



Ideas and Fish: Effective Curriculum Design

As an academic, course and curriculum design are second only to teaching as two of the most important activities I have participated in my career in higher education. In almost three decades at colleges and universities, however, I've learned some important lessons about designing curricula. As an idea person, it strikes me that all ideas are interesting, worth exploring and presenting to students. But in higher education today, it's worth remembering that there are key factors that need to be integrated into all curricular design. And failing to do so will painfully reinforce the old adage that ideas (or curricula) are like fish—all shine, but some stink.

In an earlier white paper, “When the Comfort Zone is the Danger Zone:

Adapting to the 21st Century Learner in Higher Education” I set forth three key features for programs designed with 21st Century Learners in mind:

value, access and efficiency. These characteristics cut across all aspects of higher education, but are particularly relevant in curriculum design. Examining programs and their constituent courses through the prism of these three characteristics yields some valuable insights into how to strengthen contemporary approaches to higher education.

Three key features of competitive programs:

Value

Access

Efficiency

It's fairly straightforward to understand these key features, especially when it comes to issues such as cost, delivery systems, and student services. But when it comes to more academic activities, especially those relating to course and curriculum design, the importance of these features is often neglected.

There are two major factors creating this situation: functional ones and cultural ones. The functional factor is one related to the sheer complexity of American higher education. Our colleges and universities are variously thought of as providing an intellectual rite of passage to adulthood, as a form of career training, as a mechanism for inculcating the intellectual and communication skills needed for informed civic participation in a democracy, and as a vehicle for advanced study in a specific academic discipline. In many cases, these various functional goals are combined with varying levels of success.

In many cases, major emphasis is given to strongly academic (as opposed to career or civic) preparation. On one level, this is completely understandable. The central role of faculty in shaping curriculum is an indisputable foundation of American higher education. Faculty

members are, after all, the experts—people who have studied long and hard to master the complex content and skills of their disciplines and who have devoted their lives to passing these things on to students. This should be respected.

We should also acknowledge, however, that a particular cultural context also shapes the academic enterprise. Here I am referring to the culture of the academy itself—something focused on training and socializing individuals into ways of thinking and communicating that are largely focused on specific disciplinary specialties and are oriented to assisting individuals to succeed in advanced study in an academic environment.

Or, to put it another way, faculty design courses and curricula based on what they think people on a professional academic career track need. The un verbalized assumption is that courses and curricula need to prepare students for a career path in the academy and so they should receive an education that prepares them for that. It is a self-replicating guild of sorts.ⁱ

And for those of us who did pursue a career in the academy, we are deeply grateful.

But we're in the minority. The Bureau of Labor Statistics indicates that there are 1.7 million post-secondary teachers in the US, of whom all are college or university faculty except for 159,700 graduate teaching assistants. ⁱⁱ Now compare that to US Census data on the numbers of Americans over 21 in 2010: 196,899,193.ⁱⁱⁱ This suggests that professional academicians make up 8/10 of 1 percent of the population. Yet the training college students receive often assumes they will all follow in their professor's footsteps.

But, you may object, there are certainly academic programs that are more finely focused on likely careers, particularly in the healthcare and STEM areas. This is certainly true, and disciplinary accreditors in healthcare fields that require licensure have led the way in establishing clear curricular and student outcomes standards. But, even in finely focused undergraduate programs, at least 50% of the curriculum is composed of courses in the liberal arts and sciences that are often shaped by the academic guild mentality. We may agree that courses in the liberal arts assist in broadening our intellectual horizons and in the development of critical thinking and communication skills. But the ability of institutions to clearly define and measure student outcomes in these areas is not as well developed as it should be. We may also rightly assert that coursework also prepares students for advanced study in specific disciplines. But we also note that by 2020, only 11% of all jobs are expected to require education at the master's level or greater.^{iv}

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I am not arguing against the central role of the liberal arts in higher education, but am rather cautioning that when academic professionals engage in curriculum design they need to clearly assess their students' needs and design programs using explicit as opposed to implicit guidelines. And I would recommend that we constantly engage in some reflection on whose needs a course or curriculum serves: the students or the guild members?

This is particularly true when we focus on programs for “non-traditional” learners. What these students seek from higher education is an experience that is highly transactional—designed to provide them with a knowledge base and skills set that has direct application outside the academy. And this is why issues of value, access, and efficiency are so important in program design. And also, why the best designed programs will have features that often touch on each of these key characteristics simultaneously.

Let's examine the issue of the number of credits in a particular academic program as a test case. With the caveat that there are specific regulatory requirements relating to the minimum number of credit hours in particular degrees, our three key features suggest this rule:

*Any program should contain the
lowest number of credits in
coursework needed
to provide students with specific
knowledge and skills.*

This seems obvious on the face of things, but it is not unusual to come across programs for a bachelor's degree that theoretically requires only 120 credits to have 126 or 128 credits. The argument is that the extra credits are justified due to the need to expose students to specific content. In addition, when faculty think about “extra” credits, they tend to frame their understanding in terms of a more traditional full-time student. Such a student pays a flat semester fee that typically enables them to enroll for between 12 and 18 credits. So, the addition of another 8 credits or so over 8 semesters, to a faculty member's mind, has no additional cost. But non-traditional students typically pay for their education on a per credit basis. So, from their transactional perspective, additional credits in a program simply seem like an extra cost.

