Innovative Course Design for Transformative Learning

Part II: Essential Learning Goals

Constructing learning goals that challenge, foster critical thinking, and prepare students to be successful global citizens.

Learning Goals

You will …

1. draw connections between your course and the essential learning outcomes
2. write SCHMI course-level outcomes

Reflection: Teaching Goals Inventory (DEAL Model)*

https://fm.iowa.uiowa.edu/fmi/xsl/tgi/data_entry.xsl

Describe (What happened?):

Examine (What does it mean?):

Articulate **L**earning (I learned ____):

*Ash, S.L. & Clayton, P.H. (2009). Generating, Deepening, and Documenting Learning: The Power of Critical Reflection in Applied Learning. Journal of Applied Learning in Higher Education. 1(1).

Design with the end in mind

Dilemma, Issue or Question (DIQ)
What is the "big idea"?

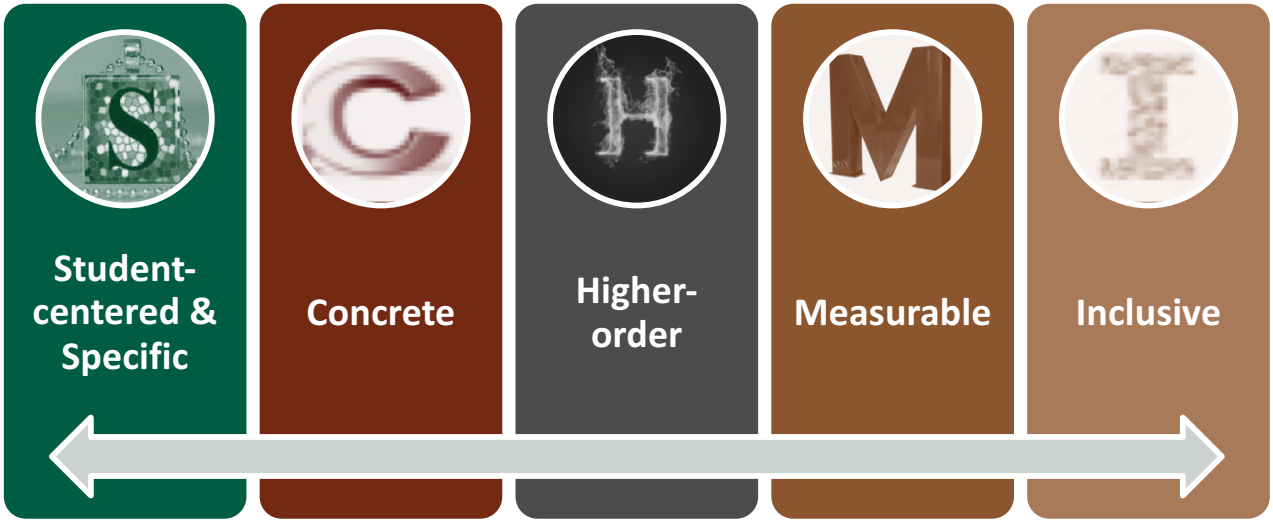
Learning Goals
What do you want your students to know and do?

Tasks
What assignments/activities will your students do?

Assessment
How will you know if your students are successful?

Reflect
What worked? What can be improved?

Adapted from *Understanding by Design* by Wiggins & McTighe



SCHMI Outcomes

STETSON UNIVERSITY
BROWN CENTER
FOR FACULTY INNOVATION AND EXCELLENCE

My Notes:

The Essential Learning Outcomes

Beginning in school, and continuing at successively higher levels across their college studies, students should prepare for twenty-first-century challenges by gaining:

Knowledge of Human Cultures and the Physical and Natural World

- Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts

Focused *by engagement with big questions, both contemporary and enduring*

Intellectual and Practical Skills, including

- Inquiry and analysis
- Critical and creative thinking
- Written and oral communication
- Quantitative literacy
- Information literacy
- Teamwork and problem solving

Practiced extensively*, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance*

Personal and Social Responsibility, including

- Civic knowledge and engagement—local and global
- Intercultural knowledge and competence
- Ethical reasoning and action
- Foundations and skills for lifelong learning

Anchored *through active involvement with diverse communities and real-world challenges*

Integrative Learning, including

- Synthesis and advanced accomplishment across general and specialized studies

Demonstrated *through the application of knowledge, skills, and responsibilities to new settings and complex problems*

