



## **General Principles of Learning**

1. Learning is student-centered: Learning happens when the student purposefully interacts with learning tasks to construct learning outcomes. These outcomes are student-created. Learning does not happen to a student; it is brought about by the student. (Angelo, 1993; Chickering & Gamson, 1987; Cross, 1987; Graman, 1998; Jones et al., 1987; Shuell, 1986; Wagener, 1989)
2. Learning is constructive: Learning is not a passive process, with students simply receiving content from others. Through interactions with learning tasks, students construct knowledge, skills, and conceptual frameworks. Students construct, not duplicate, the meaning of new content. (Brown, 1994; Fincher, 1985; Jones et al., 1987)
  - i. What students construct depends on: a) existing knowledge and skills; b) perceptual and cognitive abilities (e.g., sensory and perceptual processing, memory, metacognition, and problem-solving); c) learning strategies they use and revise throughout the learning task; and d) motivational orientation...all as influenced by the teacher's discipline mastery and instructional approach, as well as the task's expected learning outcomes. In the interface between existing knowledge and emergent learning, the student transforms the old by constructing the new. (Vella, 2000; Brown & Ellison, 1995; Jones et al., 1987; Spence, 2001; Wagener, 1989)

3. Learning depends on the student's motivated interaction with the learning task: Learning does not happen when teachers teach new content, but when students interact with new content. Students interact best with new content best when they are motivated; when they incorporate the goals of the learning task as their own, work to integrate and interpret the new content in light of their existing learning, strive to apply emergent learning to related problems and situations and make refinement along the way based on feedback, and take responsibility for monitoring and revising their learning strategies to better achieve successful learning. (Bloom, 1976; Brophy & Alleman, 1991; Haertel et al., 1983; Shuell, 1986; Vella, 2000)
4. Learning is personal and individual: New learning has meaning for a student only in terms of learning already possessed. Individual students are unique in the precise characteristics of their existing knowledge, skills, and conceptual perspectives, and in the cognitive strategies, they use to organize, integrate, and construct new learning. The learning outcomes resulting from this process are likewise unique. (Davis, 1993; Gagne, 1985; McKeachie et al., 1990; Shuell, 1986)
5. Learning is enhanced when it happens in a social context; a context rich with the understandings and insights generated by other students, as guided by a master learner (the teacher). (Johnson et al., 1998; Smith et al., 1992; Wilson, 1998)
6. Learning depends on performance feedback: How students are given feedback and what they are given feedback about influence powerfully how students interpret the meaning of their learning experience, and thus the kind of learning they generate and take with them. For optimal support of learning, performance feedback needs to address specifically where individual students stand now, in light of where they started and the expected learning outcomes guiding their efforts. Performance feedback can be formal or informal, but it should occur early, often, and promptly. It also should be useful to students in their self adjustments toward realizing their learning outcomes. (Angelo, 1993; Brophy & Alleman, 1991; Norman, 1993; Wiggins, 1997)