Integrating Essential Skills Instruction into General Education

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Topics
• General Education and and Student Success
• Instructional goals: integration, transparency, transferability
• Critical thinking assessments/assignments
• Teaching for Student Success

At your seat and table...

• 2-page handout with links to resources, general information on the new GE requirements, a summary of the five essential skills, and the state Critical Thinking skills rubric.
• Participant Worksheet

Let's start with question 1!

LEADS 2025 measures of student success and social mobility

• Retention and degree completion
• Career attainment
• (small) Achievement gaps
• Social Mobility Index
• Etc.

Characteristics of a successful student/graduate?*

Transferable competencies
- Cognitive
- Intrapersonal
- Interpersonal


What is the primary purpose of general education?

To assure a breadth of content learning (liberal arts ideal)

Development of transferable skills

To make it challenging to graduate on time?

Priority of the new state model

Skills-Centered

Five Essential Skills

Communication
Critical Thinking
Information & Digital Literacy
Personal & Social Responsibility
Quantitative Reasoning

Six content areas

Communications
Mathematics
Science
Social & Behav. Sci.
Humanities
Creative & Fine Arts
**Benefits of learning in multiple/varied contexts**

- Groups A and B practiced as shown
- When tested later on a bucket 3 ft away, **group B did best by far**

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**Instructional goals**

- Integration not decoration. Disciplinary context is vital
- Transparency. Students must know our learning objectives
- Transferability. Teach for “deep” (transferable) learning...

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**Critical Thinking**

Look over the critical thinking rubric contained in your packet. Focus on the component skill column

1. Problem setting
2. Evidence acquisition
3. Evidence evaluation
4. Reasoning/conclusions

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**Example narrative excerpts: Critical Thinking in BIOL 111G**

- Problem sets are ... based on real-life situations (e.g. an authentic and scientifically-relevant problem) that can be grounded in a course-specific scientific topic.
- Information is routinely provided to students in the form of data (raw or presented in charts and graphs). This provides students opportunities to practice their data graphing, interpretation and evaluation skills.
- Students identify the key problems or questions. Students then draw a conclusion based what they have evaluated and make evidence-based recommendations.
Integrating essential skills instruction into GE courses

1. Review GE Certification documents (available by request, see handout)
2. Think about existing activities in your class. (Not lecture!) Are the skill components already represented? Can you make those more transparent to students?
3. Modify existing activities or design new activities as needed. These should be connected to disciplinary content.

Example Assessments/Assignments

• Choose one example to review at your table
• Individually, identify whether/how the assignment requires students to demonstrate each component of the critical thinking skill
• Collectively, identify two or three essential strengths of the assignment with respect to critical thinking
• Report out – briefly describe the assignment, its strengths, and other observations.

Your own course now

Individually, describe one example of
• An existing activity and how you want to modify or
• A new activity you want to create
How will it give students an opportunity to demonstrate one or more aspects of critical thinking?

Share your ideas in pairs or groups of three

Integrating essential skills instruction into GE courses

1. Review request
2. Think a lecture! represents to study
3. Modify needed content
4. Frame the course

Your own course now

Individually, describe one example of
• An existing activity and how you want to modify or
• A new activity you want to create
How will it give students an opportunity to demonstrate one or more aspects of critical thinking?

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Essential Skills

How we teach matters!

From NMSU LEADS 2025, our goal is to be a “Recognized leader in serving diverse students and eliminating achievement gaps”
• Currently, achievement gaps for our students mimic those that are ubiquitous in higher education nationwide
• Student success depends on a variety of cognitive and non-cognitive factors (intra- and inter-personal competencies discussed above)
• Closing those gaps likely will require us to reconsider how we teach

How we teach matters!

Students prefer study strategies that...
• give the illusion of mastery
• don’t really help them learn

**Preferred Student Strategies (Survey Results)**

- Rereading notes or textbook (55%)
- Do practice problems (12%)
- Rewrite notes (12%)
- Use flashcards (6%)
- Memorize (6%)

Listening to a lecture or reading a textbook gives students a false perception of mastery.

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**How we teach matters!**

Students prefer study strategies that...
- give the illusion of mastery
- don’t really help them learn

Do we (faculty) prefer teaching strategies that...
- give the illusion of students’ mastery?
- don’t really help students learn?

Let’s find out what works! (Formative assessment)

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**Mindsets and Student Agency**

Mindsets: “Beliefs” found to significantly influence student behavior, outcomes, and motivation

- **Belonging Mindset**
  - “I belong in this learning community”

- **Growth Mindset**
  - “I can change my ability and competence through effort”

- **Relevance Mindset**
  - “This work has value and purpose for me”

- **Self-Efficacy Mindset**
  - “I can succeed at this”

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**Fixed and Growth Mindsets**

**Fixed**
- Ability is innate, unchangeable
- Achievement is primary, certifies ability and identity
- Teacher = Judge
- Challenges cause anxiety!
- Fear of failure, defensive toward criticism
- Poisons our greatest learning tool: self-reflection

**Growth**
- Ability can be developed
- Learning process is primary, achievement a natural outcome
- Teacher = Coach
- Challenges are exciting!
- Poor performance is a learning opportunity
- Supports self-reflection for improvement

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Carol Dweck Revisits the ‘Growth Mindset’, Education Week, 09/23/2015
**Learning strategies: The testing effect**

“If students are tested on material and successfully recall or recognize it, they will remember it better in the future than if they had not been tested.”

Roediger and Karpicke, Psy. Sci. 17(3) 249-255

*Any* activity involving retrieval from memory is beneficial to learning.

Making it Stick

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**Engaging and inclusive teaching positively impacts noncognitive factors**

- Formative assessment models effective learning strategies and builds a growth mindset
- Transparency (learning outcomes, expectations, etc.) clarifies the value and purpose of learning and maps out a path to success
- Building community fosters a sense of belonging
- Etc.

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**Hierarchy of Learner Needs**

- Student success depends heavily on non-cognitive factors.
- Quality course design and instruction reduces achievement gaps

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**Resources for GE Instructors**

http://gened.nmsu.edu/Resources:

- *Introduction to teaching GE Essential Skills*, a 75-minute workshop, will be offered this fall. Dates TBD or by request.
- Certification documents are available for review. These include narratives on teaching of essential skills and sample assignments.
- (planned) A library of assignments for teaching and assessing essential skills is being created