Note: This listing was developed through a multiyear dialogue with hundreds of colleges and universities about needed goals for student learning; analysis of a long series of recommendations and reports from the business community; and analysis of the accreditation requirements for engineering, business, nursing, and teacher education. The findings are documented in previous publications of the Association of American Colleges and Universities: *Greater Expectations: A New Vision for Learning as a Nation Goes to College* (2002), *Taking Responsibility for the Quality of the Baccalaureate Degree* (2004), and *Liberal Education Outcomes: A Preliminary Report on Achievement in College* (2005). *Liberal Education Outcomes* is available online at www.aacu.org/leap.

LEAP

Association of American Colleges & Universities. (n.d.). Essential Learning Outcomes. Retrieved April 16, 2017, from https://www.aacu.org/leap/essential-learning-outcomes

What Matters?

Rank top 3	You	Broadly Educated Student	Employer
Critical and creative thinking			
Written and oral communication			
Quantitative literacy			
Information literacy			
Teamwork and problem solving			
Civic knowledge and engagement			
Intercultural knowledge and competence			
Ethical reasoning and action			
Foundations and skills for lifelong learning			

Hart Research Associates. (2015). *Optimistic About the Future, But How Well Prepared? College Students' Views on College Learning and Career Success Selected Findings from an Online Survey of College Students Conducted on Behalf of the Association of American Colleges & Universities Hart Research Associates*. Washington, D. C. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/2015StudentSurveyReport.pdf

Student Learning Outcomes

When following the process of backward design, you first create the **course student learning** outcomes (SLOs) or review the SLOs that are assigned to your course.

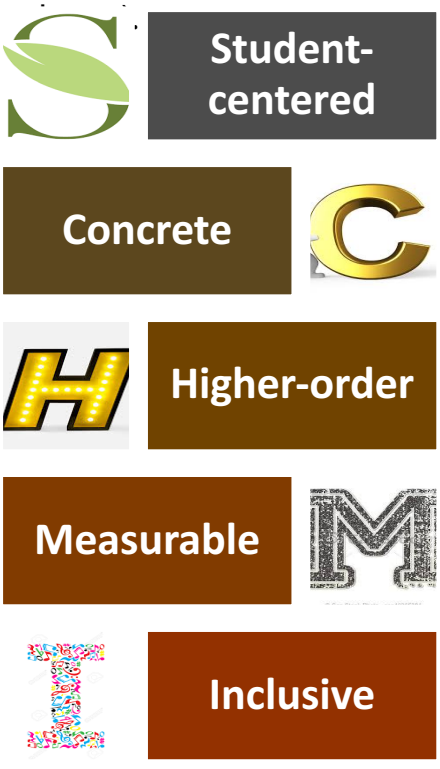
SLOs are the things that we want students to be good at doing by the end of the course. When you are considering your class, think about the concepts, skills, dispositions and abilities that a student who successfully completes the course will possess. These ideas form the basis for your SLOs. Consider the knowledge you use and the skills that you apply as a professional in your discipline and use these concepts as the foundation for your course goals. At a first glance SLO writing seems simple, but crafting solid, effective goals that can guide a course or a module within a course takes time.

Goals? Objectives? Outcomes? Different schools and different disciplines use different jargon. When we talk about student learning outcomes, we are referring to the course outcomes that you would list on your syllabus. Use whatever language is most appropriate for your situation.

Alignment is important

As you are writing your outcomes, consider how your course-level outcomes align with higher-levels (program / institution / outside accreditors). A good way to insure alignment is through mapping.

All of your SLOs should be achievable, student-centered and measurable and some of your SLOs should focus on higher-order skills, rather than lower order skills (even in introductory



Alignment is important

As you are writing your outcomes, consider how your course-level outcomes align with higher-levels (program / institution / outside accreditors). A good way to insure alignment is through mapping.

All of your SLOs should be **achievable**, **student-centered** and **measurable** and some of your SLOs should focus on **higher-order** skills, rather than lower order skills (even in introductory classes).

Write outcomes that are **inclusive** of ALL the learners in your course. When appropriate separate the means from the end.

S.C.H.M.I

"S" is for Student-centered. A learning outcome doesn't describe what you plan to do in a course. It indicates what you expect your students to be able to do upon successful completion of the course.

