FACULTY VERSUS STUDENT PERCEPTIONS OF THE QUALITY AND RELEVANCE OF A MASTER'S DEGREE IN EDUCATIONAL TECHNOLOGY

By

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ABSTRACT

FACULTY VERSUS STUDENT PERCEPTIONS OF THE QUALITY AND RELEVANCE OF A MASTER'S DEGREE IN EDUCATIONAL TECHNOLOGY

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In this dissertation, I seek to develop a deeper understanding of the perception of quality and relevance of a specific master's degree program as seen through the eyes of two key stakeholders—the faculty and the students (current and alumni).

This study focuses on faculty and students in the Master's in Educational Technology program currently being offered by the Educational Psychology and Educational Technology program, which is housed in the Department of Counseling, Educational Psychology and Special Education, College of Education, Michigan State University. Though a systematic program evaluation is beyond the scope of this dissertation study, the focus is on two key terms to frame the study: quality and relevance. These two constructs are seen through the eyes of two key stakeholders: the faculty and students (current and past).

A sense of community and collaboration was the point of strongest alignment between student and faculty views. The strongest divergence between groups was on the question of the primary motivation for obtaining a master's degree. The strongest recommendation for change comes from in increasing population of non-k12 practitioners within the MAET student body to create more relevant experiences for non

K-12 practitioners. At the end of this inquiry, one thing was consistently clear: the MAET program has been successful because of change. To remain successful, marketable, and viable in the academic marketplace, programs must continue to take into consideration stakeholder viewpoints and continue to define quality and relevance within their contexts to inform programmatic and curricular changes.

DEDICATION

This dissertation is dedicated to the alumni and students of the Master of Arts in Educational Technology program. Your passions are my passions and I strive every day to develop a program that reflects the excellence and dedication you bring to the table.

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CHAPTER 1

INTRODUCTION

> *Graduate education is the Detroit of higher learning… If American higher education is to thrive in the 21st century, colleges and universities, like Wall Street and Detroit, must be rigorously regulated and completely restructured. My hope is that colleges and universities will be shaken out of their complacency and will open academia to a future we cannot conceive--NY Times, April 2009*

Higher education is often described as being in crisis. Some programs are being asked to change the way they do things, and to engage in more rigorous assessment of their practices; others are simply running status quo. In this context, there is a premium on the innovation of methodologies to better understand how these competing and conflicting goals are negotiated. Some organizations such as Knomads (http://knowmads.nl) and ThinkGlobal School (http://thinkglobalschool.org) seek to address these challenges through developing distinctly different institutional models. These institutions put an emphasis on student driven curriculum, collaboration, and sharing. Other programs struggle to work within traditional university systems.

Programs that exist within traditional universities need to negotiate a wide and often conflicting set of goals, including: meeting student needs at a time of declining enrollment; faculty values that may not reflect changes in broader society and the workplace; increased competition from other organizations (private and public); new technologies that provide alternative ways to present curricula (Ponnuru, 2010; Postman, 1995; Johnson, Smith, Willis, Levine & Haywood, 2011.) The rapid rate of change of technologies requires that graduate programs in these fields be even more nimble and receptive to change (Wilson, 2010).

Explicitly, graduate programs offer students a degree. Nonetheless, there are the implicit goals programs offer to their student body. Two of the implicit goals are quality and relevance. These are difficult to define, and definitions vary depending on the context. For instance, faculty members can have a very different way of speaking of the quality (or relevance) of a program than the students.

Historically, master's degree programs have been the predominant form of professional growth for K12 teachers. Traditional master's degrees, however, have often failed to meet the needs of career teachers (Tom, 1999; Blackwell and Diez, 1998; Little, 1993). Traditional master's degrees have been criticized for their lack of (1) prestige and quality; (2) clear definition and purpose; and (3) coherent structure and organization (Conrad & Eagan, 1990; Conrad, Howarth & Millar, 1993). Sparks and Hirsh (2000) suggested that effective master's degree programs for practicing teachers incorporate the following tenets of successful professional development: focused on helping teachers become deeply immersed in subject matter and teaching methods; sustained, rigorous, and cumulative coursework; curriculum-centered and standards-based; and directly linked to what teachers do in their classrooms (p. 45).

If higher education organizations are to contribute to the professionalization of teaching, then it is imperative that master's degrees more closely meet these criteria and the needs of practicing teachers (Tom, 1999; Blackwell & Diez, 1998; Shulman, 1993). Another way of thinking about this is by asking whether these programs ensure quality and provide relevance to their students.

Program Evaluation

Broadly these issues have been in the domain of program evaluation. Program evaluation is a term that means many different things, to many different people, in many different contexts. In the broadest sense it can be defined as a systematic way to learn from past experiences. Program evaluation is complex genre. For instance, Thayer (2006) and Stuffelbeam (2001) have argued that there could be as many as 22 distinct approaches to evaluation. At the heart of such research is a focus on key stakeholders who influence the design, implementation, and accomplishments of the program. This is of particular importance because there is a greater demand for accountability in education fueled by economic and competitive challenges. There is a need to "prove" that educational programs are indeed doing what they have claimed to do. Such "evaluations" are often demanded and driven by accreditation agencies. (Burke, 2005) This is an important process, however, whether or not an outside agency requires it, since it can provide much needed information for monitoring and improving programs. Weiss (1998) argues that this can help administrators and faculty members take decisions that are driven by data. For instance, such investigations can lead to suggestions for corrections to programs, policies, and processes. It can lead to information that can help determine which parts of the program are successful and which are not, the parts that should be continued or expanded, and the parts that should be abandoned. At a time of limited resources, developing a better understanding of what leads to programmatic decisions (the faculty perspective) and how it is experienced and perceived by students (the student perspective) can help organizations take decisions

regarding funding or not funding certain aspects of the program by providing “data on what the program accomplishes and fails to accomplish, and for whom, and thus clarifies the trade-offs that decision makers have to make” (Weiss 1998, p. 26). This is consistent with what the National Council for Accreditation of Teacher Education (NCATE), though not directly involved in the area of educational technology, has argued as being the driving force behind program revision:

> The unit regularly and systematically used data, including candidate and graduate performance information to evaluate the efficacy of its courses, programs and clinical experiences. The unit analyzes program evaluation and performance assessment data to initiate changes where indicated. Candidates and faculty assessment data are regularly shared with candidates and faculty respectively to help them reflect on their performance and improve it. (NCATE, 2008).

Another aspect of the program evaluation has to do with organizational learning (Weiss, 1998). There are five kinds of organizational learning that takes place within systems of evaluation. They include, (a) a recording of program history; (b) providing concrete feedback to practitioners within the unit; (c) as a mechanism for highlighting program goals; (d) developing a mechanism for accountability; and (e) an opportunity to understand social intervention.

In summary, there are two key reasons for conducting a program evaluation. The first is to inform programmatic decision-making, and the second is to create a climate for organizational learning beyond this particular study.

Why this Study?

This specific research study resides within this broader context of higher education programs and their evaluation. In that sense it is a case study of one master's program—of its quality and its relevance in order to inform decision-making and seek to provide information for organizational learning (i.e. to help improve the program). This study contextualizes this debate within the case study of one master's program, the Master's Program in Educational Technology (MAET) at Michigan State University. It does so by seeking to better understand how faculty and students articulate the quality and relevance of the program – instantiated through the goals and outcomes, value, experience, and evidence of success or failure.

At a personal level, these issues are a prime motivator for my interest in this research study. As coordinator of the program for the past three years (and an instructor for three years prior), I often say to potential students: "We have a successful program that meets the needs of our students and alumni." Currently, that statement is conjecture, predicated solely upon my personal experience developed through conversations with alumni, faculty, and students. None of those anecdotal statements, however, hold water when trying to truly justify my statement. This dissertation study is my step towards gaining a better understanding of the underlying issues so that I can better represent the program, as well as providing information that can help me guide the design of the program in the future.

This dissertation is structured as follows. Chapter 2 provides a survey of the literature on assessment of master's degree programs and a more in-depth discussion

of the research questions that emerge from this discussion. Chapter 3 presents the context of the study, a framework for each set of research questions in this study, and a description of the faculty interview and student survey instruments. Chapter 4 focuses on the qualitative analysis of the faculty interviews, and points to emergent themes that address the research questions. Chapter 5 focuses on the student data and the research questions connected to student perceptions of the master's program. Finally, Chapter 6 compares and contrasts the faculty and student perceptions through finding commonalities and contradictions between these perceptions, provides recommendations for the program's future and a conclusion to the study. The resulting analysis attempts to provide an interpretive stance towards how these can be understood and resolved and also highlights emergent themes and contributions of the study.

CHAPTER 2

LITERATURE SURVEY

Program evaluation can be seen as an example of a wicked problem (Rittel & Webber, 1973). A wicked problem by definition is one where different stakeholders may have different perceptions of the problem itself, and thus of the solutions as well. As Mishra & Koehler (2008) wrote:

> … wicked problems, in contrast to “tame” problems (such as those in mathematics, chess etc.), have incomplete, contradictory, and changing requirements. Solutions to wicked problems are often difficult to realize (and maybe even recognize) because of complex interdependencies among a large number of contextually bound variables. Wicked problems, they argue, cannot be solved in a traditional linear fashion, because the problem definition itself evolves as new solutions are considered and/or implemented. Rittel and Webber stated that while attempting to solve a wicked problem, the solution of one of its aspects may reveal or create another, even more complex problem. Moreover, wicked problems have no stopping rule—and solutions to wicked problems are not right or wrong, simply "better," "worse," "good enough," or "not good enough." Most importantly, every wicked problem is essentially unique and novel. There are so many factors and conditions—all dynamic—that no two wicked problems are alike. Accordingly, solutions to wicked problems will always be custom-designed (p 10-11).

There are two key consequences of seeing problem evaluation as a wicked problem. First, a wicked problem is perceived differently by different stakeholders. Therefore it is important to understand the perceptions of the key stakeholders. Second, wicked problems are tightly tied to their specific contexts. This means that any research on quality or relevance needs to be situated in the specific context. In this case, the context is a master's program in educational technology offered at Michigan State University. This program and its context are described in greater detail in Chapter 3.

Key Stakeholders

> "Customer loyalty" is not a commodity a company owns. Where it exists at all -- and the cases in which it does are rare -- loyalty to a company is based on respect. And that respect is based on how the company has conducted itself in conversations with the market. Not conversing, participating, is not an option. If we don't engage people inside and outside our organization in conversation, someone else will. (Levine, Locke, Searls & Weinberger, 2000)

Conrad and Eagan (1990) identified six criteria for evaluating a higher-education program: faculty, students, resources, learning environment, curriculum, and placement of alumni. In particular, researchers also suggest paying greater attention to the faculty, who drive the design and implementation of the program, and students, who are primary "stakeholders" in this enterprise (e.g. Clark 1979, Kirkwood, 1985). For this reason, this study focuses on two key stakeholders: the program faculty (those in administration as well as faculty who teach in the program) and the students (who include both program alumni, i.e. those who have graduated; as well as current students).

Stakeholder inclusion needs to be an essential component of the process in order to gain a comprehensive view of a program's accomplishments, future challenges, and value. Nonetheless, it is often unclear as to what exactly the goals of a particular program are and how they are being met. Thus, in order to better understand the goals, successes, and failures of the program, it becomes important to study the variety of stakeholders involved in the design, implementation, and application of the program. For instance, the NCATE accreditation standards specifically call for the inclusion of multiple perspectives in the assessment plan. Additionally, collecting information from multiple sources allows the program to triangulate the evidence to support any claims being made from the research (Wiggins, 1998).

In the next section we look at previous evaluations of master's degree programs and how they focus on specific stakeholders.

Previous Evaluations of Master's Degree Programs

A survey of the literature indicates that there have been few evaluations of Master's degree programs. These evaluations have utilized a variety of methods of collecting data and a variety of data sources. Some studies have focused entirely on students and graduates of various programs. Wagner (2004) in his evaluation of a teacher preparation program, made a strong argument for the value of including students and graduates of programs in evaluation studies and suggests that of all groups of stakeholders, "one particular group of stakeholders—alumni of teacher preparation programs—provides a unique combination of insight and hindsight that program evaluators can draw from when making program-improvement decisions."

Kooker, Itano and Okimoto (2000) used focus group meetings with graduates in their evaluation of the impact of a master's in nursing distance education program. Similarly, Trott, Barker & Barker (1988) in their evaluation of a master's program in the speech communications surveyed over 600 members of the speech communication association to determine ratings of different master's programs. Stellman, Cohen and Rosenfield (2008) evaluated a one-year master's of public health program for medical students by surveying current students about their perception of satisfaction with coursework, attitude towards the degree, career choices and trajectory. Similarly, Clark (2006) assessed a community college leadership doctoral program through having alumni and current students complete an online survey.

In contrast to studies that focused on students (or graduates of the program), other studies have looked specifically at faculty members and their perceptions. For instance, Manning (2010) focused entirely on community college faculty who were teaching blended or web-assisted courses on their teaching practices and how these influenced student persistence. Faculty perceptions were collected both through participation of faculty in an expert panel as well as through web-based surveys. Peruski (2003) applied an activity theory framework to analyze three faculty members' experience with designing and teaching online courses for the first time.

