COMPETENCY-BASED EDUCATION: AN INVESTIGATION BY A COMMITTEE AT A LAND GRANT UNIVERSITY

C. Relihan[1], D. Mulvaney*[2], E. Kierce[3], K. Noll[3], K. Boyd[4], S. Bowers[5], M. Marshall[6], T. Carter[7], T. Cook[8], J. Lawrence[9], and E. Coleman[10]. Office of Provost[1], Coll. of Agric.[2], School of Nursing[3], Office of Acad. Assessment[4], Auburn Online[5] , Office of Univ. Writing[6], RBD Lib.[7], Exten./4-H[8], Coll. Bus.[9], Coll, Vet Med.[10]

June 29, 2017

Purdue University

Presentation Goals:

- Introduce / overview competency based education (CBE)
- Discuss charge and approach of an ad hoc committee
- Summarize major findings and recommendations
- Entertain questions

Committee Charge and Membership

Charge: validity, relevancy, recommendations relative to credit for CBE

to study whether it would recommend that Auburn University take the necessary steps to begin offering academic credit for competency-based education.
...to issue a final report that includes either a recommendation to proceed, identifying specific degree programs that would appropriately be served by a CBE option; or a recommendation not to pursue CBE at this time.

Committee Members:

Constance Relihan, APUS, Chair

Shawndra Bowers, Auburn Online

Katie Boyd, Office of Academic Assessment

Toni Carter, RBD Library

Elaine Coleman, CVM

Tony Cook, Extension/4-H

Erica D. Kierce, Nursing

Jimmy Lawrence, HCOB

Margaret Marshall, Office of University Writing

Donald Mulvaney, Agriculture / Senate

Kelley M Noll, Nursing

Committee Approach

- Bi-weekly meetings
- Thorough literature search
- Sharepoint sharing
- Cases from benchmark institutions
- Vendor interaction (EAB)
- Generated report
- Shared with Senate

What is CBE?

- **Outcomes- or Performance-based**

  Student success is measured by mastery of individual learning outcomes, not by completion of a Carnegie-unit based credit hour

- **Personalized and Adaptive**

  Because student learning is based upon mastery of individual outcomes, a program can be tailored to the specific needs of each student

- **Formal Definitions in flux**

  Definitions and strategies for assessing CBE programs are not fixed

WHAT IS COMPETENCY-BASED EDUCATION?

Students progress through learning objectives as they demonstrate mastery of content, at their own pace.

It allows them to show what they know, as soon as they know it.

	Competency-Based Education	Traditional Education
CURRICULUM	Variable class structure, testing out of subject matter at different levels	Standardized class structure, regardless of prior knowledge
CLASS COMPLETION	Students finish as they are able	End of term
AVERAGE TIME TO GRADUATE	30 months*	60 months

*Data is only from Western Governor's University

http://teachthought.com/learning/what-is-competency-based-learning/

CBE vs TRADITIONAL EDUCATION

Competency Based	Traditional education
Less Expensive for the students	More Expensive for the students
Variable Class Structure	Standardized Class Structure
Students finish as the are able to	End of term
Average 30 months to graduate	Average 60 months to graduate

WHAT DO YOU THINK ?

? Do you think students should be able to receive college credit for knowledge and skills acquired outside the classroom?

YES
87%

NO
12%

? If you could be evaluated and receive credits for what you already know, would you be more likely to enroll in a higher education program?

YES
75%

NO
25%

? An average college course takes 16 weeks to complete. If students demonstrate that they have mastered the material in less time, should they be able to get credit for the course without completing the 16-week session?

YES
70%

NO
30%

There are over 30 million adults in the US with some college credit but no degree.

2014; http://hechingerreport.org/report-31-million-americans-college-credits-degree

We have to *think beyond* traditional models to provide options for these learners.

Why Competency Education

- Some view CBE as vitally important for our country to move away from the restrictions of a time-based system. The reasons may be:
  - *ensure* that all students succeed in building college and career readiness, consistent with the Common Core of world class knowledge and skills;
  - *build* the capacity of districts, schools and educators to respond more rapidly to the needs of students and engage in continuous improvement;

Why Competency Education

Some view CBE as vitally important for our country to move away from the restrictions of a time-based system. The reasons may be:

- *take advantage* of the extraordinary technological advances in online learning for personalization, allowing students to learn at their own pace, any time and everywhere.

- *provide* greater flexibility for students that would otherwise not graduate from college because they have to work or care for their families.

HISTORY OF CREDIT-HOURS EDUCATION SYSTEM

- The U.S. federal government created financial aid programs in the 1950's

- Accrediting agencies needed to create a "unit of learning" that could be reported, transferred and funded.

