STUDENT LEARNING OUTCOMES: TRANSITION FROM TRADITIONAL TO ONLINE IN AN ALTERNATIVE TEACHER CERTIFICATION PROGRAM

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Results from the survey of faculty who teach in an alternative teacher certification program provided a framework to develop a holistic programmatic assessment of student learning outcomes for a newly developed online program. Research highlights the process of determining student learning outcomes identification and appropriate courses and best practices for online assessments to provide for program quality, formative and summative assessments, and data for accreditation purposes.

To be or not to be…online? This was a question pondered by an alternative teacher certification program at a regional university in northeast Texas with a reputation of producing high quality educators for the state of Texas with 738 educators certified in 2006, third in university production of teachers and sixth out of 135 certification entities. Competition towards preparing future educators comes from a variety of online programs ranging from the for-profit, private, and public colleges and universities. Online Alternative Certification programs' enrollment is on the rise; however, there is a lack of evidence that these programs are providing quality teacher education. The convenience online education meets the needs of today's adult student; therefore, the answer to the question became clear: to be online. The challenge then was to not sacrifice the known quality that existed within the teacher preparation programs within higher education.

THEORETICAL FRAMEWORK

Faced with accountability demands universities must develop broader assessment practices to document evidence of student learning outcomes; coupled with the increased demand for more online courses, assessment presents a unique challenge. Angelo (May, 1999) reminds us that assessment is first to improve student learning, and second, an accountability measure of the quality of student learning. The study is guided by two theoretical frameworks; first, that quality educational programs should include student involvement, high expectations, assessment and feedback (Astin as cited in Skawinski & Thibodeau, 2002), and second, the nine

principles of good practice for assessing student learning (Astin, Banta, Cross, El-Khawas, Ewell, Hutchings, et al, 1996). Online learning provides students with educational opportunities in a different environment; however, the tenants of sound educational practice remain the same. Just as in traditional university programs, online programs are held responsible for and expected to provide evidence of the process, growth and change in student learning over time. The identification, documentation of evidence and assessment of student learning outcomes are just one example of a critical issue faced by faculty and administration when making the transition to online.

Evidence of student learning, not only through grades from traditional assessment practices, is an expected and increasing demand by the various educational stakeholders who want documentation that demonstrates the entire *process* of learning for accountability (Heaney, 1990; Ruhland & Brewer, 2001;Terheggen, Prabhu & Lubinescu, 2000; Villano, 2005). Multiple assessments should be used for diagnostic, process and outcome purposes to demonstrate effective learning (Padro & Hurley, 2005). These learning outcomes assessment methods may vary depending on the academic program goals, the philosophical beliefs of assessment practices of the faculty, college and/or department, and measures whether students have reached the learning expectations (Beghetto, 2004; Macdonald, 2002).

The increased demand for university programs and courses to be provided online presents an additional challenge. Progress is often limited in offering new distance education courses and programs when there is not a

conceptual understanding that is consistent with programmatic and institutional values and goals (Garrison, 1989). Often instructors question how they will assess their students' learning online as they become aware that the more traditional methods do not apply (Runyon, 2005), and do not want to change their instructional style for fear that online instruction will not be as effective as their current teaching style (Levy, 2004). Therefore, with appropriate education new ways of thinking about teaching and learning can replace faculty concerns about online teaching and student assessment (Bates, 2000; Burgess, 1994).

Assessment must be a continuous, ongoing process to provide constant monitoring of student progress to improve both learning and teaching (Fenno, 2003). Data from the assessment of student learning outcomes can be utilized by faculty and department chairs to improve upon the program's quality through revision of course materials, learning practices, teaching methods and assessment measures.

PROBLEM AND PURPOSE

While teaching more online courses, university's' challenge is to develop broader assessment practices to document and provide evidence of student learning. The problem for one Alternative Teacher Certification Program (ATC Program) in northeast Texas was not to decide whether to be online, but how to develop a process that implements a quality online program which effectively monitors student learning over time via learning outcomes assessment, and provides feedback for continuous improvement. The purpose of this exploratory case study was to

identify from the instructors within the ATC program learning outcomes they perceived as important and the best methods in which to assess them. Additionally, it was important to determine how feedback should be provided to inform practice.

