

# Understanding the Interrelationship among Teaching, Learning and Assessment: Module1

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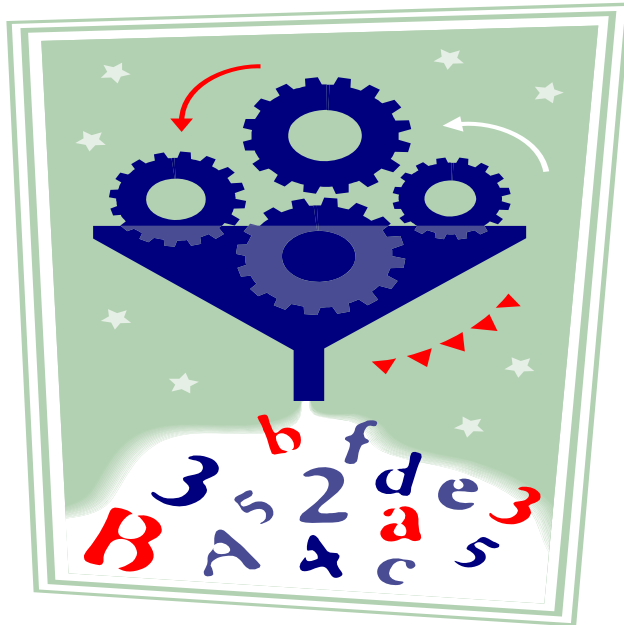
# [ Foci: ]

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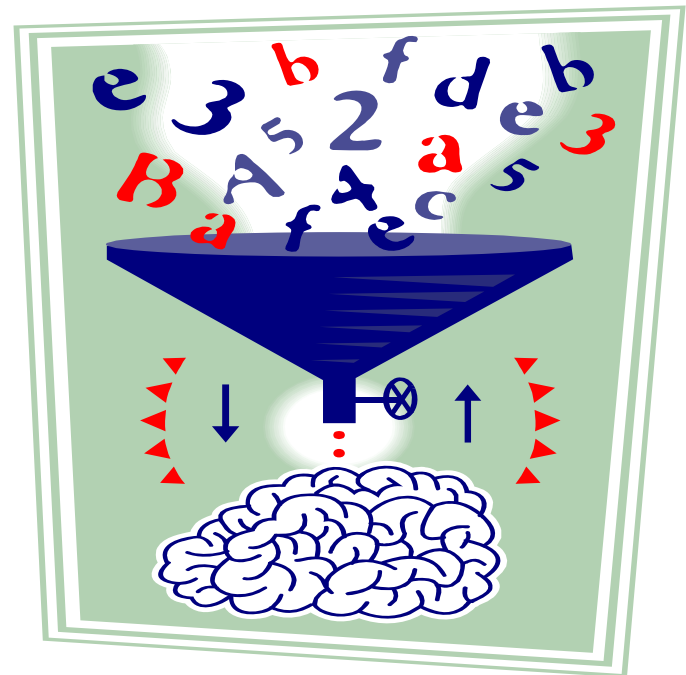
- Origin of Our Commitment to Learn about Student Learning
- Research on Learning That Informs the Relationship among Teaching, Learning, and Assessment
- Curricular and Co-curricular Coherence (Maps and Inventories)

# Origin of Our Commitment to Learn about Student Learning

External



Internal



# [ How Do You Learn? ]



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# Research on Learning That Informs the Relationship among Teaching, Learning, and Assessment

- Learning is a complex process of interpretation--not a linear process
- Learners create meaning as opposed to receive meaning
- Knowledge is socially constructed (importance of peer-to-peer interaction)