Other evaluation studies did not restrict themselves to a single group of stakeholders for their assessment—seeking to look at the perceptions of both students or program alumni and faculty and administrators. For instance, Ribak, Notzer, & Drezne (1995; see also Bergman, Shatzman, & Danon, 1982 for a previous iteration)

conducted an evaluation of a master's program in occupational health by means of structured personal interviews of class leaders, teachers and students. Their research focused on students' and teachers' expectations of the program, the integration between various aspects of the program, and the value that students received from going through the program (i.e. employment). Erdogan (2008) conducted an evaluation of web-based instruction from both students' and instructors' perspectives. Data for this study was collected through one-on-one semi-structured interviews with 10 students and 10 faculty members and the analysis focused on the similarities and differences between these two perspectives.

These previous studies focused on two key stakeholders in the process of evaluation, either the students (or alumni) of the program or the faculty who design and deliver the courses/program. In each case, there are two key constructs under discussion—that of the quality of a program, and/or its relevance.

In other words, the two key questions that most program evaluations seek to answer are: Is the program offering quality and is it relevant to the students/alumni? In fact, the studies listed above often fall on one side or the other of this issue. It can be argued that the studies that focus on faculty tend to emphasize issues of quality while the ones that focus on students tend to emphasize the relevance of the program. That said, the terms quality and relevance are often ambiguous and difficult to define. This has, however, not prevented scholars from attempting to define them. As Roach and Barker (1984) wrote:

> All attempts at evaluating education programs attempt, in one way or another, to assess "quality." Unfortunately, quality is an elusive variable to define and to measure with reliability and validity. Two primary approaches have been employed to assess quality of programs in previous studies. These include so-called "objective" measures of quality (e.g. admission requirements, course listings, degree requirements, relative publishing performance of staff, placement of graduates, salaries of graduates and faculty, productivity of graduates, library holdings, faculty teaching loads, and graduate student/faculty ratios), and "subjective" measures of quality (e.g. peer ratings by colleagues or by "blue ribbon" expert panels) (p. 69).

The next section looks at the literature on quality and relevance and seeks to develop a better understanding of both in order to construct a viable set of measures and instruments for these constructs.

Defining Quality & Relevance

There are many definitions of educational quality. Harvey and Green (1993) specifically looked at the idea of quality in higher education. They argued that since there are a variety of stakeholders in higher education (students, employers, teaching and non-teaching staff, government, accreditors, etc.), there are multiple perspectives of the term quality. Moreover, they argued that quality is often seen as being a relative concept – depending on both the user of the term and the situation in which it is used.

Instead of imposing one view of quality, Harvey and Green (1993) argued that there are “five discrete but interrelated ways of thinking about quality,” though they add that that these five categories are interrelated. The five ways of thinking about quality in higher education are:

1. The exceptional view of quality where quality is seen as being something special, connected to notions of excellence.
2. The quality as perfection frame sees quality as consistency or flawlessness. They argue that this is a “democratic” idea where consistency is seen as a measure of quality.
3. Quality as fitness of purpose sees quality as fulfilling a customer’s needs and desires. In a higher education context fitness of purpose is the ability of the organization to meet its broader goals and to fulfill the needs of its students.
4. Quality as value for money, or in business terms as return on investment. In this frame, a quality product is one that is optimized in terms of costs. Governments and university administrators often view quality in this value-for-money approach while students may have the same view – but from the opposite direction.
5. Quality as transformation is the enrichment or empowerment of students or the development of new knowledge.

The idea of relevance has always been a part of discussions about quality. In particular, the idea of relevance connects with the idea of quality as fitness of purpose, which can be seen as the need to meet generally accepted standards or meeting specific objectives or goals and objectives. It also connects to the idea of quality as

value-for-money in that the focus is on efficiency. Relevance also connects to the idea of quality as transformation, in that it focuses on students and the goal of empowering them with skills and knowledge, the pedagogical value of the program, and the kinds of experiences the faculty design for the students to meet these goals and values. Finally, both faculty and students need to decide on what evidence (based on their experience) they would use to determine whether the program and the experiences did meet the goals and objectives initially laid out.

Thus the ideas of quality and relevance are operationalized through focusing on goals and objectives; the pedagogical value; the nature of experiences designed; and the kinds of evidence used to confirm if the original goals and objectives are indeed being met.

Summary

The survey of the literature on program evaluation and previous studies of master's degree programs identified a few key ideas that can guide the design of this specific study.

First, evaluation studies are deeply contextual, due to the wicked nature of the original problem. This means that evaluation of such programs have to be uniquely designed for the specific context. In the case of this study, the context is a Master's Program in Educational Technology (and is described in greater detail in the next chapter).

Second, the evaluation of these programs needs to focus on issues of quality and relevance. The previous section shows that these constructs are ambiguous and have

been defined differently by different scholars. That said, this study focuses on goals and objects, the pedagogical value, the nature of experiences designed, and the kinds of evidence used to confirm if the original goals and objectives are indeed met.

Third, it is important to include key stakeholders in the evaluation process. Two key stakeholders identified are the faculty who design and implement the program and students / alumni who go (or have gone) through the program. Different studies have looked at these stakeholders either singularly (looking just at faculty or student perceptions of quality and relevance) or at both groups. It is clear that these two stakeholders will have different perceptions of the goals and objectives of the program, the nature of the experience, and how they see the goals being (or not being) met. The faculty defines the vision of the program, implements it through designing courses and other learning experiences, and measures its effectiveness. Students, on the other hand, choose to come to a program with their own perspectives and goals, which may or may not align with those of the faculty. It is important to better understand how these perceptions align or contradict each other if the program is to effectively meet the needs of the two key groups. Contradictions between these perceptions can lead to frustration on the part of students or alumni because the relevance of the program does not match the needs of the students. Thus, this study identifies the perceptions of both groups of stakeholders with the idea of developing a better understanding of how these two groups share or do not share similar constructs.

Fourth, this process of comparing the perceptions of both groups leads back to the fundamental reasons for conducting such studies: to inform programmatic decision making, and to create a context for organizational learning and improvement.

In brief, in this dissertation, I seek to develop a deeper understanding of the perception of quality and relevance of a specific master's degree program as seen through the eyes of two key stakeholders—the faculty and the students (current and alumni). This study focuses on faculty and students in the Master's in Educational Technology program currently being offered by the Educational Psychology and Educational Technology program, which is housed in the Department of Counseling, Educational Psychology and Special Education, College of Education, Michigan State University. Though a systematic program evaluation is beyond the scope of this dissertation study, I focus on two key terms to frame the study: quality and relevance. These two constructs (which are described in greater detail later in this chapter) are seen through the eyes of two key stakeholders: the faculty and students (current and past). Once an analysis of the faculty and student perceptions are undertaken, this study further seeks to compare these perceptions, highlighting both commonalities and differences. It is only through this process of identifying points of convergence and divergence of perception that one can initiate a process of reflection and accountability.

The next chapter provides further details of the specific program being studied, in order to highlight the context for the study. It also describes the research methodology and instruments developed for this purpose.

CHAPTER 3

FRAMING THE CONTEXT, THE RESEARCH QUESTIONS & INSTRUMENT DESIGN

Context

Just as the advent of electronic media helped shape society at the beginning of the twentieth century, the capabilities and connected nature of the Internet is changing the way we work and learn in the twenty-first century. Substantial efforts have been made by local, state, and federal agencies in the United States to ensure that schools are "wired". Nearly every school in the United States is now connected to the Internet (U.S. Department of Education, 2010). It is no surprise then that educational technology has become an integral component in teaching, teacher education, and professional development programs, and has become more frequently adopted by higher education faculty.

In December 2001, the State of Michigan began to require that all certified teachers be assessed for their "ability to use information age learning and technology operations and concepts to enhance learning and personal/professional productivity." (Michigan State Board of Education, 2001). In 2003, the state of Michigan introduced the Educational Technology (NP) Endorsement, which was developed to align with the International Society of Technology in Education (ISTE) technology standards (Michigan State Board of Education, 2008). The recent publication of the National Educational Technology Plan underscores this need by more clearly articulating the aims and goals of educational technology in U.S. education. (U.S. Department of Education, Office of Educational Technology, 2010).

A range of higher education institutions now offer graduate level programs in educational technology primarily to meet the need for training teachers to meet these standards. It is not clear, however, how successful these programs are in actually developing teachers who can use technology in effective ways. For instance, a survey by Milken Family Foundation and ISTE found that teacher-training programs, in general, do not provide future teachers with the kinds of experiences necessary to prepare them to use technology effectively in their classrooms. (Milken Exchange, 1999). Specifically, they found that formal stand-alone IT coursework does not correlate well with technology skills and the ability to integrate technology into teaching. They recommended that teacher preparation programs should increase the level of technology integration in their own academic programs. Despite this call to arms, studies of K-12 teachers' instructional applications of educational technologies to date show many to be pedagogically unsophisticated; limited in breadth, variety, and depth; and not well integrated into curriculum-based teaching and learning (e.g., Cuban, 2001; Earle, 2002; McCrory-Wallace, 2004; Zhao, Pugh, Sheldon & Byers, 2002). In a 20-year retrospective on U.S. educational technology policy, Culp, Honey, and Mandinach (2003), describe a mismatch between educational technology leaders' visions for technology integration and how most practitioners use digital tools. Researchers emphasize technology uses that support inquiry, collaboration, and reformed practice, while many teachers tend to focus upon using presentation software, learner-friendly Web sites, and management tools to enhance existing practice.

The Master's Program in Educational Technology

It is within this context that the Counseling, Educational Psychology and Special Education (CEPSE) department within the College of Education at Michigan State University (MSU) began granting master's degrees in Educational Technology during the 1998-1999 academic year. The current Master of Arts in Educational Technology (MAET) program consists of three "paths" or modes of delivery: face-to-face, hybrid, and online. The face-to-face program currently takes place overseas and caters to the international school teaching community. The program can be completed in three years over four weeks of condensed summer study sessions. The hybrid option consists of a mix of fully online courses coupled with two condensed summer study weeks on campus in East Lansing. In Spring 2008, the program became available for delivery completely online. It is now possible for students to complete the degree without visiting the MSU campus.

In its 10-year history, there has never been a systematic study of the MAET program. Changes (and there have been many) have been driven by ad-hoc decisions prompted both by perceived demand, competition from other programs, and the advent of new technologies for the delivery of instruction. Additionally, budget restructuring and other financial pressures (having to do more with less) demand a better review of the MAET program. Another significant reason to better understand the perceived goals and outcomes is the increased national and institutional emphasis on assessment and accountability. The MAET program is eligible to apply to accrediting agencies (such as the National Council for Accreditation of Teacher Education (NCATE), International

Technology Education Association (ITEA), Council on Technology Teacher Education (CTTE), and the Association for Educational Communications and Technology (AECT)). These agencies require programs to conduct internal evaluations and include stakeholders in their program evaluation activities. Finally, the MAET program exists in direct competition with other programs (across the state and the nation) that offer similar programs. The past few years have seen an incredible increase in master's programs being offered in a variety of formats (hybrid and online) from a range of public and private institutions. Developing a better understanding of student needs and their alignment with program goals becomes a necessity for survival of the MAET program. In this regard, we see this study as being essentially formative in nature—particularly given the fact that the MAET program has not been studied in its decade long history. As such, this study is a much-needed first step to help guide decisions on program revision and expansion and sets the stage for a deeper evaluation study.

In this dissertation I am asserting that quality and relevance in the MAET program can often be seen as playing out in three areas: the goals and intended outcomes of the program; the values the program espouses; and, finally, the nature of the experiences that are designed in order to meet these goals and values. Clearly, faculty and students can have very different perspectives of these terms as well. It is thus important, when we are speaking of evaluating higher education programs, to find out more about how these two key stakeholders of faculty and students perceive issues related to quality, relevance, goals, values, and experiences.

The specific research questions for this study emerge from an interest in defining quality and relevance in ways that can help us understand the perceptions of faculty and students in the MAET program.

Understanding Program Faculty Perceptions

The structure of higher education institutions places a great deal of the responsibilities of the administration and teaching of academic programs on the faculty. They are ultimately responsible for key decisions about the program, including broad issues such as goals, values and design, as well as more core programmatic issues such as admission criteria, curriculum, course sequences, grading, and evaluation. Decisions on these issues are taken in multiple contexts and in different ways, often contingent on local and time dependent constraints. It is not surprising, if given the complexity of the program management and design, that different faculty have very differing opinions of the nature, value, and goals of a program. Thus, including program faculty in the evaluation of the program is of critical importance. By including faculty in the evaluation process we can ascertain what the overall goals of the program are along with underlying principles or tensions that play out in specific instructional or programmatic decision making. It is against these goals and values that one can then evaluate the nature of student experience in the program. Thus, the first part of the research study involves the design and implementation of an interview protocol with current and former faculty members in order to determine the vision and expectations from the program. This leads to the first set of research questions, for the faculty:

1. How do faculty members perceive the quality and relevance of the program?

a. What do faculty perceive as the goals and intended outcomes of the program? (This would include their perception of why students come to the program).
b. What are the pedagogical values that faculty believe drive their design of the program and the student experiences?
c. What types of activities and lessons do faculty create for students to experience in the program? How is this relevant to the students?
d. What evidence do the faculty have to confirm that the above intentions are being met?

The data for answering these questions comes from a series of interviews with faculty members (more detail on that below).

Understanding the Perceptions of Students and Alumni

Students, both current and alumni, form the next vital link in the assessment of the program. They are particularly important because they are the program's connection to the K-12 system which the MAET program influences. The goals of the program, as evidenced by program documents, websites, and faculty ideas, need to be tested against the actual experience of the students in the program. Ideally, there should be agreement across these various indicators and stakeholders. But if these are not in agreement, these points of departure can help draw attention to issues and concerns that need to be addressed in the ongoing design/redesign of the program. Specifically, this research studies student attitudes towards educational technology, their reasons for seeking these advanced degrees, their experience in the program, the perceived

benefits to them of the program, and, finally, their perceived proficiency in both using technology and in integrating it in their teaching of subject matter. In brief, students (and alumni) are the ones who actually undergo (or underwent) the experience designed by the faculty. So in parallel to what the faculty perceive is what the students actually experience as they move through the program.

