

**Instructional goals** (1) respond to competency gaps caused by lack of knowledge and skills, and (2) state desired outcomes of successful course completion.

**Target audience characteristics** (e.g., existing knowledge and skills, experience level, language proficiency, motivation) inform decisions throughout the ADDIE process.

**Required resources** (content, technology, facilities, and human) and potential delivery methods are determined.

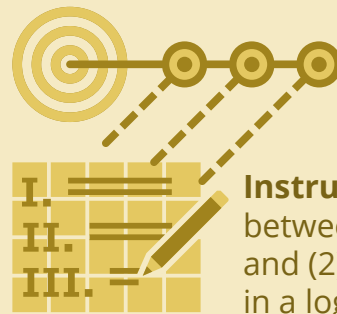
**Formative evaluation** is conducted prior to implementation in order to determine whether the quality of learning resources satisfies the standards established in the Design phase.

**Summative evaluation** is conducted after implementation, generally at three levels:

- Level 1: Perception** measures degree of participant satisfaction.
- Level 2: Learning** measures acquisition of knowledge and skills.
- Level 3: Performance** measures transfer of newly acquired knowledge and skills to an actual work environment.

**Participant engagement** begins with notification and enrollment, followed by pre-course communication and interaction with the newly developed learning resources.

**Reference:**  
Branch, R. M. (2009). *Instructional design: The ADDIE approach*. New York: Springer.



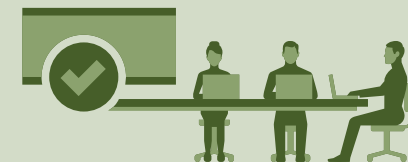
**Learning objectives** define specific, measurable actions that will enable learners to fulfill instructional goals.

**Instructional strategies** (1) establish clear links between course content and learning objectives, and (2) introduce content and learning activities in a logical sequence that supports the learners' construction of knowledge and skills.

**Testing strategies** provide feedback on the learners' progress in meeting the defined learning objectives.



**Learning resources** are generated by integrating content and strategies with supporting media and developing guidance for instructors and learners.



**Validation** of resources in development is performed through stakeholder review and subsequent revision.



**A pilot test** and the feedback/observations collected offer insight into final adjustments that should be made before implementing the learning solution.

**Preparation** for an instructor-led course identifies and schedules qualified individuals to act as facilitators and take part in a train-the-trainer workshop.