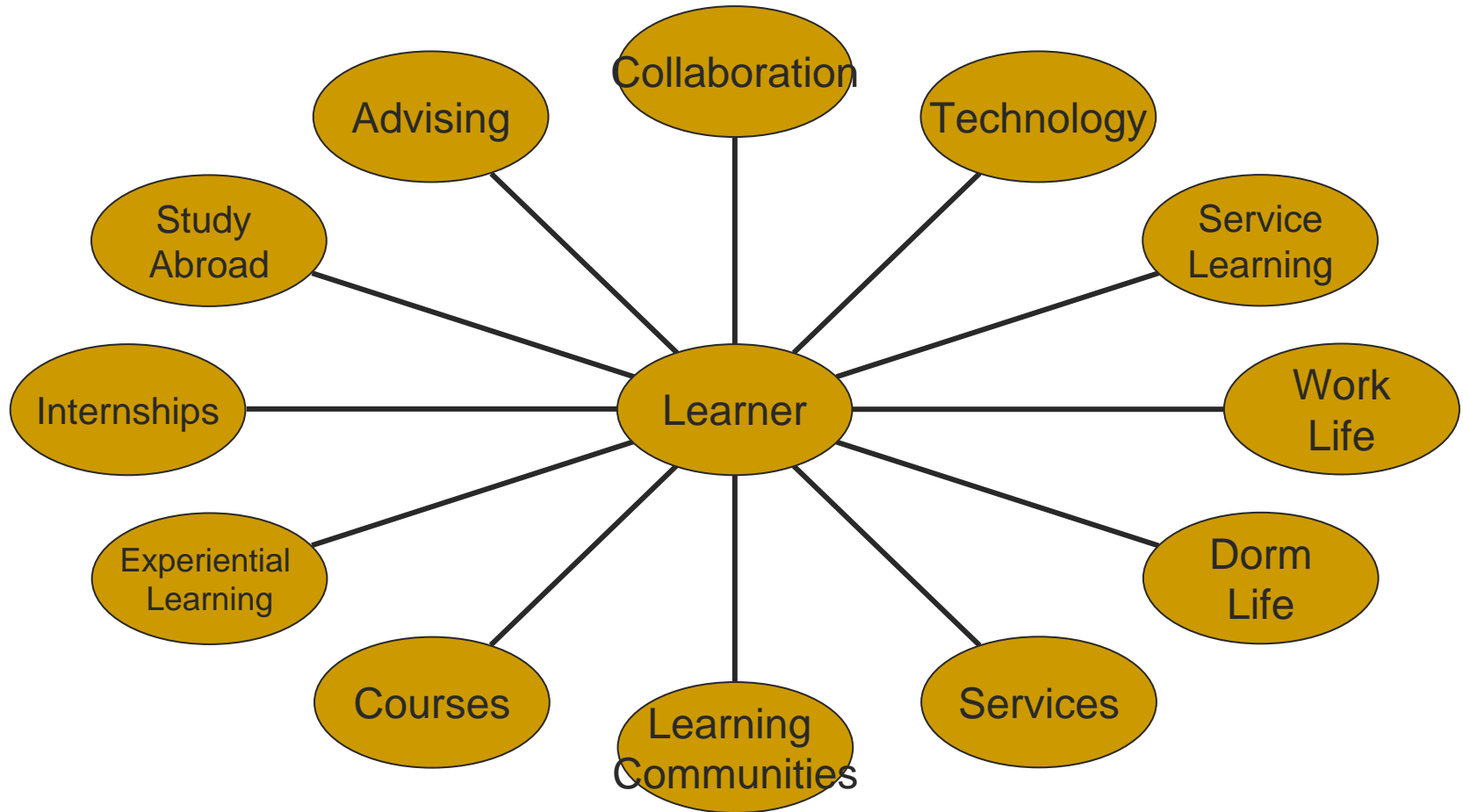
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- A large black left bracket and a large yellow right bracket are positioned at the top of the slide, with a horizontal line in between. The line is light green on the left and fades to white on the right.
- People learn differently—prefer certain ways of learning (learning inventories, such as Kolb or Vark)
  - Deep learning occurs over time—transference


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- A large black left bracket and a yellow right bracket are positioned at the top of the slide, with a horizontal line passing through them. The line is light green on the left and yellow on the right.
- Meta-cognitive processes are a significant means of reinforcing learning (thinking about one's thinking)
  - Learning involves creating relationships between short-term and long-term memory

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- Transfer of new knowledge into different contexts is important to deepen understanding

- NRC. 2001. *Knowing What Students Know: The Science and Design of Educational Assessment*. Washington, D.C.