This leads to a second set of research questions having to do with student experience and perception. There is a clear mapping of the research questions for the faculty to those focusing on the students.

2. How do students and alumni perceive the quality and relevance of the program?
    a. What do students perceive as the goals and intended outcomes of the program? Why do they come to the program?
    b. What is the value that students drive their participation in the program?
    c. What do students experience in the program? How is this program relevant to the professional lives of students?

Finally, it is important to investigate how faculty and student perceptions match (or do not match). This is in keeping with the ideas of quality and relevance as being fitness of purpose. For instance, it is important to know whether or not faculty meet student needs, or if students perceive faculty intentions as being aligned with their needs and requirements. The quality of the program can be judged from how well this happens. This leads to the third and final research question.

3. What insights can be gained when comparing data between faculty and students?
    a. What similarities exist between faculty and student perceptions?
    b. What tensions arise between student and faculty perceptions?
    c. What ideas or suggestions for the future directions of the program emerge from this analysis?

The first two research questions reflect the fact that faculty and students often approach the program from opposite directions. Faculty members design the course curriculum and student experiences based on their perception of goals and needs and what students need to know and why they think students are coming to the program in the first place. They design experiences that embody their values and seek evidence to learn whether or not these goals and objectives have been met. Students choose to come to a program to meet their own goals and perceive their experiences and value they receive from their perspective. Finally, when comparing the perceptions of faculty and students, it is important that the instruments map onto each other and be applicable to both groups. Without this conscious mapping, it would be difficult to answer research question 3, which has to do with finding commonalities and differences between the two perceptions to determine productive tensions that can help develop thoughts and ideas for the future directions of the program. Also important to note here is that there is a significant contrast between the numbers and availability of the different stakeholders. Faculty members are fewer in number and were easily accessible by the researcher. Students and alumni were far more spread out, particularly given the online options that

the program now offers. This also helped determine the nature of the instruments designed.

Instruments

Two different instruments were designed for this study. First an interview protocol was developed to address (a) faculty perceptions of the master's program and (b) students in the program. Once the interviews were transcribed and an initial analysis performed, a survey instrument was designed for distribution to students and alumni.

Faculty Interviews

The first is an interview protocol for the faculty members and focused on the following:

1. Program History: These questions focus on faculty perceptions of the history of the program, its origin, conceptualization, and how it has changed over time.
2. Student Body: Another set of questions focus on faculty perceptions of the student body, their needs and requirements, and how this has had an effect on the design of the program.
3. Teaching Tensions: A review of the program documents and personal experience indicate that there are some inherent tensions in the MAET program. In particular, these tensions have to do with the relationship between student needs and program design; the relationship between educational psychology and educational technology; and keeping pace with the rapid rate of change of educational technology.
4. Program Strengths and Weaknesses: This set of questions focuses on the faculty perceptions of the strengths and weaknesses of the MAET program by

building on the what the faculty have already articulated about the history, student body and teaching tensions.

5. Future Planning: The final set of questions focus on what the faculty see as the future direction of the program based on their experience teaching and/or leading the program.

Exploring each of these in greater detail:

Faculty Perception of Program History

As stated earlier, there has been no formal departmental evaluation of the MAET program. In an attempt to gather data on program history and record institutional memory, the following questions were asked:

- What course do (did) you teach? In regard to this course, what skills or knowledge do (did) students gain in your course?
- If you had to describe this program to someone else, how would you do it? What are some key challenges faced by the program in the past? Have these led to changes? In what way?
- How has the master's program changed over the years?

Faculty Perception of the Student Body

To understand faculty attitudes and assumptions about the student body, a series of questions targeted this domain. Assumptions on the part of faculty can influence student experience and the student and alumni survey allowed for comparison and contrast of the answers to these questions against student self-reports. The following questions targeted this cluster:

- What differences will this outcome make in the lives of those who complete the program? Why is this important?
- In practice, what are the outcomes students gain from being in the master's program—the knowledge, skills, understandings, beliefs, values, or career aspirations that they gain?
- What are any other benefits students may derive from participation in the master's program?
- What kinds of evidence do we have regarding these outcomes?
- How well do you think the program is in meeting students' interests and needs?

Faculty Perception of Teaching Tensions

As an educational technology faculty, several tensions arise over how much time should be spent on technology tutorial type of work and how much should be spent on the larger goals of the course or project. These tensions play out in many different ways in course subject matter and faculty attitudes, behavior and preferences. The following questions addressed this tension:

- There is always the tension between teaching technology (technology) and teaching how to integrate technology (pedagogy), what are your thoughts on these tensions? Give an example or relate this to something – say teaching Dreamweaver versus building webpages for teaching?
- There is also a perceived tension between theory and practice. Do you perceive such tensions in this program? If so, how do they play out? What are your thoughts on these tensions?

Faculty Perception of Program Strengths and Weaknesses

This cluster of questions is focused on how faculty perceived the overall intentions of the MAET program. With the tensions and change over the years, it is important to capture the faculty perception of the overall program strengths and weaknesses.

- What are the intended learning outcomes of the program? That is, what are the goals of the program in terms of what students are to learn to do, understand, believe, or value?
- I want to focus a bit more on program goals, why do you think students come to our program?
- What are the strengths of the master's program?
- What are the weaknesses or shortcomings of the program?

Faculty Perceptions of Future Planning for the Program

This cluster of questions in the interview is intended to allow faculty the opportunity to brainstorm ideas about the future direction of the MAET program.

- What are your ideas for new directions for the master's program?
- Are you aware of any ways in which the program is currently assessed? If you know of any processes, instruments, or methods, how effective have they been in measuring outcomes from participation in the program?

Student Survey

The second instrument designed for the study was administered to current students and alumni of the MAET program. The survey focused on the following broad questions:

- What do students perceive as the goals and intended outcomes of the program?

- What do students experience in the program?
- What is the value that students derive from their participation in the program?

Exploring each of these in greater detail:

What do students perceive as the goals and intended outcomes of the program?

This line of open-ended questions focused on the student perception of the goals of the MAET degree. The answers to these questions are compared to faculty responses to the same questions.

- If you had to describe this program to someone else, what would you say?
- How often were you asked by instructors to demonstrate that you could integrate the use of technology into the lesson plans?

What do students experience in the program?

To get a better idea of the perception of the experience, students were asked a blend of multiple choice and open-ended questions intended to solicit data that could be used to highlight specific programmatic outcomes.

- How well did the MAET program meet your needs?
- What are the strengths of the master's program?
- What are the weaknesses of the program?
- What difference did participation in the MAET program have to your professional life?
- TPACK survey questions.

What is the value that students derive from their participation in the program?

To understand the nature of the value students place on the degree, students were asked a series of questions that were used to measure degree of connectedness, overall satisfaction of the program and personal motivators for obtaining the MAET degree.

- Why did you come to the program?
- Some educators claim that access to new technology in the classroom forces teachers to rethink the nature of what they do in the subject matter domain. How often did you experience this in the course of the program?
- How well did the MAET program balance the teaching of technology?
- How likely are you to recommend the MAET program to colleague or friend?
- Do you still feel connected to the MAET program?

Mapping the Faculty Interview Protocol to the Student Survey

The following table maps questions from the faculty interview and student survey to the research questions and sub-questions. The faculty interview protocol and modified student survey are included in the appendix.

Table 1. Mapping the Research Questions

Research Question Category	Faculty Interview	Student Survey
Goals & Outcomes	What are any other benefits students may derive from participation in the master's program?	After graduation did you (check all that apply) Receive a pay increase Apply for a new position Get a better position Change fields None of the above Other:

Table 1 (cont'd)

Goals & Outcomes	How well do you think the program is in meeting students' interests and needs?	How well did the MAET program meet your needs? (open ended text)
Goals & Outcomes	If you had to describe this program to someone else, how would you do it?	If you had to describe this program to someone else, what would you say? (open ended text)
Goals & Outcomes	In practice, what are the outcomes students gain from being in the master's program—the knowledge, skills, understandings, beliefs, values, or career aspirations that they gain?	How often were you asked by instructors to demonstrate that you could integrate the use of technology into the lesson plans?
Experience	What are the strengths of the master's program ?	What are the strengths of the master's program? (open ended text)
Experience	What are the weaknesses or shortcomings of the program?	What are the weaknesses or shortcomings of the program? (open ended text)
Experience	What differences will this outcome make in the lives of those who complete the program	What difference did participation in the MAET program have to your professional life?
Experience	What are the goals of the program in terms of what students are to learn to do, understand, believe, or value?	Selected TPACK survey questions.
Value	Why do you think students come to our program?	Why did you come to the program? (multiple select with option of "other" fill in response)

Table 1 (cont'd)

Value	There is also a perceived tension between theory and practice. Do you perceive such tensions in this program?	Some educators claim that access to new technology in the classroom forces teachers to rethink the nature of what they do in the subject matter domain. How often did you experience this in course of the program? (open ended text)
Value	There is always the tension between teaching technology (technology) and teaching how to integrate technology (pedagogy), what are your thoughts on these tensions?	How well did the MAET program balance the teaching of technology?
Value		How likely are you to recommend the MAET program to a colleague or friend? scale 1- Not at all likely 10 - Extremely Likely
Value		Do you still feel connected to the MAET program? Yes No Please explain why or why not? (open ended text)

By mapping the student and faculty questions to the goals and outcomes, experiences, and value I set the framework for comparing and contrasting these elements after analysis of each subsection.

CHAPTER 4

RESULTS: FACULTY PERCEPTIONS

The structure of higher education institutions places a great deal of responsibility for the administration and teaching of academic programs on the faculty. The faculty is ultimately responsible for key decisions about the program. These issues include broad matters such as goals, values, and design, as well as more core programmatic issues such as admission criteria, curriculum, course sequences, grading, and evaluation. Decisions on these issues are taken in multiple contexts and in different ways, often contingent on local and time dependent constraints. It is not surprising, given the complexity of the program management and design, that faculty have very differing opinions of the nature, value, and goals of a program. Therefore, the act of including program faculty in the evaluation of the program is of critical importance since this can inform evaluators of what the overall goals of the program are (and were), along with underlying principles or tensions that play out in specific instructional or programmatic decision making. It is against these goals and values that we can then evaluate the nature of student experience in the program.

The Seidman interviewing model (Seidman, 2005) and grounded theory approach guided the interview inquiry. The grounded theory approach is defined as “a qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon” (Strauss & Corbin, 1990, p. 21). Creswell (1994) explained how to use this inductive mode of thinking to build a new theory. The steps were (a) researcher gathers information, (b) researcher asks

questions, (c) researcher forms categories, (d) researcher looks for patterns (theories), and (e) researcher develops a theory or compares pattern with other theories. I gathered archival data from the Academic programs catalogue (APPENDIX A) and developed a series of questions that attempted to fill in additional program history. In addition to program history, I was interested in understanding the faculty perspective on student engagement and relevance of the program. Program faculty were interviewed to gather intended programmatic and learning outcomes for MAET graduates, program history and current tensions. Current and former MAET faculty members were solicited for interviews. Nine faculty members were contacted for interviews and ultimately seven faculty members were interviewed for this study. (N=7)

Interviews lasted 30-60 minutes, were recorded, transcribed, and then coded for thematic analysis. (The entire interview protocol can be found in APPENDIX B.) The interview protocol with current and former faculty members was designed and implemented in order to determine the vision and expectations from the program. In the section that follows, pseudonyms have been used when using direct quotes from faculty members.

Table 2. Introduction to Faculty

Name	History with Program & Responsibilities
Evan	Started teaching and developing the certificate courses in 1994. Has taught face-to-face, overseas and online courses. Has not taught with MAET certificate program for 4 years. (Currently has responsibilities with PhD program.)
Ben	Started working with the program in 1997. In his first few years, he was the advisor for all the master's students in the master's degree program then went on to direct the certificate program before moving to other responsibilities two years ago.
Earl	Started working at the university in 1987. The department was oriented towards Educational Psychology when he started and then moved towards Instructional and Educational Technology in the early 90s. Has taught face to face, overseas and online courses with MAET and is currently teaching online in addition to responsibilities with PhD program.

Table 2 (cont'd)

Bill	Starting working with the university in 2000. Has taught face-to-face and online courses with MAET and currently teaches online courses in addition to responsibilities with PhD program.
Deepak	Started working with the university 1998. Has taught face-to-face, overseas and online courses with MAET and is currently teaching online and directing the MAET program in addition to responsibilities with PhD program.
Derek	Started working with the university in the fall of 2007. Has only taught online with MAET in addition to responsibilities with PhD program.
Ian	Started working with the university in 1998. Has taught face to face, overseas and online courses with MAET and is currently teaching online in addition to responsibilities with PhD program.

What do Faculty Perceive as the Goals and Intended Outcomes of the Program?

The answer to this determines what faculty believed to be the end-result of the MAET program. Analysis of responses clearly shows that early in the development of the program there were two separate program goals - one for the certificate and the other for the Master's program. As one interviewee, Evan, who has been associated

with the program the longest time, said of the certificate, “it was initially seen as a separate thing just meant to help teachers in the schools.” Prior to 2001, the certificate program was a non-credit program that was offered for free to local school districts as an outreach program.