- Hence, the concept of the "credit hour" was born

TYPICAL CREDIT-HOURS SYSTEM

A contact hour includes any lecture or lab time when the professor is teaching the student.

A semester credit hour (SCH) is equal to 15-40 contact hours per semester, and does not depend on the duration of the course.

- universities use Semester Credit Hours to set tuition fees and scholarships for prospective students.

COMPARISON OF CREDIT-HOURS SYSTEM AND CBE
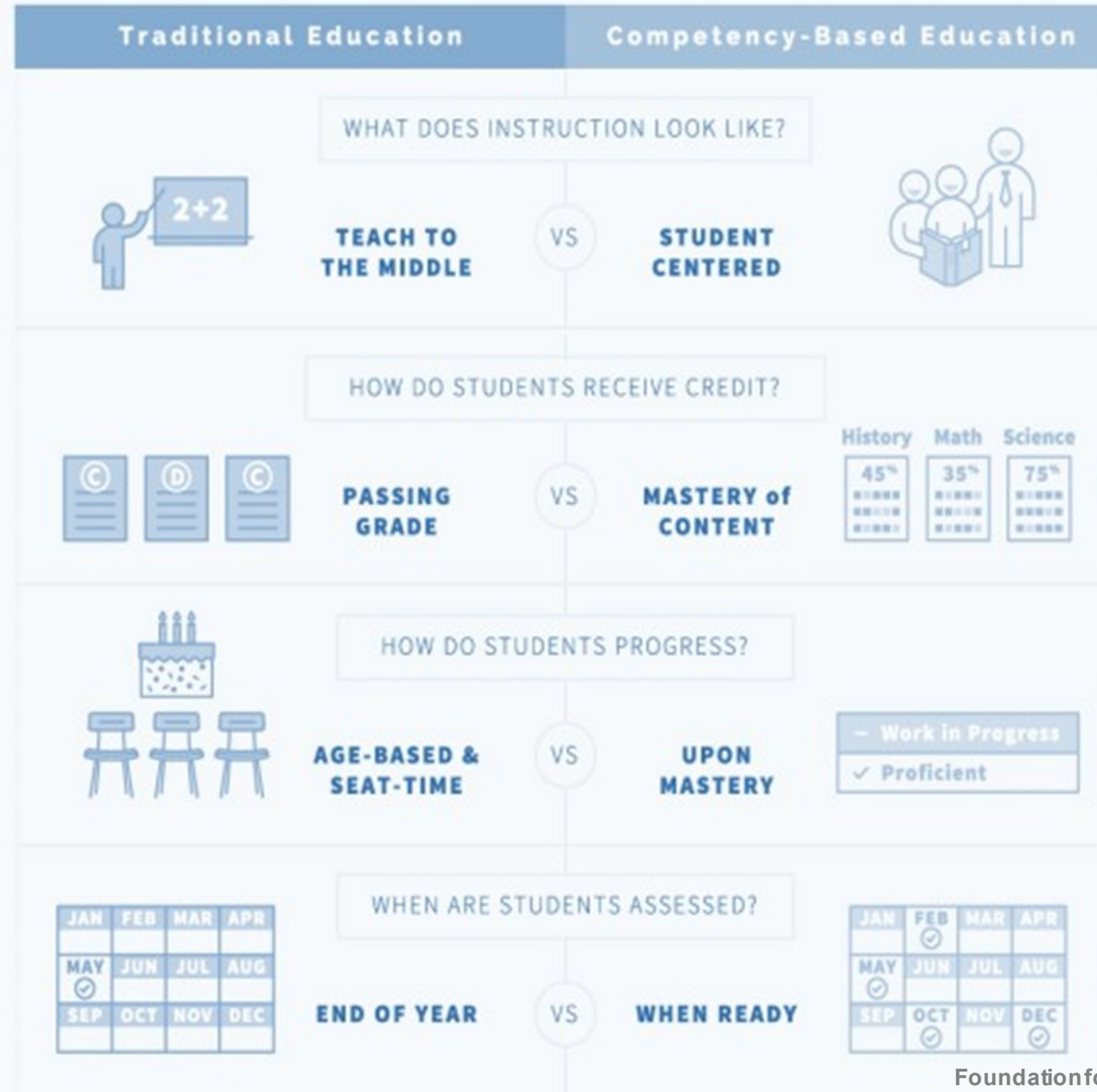
Variety of CBE Models

- **Direct Assessment**

  Completion of the program is based entirely upon mastery of individual learning outcomes. It is self-paced.

