RESPONDUS ASSESSMENT USING D2L LEARNING MANAGEMENT SYSTEMS (LMS): EFFECT OF STUDENT LEARNING OUTCOMES

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Learning Theories

There are many different theories of how people learn.

Robert Burns (early 2000, p99) mentioned, learning as a relatively permanent changes in behavior which includes both observable activities and internal processes such as thinking, attitude and emotions.

Burns further researched on different type of learning such as:

• Sensory Stimulation Theory: Many research implied that effective learning occurs when the senses are stimulated as shows in diagram.

• 75% Seeing
• 13% Hearing
• 12% Other sense
Learning Theories cont..

- Reinforcement Theory emphasizes learner will repeat the desired behavior (learning), if positive reinforcement (reward) is introduces. On the other hand, negative reinforcement stops the behavior (learning), if any, will be for a short period. Burns says that punishment is widely used in everyday life although it only works for a short time, and labeled as 'fear' or 'anxiety', which can cause some learners to emotionally disengage and discomfort on learning experience. However, when learning coupled with 'excitement' or 'challenge' the learner is led to take actions and focus on the task.
Cognitive-Gestalt approaches
Emphasis on the importance of experience, meaningful learning, problem-solving and the development of insights.
Burns notes that individuals have different needs and concerns at different times, and that they have subjective interpretations in different contexts. (Understand how individual differences affect the learning process, learning stages, just clicked)

Why do we consider Learning Theories?
We have to consider of designing and implementing the principles of learning theory into account of teaching and learning activities, because we are able to distinct individual differences among learners and to work towards the activities that have variety and interest for all the learners in educational programs.
COI represents a process of creating a deep meaningful learning experience via three interdependence elements:

- **Social Presence** - Identify with community (e.g., course of study), trusting environment, interpersonal relationships, identifying individual personalities

- **Teaching Presence** - Is the design, facilities, and direction of cognitive and social process to meaningful learning outcomes

- **Cognitive Presence** - Is the extent to which learner are able to mentally registers perceptions and thought of learning experience

Hybrid Education

As evidenced by Martin, some universities are leveraging MOOCs (Massive Open Online Courses) by having their students watch videos prior attending class from online course and additional assessment in Standford’s AI class in Martine’s case.

Courses such as “Flipped Courses,” enable the instructors to spend less time lecturing and more time interacting with the students, in lab setting. Martine explores the way online videos that can potentially improve educational learning experiences, perhaps, using other tools and technology such as algorithm visualizations.

http://codingbat.com/ or http://problets.org/ ACM publication Feb 2013

Liang Chapter Videos

Key Concept 3: Use Multi-way if-else Statements (Listing 3.6)
Over the course of the past decade, game developers and consumers have been engaging in the varieties of the user interfaces design and implementation. These include but are not limited to use of voice control, motion control (also referred to as gesture based control), single device controls. However the impact of these devices has been uncertain and in some cases ineffective and even cumbersome to the point that the simple device within the user interfaces may be superior to the more sophisticated or combinations of devices. Specifically, this study will investigate how end-users interact with combinations of input devices within the user interface using a several game interfaces.
CRITERIA FOR LEARNING EXPERIENCES

Tyler, R. W., outlined five general principles in selecting learning experience:

1. In classroom (lectures) and outside the classroom (Laboratories);
2. Give learners an opportunity to practice the behavior (problem solving skills);
3. Learners must obtain satisfaction in carrying out the performing;
4. Must be appropriate to the students’ present achievements;
5. The same learning experience usually results in several outcome, one of them is assessment.

Assessment history establish century ago by The U.S. Office of Strategic Services (OSS) now prototype of the CIA, was the U.S. Pioneer of the assessment methods.

Assessment has become increasingly important in higher education in the past fifteen years with pressure to turn attention to student learning from many directions.
Effective Teaching Structure

- Planning
- Teaching
- Reflecting
- Assessing

Student Learning

State Department of Education Cycle of Effective Teaching
**Assessment**

- **Assessment**
  - is the systematic collection, review and use of information about educational programs to *improve student learning*;
  - focuses on what students know, what they are able to do, and what values they have when they graduate;
  - is concerned with the collective impact of a program on student learning.

- **Why we do Assessment?**
  - To identify the intended *learning outcomes* is achieved;
  - To determine *how* program can be improved;
  - To allocate resources that will impact on the students learning.
  - To serve as a needs to create a body of evidence for external accreditation.
DEFINITION OF ASSESSMENT STUDENTS LEARNING OUTCOMES

• **Outcomes**
  Desired results toward the achieving goals

• **Methods**
  Tools or instruments used to gauge progress toward achieving outcomes

• **Measures**
  Intended performance after first assessment cycle of later at targets expressed
**Key Elements - Objectives**

**Of Assessment Students Learning Outcomes**

- What does the **student** know? (*Cognitive Objectives*)
  (terms, concepts, facts, theories, principles, and methods, etc.)

- What can the **student** do? (*Psychomotor*)
  (in terms of a critical understanding of a significant portion of the field of study)

- What does the **student** care about? (*Affective Objectives*)
  (appreciation for music, literature, and diversity; religious values; political awareness; ethnical awareness; and commitment to lifelong learning, etc.)

- What does the student able to do? (*Behavioral Objectives*)
  (written and oral communication; problem-solving; computational, leadership, teamwork, and presentational skills, etc.)
Student Learning Outcomes

- Describe specific behaviors that a student should demonstrate after completing the program.
- Focus on the intended abilities, knowledge, values, and attitudes of the student after completion of the program.
Evaluation vs. Assessment

- **Evaluations** are designed for and intended to document the level of achievement that needs to be accomplished.

- **An assessment**, on the other hand, is more focused on measuring a performance, work product, or skill in order to offer feedback to document strengths and growth and to provide directives for improving future performance.
Assessment Using Respondus

Responds is a Windows application for creating and managing exams that can be printed to paper or published directly to a course management system.

KSU has a campus-wide site license for Respondus.

There are an "Optional Advance Restrictions" to add Password or IP restriction so faculty have total control of when, where, or how assessment to be conducted.

You also able to access and view quiz report statistics, on each detail question statistics and obtain chart detail reports on the class performances and etc...

http://d2l.kennesaw.edu
References

Burns, R. 2001 The adult learner at work Business and Professional Publishing, Sydney


Laird, D. 1995 Approaches to training and development Addison-Wesley, Reading, Mass.