In approximately 2001, this outreach morphed into what is now known as the for-credit certificate program. The curriculum in the certificate program consisted of an introduction to the micro-computer (mouse skills, operating system proficiency, etc.) and an introduction to word processing skills (mainly the Microsoft Office suite). The certificate faculty consisted mainly of adjunct faculty who were K12 practitioners. As Ben, one of the early directors of the certificate program, said, the aim was “helping the people who had shifted from being avoiders to adopters of technology. So, aiming at those people who were intimidated, who were scared by it, which was clearly a certificate value.” This group of instructors did not interact with the MAET program faculty, though the certificate course are 800-level courses, and are used as a feeder, or “on-ramp,” to the Master’s program. The goal of the certificate program was to give teachers a baseline for technology use.

The goals for the Master’s program at this time were not clearly articulated in the history of the program. There were two versions of the Master’s program running, one overseas and one on campus. The courses were not strongly tied together by overarching goals or outcomes, with little consistency and coherence. That said, there was a distinct emphasis on teaching and educational psychology in the Master’s program (as opposed to the certificate courses). This shift between the Master’s and

certificate mindset can be seen in the following quote from a former certificate faculty member, Evan, who said, (speaking of the certificate courses) that “there was not much emphasis on shifting the strategy of teaching, it was more here’s how you use technology to manage. We looked at the computer as the object, the medium, and the manager of instruction.”

In the past few years there has been a concerted effort to bridge this historical divide between the MAET program and the certificate program both from the faculty perception point of view and pedagogical point of view. Additionally, the addition of the NP (Educational Technology) endorsement option for Michigan teachers has strengthened the consistency between course sites and delivery modes. Evidence of successfully bridging this gap came through when one new faculty member (Derek) who was interviewed was not aware that the programs were previously separate entities.

In its present form, in terms of high-level program goals, unanimously the focus of faculty is to “make better teachers” or “to prepare the next generation of teachers to teach well.” All interviewees focused on the teachers and how completing the MAET program focuses on improving teaching first, technology second. Quotes that exemplify this are Derek’s observation “I think they gain knowledge about the way students understand” and Deepak’s input “the goal has been to emphasize teaching and learning with technology.” Most of the faculty members teaching in the courses that come after the certificate courses have formal backgrounds in educational psychology and educational technology. This has meant that in the interviews the faculty have often downplayed the emphasis on technology. For example, one faculty member, Bill, said

the program has “an emphasis on using technology thoughtfully, never with an emphasis on the technology.”

An additional issue that faculty mentioned had to do with focusing on specific technologies as opposed to ways of teaching and learning with various technologies. This is in sharp contrast with the earlier certificate courses which often focused on specific software tools (such as Microsoft Word or Excel). More recently, faculty indicate an aversion of sorts to focusing on specific technologies, since as many of them said either specifically, or words to the effect that “technologies change so frequently.”

With the divide between the MAET and Certificate programs addressed (by all but one faculty member who was new to the university) a few other strands emerged after analyses when asked what outcomes, knowledge and skills students gain by participating in the program. While there was general agreement across all 7 professors, one faculty member, Ian, did say “It’s probably different goals for different people. So, it sort of depends on the student.” A simple frequency analysis of the other responses revealed two words that describe the program: practical and authentic. Responses ranged from Evan’s “practical introduction to computers” to Ben’s “a strong emphasis on authentic materials” and “it’s not just credits, students are able to apply what they learn to their classroom.” Additionally in their own way, all faculty members stressed that another one of the program goals, as Deepak says here, is to “help people become a better teacher.” Derek sums up this feeling nicely by saying “I think in the experience of gaining technology specific skills, in their own experience of that act of learning it sort of changes their thinking about how their own students learn.”

What is the Pedagogical Knowledge that Faculty Believe Drives their Design of the Program and the Student Experiences?

The faculty discussed the pedagogical knowledge they were trying to pass on to the students, rather than their own personal pedagogy or philosophies of teaching. In this query, pedagogical knowledge is defined as the processes and practices or methods of teaching and learning (Koehler & Mishra, 2009). An analysis of responses revealed three key strands driving faculty pedagogy. First, the faculty wants the students to experience a shift in teaching; second, they want the materials students create to be authentic; and third, they want to develop a sense of community among the student body.

All of the respondents put a high value on shifting the teaching strategies of the teachers in the program. Some even mentioned that technology was not necessarily a part of their pedagogical decision making. As Bill said, the goal was that a student would learn about technology "by playing with it." Evan described his pedagogical decision making was to "affect how people teach, whether or not they use technology." Deepak described the program curriculum as being "something that would help people become a better teacher, and how you could learn to use technology in that process." He went on to say, "it's that you develop a way of thinking and a way of being. That, to me, is more important than learning specific theories of programs or software applications." No one, however, mentioned surveying existing practices or beliefs of their teachers. One faculty member, Ian, did say his approach could be seen as a "way of either enhancing what they already know or learning those things." He added, "I think they

gain that [technical] knowledge, but that knowledge translates to a belief, too, that teaching really has to be flexible and adaptive and have more than one approach to a given outcome. I think they gain a belief that all people can learn things. That sounds really cheesy, but I guess what I mean by that is that I think in the experience of gaining technology-specific skills in their own experience of that act of learning, it sort of changes their thinking about how their own students learn." This quote is representative of the notion of changing the pedagogical beliefs of students and alumni.

In terms of materials created, faculty always put an emphasis on assignments being practical and relevant to the teaching practice. Ben said, "that was explicitly stated, that you could walk into an interview with this notebook and say here's how I use technology in the classroom. " A strong emphasis when the program started, as is now, "is on authentic materials." Ian recollected that the promise to teachers was that "you were going to produce things that you could use or hopefully had used in your classroom." Two tensions arose in this area. Discussing program history clearly teased out tensions among faculty as to what is a Master's course in educational technology. One faculty member, Evan said "it was a struggle on the master's side to decide what constitutes a legitimate course in a master's degree and how much is the practical, useful, appropriate thing to have taught in a master's program." The pedagogical stance on assessment of graduate student work is another topic of note. As Evan, one of the people who started the certificate program went on to say, "In the certificate, grading is not primarily an assessment activity, it is primarily a teaching activity." A part of this may be due to the historical nature of the certificate program which began as a non-

credit course, where completion was a measure of being successful in the program. Of course once it because a credit program (both in the certificate and master's versions), this had to change.

The final pedagogical strand that emerged was the sense of imparting a spirit of community building with and to the students. For the capstone course Bill "group(s) people by subject matter because with portfolios, they just have so much more in common." In addition to creating community in subject matter and coursework, several faculty members described the importance of giving the students the skills necessary to become change agents. Deepak says, "What we should be driven by is, are they prepared for being agents of change or being good teachers in the classroom that they go back to." Evan expressed that graduates are "going to be known as someone who knows technology, you want to be able to help these other people." Ian asserted, "you [a graduate of the program] are going to be in positions of leadership so people will look to you to be able to help with these things." The goal, as Ben stated, is to "build a stronger sense of community within their own schools, particularly teachers that take it as part of a cohort where we may be offering the program in their local schools so they're learning with their peers. Are they going to be prepared for that it is what we should be thinking about." This idea of community building was expressed strongly by all faculty members interviewed.

What Types of Activities and Lessons do Faculty Create for Students to Experience in the Program?

The types of activities and lessons have changed drastically over time. It is important to note here that the nature of the program has changed over time as well. In 2009, the program became available completely online, which would explain some of the shift in student experience. When asked about the early days (face to face) Ben recalled assignments such as having a football coaches or art teachers inventory equipment and supplies with Excel. Another important assignment was described by Evan as "a notebook full of documents created specifically for use in the classroom" such as "a letter to parents, a budget for a project that you would do in the classroom. Again in the beginning it was just how do you use Word." Ben explained, "They [students] actually created a three inch notebook that they turned in at the end." A focus was more on the practical how-to over theoretical application. For example, Evan said students had to "add two cells in Excel and save my worksheet." So the initial history of the program was quite driven by creating experiences for students where they could learn how to use specific software programs – with less emphasis on how it could be used for teaching.

There has been a shift in the past few years in better integrating technology for the purposes of better teaching. The TPACK model, which argues for a contextual integration between technology, pedagogy and content, developed by Koehler and Mishra (2006) naturally fit into the MAET program. For example, in one core course Derek explained "we do an audio interview using Audacity. The goal being, in that case, looking at student understanding by using an audio recording and putting that into a project. They do a digital story as well using pictures and PowerPoint slides and movie

clips to depict a learning experience." In this example, the focus is not only on the technology but also on the pedagogical and curricular ideas expressed through technology.

Many of the faculty members put the focus on the learning process and product rather than step-by-step "how-to" learn the technology. In one particular case, Deepak explained, "we hardly ever spent time directly teaching about technology, on purpose." A specific example was shared: "So I would say your goal is to teach how to use a camera and get some film about something. We would literally give them two-minute tutorials. Here's the record button, here's the rewind button, here's where the tape goes. That's all you need to know. The rest you have to figure out." He went on to say, "they're creating something to teach an idea. So I think just so long as we can keep the emphasis on designing projects for educational purposes and then, you know, keeping them thinking about what is that purpose and to what degree are you achieving it with this technology." Thus, the goal here is to expand the student understanding beyond how to use an exact tool step-by-step, which sets them up for dealing with future changes in technologies.

In brief, over time there has been a shift in the kinds of experiences students undergo as they move through the program. Initially the focus had been mostly on the acquisition of specific technology skills. Over time this has shifted to a broader focus on teaching and learning with technology and the role that technology can play in that area.

What evidence do the faculty have to confirm that the above intentions are being met?

When asked this question, Bill says, “I know I could make up a good answer to that, but I really have no idea. I would love to know.” It was clear after speaking with program faculty that no systematic evidence has been collected that can demonstrate the success (or failure) of the Master’s program. As one senior faculty member, Earl, noted, “we’ve not done research on the impact or outcomes of our program, and that's been clearly a weak point. But that emphasis just changed over time, and we've just gotten away from it [the evaluation].” The program collects historic graduation rates and numbers, however, these numbers do not tell much of a story. While numbers have increased and graduation rates are in line with college and department expectations, simple enrollment and graduation rates are not a true measure of success.

As stated in the discussion of pedagogical reasoning among faculty, there was a feeling by one faculty member, Ian, grading in many of the courses is viewed as a teaching activity, not as an assessment activity. Evan highlighted this tension by saying, the “concern has always been the certificate; too many people get four points. And so it's helping instructors give the appropriate kind of feedback, and in effect, enable them to give critical feedback. So, if somebody's worked hard and the instructors are tempted to say, that's a good job, let me give you four point.” Because this approach is not clearly articulated among the entire faculty, grades cannot be used as a measure to indicate success or failure of the program.

All students must take the “capstone” course CEP 807. While the official schedule of courses description reads “Perspectives on educational technology, current theories, research findings, and methods of design and evaluation” this does not give much

insight into the nature of the course. The latest course description reads “our total focus in this class is to help you each end the course with a web portfolio that shows in a rich, thoughtful way the work you have done in your master’s program, and which is written for your authentic audience, not just for us or for meeting the requirements of the capstone portfolio course (Instructor, 2011).” Earl, who has experience with the CEP 807 course explained, “The portfolio requires them to put up examples of work from every course. It is a terrific window on evidence of what the students report as the most meaningful on the assignments they are most pleased to share. The capstone project as a way of sort of pushing them, pushing them, pushing them to make their thinking visible, to make their work visible,” Earl went on to say, “I do think that having all of our students finished with defined web-based portfolio is a huge plus. I don't think we've marketed it well. So many programs you end up with nothing but a transcript.” Since students do not produce a final thesis for the MAET program, the portfolio is the most concrete example of student work and evidence of what they produce (and learn) in the program. This emphasis on the professional portfolio is an important indicator of how the program has changed over time—from measuring skills with specific technologies to having graduates construct their own professional portfolio that showcases their creative and professional work.

Throughout the interviews, faculty cited anecdotal evidence of success. As Deepak says, “It's awesome because we hear back from so many people about projects that they've done that they had fun there, they're doing it, and that is really something. But I think, perhaps, maybe the best example of impact is the number of people who came

back and talked for us who went through the program." In sum, after interviewing the faculty and reviewing program records, there is no systematic benchmark or set of criteria in place to assess program successes and failures.

Summarizing Faculty Perceptions

There have been significant changes in the program at multiple levels over time. In the beginning the Certificate program was a non-credit certificate program and has grown into a full-fledged master's program offering courses in face-to-face, hybrid, online, and off-campus formats. As the interviews with the faculty members indicate, these changes are not only just in scale, but also of the goals and outcomes, the experiences of the students and evaluation.

Initially the focus of the program was on having students learn how to use technologies. Though there was an emphasis on classroom practice, the experiences were typically designed to impart specific skills about specific technological (hardware and software) tools. Over time this has shifted to a broader emphasis on ideas and issues from educational psychology, student learning, and that of developing better teaching practices. Technology now is a context within which broader and deeper issues of teaching play out. This is also reflected in an emphasis on the program being practical and authentic for the students in the program. This transition has, of course, come with some inherent tensions: from learning specific technologies versus ways of thinking with technology; from evaluating skills and completion of the courses as indicators of success to a more professional portfolio model of student assessment.