- **Blended Approach**

  Competencies used as gateway to assess credit for prior learning (PLA) and determine starting point. Traditional course structures used for additional credit/program completion.

- **Carnegie-Hour Based**

  Operate as traditional programs, but competency mastery is incorporated into course structures.

- **Digital Badges & Microcredentials**

  Online record of achievement. Usually distinct from credit-bearing activities.

(See EAB, 2014)

Pros and Cons

Pros

- Flexible

- Financial savings for the right student

- Online delivery extends campus reach

- Possible links to employer/industry needs

- "Unbundling" of faculty roles may lead to cost savings and increased focused expertise

Cons

- Infrastructure needs/costs

- Substantial faculty commitment in curriculum development

- Regulatory issues—SACSCOC & DOE

- Potential overloading of academic resource capacity

- Staffing—"unbundling" of distinct roles may be costly and may undermine traditional faculty roles.

Myths

Myth 1: Students and employers are demanding CBE
In reality, students are not searching for CBE and few know what it means. Employers' interest in CBE is no different than their engagement with traditional programs.

Myth 2: CBE is faster and lower-cost for students
Most students progress at an average pace in CBE and end up paying tuition similar to traditional programs.

Myth 3: CBE is lower-cost for institutions
An immature vendor market and the cost of supporting self-paced learning make CBE programs more expensive to launch and to run than traditional programs.

The CBE and PLA Playbook provides step-by-step guidance to determine whether launching a CBE program is the right fit for their institutions, tools to mitigate the costs and risks of launch, and resources to support continuous improvement in student screening and support.

https://www.academicleadertoday.com/scholarship/competency-based-education/

Recommendations

The [concept behind competency education](#) : learning is best measured by students demonstrating mastery of learning targets with the supports they need, rather than the number of hours spent in a classroom with variable amounts of actual learning.

■ the committee did not recommend the creation of the purest forms of CBE, which would require institutional-level support and have a mostly negative impact on existing university units such as the Registrar, the Miller Writing Center, and academic support units;

■ CBE in its purest form would create complications for institutional accreditation and student financial aid eligibility with little evidence of improvement in student success or financial benefits.

■ The committee also found no demonstrated interest in or need for such programs on the Auburn University campus.
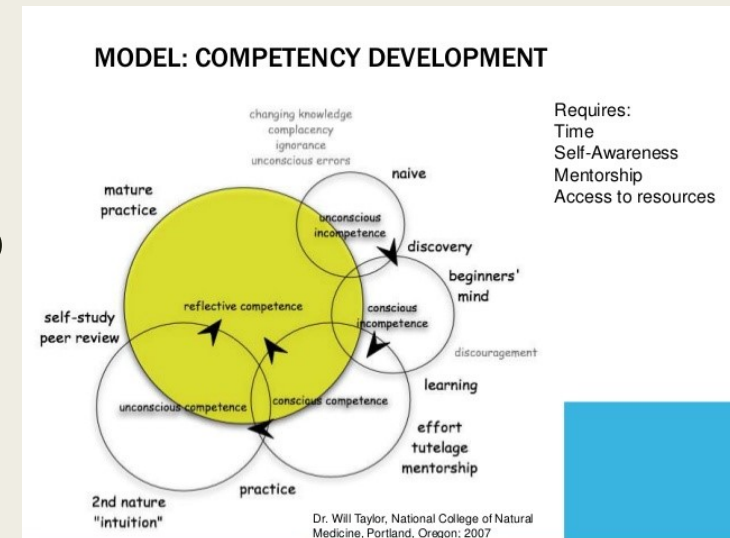
(See *Report*, p. 2)

MENTORS HELPING YOU EVERY STEP OF THE WAY

But…

- The committee was more neutral, however, about CBE-type teaching strategies or hybrid programs that might be developed by programs interested in pursuing them.

- <u>Hybrid versions of CBE</u>, including credit by exam or other Prior Learning Assessment (PLA) programs, also carry with them costs and consequences that should be carefully considered before they are proposed.

- <u>Online learning</u> or short-term instruction (like workshops) that do not result in a degree or official credit-bearing certificate may be better solutions to meet specific needs, and mechanisms for offering such limited-scope instruction are already available to departments and academic support units.

(See AU CBE *Report*, p. 2)

MODEL: COMPETENCY DEVELOPMENT

Requires:
Time
Self-Awareness
Mentorship
Access to resources

changing knowledge
complacency
ignorance
unconscious errors

naive

mature practice

unconscious incompetence

discovery

beginners' mind

self-study peer review

reflective competence

conscious incompetence

discouragement

learning

unconscious competence

conscious competence

effort
tutelage
mentorship

2nd nature "intuition"

practice

Dr. Will Taylor, National College of Natural Medicine, Portland, Oregon; 2007

In summary...

