

# Classical eLearning

---

A COMPLETE APPROACH TO ONLINE COURSE DESIGN



## Introduction

---

Quality instruction and thoughtful design are critical to student engagement and student success. Based on 15 years of experience in online education, Hekademia has a well-developed and effective approach to instructional design. We take great care in the development our courses and strive to align our courses with these best practices with the best practices established by professional teachers in North America and abroad.

With these best practices in mind, we have developed two independent types of courses:

- Classical eLearning courses
- Advanced Mastery eLearning (AMe) courses

Classical eLearning courses embody our education philosophies and are apparent in our instructional design, assessment and evaluation, and curriculum standards. This document explains the rationale and implementation behind these three pillars of course design.

Advanced Mastery eLearning courses, built upon the foundation of Classical e-learning courses, use a competency-based evaluation scheme and mastery learning instruction to improve student success. For more on AMe course see the document *Advanced Mastery eLearning: A complete approach to competency-based education*.

## Instructional Design

---

### Backward Design

Backward Design is an instructional design philosophy first popularized by McTighe and Wiggins in the popular instructional design guide “Understanding by Design.” Backwards design ensures that assessment and instruction align perfectly to curriculum standards.

The design process used by Hekademia to create Classical eLearning courses has three design phases: alignment, assessment, and instruction.

#### Alignment

Well-defined curriculum statements are crucial to the success of the backward design process. Without well-defined curriculum statements, instruction and assessment in a course become aimless and subject to the whims and preferences of the instructional designer.

Standards-based documents such as the Common Core State Standards or the Generation Science Standards are excellent examples of well-defined curriculum documents. These national and state standards provide an appropriate platform for Hekademia courses

Instructional designers must identify the goals established by the curriculum document, establish meaningful relationships between the goals, and write any learning goals required to support the curriculum standards.

Curriculum documents are often organized hierarchically. That is, large curriculum divisions are subsequently divided into smaller related curriculum divisions and standards. This produces a curriculum document in which standards are organized. However, in such arrangements lateral relationships between standards are poorly defined.

To improve the integration of standards within a course and to help students understand the linking relationships between standards, instructional designers should identify these relationships in the backward design process and group standards into units of instruction. That is, instructional designers should feel free to challenge the hierarchical organization of standards and organize assessment and instruction in a way that integrates the standards.

The development of learning goals is crucial to effective curriculum alignment and to effective assessment and instruction in a course. Learning goals are small units of knowledge and skill created by an instructional designer to support the standards of a curriculum document. Learning goals break curriculum standards into manageable elements designed for use by students and teachers in the classroom. Learning goals must be written in student friendly language and be appropriately sized such that tasks can be completed in one or two lessons. All learning goals must be explicitly designed and stated in the alignment stage of the backwards design process before the planning of assessment and instruction can begin.

With this relational and de-constructivist approach in mind, instructional designers can begin planning the assessment strategy for a Classical eLearning course.

### Assessment

In the assessment phase of the backward design process, instructional designers consider the curriculum standards and learning goals which they have identified and create assessment tasks and strategies which will demonstrate that a learner has mastered the standards.

At this stage in the backwards design process, only summative assessments need to be planned. The design and arrangement of formative assessments can be determined during the instructional phase of the backwards design process. Instructional designers should specify the types of assessments that will evaluate a standard, outline the instructions for that assessment, and identify the learning goals and standards for that assessment.

In this stage, however, instructional designers need not complete the details of the assessments. The details can be completed in the instructional design phase. For example, individual quiz and test questions do not need to be written in this phase. If the learning goals are written to the appropriate level of detail, they will provide enough guidance for the design of the instruction in the course.

### Instruction

In the third stage of backward design, instructional designers begin designing the instructional components of a course. Designers lay out the unit, module, section, and lesson architecture of a course. This architecture is overlaid with a plan for scaffolding students through a series of *assessments for learning* and *assessment of learning*. There must also be an overlay of *assessments as learning* to encourage students to review their learning throughout the course.