CHAPTER 5

RESULTS: STUDENT AND ALUMNI PERCEPTIONS

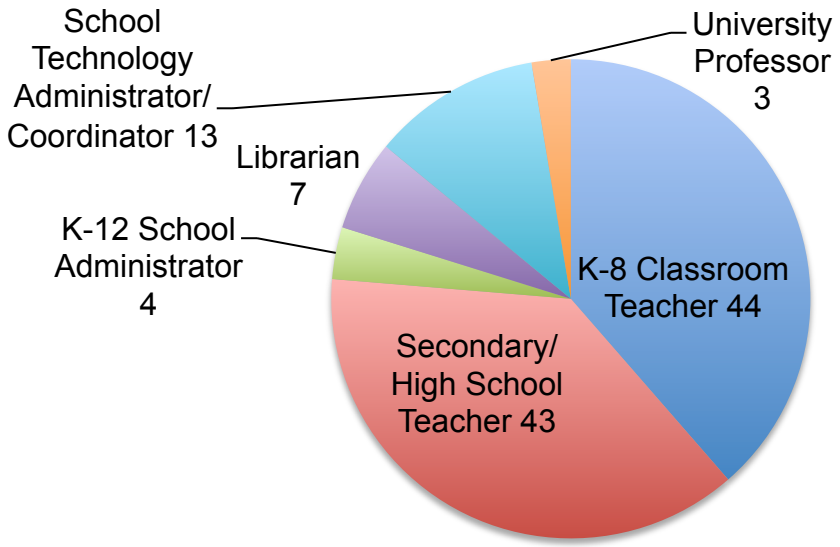
Students (both current and alumni) are a vital source to consider in the assessment of the program. They are particularly important because they are the program's connection to the K12 system which the MAET program influences. The goals of the program, as evidenced by program documents (websites etc.) and faculty ideas, need to be tested against the actual experience of the students in the program. Ideally, there should be agreement across these various indicators and stakeholders. But if these stakeholders are not in agreement, the points of departure can help draw attention to issues and concerns that need to be addressed in the ongoing design/redesign of the program. Specifically, this research targets student attitudes towards educational technology; their reasons for seeking these advanced degrees; their experience in the program; and the perceived benefits to them of the program; and, finally, their perceived proficiency in both using technology and in integrating it in their teaching of subject matter.

General Descriptors

The online student survey was sent out via email to all current students and alumni of the program. Over the past several years, the MAET program has maintained open communication channels with their alumni through a variety of media, email newsletters, Facebook, Twitter and the program website. Invitations to complete the survey were sent by email to 400 individuals. Additionally, reminders to complete the survey were sent via email, Twitter and Facebook. 147 individuals started the survey, 79% of whom

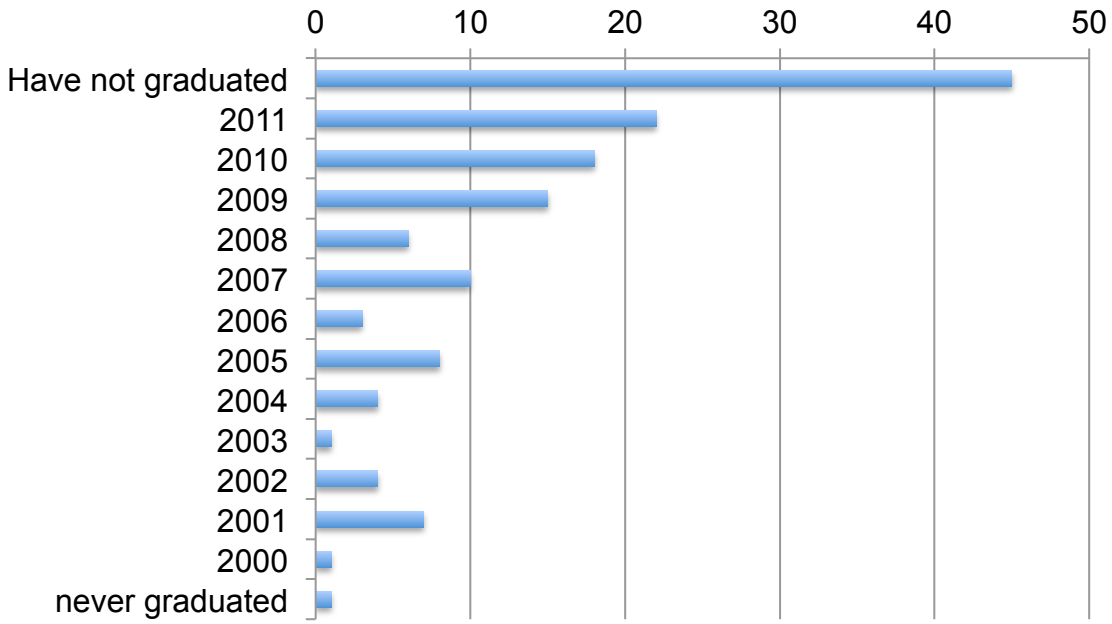
(117 individuals) completed it. Of the respondents, 64% were Female, (which is in keeping with the gender distribution of students / alumni population). The average age of the survey respondents was 37 years, ranging from the youngest at 24 years to the oldest at 61. The data showed that 31% of respondents are currently enrolled in the program (the highest population of responses) while the rest are alumni. Of all respondents, the highest percentage experienced the program online (52%.) Of the remaining responses, the next highest percentage of responses was from overseas students with the on-campus hybrid students coming third. The majority (60%) of respondents were K-12 teachers. The rest of the population that worked in conjunction with the K12 population were administrators (2.8%), librarians (4.8%), and school technology coordinators (9%) while 19.3% reported "other" as their profession. This included Intermediate School District consultants, technicians, higher education support staff, school psychologist, school nurse, and full time graduate students.

Figure 1. Student Population



For interpretation of the references to color in this and all other figures, the reader is referred to the electronic version of this dissertation.

Figure 2. MAET Graduation Year



Besides general descriptors, this survey aimed to answer the main inquiry into how do students and alumni perceive the quality and relevance of the program.

To answer this question, the following sub questions informed the survey:

a. What do students perceive as the goals and intended outcomes of the program?

b. What do students experience in the program? How is this program relevant to the professional lives of students?

c. What is the value that students derive from their participation in the program?

The analysis of responses to these questions is described in detail below.

Goals and Outcomes

What do students perceive as the goals and intended outcomes of the program?

Survey respondents were asked the open-ended question, “if you had to describe this program to someone else, what would you say?” A first pass (N=117) was simply a count of positive, negative, and neutral responses. Positive responses touched on aspects of the curriculum and general enjoyment of the experience. One student said of the program, “very cool, very useful, practical learning you can actually apply to practice, rather than purely theoretical learning.” Another said that, “The MAET program will enhance your teaching whether you teach kindergarten or high school. It puts the use of technology into perspective in the classroom and gives practical applications for everyday lessons.” 89% of student responses to this question were positive.

Statements such as “Learning to use technology in education” or “It allows teachers to combine education and technology in a time where we revolve around being technologically advanced,” were coded as neutral. These statements did not include any qualifying terms that suggested the program was a positive or negative experience.

Negative responses centered on the lack of relevance to their teaching or on the program not meeting the needs of non-teachers, and frustration with professors. Specifically, one comment mentioned, “I would say it is a master’s program specifically designed for teachers k-12. Enroll only if you are a teacher teaching k-12 classes.” Statements such as “take the certificate overseas but do the rest of the courses online” indicate a lack of satisfaction with the entire overseas experience indicating there is not value in the entire overseas program. A statement by one overseas student stating that

the degree is a “Master’s in PowerPoint” reveals that the student felt the content was not challenging or relevant. One respondent stated, “Don’t go to the MAET program. I have discouraged others from attending.”

A deeper analysis of the “how do you describe the program” question separated online and overseas groups to see if there was a distinct difference in the experiences of each group. Overseas student responses were heavily focused on a sense of community. The following statement is a representative example of a positive response from an overseas student, "Its[sic] an intense, 4-week summer program where you get totally immersed in using, thinking about, creating and developing technology for education. You come out with a sense of purpose and mission, and a basket of skills that enable you to use technologies in your teaching an a whole new, empowered, way."

Overseas students explained the program as not only changing their practice, but also their view of the world: “The MAET program is a fantastic, life changing experience. Not only will you further your understanding of integrating technology into education, but you'll experience people like you've never done before. I can't recommend it enough!?”

In contrast, comments from students / alumni who had experienced the online/hybrid versions tended to focus on the ease of completing the program and its flexibility. For example, one student explained the program as, “a master’s program you can complete completely online. You have the freedom to complete your assignments on your own schedule. There are very few quizzes which is nice and the projects you complete are ones you can use in your classroom. It is a great program to further your education. Plus, it is only 10 courses.” Though flexibility and ease of completion were

the primary descriptors for online students, respondents did make mention in their descriptions that the online program influenced their practice. For instance, one student commented that, “This is a program that develops creative thought and innovative practice utilizing technology. It is a convenient program that can be done online.”

To further assess the perceived goals and outcomes students were asked to explain ways they were asked by professors to demonstrate proficiency. At a curricular level, respondents cited specific projects experienced in the program (i.e. STAIR project, TPACK project, Action Research project), and all student references to projects were MAET activities that took place across all versions of the program. Others mentioned the creation of artifacts or tools such as websites, web quests, blogs, or personal portfolios. It became evident, however, that a small subset of students (N=9) felt as if they were not asked to demonstrate proficiency, as suggested by this comment “I’m not sure we were asked to demonstrate integration: during the first two years of program, the projects seemed as though they were designed more to prove proficiency in a particular application.” Furthermore, the idea of achieving proficiency may have not been communicated by the faculty, “during my time in the MAET program we never really talked about in meaningful integration or what it looked like.” Of the nine students who did not feel they were asked to demonstrate proficiency, six of the students were not K12 teachers. These respondents argued that the program did not address their needs and goals. As one participant said, “The program is too narrowly focused on teachers and teaching and does not leave much room for other professionals to be able to see a clear benefit.”

Student Experience

In order to determine what students perceived as program strong points participants were asked: what are the strengths of the master's program? Analysis showed that students felt they had supportive instructors (N=17), they expressed the relevance of the program to professional practice (N=19), and they emphasized the value of peer support (N=18). For example, speaking of the kinds of faculty support they received, one student said that, "I screwed up a lot, but my professors always helped me to problem solve and learn why something worked or not. I always liked that there was never a wrong answer per say (sic). We were given opportunities to creatively connect technology to learning." Speaking to the relevance of the program to their professional practice, one student said that one of the strengths of the program was, "Allowing each teacher to create a project specific to their own situation within the framework of the MAET program. Much of what I created was thought provoking and gave me real working lessons and ideas that I eventually implemented into my teaching." Furthermore, when asked program strengths, students expressed appreciation of going beyond the technology, which helped them in their professional practice, "the thing that I've always been most impressed with was the fusion of technology and psychology. We didn't just learn what tools were available; we learned WHY they would work." Finally, the notion of community echoed strongly in student comments. The following comment was typical of this line of thinking, "It helped plug me into a huge network of educators who use technology and that are willing to share their ideas."

When asked if they experienced a shift in thinking by participating in the program an overwhelming 91% (N=107) of students reported experiencing a shift in thinking. One student said, “I now try to subvert existing technologies to render lessons more engaging and fun.” The use of the word “subvert” indicates an inclusion of the TPACK frame. Further inclusion of the TPACK model is explicitly stated here: “Well of course, especially after the TPACK project. I think just the sheer exposure to so many technologies makes you reevaluate your options and approach. Honestly, to me technology was PowerPoint Jeopardy games before this program. Now, it's this powerful tool with infinite potential.” Another student said, “I experienced this shift. I actually feel guilty using lessons that I have not yet altered to include technology.” Students who did not experience the shift cited having already experienced a shifting in practice. For example one student said, “I don't think I experienced a shift in thinking as I have always been someone, since my first days of teaching, that has integrated technology into my lessons.” Another goes on to say, “I have not yet, but this is due to the fact that I have always believed in putting technology in the classroom.” The other students who did not experience a shift cited the fact that they were not K12 teachers.

What do students experience in the program?

When asked about the weaknesses or shortcomings of the program, an overwhelming amount of responses expressed frustration with the faculty teaching the courses. The primary concern was with the perception that the faculty teaching the courses were often not sensitive to the actual teaching contexts and realities the students were in and in the technologies being covered in the program. For instance

one student said that the, “Professors needed to be chosen more carefully: they need to understand the realities of K-12 classrooms and be proficient in all the applications they expect their students to learn and use.” Along the same lines, another student suggested that the program ought to, “hire professors who are educators. Hire professors who have good rapport with their students.” Specifically referring to the online courses, one student wrote that, “The online courses were a hit or miss and the majority of the students felt they were just going through the motions to get the units out of the way but that they were not inspiring or beneficial to our teaching.”

Another area of concern was with the process of grading and process of providing feedback to students on their work. Several respondents cited dissatisfaction with the grading and feedback process experienced in the program. Citing a level of inconsistency in this, one responded said that, ”Professors have also been very uneven in providing feedback, with some providing regular, detailed feedback and others seeming to be completely AWOL for long stretches of time.” This lack of regular and consistent feedback was also expressed by another respondent, who said that, “I did not get feedback in a timely manner.” Another went on to say, “The grading system really needs improvement. My biggest gripe through the whole program was how each professor either did or did not give feedback to students on their progress in the class.”

In addition to the lack of feedback was a concern with the uneven nature of the feedback even when it was provided. There was a perception of some of the students that the grading was somewhat lax and possibly inflated with (as one student wrote),

“Too many students all got the same grade even though the cohort knew that we were not all of the same ability or put the same effort into it.”