CBE is based on six critical components:

➢ Explicit learning outcomes with respect to the required skills and associated proficiency
➢ A flexible time frame to master these skills
➢ A variety of instructional activities to facilitate learning
➢ Criterion-referenced testing of the required outcomes
➢ Certification based on demonstrated learning outcomes
➢ Adaptable programs to ensure optimum learner guidance

Challenges to CBE Adoption

Policy/funding issues

Technological challenges

Pedagogical challenges

Quality concerns
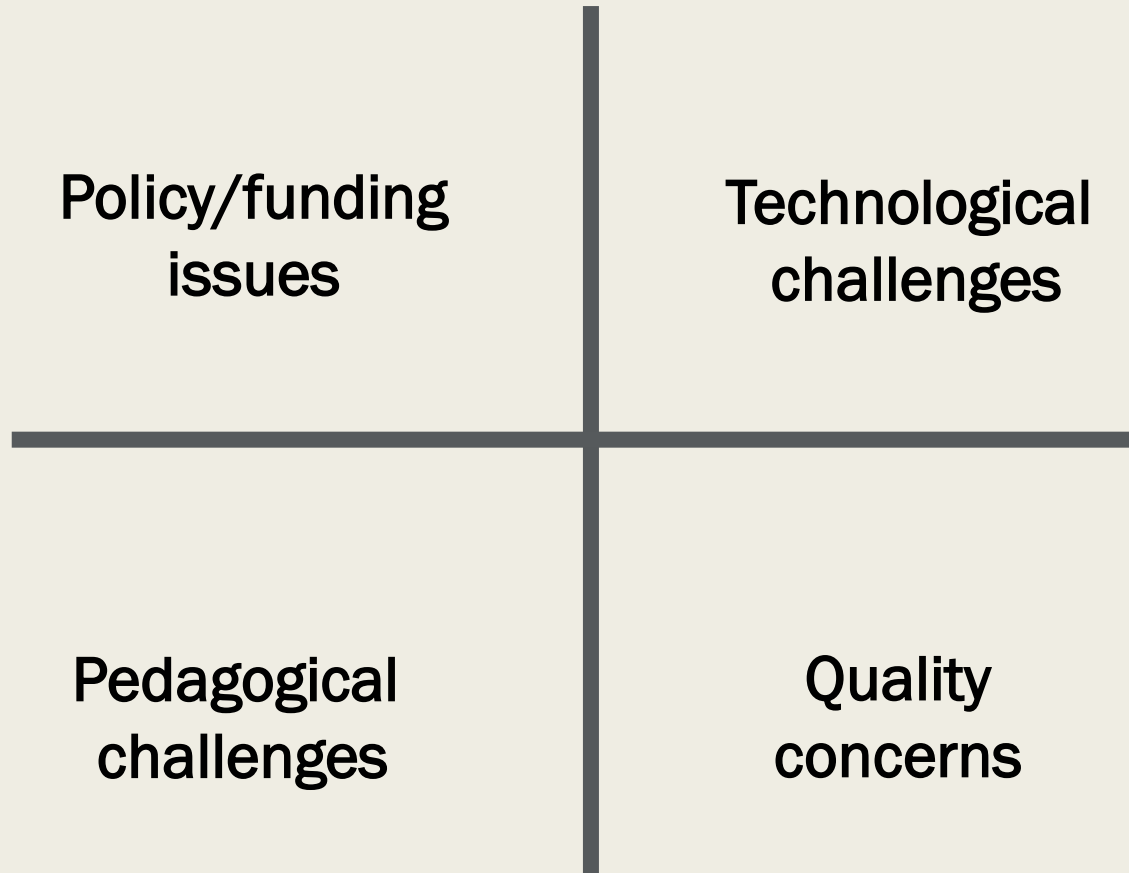
If a Department wants to develop a CBE program, consider . . .

1. *The relationship between the proposed competency-based education and the institution's mission.*

2. *The on- and off-campus approval process.*

3. *The needs of prospective students.*

4. *Faculty control of the program.*

5. *Cost. Up-front investment will be needed.*

6. *Current developments in the field. Understanding of CBE is rapidly evolving. (Start by reading our report.)*

Have any of your departments and/or institutions considered adopting a CBE or CBE-hybrid academic degree program and what did the conversation look like?)