METHODS AND PROCEDURES

This exploratory case study consisted of surveys disseminated during the ATC Program online development meeting in the 2006 fall semester to five full-time faculty teaching one or more courses within the program. All participants were provided with a consent form to inform them of the study and ask for their participation. Faculty who participated in the study taught courses in the Departments of Curriculum and Instruction (secondary, 8-12, middle school 4-8, and elementary, preK-4), and Special Education and Psychology in the College of Education and Human Services.

The survey consisted of six open-ended questions and three ranking questions based upon the theoretical framework of what constitutes a quality educational program and principles of student learning outcomes assessment. The survey was pilot tested and revised prior to dissemination. To provide anonymous participation, subjects were asked to complete the survey and return it to the researchers via campus mail (Appendix A).

Because the ATC Program was designing and developing courses for online/partial online delivery, the researchers utilized this opportunity to obtain feedback from the instructors. Participants were asked to identify important learning outcomes for the student to achieve upon completion of the program. Participants were also asked to rank assessment methods from a list ranging from traditional to alternative. A learning outcome was defined as the measurement of how a student's university experience supported their development as individuals and described the knowledge, skills, abilities and attitudes one is able to demonstrate upon completion of a program. A learning outcome is not what the instructor does to the student, but rather what the instructor expects the student to know and be able to do as a result of the teaching and learning experience. How one measures learning is part of one's teaching philosophy; therefore, participants were also asked to describe their philosophy on assessment.

The researchers were interested in knowing what continuous improvement practices were currently used for program improvement in addition to participant perceptions on ideal methods for obtaining feedback to facilitate continuous improvement. The final two survey questions addressed faculty perceptions on the ability to assess learning outcomes in the online environment and faculty comfort level in teaching in this medium.

Data were examined and reported focusing on the four topics within the survey: program student learning outcomes, faculty philosophy and methods of assessment, continuous improvement, and assessing student learning outcomes online. Responses from the open-ended questions were analyzed utilizing the constant-comparative method (Glaser & Strauss, 1967) to identify common themes/ideas. Each theme/idea/unit was color coded in order to provide a visual representation and allow the researcher to isolate and

categorize information from the open-ended responses. Responses to the three ranking questions for assessment methods tied to learning outcomes were compiled and reported. Results from the data analysis are presented by survey topic.

RESULTS AND DISCUSSION

The results from this study focused upon the first step in formulating a process for developing program learning outcomes. These results may lead to determining the best assessment practices for the online environment, as well as how to best utilize assessment results for continuous programmatic improvement.

Program Student Learning Outcomes

Step one in our process was to identify student learning outcomes at the program level by asking faculty what a student should know upon completion of the ATC Program. The importance behind this step is to develop a shared vision among faculty as this is critical when multiple sections of the same course are taught and/or if adjuncts teach within the program. Participants were asked whether or not the identification of student learning outcomes at the program level was important and what emphasis they placed upon the identification of these learning outcomes. All participants agreed that it was *highly important* to identify learning outcomes for the ATC program with the exception of one individual believing it to be *somewhat important.* These results were not surprising. What was interesting were not the outcomes that were identified, but rather the manner in which these learning outcomes were written: as broad, unclear, generalizations. This indicates the need to further explore the use of learning outcomes and the purposes they serve. Often the tendency of faculty is to think within the context of a course and not the impact upon the total program. While it is natural to identify outcomes established within our courses, it is vital to ensure that everyone, students included, knows and understands the program's goals and objectives in order to recognize how a course so seemingly different from another does fit into the overall program goals.

After an analysis of participants' responses to the ATC Program survey question on what they believe to be the most important student learning outcomes, the following categories emerged: *Classroom and Discipline Management*, *Teaching, Learning and Assessment Strategies*, *Culture and Diversity*, *Effective Communication*, *Law and Ethics, and Technology Integration*. These categories then become the program outcomes for which best methods of assessment are identified later in the process.