# How the Learner Learns



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- Practice in various contexts creates expertise

- Surface Learning
- Deep Learning

# Approaches to Learning

- Surface Learning



- Deep Learning



# How Knowledge about Learning Shapes Teaching and Inquiry into Student Learning


- What do you expect your students to demonstrate, represent, or produce by the end of their program?
- How do the curricula and other educational experiences contribute to your expectations?
- What do you do in your classes or in your program to promote the kinds of learning or development that your program seeks?

# Questions (con'd)

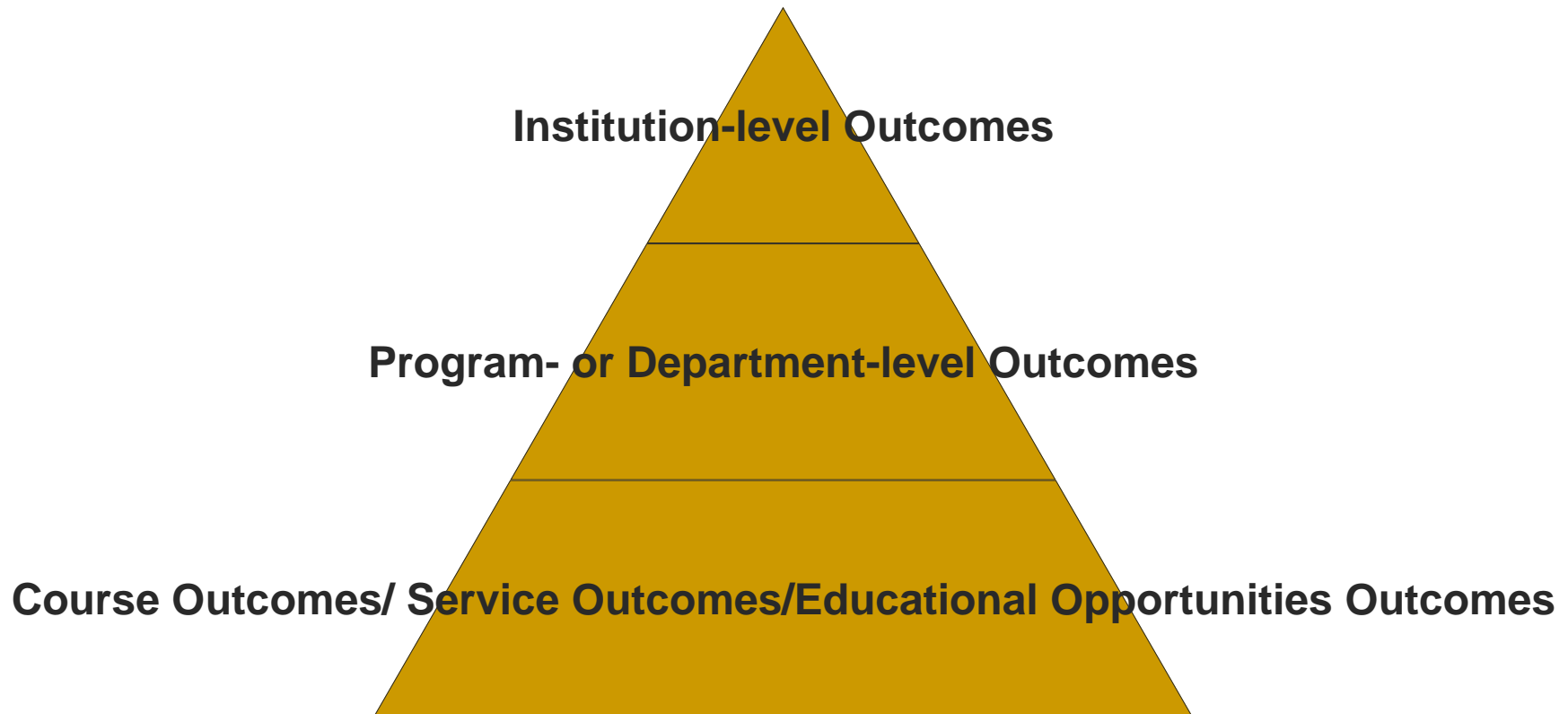
- Which students benefit from various classroom teaching strategies or educational experiences?
- What educational processes are responsible for the intended student outcomes the institution seeks?
- How can you help students make connections between classroom learning and experiences outside of the classroom?

