly with a commute between one and two hours in one direction—which might not be feasible for the student; or to take a course at another university.

This issue is related to the number of faculty available to teach in the program and, in terms of statistics and research, available for other areas of EDHD. Program faculty, initially assured that faculty would be provided for the program if it was successful, have repeatedly requested and continue to request additional faculty lines. In this period of financial stress at the University, it is not likely that new lines will be created. However, one faculty member who has been unable to work with the program in the past two years will be able to again contribute to the program starting in Spring 2009. This will be a positive step.

Future Goals and Actions

Over the past two years significant effort has been directed toward development management processes for gathering data and preparing faculty for administering and reporting data. While these processes are still not perfect, they are now fairly well defined and workable, though still time intensive. Additional refinement will be necessary, and the anticipated update of the ePortfolio system will require some attention, but primary attention should now be able to be turned to other aspects of the program.

It is clear from data gathered to date and from informal and formal communications with students and graduates of the Master of Education in Classroom Technology program that the program is a well-respected program that has been successful in accomplishing program goals and standards. In order to continue to move forward successfully, this is a good time to take a closer look at key assessments and to comprehensively revisit the scope and sequence of the program.

Over the next year or so, program faculty will, with consideration for the information in this report, engage in dialog with all adjunct and full-time faculty teaching in the program to determine perceived strengths and weaknesses of curriculum and assessments and will take steps to make adjustments for continued success.