In the classroom management and discipline category, participants identified that it is important for students to know, understand, and implement effective strategies prior to completing the program. In the teaching, learning and assessment strategies category, participants indicated students should be able to design and develop "engaging, creative, integrated lessons" that incorporate higher-order thinking to reach different ability levels and learning styles. For the culture and diversity and effective communication categories, students within the program should be able to know and understand

characteristics of their future students, factors that impact their future students' learning, and have the ability to work with and communicate with parents of students. One participant took this a step further and expressed the importance of the student within the ATC Program having the ability to not only work with their future colleagues and the community, but have knowledge of the legal and ethical requirements creating a law and ethics category. The final category, technology integration, expressed the need to prepare future teachers to utilize technology effectively and efficiently in the classroom.

Faculty Philosophy & Methods of Assessment

Common across all responses was that assessment should be authentic, ongoing and meaningful to the learner. Participants believed that assessment should provide multiple opportunities for the student to demonstrate what they know, align to the course objectives, and align with the learning style of the individual. Assessment methods should be conducted both formally and informally, utilizing a variety of methods such as oral feedback, written assignments and tests, and be both formative and summative; however, assessment in terms of the traditional measures, while necessary, was seen as often overused. Assessment should push beyond traditional practice, and provide the learner with real world assessments or scenarious in which they are likely to face in one of their classrooms. For example, students were asked to role play situations requiring "ethical decisions over matters that are not clear cut."

A personal philosophy is just that, personal. Therefore, it is not unexpected that the assessment philosophies reflected were unique and varied, but they all indicate the participants' commitment to provide their students with multiple opportunities and rigorous practice in order to be successful in their future careers.

Participants were asked to prioritize the best methods of assessment for the program learning outcomes identified. Methods ranged from traditional assessments such as paper and pencil tests and program comprehensive exams to more authentic and innovative ones like program portfolio assessment, presentations, personal interviews, and peer/self evaluation.

For the classroom and discipline management category, capstone/field experience, peer/self evaluation, projects, personal interviews and presentations were ranked high by all participants over paper/pencil tests, program portfolio assessment and program oral exams. Methods of assessment for the teaching, learning and assessment strategies category were again given high priority in the areas of presentation, capstone/field experience, and program portfolio assessment. Similar to the classroom and discipline management category, paper/pencil tests and program oral exams were not seen as an effective method of assessment.

The culture and diversity category identified capstone/field experience as a top method of assessment, but the second top method differed drastically among participants. For example, paper/pencil tests ranked high by one individual and as a last resort by another who selected personal interviews as a second method of assessment.

Methods to assess learning outcomes within the effective communication category included capstone/field experiences, personal interviews, peer/self evaluation, projects and presentations. Like the classroom and discipline management and teaching, learning and assessment strategies categories, paper/pencil tests and program oral and written comprehensive exams were not selected.

Methods of assessment for the technological integration category had program portfolio assessment, presentations and projects as the top means in which to measure students' performance as opposed to the more traditional measures. And finally, the methods for assessing the law and ethics category favored program portfolio assessment, projects and presentations over traditional practices.

Results from the best methods for assessment of learning outcomes identified correspond to the philosophical beliefs of the participants. This indicates their willingness to move beyond traditional assessment practices in order to provide their students with the authentic learning experiences they will surely need once they are in the classroom. One must ask the question, if authentic and meaningful measurement of students' knowledge, skills and abilities is seen as a priority of the faculty that prepare these future teachers, why does becoming a teacher hinge upon passing a standardized test? Why not the rich evidence of what these students are able to do within the program?