> **NOT Student-centered**: *This course will introduce students to the fundamental concepts of calculus*.
>
> **Student-centered:** *Students will demonstrate understanding of a fundamental concept of calculus by calculating derivatives.*

The student (not the instructor) is the source of the action.

"C" is for Concrete. A specific goal the students can accomplish at the level it is being taught, within the availability of resources, knowledge and time in your class.

> **NOT Concrete**: *Upon completion of this course, students will be able to use APA style citations in all papers. (but you do not teach anything on APA and this is there first discipline-specific course)*
>
> **Concrete:** *Upon completion of this course, students will be able to use APA style citations in all papers. (you teach a section on APA usage and how to adapt MLA to APA style citations and references).*

"M" is for Measurable. A measurable outcome is one that you could design an assessment for that would allow you to determine whether students have met the outcome or not. Avoid using the verbs "know" or "understand" in your learning outcomes since you can't easily measure if a student knows or understands something. On their own, these verbs indicate internal mental states that are not automatically accessible to outsiders. For example, I can't assess if you understand a concept just by looking at you. Instead, students must demonstrate their knowledge, learning, and understanding in some way to make assessment possible.

> **NOT Measurable**: *Students will enrich their critical thinking skills*.
>
> **Measurable:** *Students will demonstrate their critical thinking skills by interpreting experimental data and making conclusions based on these data..*

"I" is for Inclusive. Does the outcome represent and recognize the diversity of students? Is it inclusive of all types of learners? Does the outcome allow for success of ALL learners? Does the learning outcome present an unnecessary barrier?

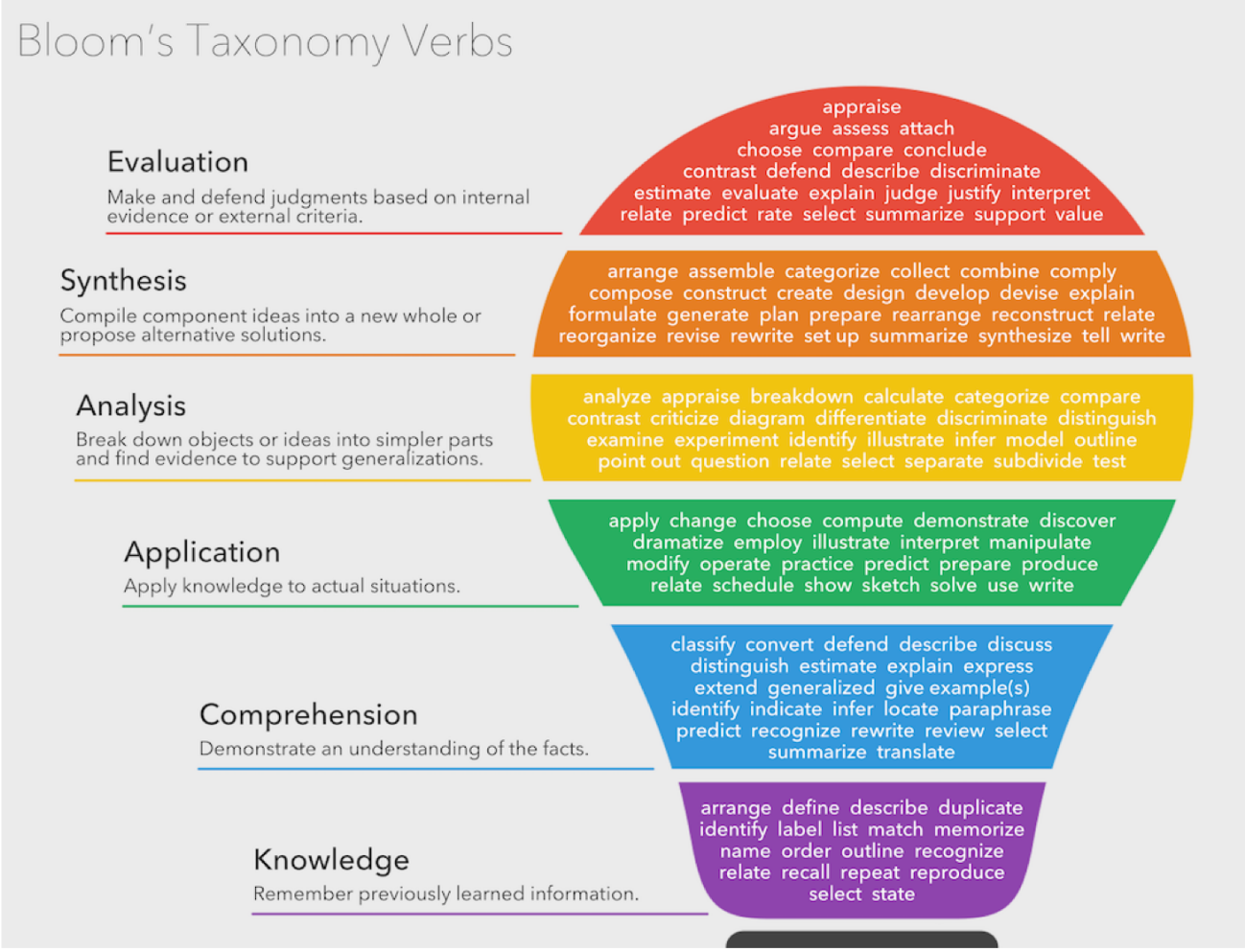
> **NOT Inclusive**: *Orally present the ethical dimensions of international management in public and private sectors of society.*
>
> **Inclusive:** *Articulate the ethical dimensions of international management in public and private sectors of society.*