In addition, extra credits mean more time to program completion. For these students, flexible pacing, time to completion, availability of financial assistance and overall cost are among the top reasons to enroll in a program.^v Piling on additional credits can serve as a real inhibitor to student enrolment.

In this situation, we see that the features of value, access and efficiency have been neglected. An inflated program credit count offends against all three features. It increases costs, which in turn can negatively impact access for prospective students. It diminishes perceived value, since an inflated credit count not only increases costs but usually lengthens time to completion. And

finally, it creates the image of an inefficient program in a prospective student's mind. If an individual is looking for programs and services tailored to the needs of a non-traditional population, a padded academic curriculum may be sending a not-so-subtle message to the prospective student that she needs to look elsewhere.

My academic colleagues may object that content demands shape curricular credit counts. But experience with detailed course and curriculum mapping have shown me time and again that discrete courses in programs are often not as well aligned with program objectives as they should be, are sometimes redundant, or in a few cases, irrelevant. There are several reasons for this. Courses have a long shelf-life and may not always be well integrated into changing program objectives. The very process of course development can also contribute to misalignment. Curricula tend to be developed collegially with multiple course creators being assigned individual units to work on. This can, of course, be a positive thing. However, most academic scrutiny tends to fall on the content of discrete units within the curriculum—the individual courses—but is often not as focused when it comes to the place of each unit in the overall program as well as the ways course content supports or fails to support program outcomes (or simply repeats material). One reason for this is that content specialists understandably tend to focus on content in the prime building block of programs—individual courses. In addition, comprehensive program analysis through professional program mapping is often not something faculty are well trained in. Finally, there can be a reluctance to tread on the sacrosanct “right” of faculty to design their individual courses. This can result in program design that is less than optimal.

Poor program design can result in inadvertent redundancy in terms of content, in activities and assessments that are not well-connected to program objectives, as well as instances where program objectives are not directly addressed or assessed. But there is a straightforward solution to this issue: curriculum mapping. Detailed program mapping can identify problem areas such as these and assist in the creation of relevant and effective program content. However, if these issues are not addressed, we are once again in a situation where we are violating the key characteristics of effective programs. A program that is redundant is inefficient, as is one where course content is not well aligned with program objectives. It creates a sense of diminished value and can therefore depress accessibility. Students are seeking clear pathways to degrees where all activity is finely and purposefully focused on specific activities that are relevant to their career needs. They expect program design that maximizes the ability to quickly and economically achieve their stated objectives.

We may lament the fact that most college students are not able to participate in the traditional full-time residential experience of undergraduate study. But that fact is that economic forces make this traditional experience something that is increasingly only available to our elites.

In many ways, student expectations and preferences are not aligned with the more traditional, gradual and inward facing approaches of the academic guild. We may lament the fact that most college students are not able to participate in the traditional experience of undergraduate or

graduate study. Or that a slim minority of students will enter professions requiring advanced degrees. But the fact is that economic forces make this traditional experience something that is increasingly only available to our elites. If we assume that these students will most likely form the bulk of individuals who will go on to advanced study (and some of whom will eventually join the guild), then the system is fine as it is.

But we know that about three fourths of all college students today have characteristics that we typically have labelled as “non-traditional.”^{vi} They value education as much as their more elite peers, but their lives are constrained by a host of factors that make value, access and efficiency the primary characteristics they seek in higher education. If we continue to provide them with old approaches to education, we may expect that our efforts to attract students will be frustrated. It’s not that the old model doesn’t shine in many ways. It’s that for today’s students it is increasingly unavailable and largely irrelevant to their careers and lives.

The Author

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ⁱThe concept of guild I am pursuing here is an organization that has a focus, maintains particular standards related to the area of focus and acts to protect the interests of its members. See <http://www.dictionary.com/browse/guild>

ⁱⁱ Bureau of Labor Statistics source: <http://www.bls.gov/oco/ocos066.htm>

ⁱⁱⁱ <http://www.infoplease.com/us/census/data/demographic.html>

^{iv} Carnevale, Anthony P., Nicole Smith and Jeff Strohl. (2014) Recovery: Job Growth and Education Requirements Through 2020. Washington DC: Georgetown Public Policy Institute, Georgetown University, p.3. https://cew.georgetown.edu/wp-content/uploads/2014/11/Recovery2020.ES_.Web_.pdf

^v Cited in Doyle, Beth. 2015. The Council for Adult and Experiential Education. http://www.act.org/content/dam/act/unsecured/documents/20160713_W2.8-Marketing_to_Adult_Learners_B_Doyle.pdf

^{vi} US Department of Education. (2015). Demographic and Enrollment Characteristics of Non-traditional Undergraduates: 2011-12. Washington DC: US Department of Education. September 2015. <https://nces.ed.gov/pubs2015/2015025.pdf>.