

Assessment: The Final Frontier

Educational Practice

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Assessment in Higher Education is the current and newest buzzword for many institutions. The reason is that many institutions are seeking industry accreditation for many of their degree programs. This has made it necessary for them to undergo many changes, including some radical changes to their programs. These changes, though required, will hopefully help improve the quality of their degree programs.

The final frontier is so designated, because assessment seems to be a word that can strike fear into any school faculty member, chair, dean, and/or administrator. Higher Education has enjoyed a long and prosperous legacy of establishing standards on how to assess students. Traditional methods include quizzes, tests, papers, and participation.

Now that Higher Education Accrediting Bodies are changing their assessment criteria, however, institutions must also change as well. No longer is a simple student final grade enough to satisfy accrediting criteria; now we must prove that our students know what we say they should know in our programs. Therefore, we need to discuss why assessment is the final frontier for changing the way we teach, learn, measure, and report what our students know as they work through our programs.

What is Assessment?

Assessment is the valuation of something (dictionary.com, 2011), usually property for tax purposes, but the key part is that it is a valuation. This valuation in academia then becomes the basis for determining what students gain from the programs through which they matriculate. In other words, what value do students receive from these programs?

The final frontier then, for faculty, becomes one of learning how to actually assess the value of our programs. The criteria for assessment may be dictated or suggested, but however it

is delivered, it must be understood clearly enough so that all interested persons can have a chance to succeed in assessing the value.

Traditional Assessment

Traditionally student assessment has depended on coursework grades, and the final grade received in a particular program course (Anderson, 1998). This was, and in many cases still is, the indicator used to measure success. If a certain number of students graduated, then our programs were deemed successful and we could continue as is or make informal modifications at the course level if deemed necessary.

This method, while traditional, is no longer how assessment is designed to work (Wolf, et al., 1991). Assessing agencies throughout the world are changing their criteria for assessment. These criteria changes come about for many reasons, such as government mandates or laws, social initiatives, and/or industry standards.

The change is not as important as the result, which is that higher education entities now have to prove that their students are learning what the entities profess they are learning from any particular program.

Assessment Case Example

As a case example for the changes that new assessment criteria bring to an institution, I will use the School of Engineering and Computational Sciences at Liberty University as my example.

In 2008, we began to look into accreditation through the Accreditation Board for Engineering and Technology (ABET, 2011). This organization is the premiere accrediting agency for engineering and technology programs.

ABET is a non-dictating agency, therefore they recommend criteria, but they do not force any program to adopt their criteria. Most programs, however, do utilize their criteria in whole, or modified in part, to meet the needs of a particular program. The particular ABET criteria used for this example is for computing programs and is outlined below:

The Student will be able: (Student Outcomes – ABET, 2011)

- a) to apply knowledge of computing and mathematics appropriate to the discipline.
- b) to analyze a problem, and identify and define the computing requirements appropriate to its solution.
- c) to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- d) to function effectively on teams to accomplish a common goal.
- e) to have an understanding of professional, ethical, legal, security and social issues and responsibilities.
- f) to communicate effectively with a range of audiences.
- g) to analyze the local and global impact of computing on individuals, organizations, and society.
- h) to recognize the need for and an ability to engage in continuing professional development.
- i) to use current techniques, skills, and tools necessary for computing practice.

The above list was selected for our Information Systems 4-Year Degree Program assessment criteria. Using these has brought about some radical changes in our programs.

Program Changes

The first change that was needed was to totally reevaluate our program from the ground up. We had to determine what we were currently doing, and then determine what we wanted to do in the future. Using this ABET criteria for computing programs, we were able to accomplish this feat over a three year period.

Some changes in the program included; adding courses, dropping courses, reworking courses, and planning new courses. The effort involved in looking at the program as a whole was tremendous. Along the way, we confronted many barriers including, faculty, chair, dean, and administration buy-in. We faced costs associated with accreditation and feelings of fatigue and remorse about the whole process. Overcoming these barriers required time and patience from all involved.

The second change that was needed was to re-invent our individual courses to meet the ABET criteria we chose to use. This also was met with many difficulties, but eventually after several attempts, we began to see positive changes in our courses. The difficulty was replaced with reluctant acceptance, and finally, over time, full acceptance of the changes needed.

The third change that was needed was to convince the students that the changes they were in the midst of; were for their own good. This is an ongoing process, and students have tentatively embraced ABET in our/their program. Student education about the benefits of accreditation is very important, and can help motivate faculty to improve as well.

Continuous Improvement

Continuous improvement is the mantra of ABET, and is actually a very good way to look at our program. As we develop our program to meet the requirements of ABET, we can also be mindful to think of how we can continually improve our program for better assessment and

value. The ABET criteria give us the starting point for improvement, but it is up to us to continue improving as long as our Information Systems program is a viable degree program.

Conclusion

In any endeavor, problems are bound to arise; it is no different where assessment is concerned. Assessment, however, is crucial to proving that Higher Education Programs are fulfilling their goals of graduating successful students. No longer is it appropriate to simply rely on final grades to determine value, now we are faced with going beyond the final grade for proof.

ABET is an example of an accreditation agency that has adopted the value proof-method of assessment. They require programs to prove that students are gaining value in participating in the program. This is followed with the continuous improvement mantra to ensure that any ABET accredited program continues to meet high academic standards in providing value to the student.

References

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