“H” is for Higher-order

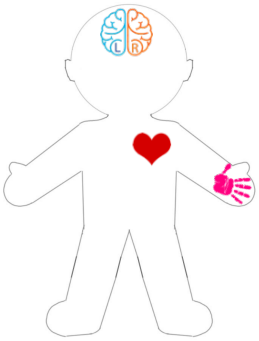
”H"Higher-order. Try to have many of your outcomes focus on higher-order thinking skills that include lower-order thinking skills. Many of our students, and many of us, are masters at memorizing and cramming information into our brains for a short period of time, taking the exams and then quickly forgetting what we just learning. We all want the learning that occurs in our classes to last beyond final exams. In order for that to occur, we need to move beyond lower-order skill (list, identify, classify) and move towards higher-order skills (predict, analyze, develop or evaluate). Students will acquire the lower-order skills as the move towards achieving the higher-order goals.

> **NOT Higher Order**: *Students will list the enzymes used in the process of photosynthesis*.
>
> **Higher Order:** *Students will compare and contrast the processes of respiration and photosynthesis.*

A word of caution – don’t blindly replace lower-order verbs with higher order verbs in an attempt to have better sounding course goals *without also changing what you do in the course*. If you expect students to be able to “correctly identify all the bones in the human skeletal system” (a lower order skill, which does not necessarily mean that it is an easy task) and you lecture on the skeletal system, have students label a skeleton in class and then assess this goal by having students label bones on an exam, then it would be disingenuous to describe this course goals as “Students will be able to analyze the human skeletal system.”



Evaluate & Improve



S – Student centered
C – Concrete
H – High-order
M – Measurable
I – Inclusive

Knowledge of human cultures and the physical and natural world:

Students will understand the theory of relativity

head

Personal and Social Responsibility:

Students will apply ethical principles to their own decision making

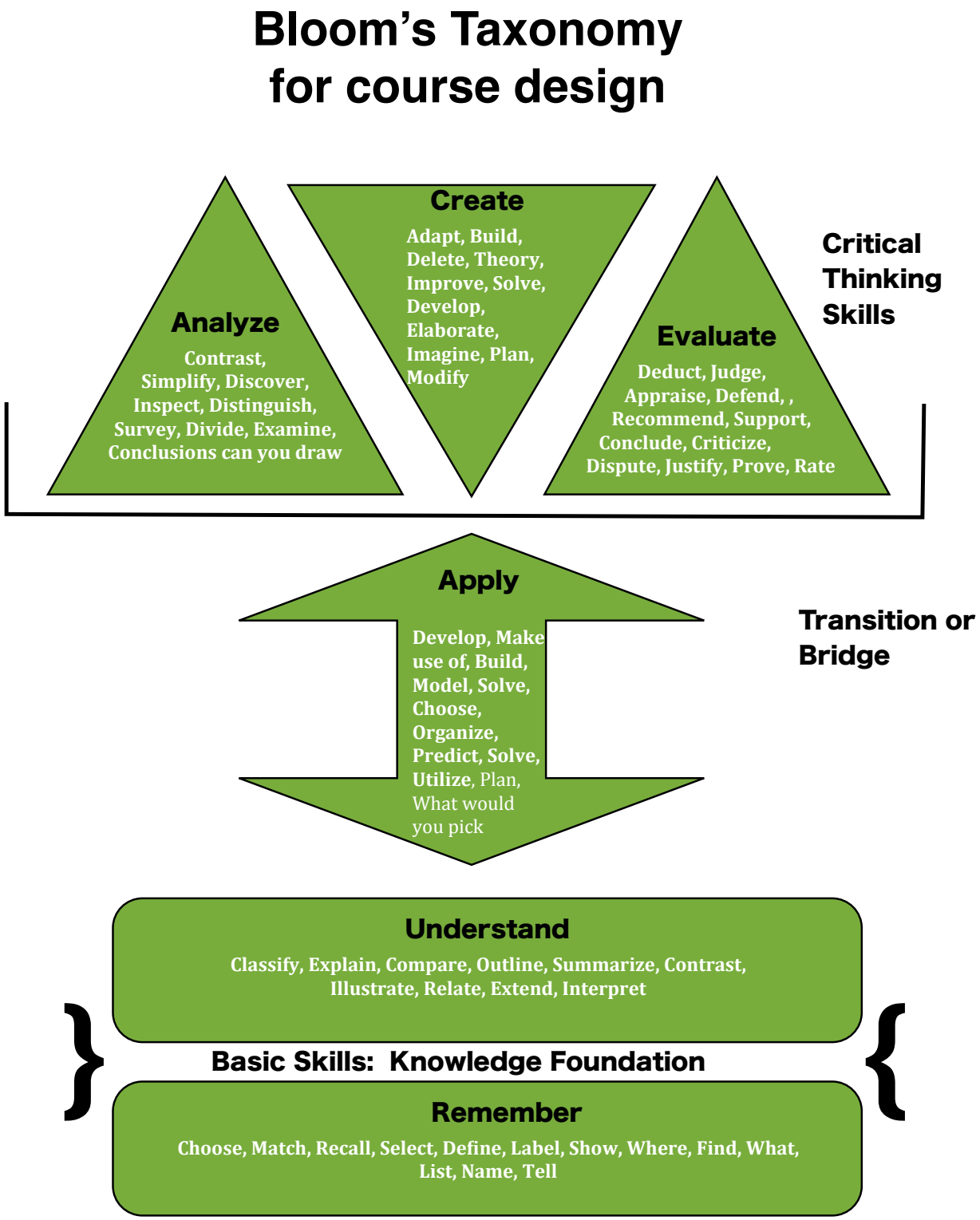
heart

Intellectual and Practical Skills:

Students will become good critical thinkers

hands

Pin the outcome on the taxonomy



Modified by Anton Tolman, Ph.D. Based on Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational objectives: Complete edition, New York : Longman and the original: Bloom B. S. (Ed). (1956). *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain.* New York: David McKay Co Inc.

Think | Reflect | Grow

Course Title: _____

Nuts & Bolts – elements to consider

- Does your course fulfill a general education requirement? If so, which one?
- Does your course have prerequisites? Does your course serve as a prerequisite?
- Does your course prepare students to take a standardized exam?
- How many students? How is your classroom arranged?
- Are students majors and/or non-majors?

What challenges and opportunities arise?

Current Student-learning Outcome:

_____

Is it?

S – Student centered
C – Concrete
H – High-order
M – Measurable
I – Inclusive

Revised Student-learning Outcome:

_____

10-min Free Writing

Write continuously for 10 minutes | Pen never leaves paper
Write whatever comes to your head (you won't have to share!)

How does your discipline & course contribute to essential learning?

Innovative Course Design for 21st Century Transformative Learning

2017-2018 Workshop Series

Dilemma, Issue or Question (DIQ)
What is the "big idea"?

Sept 22, 2:30-4pm

Essential Learning Goals
What do you want your students to know and do?

Oct 6, 2:30-4pm

Nov 10, 2:30-4pm

High-impact Practices
What will your students do?

Dec 8, 2:30-4pm

Authentic Assessment
How will you know if your students are successful?

Reflect
What worked?
What can be improved?

Jan 19, 2:30-4pm

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All workshops in Sage 222