There was also some frustration with the fact that different students have different levels of technology expertise. Some felt that those who were highly proficient with technology were often not challenged enough, while those who were less skilled were often overly challenged. This frustration over the lack of a “level playing field” was expressed by one student (clearly someone who had a high technology skill-set) as follows: “Maybe [the program needs to] figure out some way for differentiation - so those who have a stronger background knowledge of using technology are just as challenged as those who are beginning to explore technology.”

As mentioned before, a clear concern of the small (but important) group of students who were outside of the K12 classroom context was that the program was too strongly connected to teaching and learning in K12 contexts. These students often questioned the lack of attention or relevance of the program to their professional lives. As one student said, “The program needs to 1) be limited to admitting only k-12 teachers or 2) be broaden [sic] so that other professionals can find ways to more easily apply the skills learned to a wider range of scenarios jobs.”

A challenge specifically faced by students who took all or most of their classes online had to do with a perceived lack of connection to the program and to the larger student community. One online student did express, “Being an online student, I felt kind of lost in the shuffle.” Another online student said, “I constantly felt like I was on an "island" with regards to being part of the MAET program.” One student mentioned this

by specifically contrasting the online experience to the overseas experience, by saying, “in the online courses in general there was much less of a sense of community/cohesiveness amongst participants than in the overseas program.”

What difference did the program have to the professional lives of students?

Three main strands of positive responses emerged from this line of questioning: leadership, confidence, and network of support. In terms of leadership, many report taking on greater responsibilities in their current professional contexts, such as their school districts or buildings. One student reported that due to their going through the program, “I am often asked to give workshops on technology. I have a hand drawn sign over my office door that says "tech support" since I help colleagues so much with integration of technology in their work. The information technology staff sends people to me.” Others reported a growth of confidence not only in technical skills, but also as professionals. As one student reported, there had been a “complete paradigm shift” in how she approached her work. This shift can be seen in the fact that “now I can say I am not just surviving every day in my teaching, but I am consciously teaching and engaging my students.” Finally, the theme of access to a community of learners or a network of support emerged, “The MAET has introduced me to a whole new network or faculty and peers that I hope to leverage in the future in my pursuit of future degrees and job opportunities.”

Value

The survey solicited information in order to better understand what value students derive from their participation in the program. To address this, the students were asked

the question, “why did you come to the program?” The choices for this multiple-choice question were derived from the faculty interviews. Students’ primary motivation for coming to the program (N=93) was a desire for professional growth and development. The remaining students chose certificate renewal (N=7), a pay increase (N=5) and convenience (N=2).

Figure 3. Primary Motivation for Enrolling in the Program

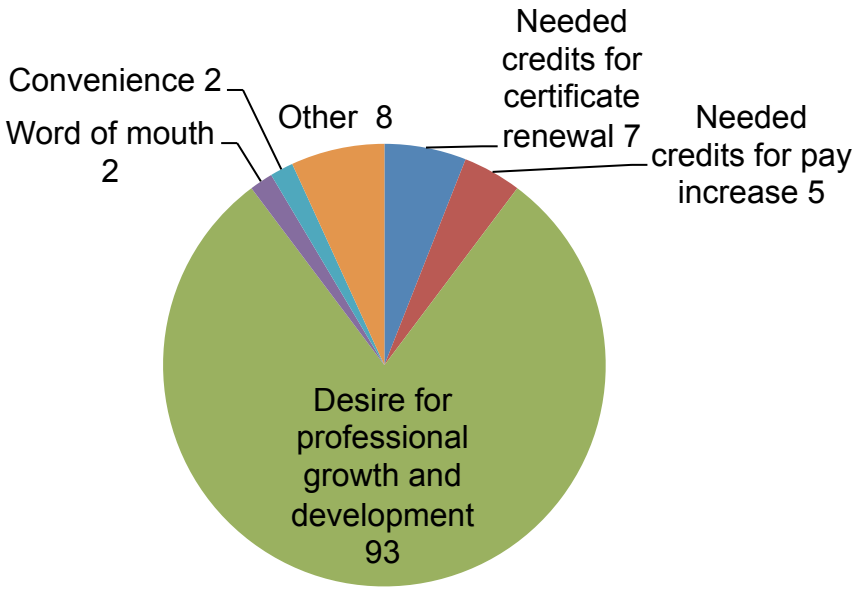


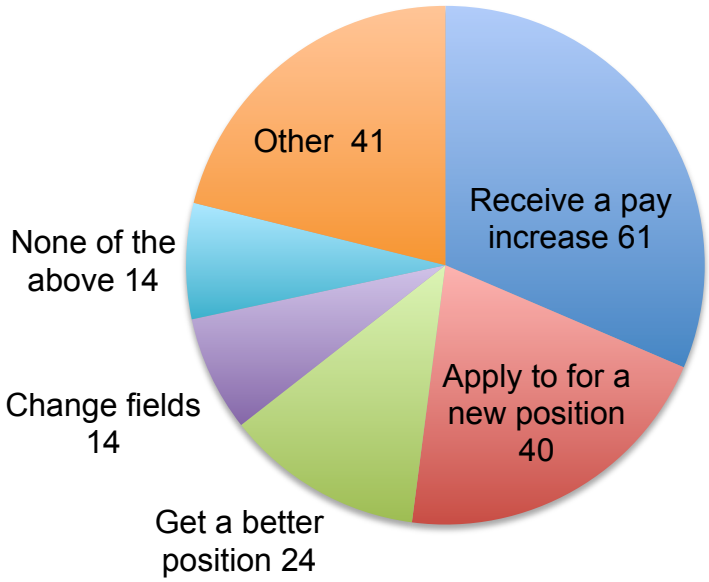
Table 3. Descriptive Statistics for Primary Motivation for Enrolling in the Program

	N	Minimum	Maximum	Mean	Std. Deviation
What was your primary motivation for enrolling in the program?	116	.00	5.0	2.6983	.93455
Valid N (listwise)	116				

What is the value that students derive from their participation in the program?

Respondents were asked to select several "indicators of success" to determine what difference their participation in the MAET program made in their professional life. Respondents (N=117) were directed to select as many indicators as applied to their individual situations. After graduation, 52% of students reported receiving a pay raise. 34% applied for new positions, and 20% received a new position. 12% of students changed fields and the remaining 35% in the "other" category had not yet graduated from the program, reported going on to higher education, or reported retiring from the school system.

Figure 4. Indicators of Success After Graduation



The survey went on to ask, "do you still feel connected to the MAET program?" The question was posed on an 11-point Likert scale of "Not at All Connected (0)" to "Extremely Connected (10)". It was assumed that students who went through the

program in a face-to-face format would experience a much stronger connection to the MAET program. Nonetheless, after running a comparison of means, no difference was evident. In the descriptive analysis below, there is not a discernible difference between ways students experienced the program. Also, students generally still feel somewhat connected to the program.

Figure 5. Degree of Connection to Program

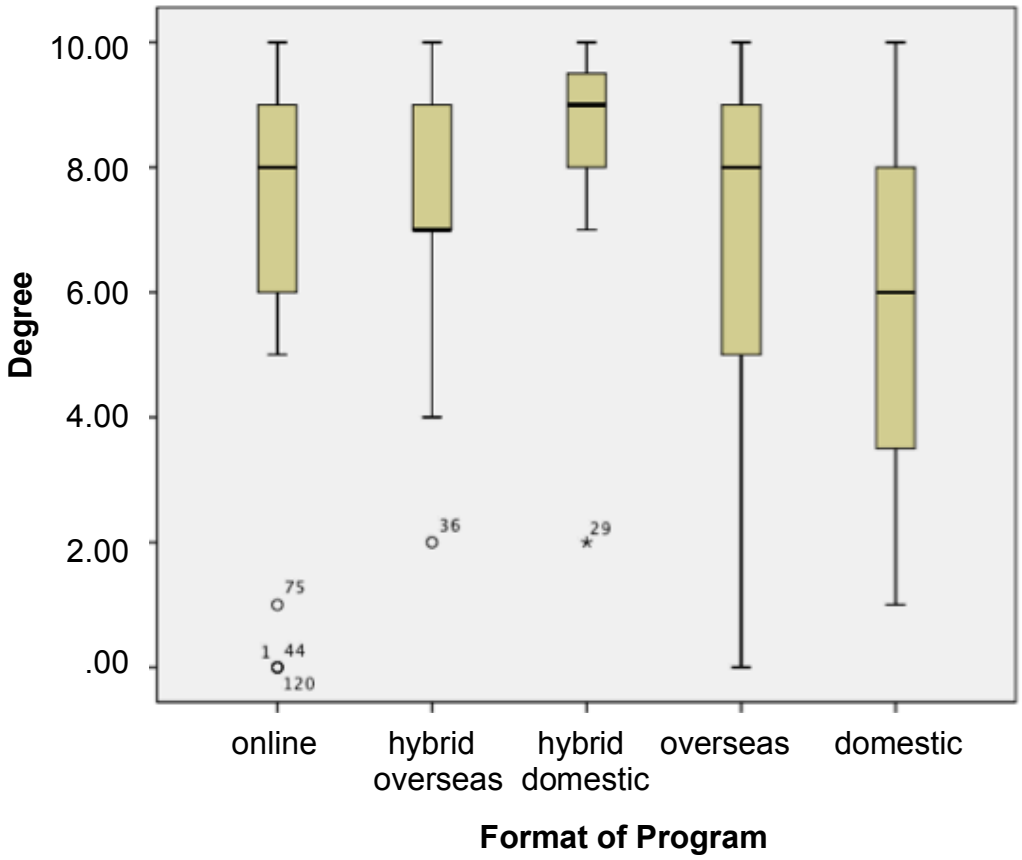


Table 4. Descriptive Statistics for Degree of Connection to Program

	N	Minimum	Maximum	Mean	Std. Deviation
Degree	116	.00	10.0	7.2155	2.69559
Valid N (listwise)	116				

The survey asked the following question, “How well did the MAET program balance the learning of how to use specific technologies with how to teach with technology in your practice?” This question elicited mixed responses from students. Many reported a "good" balance, or that the program did “well” or “very well” but did not provide supporting statements to clarify what they meant by "good." More reported a focus on technology over pedagogy, "I felt like I learned more about how to use specific technologies (online tools, collaboration tools, etc.) just a slight bit more than how to actually teach with technology." Another respondent said, "I feel that the program is probably a little heavy on the 'bells and whistles' of tech without addressing actual use and application in the classroom." Similarly another student wrote that, "The balance is more toward making sure we can use technology rather than teaching with technology." Another felt “the MAET program did a poor job balancing learning new technologies and how to use technology in our daily teaching. There was no focus on how to solve technical problems, set up computers and other technologies for others.”

What evidence do we have that shows the program provides value?

In order to better understand and measure the value of the program, we piloted and tested a measure (the Net Promoter Score or NPS) that has typically not been used in educational contexts. The NPS has typically been used in business settings to capture consumer perception of how well a business is doing by asking consumers if they would recommend the business to other people. In essence it is a tool that provides a gauge for the loyalty of a businesses’ customer relationships (Reichheld,

2003). In brief, NPS is based on the fundamental perspective that every company's customers can be divided into three categories: Promoters, Passives, and Detractors. By asking one simple question -- How likely is it that you would recommend [Company X] to a friend or colleague? Customers respond on a 0-to-10 point rating scale and are categorized as follows:

- Promoters (score 9-10) are loyal enthusiasts who will keep buying and refer others, fueling growth.
- Passives (score 7-8) are satisfied but unenthusiastic customers who are vulnerable to competitive offerings.
- Detractors (score 0-6) are unhappy customers who can damage your brand and impede growth through negative word-of-mouth.

To calculate Net Promoter Score (NPS), take the percentage of customers who are "Promoters" and subtract the percentage who are "Detractors." The NPS can be as low as -100 (which means everybody is a detractor) and as high as +100 (indicating everybody is a promoter). Business research has shown that a positive score (i.e. any score higher than zero) is good and an NPS of +50 is excellent.

For the context of study, respondents were asked one simple question: "How likely are you to recommend the MAET program to a colleague or friend?" When calculating MAET's Net Promoter Score it was found that 78% of respondents were promoters and 9% were detractors for a total net promoter score of +69. This is a very good sign since scores around +50 are typically excellent. Of course, this is the first test of such a score for the MAET program, however, it does indicate that overall the students see the program as being valuable to them and that they would (on the whole) recommend the program to others.

Summarizing Student Perceptions

Most students came to the program for learning more and achieving professional growth (with smaller numbers coming to the program to maintain their certification, salary increases and convenience). Given this motivation, it is good for the program to know that, overall, the program seems to be meeting the needs of the students. For instance, the Net Promoter Score indicates that there is much in the program that students value. Some students described the program as being a "paradigm shift" and that it had been a "life changing experience." That said, the survey of the students also indicated some fundamental issues and concerns. Broadly speaking these concerns fall into three categories.

First, there was a feeling that the program did not do as good a job in terms of being relevant to the professional context of the students. This was most strongly felt by the students who were not K12 teachers as they often felt that the program was too strongly targeted to K12 contexts of teaching and learning. These concerns were also shared by some K12 teachers, particularly in their complaint that many of the faculty in the program did not understand the issues at the heart of K12 teaching and wished for a greater emphasis on those issues. There was a significant concern with the nature of student-faculty interaction from many students, suggesting that the faculty did not model the expectation of providing consistent and timely feedback.

Second, there were some important differences between the overseas student experiences (which is primarily face to face) and those in the hybrid and online parts of the program. Students in the hybrid and online versions of the program had a lower level of connection to the program than those in the overseas version. Students in the

overseas version of the program were more likely to describe the community and connection they developed both with each other and with the program. Students who completed the program in the hybrid or online formats tended to instead speak to convenience and flexibility.

