

CURRICULUM DEVELOPMENT USING THE ADDIE MODEL

A Whitepaper from The Learning House, Inc.

WHAT IS curriculum development?

Postsecondary higher education curriculum is considered the **set of courses or entire program within a subject specialty or discipline**. The foundation for curriculum reflects the institutional mission and vision as it relates to the institution's role in the community.

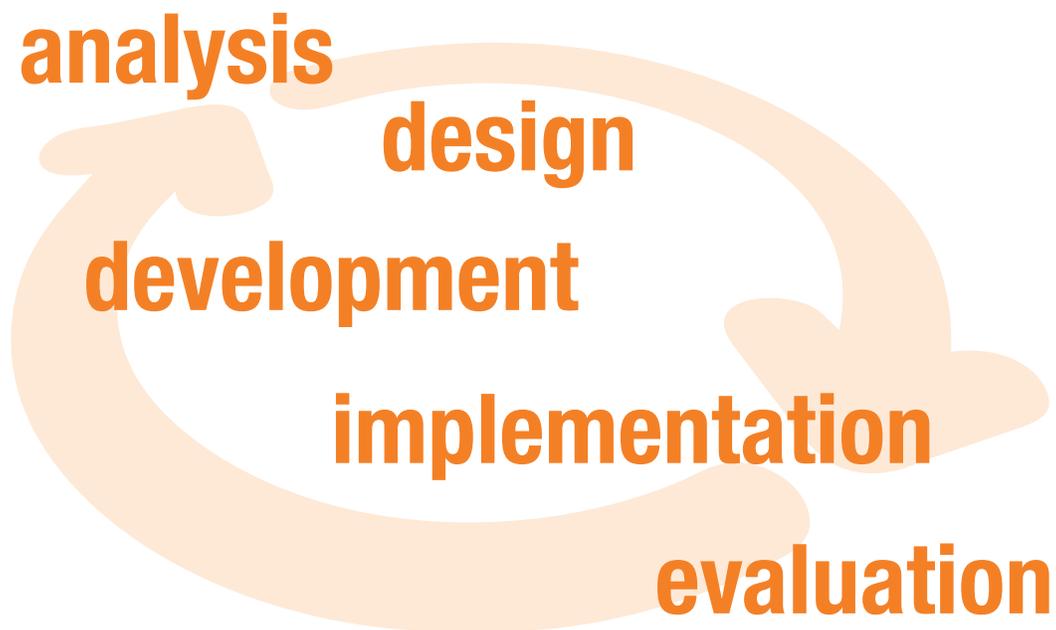
Curriculum may also be denoted as a **set of instructional approaches or methodologies**. Todd (2008) further addresses this second definition by categorizing the following major elements of curriculum:

- Content or subject matter
- Program of planned activities
- Intended learning outcomes
- Cultural reproduction
- Discrete tasks and concepts
- Agenda for social reconstruction
- Interpretation of lived experience or currere

Either definition of curriculum suggests that curriculum is an ongoing process that strives to balance day-to-day interactions between instructors, students, knowledge and environment.

THE ADDIE MODEL

Institutions may develop curriculum for online programs using the ADDIE model. This model includes five phases of online curriculum development:



Analysis

The analysis stage requires you to seek and evaluate data about existing online programs in their respective subject disciplines and degree levels. You may also examine your institution's last revision of its subject curriculum. Conduct a needs assessment of your targeted learner for the program under consideration. Essential documents you should cull in the analysis stage might include:

PROFESSIONAL STANDARDS

You should review published competencies for subject areas to verify that existing courses are appropriate for today's professional needs. Professional standards may shed light on courses that you need to add to the curriculum to meet the career expectations in the field of study. This step differentiates the core content areas that segregate a bachelor's level program from a master's program (Keating, 2011, p. 215).

DEPARTMENTAL STANDARDS

In alignment with professional competencies, you should also examine existing departmental courses and standards. Reviewing such documents may help determine if current course learning outcomes are consistent with professional standards.

REGIONAL ACCREDITING AGENCIES

It is important to examine your institution's mission and level of expectations in relation to those of your accrediting bodies.

LITERATURE REVIEW OF BEST PRACTICES

A literature review identifies best practices and innovation in the subject discipline. Often omitted from curriculum analysis, a literature review brings faculty members into a synthesis and shared understanding (Keating, 2011, p. 215).

SURVEY OF REGIONAL AND NATIONAL PROGRAMS

Surveying examples of model programs of study, especially those highlighted in literature reviews, may be valuable. You should focus your survey on other institutions with similar values (and recent accreditation) (Keating, 2011, p. 215).

FOCUS GROUPS OR SURVEYS OF STAKEHOLDERS

Students, faculty members, clinicians or community partners provide invaluable information regarding expectations and priorities (Keating, 2011, p. 215). You may use national surveys on subject area topics (e.g., ambulatory care) for potential content development (Sisson, Hill-Briggs, & Levine, 2010, p. 4). Such local information may detail what successes and problems exist with the current curriculum. Stakeholders may also foretell changes or directions toward new trends, skills or knowledge you need to incorporate into the curriculum.

Design

Once you have analyzed a blueprint for a program, the design stage begins toward building an online program. You should develop level, terminal or end-of-program outcomes/student learning outcomes to tie to the department and institution's philosophy (Keating, 2011, p. 217). Whether a curriculum team develops them or you assign learning outcomes individually to team members, these outcomes form the backbone of the curriculum and the foundation for program evaluation (Keating, 2011, p. 217).

