Toward Becoming a Life-Long Learner

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An ABET Requirement and an Industry Expectation

Each program must demonstrate that its students attain:

A recognition of the need for, and an ability to engage in life-long learning. (ABET)
Life-long Learning

A life-long learner is a person who:

- is self-aware and reflective of her or his on-going learning needs;
- self-assesses for knowledge and skill deficiencies and sets appropriate learning goals and tasks;
- can find appropriate resources and learning opportunities;
- understands her or his learning preferences and knows how to adapt them to maximize learning under different circumstances; and
- is sufficiently motivated to do so.
A life-long learner is a —

Self-Regulated Learner:

Self-regulation relates to an ability to recognize a need for further learning as well as to be proactive in gaining access to and accomplishing learning.
Abilities of self-regulated learners

- Set specific proximal [achievable] goals for oneself,
- Adopt powerful strategies for attaining the goals,
- Monitor one’s performance selectively for signs of progress,
- Restructure one’s physical and social context to make it compatible with one’s goals,
- Efficiently manage one’s time,
- Attribute causation to results, and
- Adapt new method.

Source: Zimmerman, B. J. (2002).
Learning is active

Learning is viewed as an activity that students do for themselves in a proactive way rather than as a covert event that happens to them in reaction to teaching… learners are proactive in their efforts to learn because they are aware of their strengths and limitations and because they are guided by personally set goals and task-related strategies.

Source: Zimmerman, B. J. (2002).
The nature of knowledge

What is it?
Cognitive Theory’s Description of Learning

**Figure**: Learner focuses on key features to be learned. Information in working memory directs what responses will be made.

**Working memory**
- Holds information and compares new with existing memory.
- New information is encoded and sent to long term memory.
- Existing information is recalled to working memory.

**Long-term memory**
- Holds all memories from past experience in a network of organized associations.

(Figure borrowed from Svinicki, M. D. *Learning and Motivation in the Postsecondary Classroom*).

**Source**: Svinicki, M.D. (2004).
“How People Learn”

http://books.nap.edu/html/howpeople1/.

Students have preconceptions

“Students come to the classroom with preconceptions about how the world works. If their initial understanding is not engaged, they may fail to grasp the new concepts and information that are taught, or they may learn them for purposes of a test but revert to their preconceptions outside of the classroom.”

Organization of Knowledge

“To develop competence in an area of inquiry, students must:

a) have a deep foundation of factual knowledge,
b) understand facts and ideas in the context of a conceptual framework, and
c) organize knowledge in ways that facilitate retrieval and application”

3. Metacognition

“A ‘metacognitive’ approach to instruction can help students take control of their own learning by defining learning goals and monitoring their progress in achieving them”

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