Third, student statements indicate that they did not feel that the program balanced the needs of using specific technologies with how to teach with technology. Student responses indicate that they perceived a greater emphasis on the technology and skills development than in teaching with these tools.

CHAPTER 6

COMPARISONS, RECOMMENDATIONS AND CONCLUSION

The previous two chapters presented the perceptions of the faculty and students/alumni along these dimensions. This chapter focuses on the points of alignment and difference between these perspectives. To reiterate, the third set of research questions was as follows:

What insights can be gained when comparing data between faculty and students?

a. What similarities exist between faculty and student perceptions?

b. What tensions arise between student and faculty perceptions?

c. What ideas or suggestions for the future directions of the program emerge?

Comparisons

As stated earlier in the analysis, there are many stakeholders in the MAET degree program, however, the faculty and students/alumni are the cornerstones of the program's success or failure. Comparing the viewpoints between these two stakeholders is an important step in gaining a clearer picture of the quality and relevance that the MAET degree provides.

What similarities exist between faculty and student perceptions?

Faculty asserted that they were changing or influencing the teaching practices of their students, and this was confirmed by the survey. When asked if they experienced a shift in thinking by participating in the program an overwhelming 91% (N=107) of students reported experiencing a shift in thinking. One student said, "I now try to

subvert existing technologies to render lessons more engaging and fun." The use of the word "subvert" indicates an inclusion of the TPACK frame.

A sense of community and collaboration was another strong point of alignment between student and faculty views. Both groups believe that the program is helping students achieve professional growth. While both groups had positive descriptions of the program, when comparing answers to how one would describe the program to someone else, one difference was seen in the degree of quality descriptors. There was a lack of overt enthusiasm on behalf of the faculty. While the faculty described the program as doing a "good" job, many of the students used descriptors like "awesome" "life changing" "amazing" whereas the faculty were much more reserved in their responses. Both groups emphasized the strong K12 focus, practical preparation for teaching, and sense of community.

What tensions arise between student and faculty perceptions?

The strongest divergence between groups was on the question of the primary motivation for obtaining a master's degree. While most faculty did mention that they believed students came to the program to learn about educational technologies and grow on a professional level, most faculty asserted that they believed the primary reason students came to the program was for credit renewal and a salary increase. Conversely, students and alumni responding to the same question put a higher emphasis on desire for professional growth and development (N=93) with a salary increase (N=5) and credit renewal (N=7) lower down the list. This divergence is interesting because it means that the students are actually better prepared for the kinds

of transformational changes the faculty are interested in developing in their students than the faculty actually think they are. If a majority of students are not in the program for merely instrumental reasons it implies that the faculty can push further into the area focusing on how technologies can change educational practice.

A second point of tension arose when faculty were asked about specific assignments. During questioning, faculty did not mention how they provided feedback to the students. This is clearly a tension among the student body. This issue of receiving consistent and timely feedback was of great concern to the students, and dominated the majority of negative comments and experiences in the program. One student said, “The grading system really needs improvement. My biggest gripe through the whole program was how each professor either did or did not give feedback to students on their progress in the class. Waiting until the end of the class doesn't fit the concept of learning to achieve and understand.” Another goes on to say “I'm the type of student that yearns for instant feedback. I want to know right away whether or not I did well on a project. It took a lot of patience for me to not hound my professors for their opinion on my projects! I know one of the focal points of the program is to evaluate students on their progress and doesn't center on grades, and I had a hard time waiting for a response and being okay with comments and suggestions, rather than a grade. :)”

One can almost see a relationship between the misperception that faculty have about why people came to the program and the lack of emphasis given to feedback. As the interviews indicated, most faculty believe that students come to the program not for their personal or professional development, but rather to maintain certification or to get

raises. In such a situation the program goals (at least as perceived by the faculty) would be to get students through the program, since learning is not a perceived priority. Students on the other hand emphasized the importance of professional development as a key objective of joining the program and hence valued timely, reliable and consistent feedback (over stressing over end of semester grades, which often became the only way they received any input from the faculty on their work). Clearly the faculty need to become more aware of the priorities of their students and how they can help them develop professionally through timely and consistent feedback.

Another tension mentioned by faculty and students is the different ability levels of incoming students. One student states, “Some of the students that wish to apply to the program are not as advances [sic] as many of the current students. The speed of the class does have to have challenges for each individual, yet student achievement and student enrollment will necessitate differentiation.” Another goes on to say, “There was no fear of failure and so the standard for an MAET degree is lessened. Some graduated who were not proficient at technology.” Faculty expressed this tension as well, Evan states, “if somebody's worked hard and the instructors are tempted to say, that's a good job, let me give you four point.” Another student says, “I would hate for the program to be seen as something that anyone can do and no one will fail- in other words, a give-away degree that you can learn a incomparable amount from and grow professionally, or, if you desired, could come "play" at for three summers and enjoy the benefits of the MA at the end of your title. I feel the course should be as difficult and challenging as it is interesting and informative.” This comment alludes to students of all ability levels who

can perform at any level and still receive a passing grade, watering down the degree. This tension is one that resonates across all graduation years and online, overseas and hybrid delivery formats.

Clearly this is an important issue for the faculty to consider when designing student experiences. The design of the curriculum needs to take into account the differing skill levels of students and aim to develop consistent evaluation standards that are transparent and fair so that student concerns in this area can be addressed.

Recommendations

Though it appears that the students/alumni are satisfied with their experience in the MAET program, this is not enough to ensure program success, particularly in the highly competitive and changing world of higher education. Only 30% of the possible population responded to this evaluation. It is clear that the majority of the students who had a positive experience with the program responded to the survey; however, more systematic evaluation of ALL students is needed to capture the true pulse of the program. Ultimately, continuing with these informal assessments of the MAET program does not set the program up for long-term success.

What ideas or recommendations for the future directions of the program emerge?

The strongest recommendation for change comes from in increasing the population of non-K12 practitioners within the MAET student body. These students strongly suggest the program create more relevant experiences for non-K12 practitioners. As evidenced in the survey data, however, MAET is achieving success

with K12 teachers and does not want to disservice one population by catering to another. Possible ways to address this problem are to track non-K12 educators in specific sections or cohorts. Additionally, easy-to-implement, small-scale curriculum changes can be made. For example, many opening activities in online classes include introducing yourself followed by asking what class the student teaches. By removing the "what do you teach" question and asking, "what do you do," the course instantly makes a better first impression and is inclusive of all students.

Another suggestion to faculty is that they explicitly state and describe their feedback mechanisms and practices in their courses. If feedback channels are clearly explained in online courses or on the syllabi, this dramatically decreases the fear and frustrations of the students. (Rowe & Wood, 2008; Bonnel, Ludwig & Smith, 2005) This does not require faculty to change their practice by increasing the amount of feedback, but rather asks that they clearly communicate the ways students are evaluated.

Another recommendation to add to the depth of the evaluation is to perform a study of the MAET capstone portfolios. Every MAET student creates an online portfolio in CEP 807. The content of the portfolios presents a fascinating longitudinal study of the MAET program. Analysis of these portfolios can provide insight into many issues such as the depth of understanding a student displays in the MAET program, curricular connections, and technical or curricular proficiency. A similar study conducted with undergraduate teacher interns (Rosaen & Wolf, 2005) provides a stage for this work, and could also be contrasted with understandings of novice teachers.

Moving forward, more thorough documentation on reasoning behind curriculum changes and programmatic visions need be laid out. As a program, a statement of purpose (for lack of a better term) needs to be articulated. There are many answers to the question "what is the MAET program?" Formulating these into a concise statement will be helpful not only for program promotion and marketing, but for the future growth and success of the program. If more than one person can clearly articulate what the program is and how the program came to be, then the base of program knowledge spreads allowing more faculty and staff members to help the students understand how their individual courses fit in the MAET framework.

Limitations

Only full time program faculty were solicited for interviews in this study. Historically, full time tenure-stream faculty taught the bulk of the MAET program, while the Certificate courses were taught by adjunct K12 practitioners who had completed the MAET program. While the Certificate courses are still primarily taught by MAET alumni, the remaining 800-level courses have moved into a training ground for Educational Psychology and Educational Technology (EPET) PhD students who are mentored by faculty. These students gain valuable teaching online experience while working with content developed by the faculty. Additionally, with program enrollment at such high levels, EPET alumni have been hired as adjuncts to lead the teaching and development of courses. With this expanding model in place, it is imperative that the teaching assistants and adjuncts understand not only the MAET program as a whole, but also the

goals and outcomes of each of the courses along with the intensions and goals of the students in the course.

Select TPACK survey questions were piloted in the student survey; however, the data did not provide usable results. The integration of TPACK into the MAET program did not emerge until approximately 2008 and this could explain the lack of usable data. Additionally to truly capture the complexity and understanding of the integration of TPACK into the MAET, students should be given the TPACK survey on intake into the program and then given the survey again at specific points in the MAET program. This data can then be compared, contrasted, and then added to the existing body of TPACK research.

While the degree to which students and alumni felt connected to the program in general was measured, a missing measure is the degree to which students feel connected to peers and professors in the program. This is an increasingly important benchmark given the growth of social networks (i.e. Twitter and Facebook) where informal and formal learning takes place. Gathering this data could be a unique and important statistic that sets our program apart from other institutions offering similar degrees.

I took precautions such as ensuring anonymous survey responses and stripping faculty responses of identifying information, however, there is a clear connection between my work as coordinator of the program and my objectivity towards the data. Students attending the program from 2008 forward may know me and this relationship could have contaminated the results. This inquiry is based on a small scale and makes no claims of generalizability. With a response rate of N=117, only 30% of the potential

population (N=400) responded to the survey. This low response rate could mean that data reported is not representative of the entire student and alumni body. Consequently, it is highly unlikely that the *results* found in this study are representative of other master's degree programs.

Connecting to deeper issues of program evaluation

The first chapter of this dissertation presented the two key reasons for conducting a study of this nature. The first was to inform programmatic decision-making, and the second was to create a climate for organizational learning. This was framed within the context of program evaluation. Further, it was argued that program evaluation was a wicked problem with two key characteristics. These are that wicked problems are deeply connected to context and that different stakeholders have differing perspectives of the same problem. Thus, the focus of this research would be to situate it within a particular context (the MAET program) and to study two key stakeholders' perceptions of the program. Previous studies of Master's degree programs had focused on either one group of stakeholders or the other with a few that had focused on both.

The two key constructs that were regarded worthy of study in previous studies of Master's programs were that of the quality of the program and its relevance to the students. Though quality and relevance were seen to be difficult to define, the review of the literature indicated that the ideas of quality and relevance could be operationalized through focusing on goals and objectives; the pedagogical value; the nature of experiences designed; and the kinds of evidence used to confirm if the original goals and objectives are indeed being met.

To remain viable, programs must identify key criteria important to their student population. While master's programs explicitly offer students a degree, implicitly they offer students a quality experience and relevant curriculum. While the constructs of quality and relevance are moving targets (especially in the field of educational technology) it should not exclude programs from attempting to define these terms in their own contexts. By focusing on these constructs programs can remain in-tune with their audience, a skill that is necessary for survival in the changing academic marketplace eluded to at the beginning of this dissertation.

If the ultimate goals are to inform programmatic decision-making and to develop a climate for organizational change, the points of alignment and divergence between student/alumni and faculty can be a good place to start. Clearly these differences can be due to a variety of reasons. It could be a lack of communication of goals and objectives, a lack of understanding between the stakeholders, a lack of knowledge of who the students are and what their goals and objectives are for joining the program. The recommendations laid out above can go a long way towards making the program successful and to establish a better connection between faculty goals and objectives and those of the students.

Finally, this particular research study can be seen as a case of a limited form of program evaluation that (a) focuses on the context of one particular program; and (b) systematically investigates the similarities and differences between faculty and student perceptions of the program's goals, objectives, value, nature of experiences designed the kinds of evidence used to confirm if the goals and objectives are being met. The

data and analysis show that though there may be some alignment between these overarching goals between the faculty and students, there are the some key differences in perception – having to do with (a) why students join the program; (b) how the curriculum is designed and implemented. More specifically, most students appear to have joined the program for professional development though most faculty do not see this as being the primary reason. Additionally, the student experience is a lot more divergent than the faculty are aware of – both for non-K12 teachers and in terms of receiving consistent and timely feedback. There also appears to be differences between the students' experience and value depending on where (online or hybrid or face to face overseas) the program is offered. Students in the online and hybrid versions appear to value flexibility and are concerned with a lack of community while students in the overseas version emphasize the development of community and professional relationships. Clearly more needs to be done to ensure a common and consistent educational experience to all these groups. Finally, many of these issues have to do with the program itself changing over time, starting with a non-credit certificate, technology skill acquisition focus to a for-credit program being presented in multiple locations. Though this is clearly a change for the better (and consistent with what students/ alumni appear to value) it brings issues of clarity and consistency of the program goals and objectives to the forefront.

Conclusion

The goals of this study were to inform programmatic decision-making, and to create an example for organizational learning that could be useful to others beyond this particular study. The intents of this inquiry at a local level were to gain insight into the

local program, and capture a baseline of the perception of the quality and relevance of the Master of Arts in Educational Technology degree at Michigan State University. Nonetheless, by using data to inform programmatic decision-making, precedence is set that models data-driven decision-making. Focusing on the perception of faculty and students operationalized the ideas of quality and relevance. By researching these two perspectives we have a better understanding of how these perceptions align and contradict each other to inform the program's future development. At the end of this inquiry, one thing was consistently clear: the MAET program has been successful because of change. To remain successful, marketable, and viable in the academic marketplace, programs must continue to take into consideration stakeholder viewpoints and continue to define quality and relevance within their contexts to inform programmatic and curricular changes.