# Questions, con'd:

- What pedagogies/educational experiences develop knowledge, abilities, habits of mind, ways of knowing/problem solving, and dispositions?
- How are curricula and pedagogy designed to develop knowledge, abilities, habits of mind, ways of knowing, and dispositions?
- How do you intentionally build upon what each of you teaches or fosters to achieve program-level learning outcomes?

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- What methods of assessment capture desired student learning--methods that *align* with pedagogy, content, and curricular design?

# Multiple and Varied Opportunities to Learn



# [ When Do You Seek Evidence? ]

- **Formative**—along the way?

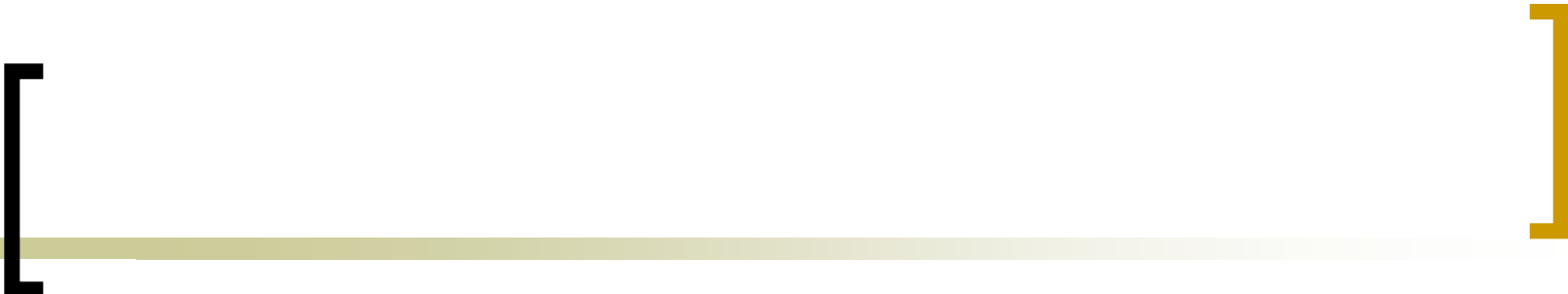
*For example, to ascertain progress or development*

- **Summative**—at the end?

*For example, to ascertain mastery level of achievement*

# What Tasks Elicit Learning You Desire?


- Tasks that require students to *select* among possible answers (multiple choice test)?
- Tasks that require students to *construct* answers (students' problem-solving and thinking abilities)?

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“Every assessment is also based on a set of beliefs about the kinds of tasks or situations that will prompt students to say, do, or create something that demonstrates important knowledge and skills. The tasks to which students are asked to respond on an assessment are not arbitrary. They must be carefully designed to provide evidence that is linked to the cognitive model of learning and to support the kinds of inferences and decisions that will be based on the assessment results.” (NRC)


# [ Maps ]

- Help us determine coherence among our educational practices that enables us, in turn, to design appropriate assessment methods
- Identify gaps in learning opportunities that may account for students' level of achievement
- Provide a visual representation of students' journey

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- Help students make meaning of the journey and hold them accountable for their learning over time
  - Help students develop their own learning map

# Inventories of Educational Practice

- Reveal how we translate outcomes into pedagogy and assessment practices
- Occasion discussion about models of teaching and learning, philosophies of teaching in a discipline, assumptions that underlie teaching and learning
- Provide a chronological profile of what and how students learn and demonstrate their learning

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“What and how students learn depends to a major extent on how they think they will be assessed.”

John Biggs. *Teaching for Quality Learning at University: What The Student Does*. Society for Research into Higher Education & Open University Press, 1999, p. 141.

# References

- Biggs, J. 1999. *Teaching for Quality Learning at University: What The Student Does*. Society for Research into Higher Education & Open University Press.
- Maki, P. 2004. *Assessing for Learning: Building a Sustainable Commitment across the Institution*. Stylus Publishing, LLC. (Material in this module is from this book and the forthcoming revision due out in 2008).
- National Research Council. 2001. *Knowing What Students Know: The Science and Design of Educational Assessment*. Washington, D.C.: National Academies Press.