This is also an excellent time for instructional designers to incorporate other parallel curriculum items into the course design. There may be the secondary curriculum documents, standard sets, educational objectives, etc. that are required to be incorporated into a course.

Finally, in the instructional design phase, instructional designers should plan for critical instructional strategies, including differentiated instruction and the Hunter model of lesson design.

### Differentiated Instruction

The Classical eLearning approach to differentiated instruction requires that instruction is delivered to students in a variety of modes including traditional text-based direct instruction, media-rich instruction, problem-based learning, and collaborative learning. Our approach to differentiated instruction also requires that the delivery of instruction is varied by time, place, and tempo to meet the demands of the student. This requirement is easily fulfilled in an eLearning environment.

### The Hunter Model

Classical eLearning courses regularly apply an adapted Hunter model of lesson design. This model was developed by Madeleine Cheek Hunter in the mid-20<sup>th</sup> century and is widely adopted across the United States. Our adapted version of the Hunter model specifies that lessons must contain the following components: learning goals, anticipatory set, direct instruction, modelling, guided practice, independent practice, comprehension check, and closure.

The implementation of these components in Classical eLearning courses may vary from course to course or department to department. Often, depending on the nuances of a course, some components may be combined or modified. For example, many courses use exit-cards to combine the comprehension check and closure components.

#### Learning Goals

As described in the backwards design section, Classical eLearning courses have a deliberate approach to learning goals. The importance of planning learning goals in the alignment stage of course development becomes apparent when these learning goals are used as guides for both students and teachers in the instructional process. Classical eLearning courses identify the learning goals of a lesson using a *compass* tool located at the beginning of every lesson page. This compass tool informs both the teacher and the student of the learning goals for that lesson.

#### Anticipatory Set

The anticipatory set is a broad category of activities and practices designed to begin a lesson. Anticipatory sets are also known as “hooks” or “minds-on activities.” In general, anticipatory sets have two goals. First, anticipatory sets must pique the interest of the learner. This is often accomplished using problem presentations, unique applications of course content, or other methods of making the course content relevant to the learner.

Anticipatory sets must also activate prior knowledge. Most learners have some form of prior knowledge relating to the content of a lesson. Learners lacking prior knowledge relating to a lesson will still have knowledge or models analogous to the content of the lesson which may serve as prior learning.

Activating prior learning gives students a framework into which they can incorporate the new information presented by the lesson.

#### Direct instruction

The direct instruction component of the Hunter model is often referred to as the input section. In this section, the teacher directly delivers the content of the lesson. Classical eLearning courses use a variety of traditional and non-traditional methods for direct instruction including lecture, guided reading, and independent reading. In Classical eLearning programs, direct instruction is often differentiated to reach all learners.

#### Modelling

In the modeling section, the instructor will model or demonstrate any skills required for the lesson. In classical eLearning courses, the modeling section is usually implemented using text-based, interactive, or video examples.

#### Practice

In the traditional Hunter model the practice component of a lesson is often divided into guided and independent practice. During guided practice the instructor observes learners as they undertake a task and offers guidance as the task proceeds. Independent practice occurs when a learner undertakes a task without supervision.

In Classical eLearning courses, the guided practice and independent practice components of a list may be combined depending on the nuances of the subject matter. The practice component is most often implemented using interactive applications, question banks with preloaded feedback, or teacher-reviewed formative assessments.

#### Comprehension check

The comprehension check component helps students and teachers understand the adoption rates of the lesson content. The comprehension check is usually implemented in Classical eLearning courses using an exit card at the end of a lesson. A short, skills-based question, representative of the lesson content, is administered on the exit card. Based on the student success on this question, both teacher and student develop an understanding of how well the standards for that lesson have been understood.