APPENDICES

APPENDIX A
Master of Arts in Educational Technology Program History

APPENDIX A
HISTORICAL MAET PROGRAM DATA
The history of the MAET program reflects the conflicts mentioned in the educational technology field mentioned earlier. This historical data will be critical when conducting interviews as the perception of quality in meeting student implied needs may change depending on graduation year.

2000-2002
EDUCATIONAL TECHNOLOGY AND INSTRUCTIONAL DESIGN
The Master of Arts degree program with a major in educational technology and instructional design prepares teachers, administrators, and other educational professionals for the thoughtful use of a variety of technologies to support teaching and learning in today's educational environments. The program draws on current theories of learning and development to understand the role of technology in the learning and trans- forming of valued content. The goal is to support educators in their efforts to prepare students who are technologically liter- ate problem solvers and avid learners. In addition to meeting the requirements of the University and of the College of Education, students must meet the requirements specified below.

2002-2004
TEACHING AND LEARNING WITH TECHNOLOGY
Master of Arts The Master of Arts degree program in teaching and learning with technology prepares education professionals for the thoughtful use and design of a variety of technologies and technology based environments to support teaching and learning. The program draws on current theories of learning and development to under- stand the role of technology in learning and instruction. Students focus their studies in one of the following emphasis areas: Teaching with Technology in School Settings. This emphasis area is intended primarily for teachers interested in the use of technology to deepen student understanding of subject matter and enhance student problem-solving ability. with majors in measurement and quantitative methods are de- signed for students who are interested in applying the skills and knowledge that they acquire in school systems, colleges, universities, state and federal departments of education, civil service departments, test companies, and research organizations. Master of Arts The master ’s degree program in measurement and quantitative methods provides opportunities to study quantitative methods and techniques of program evaluation. Students take course work in assessment, test construction, data analysis, and psychological foundations. In addition to meeting the requirements of the University and of the College of Education, students must meet the requirements specified below.

2005 – 2007
EDUCATIONAL TECHNOLOGY

Master of Arts The Master of Arts degree program in educational technology prepares education professionals for the thoughtful use and de- sign of a variety of technologies and technology based environments to support teaching and learning. The program draws on current theories of learning and development to understand the role of technology in learning and instruction. Students focus their studies in one of the following emphasis areas: Teaching with Technology in School Settings. This emphasis area is intended primarily for teachers interested in the use of technology to deepen student understanding of subject matter and enhance student problem-solving ability. Learning, Design and Technology. This emphasis area is in- tended for educational professionals interested in the design and evaluation of technology-rich on-line and desktop learning environments, including web-based and other multimedia tools.

2007-2009
EDUCATIONAL TECHNOLOGY
The Master of Arts degree program in educational technology prepares education professionals for the thoughtful use and de- sign of a variety of technologies and technology based environments to support teaching and learning. The program draws on current theories of learning and development to understand the role of technology in learning and instruction. Students focus their studies in one of the following emphasis areas: Teaching with Technology in School Settings. This emphasis area is intended primarily for teachers interested in the use of technology to deepen student understanding of subject matter and enhance student problem-solving ability. Learning, Design and Technology. This emphasis area is in- tended for educational professionals interested in the design and evaluation of technology-rich on-line and desktop learning environments, including web-based and other multimedia tools. An Educational Technology (NP) endorsement can be added to either an elementary or secondary certificate by completing the requirements for MSU's Master of Arts degree program in Educaional Technology or can be obtained by completing a prescribed 18-credit program in educational technology.

2009 – PRESENT
EDUCATIONAL TECHNOLOGY

The Master of Arts degree program in educational technology prepares students for the thoughtful use and design of technology in various educational settings. The program draws on current theories of learning and development to understand the role of technology in learning and instruction.

The program is offered in several different formats and allows flexibility to accommodate both full-time students and working professionals by offering accelerated summer study programs, online and hybrid courses.

An Educational Technology (NP) endorsement can be added to either an elementary or secondary certificate by completing the requirements for MSU's Master of Arts degree

program in Educational Technology. For more information on the NP endorsement, visit www.edutech.msu.edu.

APPENDIX B
Faculty Interview Questions

What course do (did) you teach? In regard to this course, what skills or knowledge do (did) students gain in your course?
<How does this course(es) fit in with the overall master's program?>

If you had to describe this program to someone else, how would you do it? (Audience? Goals? Purposes? Outcomes?)

What are the intended learning outcomes of the program? That is, what are the goals of the program in terms of what students are to learn to do, understand, believe, or value?

I want to focus a bit more about program goals… Why do you think students come to our program?

In practice, what are the outcomes students gain from being in the master's program—the knowledge, skills, understandings, beliefs, values, or career aspirations that they gain?

What are any other benefits students may derive from participation in the master's program?

What kinds of evidence do we have regarding these outcomes?

What differences will this outcome make in the lives of those who complete the program <Why is this important? >

How well do you think the program is in meeting students' interests and needs?

There is always the tension between teaching technology (technology) and teaching how to integrate technology (pedagogy), what are your thoughts on these tensions? Give an example of relate this to something – say teaching dreamweaver v.s. building webpages for teaching? Or whatever?

There is also a perceived tension between theory and practice. Do you perceive such tensions in this program? If so, how do they play out < What are your thoughts on these tensions?>

What are the strengths of the master's program ?

What are the weaknesses or shortcomings of the program?

What are some key challenges faced by the program in the past?

<Organizational, social, global etc.>
Have these led to changes? In what way?

How has the master's program changed over the years?

Are you aware of any ways in which the program is currently assessed?
<If you know of any processes, instruments, or methods, how effective have they been in measuring outcomes from participation in the program?>

What are some current challenges?

How do you perceive that these concerns have been addressed?
<Any ideas on how to meet them?>

What are your ideas for new directions for the master's program.

APPENDIX C
Student Survey

<STUDENT SURVEY PAGE 1>

Gender (drop down list)

Age (drop down list)

MAET Graduation Year (drop down list)

Where did you take the MAET program (check all that apply)
* Online
* East Lansing
* School District in Michigan
* Traverse City
* France (Valbonne)
* France (Rouen)
* England (Plymouth)
* Mexico City
* Thailand

What is your profession

K-8 Classroom Teacher
Secondary/High School Teacher
K-12 School Administrator
Librarian
School Technology Administrator/Coordinator
Community College Instructor
University Professor
Retired
Other

After graduation did you (check all that apply)
Receive a pay increase
Apply to for a new position
Get a better position
Change fields
None of the above
Other:

<STUDENT SURVEY PAGE 2>

Following questions in matrix form with scale:
Strongly Disagree - Disagree - Neither Agree or Disagree - Agree - Strongly Agree

I know how to solve my own technical problems.
I can learn technology easily.
I keep up with important new technologies.
I frequently play around the technology.
I know about a lot of different technologies.
I have the technical skills I need to use technology.
I can choose technologies that enhance the teaching approaches for a lesson.
I can choose technologies that enhance students' learning for a lesson.
The MAET program has caused me to think more deeply about how technology could influence the teaching approaches I use in my classroom.
I am thinking critically about how to use technology in my classroom.
I can adapt the use of the technologies that I am learning about to different teaching activities.
I can select technologies to use in my classroom that enhance what I teach, how I teach and what students learn.
I can use strategies that combine content, technologies and teaching approaches that I learned about in my coursework in my classroom.
I can provide leadership in helping others to coordinate the use of content, technologies and teaching approaches at my school and/or district.
I can choose technologies that enhance the content for a lesson.
I can teach lessons that appropriately combine my subject matter, technology and teaching approaches.
My MAET professors appropriately modeled combining content, technologies and teaching approaches in their teaching.

How often were you asked by instructors to demonstrate that you could integrate the use of technology into the lesson plans? (open ended text)

Some educators claim that access to new technology in the classroom forces teachers to rethink the nature of what they do in the subject matter domain. How often did you experience this in course of the program? (open ended text)

How well did the MAET program balance the teaching of specific technologies with the pedagogy of teaching with technology? (open ended text)

<STUDENT SURVEY PAGE 3>

What was your primary motivation for enrolling in the program?

Needed credits for certificate renewal
Needed credits for pay increase
Desire for professional growth and development
Word of mouth
Convenience
Other:

After graduation did you (check all that apply)
Receive a pay increase
Apply to for a new position
Get a better position
Change fields
None of the above
Other:

How well did the MAET program meet your needs? (open ended text)

What are the strengths of the master's program? (open ended text)

What are the weaknesses or shortcomings of the program? (open ended text)

What difference did participation in the MAET program have to your professional life? (open ended text)

What is one thing you thing the program did well? (open ended text)

Where can the program improve? What did we do poorly? (open ended text)

<STUDENT SURVEY PAGE 4>

If you had to describe this program to someone else, what would you say. (open ended text)

Do you follow MAET on any of the following social media channels:
Twitter (@maet)
MAET Newsletter (http://edutech.msu.edu)
MAET Facebook Page

Do you still feel connected to the MAET program
Yes
No

Please explain why or why not (open ended text)

How likely are you to recommend the MAET program to a colleague or friend?

scale
1- Not at all likely
10 - Extremely Likely

APPENDIX D
Faculty Interview Informed Consent Form

You are being asked to participate in a study to gather data on the Master of Arts in Educational Technology program at Michigan State University. In its 10-year history, there has never been a systematic evaluation of the Master of Arts in Educational Technology program. Given this context there is an urgent need for developing formal and informal mechanisms for program evaluation in order to evaluate the effectiveness of
the current MAET program. I will conduct interviews with past and current faculty in order to learn the history of the MAET program and to develop a conceptual framework that will led to clusters of intended learning outcomes that will be used to develop a survey for MAET students and alumni. Only summary data about the pedagogical development of the MAET program will be reported. Individual comments or exact quotations from the interviews will not be reported and participants will not be identified in the summary report.

Researchers are required to provide a consent form to inform you about the study, to convey that participation is voluntary, to explain risks and benefits of participation, and to empower you to make an informed decision. You should feel free to ask any questions
you may have. You must be 18 years or older to participate in this research study.

STUDY TITLE: Master of Arts in Educational Technology - Historical Inquiry

POTENTIAL BENEFITS

The interviews/participation will help the MAET faculty understand the historical context and development of the program over time.

POTENTIAL RISKS

There are no foreseeable risks associated with participation in this study.

PRIVACY AND CONFIDENTIALITY

The data collected for this project will be confidential. Any information about you, including your name and email address and audio recording (if any) will be kept confidential to the maximum extent allowable by law.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

Participation in this research project is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. You may choose

not to answer specific questions or stop participating at any time.

COSTS AND COMPENSATION FOR BEING IN THIS STUDY

Participation in this study will not entail any costs to you (beyond the time you spend during the interview).

If you have any questions about this study, please contact the researcher, Leigh Graves Wolf.

Researcher Contact Details: Leigh Graves Wolf, PhD Student, Department of Counseling, Educational Psychology and Special Education, Michigan State University

Address: 509D Erickson Hall, East Lansing, MI 48824. Phone: 517-432-7195. Email: gravesle@msu.edu

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 202 Olds Hall, MSU, East Lansing, MI 48824.

Your signature below indicates your voluntary agreement to participate in the interview and also to have the interview audio taped.

This consent form was approved by the Social Science/Behavioral/Education Institutional Review Board (SIRB) at Michigan State University.
Approved on 8/24/2009 – valid through 8/24/20102. IRB# x09-775

APPENDIX E
IRB Approval Documents

APPENDIX D
IRB APPROVAL DOCUMENTS

Amendment to IRB# x09-775/ APP# i033884
3 messages

leigh graves wolf <gravesle@msu.edu>
Sun, Nov 28, 2010 at 4:30 PM
Reply-To: gravesle@msu.edu
To: irb@msu.edu
Cc: Punya Mishra <punya@msu.edu>
I am writing to inform the IRB of an amendment to my project IRB#

x09-775 which was determined exempt on 8/24/09.

I am adding a web based survey and sending out, via email, to a subject population who are alumni of our Master of Arts in Educational Technology program. No personal data will be collected from the survey and the risk factor remains minimal for participants.

The following answer would be amended on my IRB application

20a. Subject Population
Current: Master of Arts in Educational Technology faculty (past and present) at Michigan State University. Addition: Alumni of the Master of Arts in Educational Technology
program at Michigan State University.

The revised consent form for the new population and online survey are attached to this email.

Thank you -
Leigh Wolf

Leigh Graves Wolf, Program Coordinator
Master of Arts in Educational Technology
Michigan State University, School of Education
phone 517.432.7195 web: http://edutech.msu.edu

Was this interaction helpful?
Please take our 10-second survey! http://goo.gl/tUic

5 attachments
consent_revisedNov2010_wolf.doc
MAET Alumni Survey 2010_page4.pdf
MAET Alumni Survey 2010_page3.pdf
MAET Alumni Survey 2010_page2.pdf
MAET Alumni Survey 2010_page1.pdf

IRB <IRB@ora.msu.edu>
Fri, Dec 3, 2010 at 2:47 PM
To: gravesle@msu.edu
Greetings Investigator(s),

Thank you for your email in regards to your research amendment. With the review of your proposed changes you may continue with your research as planned (Exempt). With the information and materials disclosed, this research can still be in the exempt category as it does not pose any real risk to subjects.

Thank you,

Steven Smith
IRB Staff
884.6019

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