Continuous Improvement

Continuous improvement of program quality can only be enhanced with the results from program student learning outcomes which assists in providing evidence of the effectiveness of the teaching and learning experiences of the student. So often, finals are taken, course evaluations conducted, grades distributed, and the semester comes to a close. For continuous improvement we should look to our students, courses and program learning outcomes to determine to what degree these learning outcomes were accomplished as indicators of the success rate of our students. Continuous improvement is vital to ensure the quality of our program and our faculty, and to remain in touch with the demands of the society we and our students ultimately serve.

Faculty were asked what was currently being done to provide feedback and how they believed feedback should be provided for continuous improvement of the ATC Program. Other than end of the semester student summative course evaluations, which are not program specific, and individual efforts to collect information with formative assessments, final projects, and portfolio evaluations, there is no formal attempt for providing feedback on program learning outcomes. For individual self-designed formative assessments, the information/feedback works well, but there is no effort to make improvements beyond his/her personal development.

Suggestions for providing feedback for continuous improvement included (a) increased communication among instructors of all courses in the ATC Program on a regular basis to align learner outcomes, and (b) to obtain feedback from administrators and mentors to assess students' strengths and weaknesses. While the sample size for this case study is extremely small, the results are not unexpected and most

likely reflect the current common practices of many. More importantly, they do indicate the need to adopt a more inclusive continuous improvement strategy.

Assessing Student Learning Outcomes Online

Moving courses and a program to an online environment raises many concerns, issues and fears, all of which are valid and must be acknowledged. A primary question/concern centers on assessment and the ability to do so effectively and fairly.

Participants were asked what their thoughts were in regards to the ability to assess student learning outcomes in an online course. One participant, an experienced online teacher, believed that outcomes can be assessed effectively, but only when the numbers within the courses are manageable and the instructor has an understanding of assessment methods. Another individual expressed that the multiple assessments, such as course projects, she intended to use should effectively provide her with evidence of students' achievement of learning outcomes. Participants not yet comfortable teaching in the online environment reflected a common concern which was the lack of the physical presence of the student leading to interpreting meaning of words on paper as opposed to seeing and hearing student-student and student-teacher interactions in the traditional classroom. Another noted how complex the teaching and learning process can be and in turn making assessment equally as complex and stated:

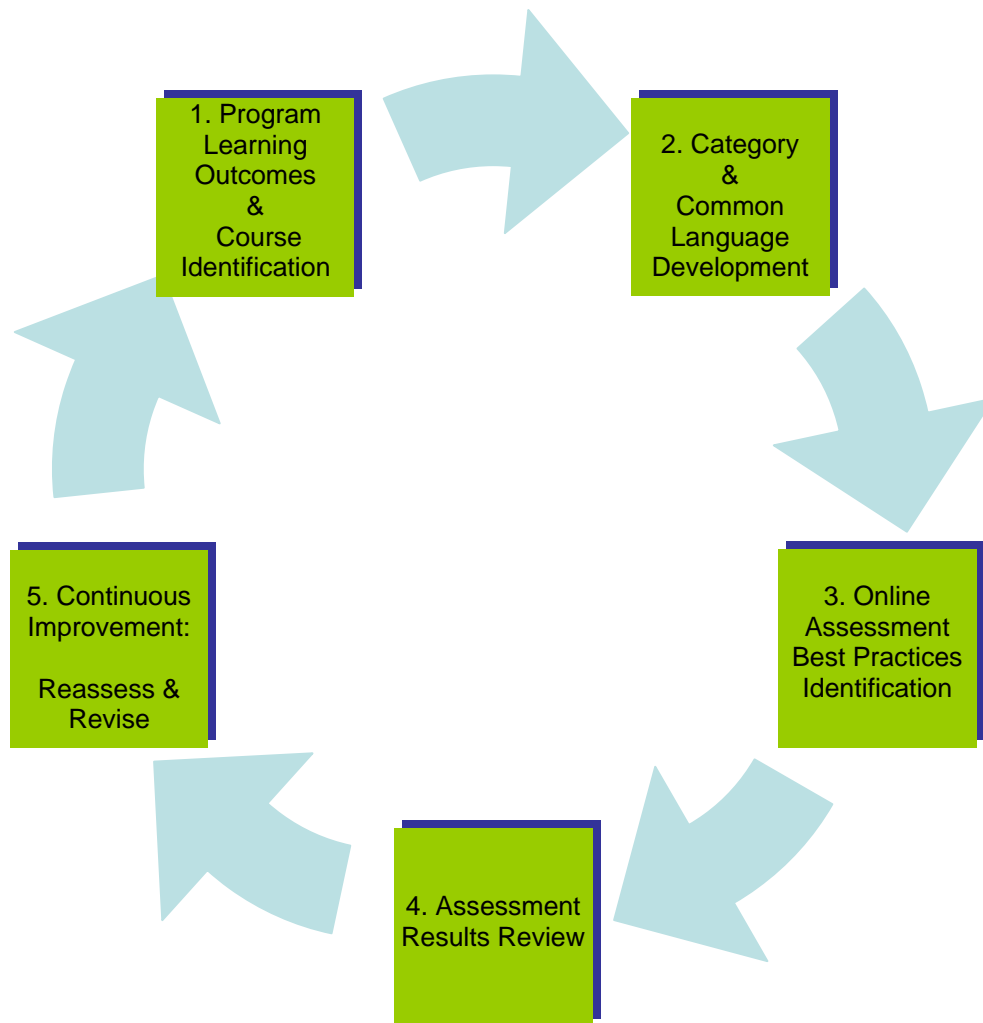> The nuances of teaching teachers often takes the shape of a dynamic