#### Closure

Closure activities give learners an opportunity to consolidate their learning and reflect on that learning. Consolidation finalizes or updates the mental model a learner uses to understand the topic. In the context of the closure activity, students will consolidate their mental model by confirming terms and definitions, confirming relationships, and dispelling any misconceptions about the content.

Learners should also reflect on their understanding of course concepts. In practice, this occurs when learners consider their understanding of the topic, identify strengths and weaknesses, and plan a strategy for improvement. During reflection students see associations between the content topic and their own personal experiences.

Classical eLearning courses implement the closure component of the Hunter model using exit cards. Note that the comprehension check and closure activity are combined on exit cards.

## Assessment and Evaluation

---

Assessments in a Classical eLearning course maximize a student's engagement in the course material and emphasize formative processes. Classical eLearning assessments follow a progressive model of assessment, gather and show evidence of learning in a variety of ways (triangulation), present students with authentic assessment tasks, and gradually release responsibility to student.

### Progressive Assessment

Progressive assessment is a convenient term for a modern approach to assessment popularized by Black and Williams. This progressive approach emphasizes the importance of formative assessment, teacher feedback, and student engagement in the assessment process. This progressive approach asserts that assessment should be used in a variety of ways throughout the learning process.

#### Assessments as Learning

*Assessments as learning* are activities require that the student assesses his or her own work. These assessments encourage students to engage critically in the assessment process and evaluate both student products and their own understanding of course concepts.

*Assessments as learning* fall into two broad categories: product assessment and metacognitive assessment. Product assessment occurs when students assess an assignment, solution, or other piece of work, created by themselves or someone else, and identify strengths and weaknesses. Classical eLearning courses implement product assessments by encouraging students to peer-assess student work in discussion forums and by encouraging students to evaluate their own work using rubrics both before and after they submit the work.

Metacognitive assessment occurs when student self-assess their own understanding of a topic, their own approach to learning, or any other personal relevant relationships relating to course content. Classical eLearning courses implement metacognitive assessment using a variety of tools. Self-evaluations and reflective journals are used widely throughout our courses. Exit cards are used regularly throughout Classical eLearning courses and encourage students to reflect on their understanding of course concepts.

#### Assessments for Learning

*Assessments for learning* are activities used during the learning process to provide both students and teachers with information for the purpose of modifying instruction and improving student success. Assessments for learning can be divided into two categories: diagnostic and formative.

Diagnostic assessments are ungraded activities which occur prior to a unit of learning. Information gathered from diagnostic assessments can be used to adjust instruction and avoid assumptive teaching.

Similarly, formative assessments are not evaluated for grade. Instead, the assessment process focuses on constructive criticism by identifying strengths, weaknesses, and next steps. It is not uncommon to think of assessment for learning as practice assessments. Assessments for learning do not directly contribute to the final grade of a student.

Almost any kind of activity can serve as a vehicle for formative assessment so long as such learning experiences provide students with valuable learning opportunities and provide teachers with an opportunity to review and comment on student understanding. Quizzes, works in progress, portfolios, observation and conversation, assignments, as well as other projects, may all serve as valuable formative assessments.

Because of the formative nature of these assessments and their position throughout the learning process, these activities often assess knowledge and understanding of individual standards and do not integrate multiple standards.

### *Assessments of Learning*

Finally, *assessments of learning* refer to traditional summative assessments which generate information about student success. The information generated by assessments of learning communicates student success to stakeholders such as parents and administrators.

These assessments are most often completed at the end of the unit of study after the student has progressed through a variety of formative assessments and has had the opportunity to master the concepts. Because of this summative role and their penultimate position within the units, these assessments often incorporate multiple curriculum standards at once.

Almost any kind of activity can serve as an *assessment of learning*. Conversations, observations, tests, reports, discussions, labs, projects--virtually all types of student work can be used as assessments of learning. In classical e-learning courses, student success is quantified using a traditional percentage-based grade scheme.

