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# **Problem analysis**

Interactive multimedia is essential to the instructional design of assessment and evaluation courses. E-learning products use instructional methods (instruction, practice, and rule reinforcing feedback) to promote learning. Utilizing e-learning products in instructional delivery of Assessment and Evaluation content allows students to analyze and interpret learning performance outcomes through psychometric methodologies, curriculum effectiveness evaluation, and instructional delivery.

Instructing students to design and develop appropriate instruments to assess learning process and outcomes requires computers, the most flexible delivery option. Custom, engaging training is delivered through e-learning interactive modules. Behavioral engagement is driven through assigned example identification while discussion-type survey questions in post assignments drive psychological engagement. Learners are able to search through modular e-learning content to receive instruction, while producing and distributing knowledge through self-directed discussion questionnaire answers.

Ubiquitous learning enables Master's of Science, Instructional Science and Technology (MIST) graduate students to design, develop, implement and evaluate instructional programs, implementing teaching and learning technologies, while developing practical web-based design. Applying MIST graduate learning course content within e-learning activities ensures students are able to perform the same acts of knowledge-making and knowledge interaction inside and outside of the classroom.

### **Target audience**

California State University, Monterey Bay (CalState Monterey Bay) Master's of
Instructional Science and Technology (MIST) graduate students are eligible to enroll in the
Summer IST 622 Assessment and Evaluation course. MIST graduate students are bachelor
degree recipients who have demonstrated a substantial ability to succeed in the program. MIST
Assessment and Evaluation students are familiar with industry leading instructional technologies,
instructional methodologies, foundational learning theories, and multimedia concepts. Though
these students are acquiring knowledge, their proficient understanding of learning theories,
instructional design, and instructional technology primes them to apply concepts within elearning products.

# Learning objectives

- 1) Given e-learning activities: examples of document analysis best practices, students will be able to identify steps to carry out document analysis with 100% accuracy.
- 2) Given e-learning activities: examples of questionnaire best practices, students will be able to determine measurements with 100% accuracy.
- 3) Given e-learning activities: examples of questionnaire development guidelines, students will be able to evaluate examples with 100% accuracy.

#### Assessment

The IST 622 Assessment and Evaluation course e-learning module will include interactive conceptual content, how-to-instruction, best practice guidelines, 10+ evaluative learning activities. Instructional strategies generative processing is fostered through application of the Multimedia principle after essential processing is presented through application of the

Pretraining principle. Adhering to the Coherence principle and Worked-Example principles will minimize extraneous processing, ensuring course effectiveness.

# Resources

This course will leverage the Canvas e-learning product, PowerPoint, as well as CalState Monterey Bay branded assets (logo and slide template). Canvas LMS allows students to learn on their desktop or mobile device. The instructional designer and instructor leveraged desktop devices to develop content, mobile devices were utilized to test content.