and wide ranging dialogue as students and instructor explore the complex facets of teaching. My concern is that these dialogues and the learning that occurs during them will be different for online instruction. (Survey Participant, 2006)

CONCLUSIONS AND RECOMMENDATIONS

The preliminary findings from this case study have helped to lay the foundation for further development and refinement of a process (Figure 1) that in the end will provide faculty and students with a clear direction as to the expectations for learning outcomes, assessment and continuous improvement. This paper focused upon the first step in a five step process which was the identification of program learning outcomes and the courses in which they belong. As a result, the program faculty will have the opportunity to engage in a dialogue about the expected learning outcomes of a graduate of the ATC Program leading to the development of a common language among categories/learning outcomes, step two.

Another advantage of creating a common language for programmatic learning outcomes will be the ability to inform students upon entrance to the program, the expectations across their courses and the ability to express in terms of alternative assessments how they have achieved/mastered the learning outcomes. In other words, what they know and are able to do as a result of their teaching and learning experiences. To alleviate participant

FIGURE 1. ATC Online Program Learning Outcome & Assessment Identification Process

1. Program Learning Outcomes & Course Identification

2. Category & Common Language Development

3. Online Assessment Best Practices Identification

4. Assessment Results Review

5. Continuous Improvement: Reassess & Revise

concerns regarding assessing student learning online, step three will be utilized to determine best assessment practices for the online environment and for documentation of evidence. This documentation will guide the continuous improvement efforts based upon assessment results, step four. The fifth and final step within this process will be to reassess and revise based upon the evidence available and the experiences of the faculty with the methods selected.

The purpose of any educational program is to provide quality teaching and learning experiences for its teachers and students. Making the decision to move pieces of the ATC Program online was not and still is not an easy one. New issues emerge everyday as instructors and students take this journey into the world of online education. These concerns are important and must be dealt with so as to not lose focus on the program's purpose or quality.

Further research is needed which focuses upon other methods of establishing learning outcomes and how these outcomes are assessed in similar online programs. The effectiveness of student learning within these online programs should also be addressed. The implications of receiving an education online are serious as it relates to teacher effectiveness and longevity in the profession. Being an online program is more than being seen as "competitive," but rather to offer students quality learning opportunities with new and unique connections and ways of engagement without jeopardizing the ultimate goals of a teacher certification program. The world in which we live is becoming a flat world and technological innovations are a way of life, and to prepare students for this is imperative as

the experiences they gain from the ATC Program, they will pass along to their future students. To be or not to be online? To be!

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