### Triangulation

Classical eLearning courses use a triangulated approach to assessment and gather information about student learning from three separate vantage points – observation, conversation and student product. Each vantage point is best-implemented using assessment strategies suited to that vantage point. For example, observational information is best collected using journaling assignments or multiple-draft assignments. Conversational information is best gathered by tests and quizzes, in discussion forums or in student-teacher conferences. Used in conjunction, these three vantages points provide a well-rounded picture of the students' learning.

### Authentic Assessments

The concept of authentic tasks is not new. Conscientious teachers have always endeavoured to provide students with meaningful work. However, the concept was originally formalized by Jon Mueller when he described authentic assessments as “*An assignment given to students designed to assess their ability to apply standard-driven knowledge and skills to real-world challenges*” (Mueller, 2014).

Several characteristics define authentic assessment. Hekademia strives to incorporate these principles into assessments in all courses.

#### Performance Tasks

To demonstrate their knowledge and understanding, students are asked to perform complex performance tasks which integrate a variety of curriculum standards at once. Performance tasks emphasize skills and the application of knowledge, whereas traditional written assignments may emphasize rote learning and conceptual knowledge. These performance-based assessments emphasize the real-life applications of course concepts and help improve student engagement.

#### Real-Life Applications

Performance tasks should simulate or recreate real-life applications of the knowledge and skills defined by curriculum standards. Written tests, and question and answer assignment are traditional academic demonstrations of knowledge and skill. In daily life, people are most commonly ask to demonstrate skill and understanding by doing something.

#### Student Structured

Traditional assessment tasks are devised or structured by the teacher. Authentic assessments are devised in part by the student. In Classical eLearning courses, the instructor provides the framework of performance expectations and the student chooses the context in which to demonstrate them. For example, in computer science, a teacher may specifically ask that a student demonstrate the ability to handle floating decimal points. The student then chooses the type of program to write to demonstrate this skill: a baseball statistics program or a supermarket check-out program, for instance.

### Gradual Release of Responsibility

Students must have the chance to practice a skill and receive descriptive feedback before submitting summative assessments. Using progressions of formative and summative activities and gradually releasing responsibility to students, Classical eLearning courses promote *teaching* and not merely *testing*.

Depending on the subject matter, Classical eLearning courses implement gradual release of responsibility in a variety of ways:

1. Progressions of formative and summative activities
2. Larger tasks are broken down into smaller components. Components will build upon one another and allow for feedback and revision between stages
3. The Hunter model promotes the gradual release of responsibility. Students are gradually given more responsibility for mastering a skill as they move the components of a lesson.

## Curriculum Standards

---

### Tracking the Standards

Classical eLearning courses use a number of tools to inform students about the expectations of a course and to track student success on these expectations.



### Where Are We Going?

Classical eLearning courses use “Where are we going?” boxes on unit introduction pages to outline the curriculum standards covered in that unit. Students, teachers, and administrators can use this information to plan their approach to the unit.

### Exit Cards

Exit Cards are located at the end of each lesson, section, or unit, depending on the course. These cards provide students with the opportunity to confirm that they have met the expectations, and if not, to ask for help before they move on. Exit cards track standards by restating standards in study-friendly language and ask students to gauge their own progress.

### Rubrics

All assessments in Classical eLearning courses have associated rubrics. Rubrics present the curriculum standard and contain become the criteria (row items) of the assignments. Such attention to detail in the rubrics ensures that teachers are assessing student success on, and only on, curriculum standards. This approach also generates actionable information regarding student success on specific curriculum items.

### Compasses

Compasses located at the top of course pages and assessments display the curriculum standards being instructed or assessed. In this way, curriculum standards are tracked throughout the course. Students, teachers, and administrators are continually aware of the curriculum standard under study and can make study and instructional decisions accordingly.

## References

---

Mueller, J. (2014). *Authentic Tasks*. Retrieved from Authentic Assessment Toolbox:  
<http://jfmuller.faculty.noctrl.edu/toolbox/tasks.htm>