Be sure to set realistic goals based on your previous research and your timetable for implementation. Factors to consider when designing your online curriculum program include:

TARGET AUDIENCE

- Who is the target population served in the online curriculum? A curriculum too specialized or too narrowly focused may fail to find an audience large enough to justify the expense of development (Sisson et al., 2010, p. 4).
- What prerequisites do students need prior to entering the online program?
- What assessment methods do you have in place to guarantee that students have the required prerequisites?
- What assessment methods will you use to verify that students have completed the appropriate course requirements at graduation?

BENCHMARK GOALS

- How many students can you feasibly serve in the initial stages of implementation?
- How many students do you plan to serve in the next three to five years?

STAFFING

- How many instructors do you need to develop the online curriculum, and how will you compensate them?
- Who will teach courses while regular faculty members are developing the online curriculum?
- How does the institution perceive intellectual property of the courses that faculty members develop?
- Do tenure and promotion committees recognize course development for tenure review?

EDUCATIONAL STRATEGIES

Institutions should present curriculum material so that adult learners understand its importance and relevance to their needs (Sisson et al., 2010, p. 4). Problem-centered or task-centered learning activities motivate adult learners since these are situations they come across in their professional lives. You should consider self-directed learning resources (e.g., PowerPoint with audio and slide notes) that accommodate visual, audio and kinetic learning styles. Multimedia interactivity is valuable for students to check their understanding of the material.

Development

Curriculum development should incorporate faculty members, key department heads and administrators. It is important to consider a few ancillary factors during the development phase, including:

INSTRUCTOR EXPECTATIONS

- Is there a minimum number of required online office hours?
- How often should instructors check student submissions?
- How will instructors submit student progress information, especially for financial aid requirements?
- Will the institution require online students to pretest?
- Will the institution require online students to take a posttest?

PROFESSIONAL DEVELOPMENT

As your program grows, you must consider the need for additional instructors. Emerging technologies that support online learning continue to surface. Various learning curves for technology exist for faculty and students. Copyright and intellectual property issues are more complex in distance learning than the face-to-face classroom, so you should consider these concerns as well. You should also incorporate professional development goals as they relate to your online curriculum goal.

ADMINISTRATIVE SUPPORT

Kathy Olesen-Tracey (2010) recommends assigning a “go-to” person in your department for any online learning initiative (p. 38). This individual should be knowledgeable about andragogy and adult learning theories and should be conversant with your online learning program. He or she must be well-trained and prepared to assist online instructors during implementation. Additionally, it is imperative to designate key individuals in your institution’s information technology department for hardware and software troubleshooting questions from both faculty members and students.

END-OF-PROGRAM COURSE OBJECTIVES

End-of-program objectives encapsulate the curriculum foundation and ensure that students meet expectations for graduation once they complete the program. Keating (2006) recommends developing intermediate or level, semester and course objectives in sequential order to reach these end-of-program objectives (p. 177).

Implementation

The implementation phase involves the marketing and launch of your online program. Marketing your program to alumni may be the first initiative toward getting the word out. During this phase, course instructors should also customize their learning content management features to meet their students' specific needs.

In addition to your program launch, you should optimize the following campus systems for student success:

CAMPUS RESOURCES

Unlike traditional on-campus students, online learners must seek campus resources that can aid in their academic growth when they are off-site. It is critical for online students to have a key contact in support services, including your library, bookstore, admissions office, financial aid office, advising department and counseling department. Hale and Hale (2002) highly recommend forming an institutional committee made up of representatives from every academic unit whose services impact distance students (p. 135).

TECHNICAL SUPPORT

Consider the variety of computer specifications, Internet connectivity, software and mobile accessibility venues that students must have to take an online course, and anticipate technical issues that may arise. Designate a point person to support your online students and faculty members, preferably someone with IT knowledge who has evening and weekend availability. Make sure your technology and online offerings are complementary. If online students need exceptional computer memory to run a virtual lab, the program overview should note such technological specifications.

Evaluation

The learning outcomes are the foundation to your program evaluation (Keating, 2011, p. 217). Learning management systems contain features allowing formative evaluations (i.e., course evaluation) and summative evaluations (i.e., multiple choice quiz) from online students. Using the formative and summative course evaluations should certainly be influential for evaluating your online curriculum program, but you should consider the following as well:

STUDENT NEEDS

Sisson et al. (2010) contend that the needs of target audiences evolve over time. You should include in curriculum maintenance a mechanism to regularly gather this information so that you can use it to update the online curriculum (p. 4). You should consider ongoing needs assessment at quarterly, semiannual or yearly intervals.

MASTER PLAN

Keating (2006) notes that you may use a master evaluation for internal and external review as well as evidence to accreditation agencies (p. 263). You may design such a feedback loop using several models, including Stake's Countenance of Educational Evaluation, Total Quality Management (TQM) and even benchmarking tools by professional organizations.

FUNDING SOURCES

Online program funding sources may originate from state funds, federal programs, federal agencies, foundations, in-kind support and corporate industry sponsorship (Kraenzel, 2002, p. 188). Further discussion should continue to discuss handling prospective rises in annual tuition, technology fee implementation and other service agreement fees (e.g., direct billing). David Kraenzel (2002) identifies these six key factors requiring funding to maintain a successful online program (p. 189):

- Marketing promotion
- Management (e.g., salaries, fringe benefits)
- Program development (e.g., opportunity costs, annual loans, overhead costs, etc.)
- Program delivery (e.g., courseware, technology platform, instructional costs)
- Learner support (e.g., proctoring, a hotline number for instructors and teaching assistants)
- Summative evaluation

SUSTAINABILITY

You must address how you will sustain the existing online curriculum in the future. The future may refer to one, three, five, 10 or more years down the road. With the growth of online curricula, will the institution recognize curriculum authorship as incentive for recruiting faculty members to update online curriculum when the time for revision comes?

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