

Managing Instructional Design Projects in Higher Education

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This chapter provides newly minted and experienced instructional designers alike with the knowledge to manage Instructional Design (ID) projects in higher education contexts. As instructional designers and instructional design technology scholars, our goal is to help other instructional designers collaborate more effectively with academic and non-academic stakeholders. We provide best practices and templates for managing projects and communicating results. We conclude by suggesting professional development venues aligned with the priorities of the field and institutions of higher education.

Types of Instructional Design Projects in Higher Education

Instructional designers in higher education are involved in five types of ID projects: (1) course development, (2) institutional learning initiatives, (3) pedagogy and educational technology workshops, (4) quality assurance of blended and online courses, and (5) educational technology, pedagogy, and accessibility support. In the next five sections, we elaborate on these types of ID projects to emphasize the need for project management skills in ID practice (i.e., the sixth(6) section).

1. Course Development

The first type of ID project is course development. Instructional designers' primary role is to collaborate with faculty members on developing new courses and redesigning existing courses that meet quality assurance standards. Instructional designers also collaborate with other stakeholders in selecting and implementing educational technologies and pedagogical approaches to online, hybrid, face-to-face, and web-enhanced courses. Regardless of the instructional design team's composition, instructional designers rely on consistent processes for different instructional development types with quality assurance in mind. The typical types of course development include creating new course offerings, redesigning current courses, and enhancing in-person courses with educational technology. Full-time faculty may receive a stipend to develop brand-new courses in collaboration with instructional designers. Instructional designers are responsible for guiding the course development process from the initial meeting to the final quality assurance criteria based on established rubrics/guidelines.

Throughout the course development process, instructional designers are responsible for facilitating the course development process while ensuring that all quality assurance elements are present (e.g.,

Universal Design, Community of Inquiry, instructional alignment, technology requirements, and accessibility). Quality assurance rubrics (e.g., Quality Matters, Blackboard Exemplary Course Rubric, or tailored rubric by the institution) come from research-based evidence that specifies mandatory requirements for all courses to support student learning.

2. Institutional Learning Initiatives

The second type of ID project involves leading or supporting learning initiatives at institutions of higher education. While these learning initiatives are different across institutions, Instructional designers participate in several projects that support pedagogical outcomes and educational technology practices. For a better perspective on the trends of teaching and learning in higher education worldwide, instructional designers should familiarize themselves with trends in five categories (i.e., social, technological, economic, higher education and political) as described in the Horizon Report (EDUCAUSE, 2021).

For example, instructional designers can support faculty in experiential learning, civic engagement, service-learning, micro-learning, flipped classrooms, game-based learning, adaptive learning, and undergraduate research for pedagogical practices. For technology practices, instructional designers can provide faculty support with Open Educational Resources (OERs), mobile learning, immersive learning experiences, video conferencing tools for collaboration, proctoring platforms, content curation, authoring tools, and learning analytics to support student outcomes.

3. Pedagogy and Educational Technology Workshops

Even though public higher education institutions face reduced state funds every year, institutions rely on student enrollment numbers and grants to support their academic and research operations. For this particular reason, pedagogy and technology choices need to be effective and aligned with institutional priorities. Technology integration frameworks and taxonomies help instructional designers and institutional stakeholders assess the impact of educational technology. Well-known technology integration frameworks include: Technology Acceptance Model (TAM) (Davis et al., 1989); Replacement, Amplification, and Transformation (RAT) (Hughes et al., 2006); Substitution, Augmentation, Modification, and Redefinition (SAMR) (Puentedura, 2013); and Technology Integration Matrix (TIM) (Florida Center for Instructional Technology, 2005).

4. Quality Assurance of Online and Blended Courses

Each institution is different in their implementation of course development and quality procedures. Quality assurance checks can be either informal or formal. In informal quality assurance , instructional designers generally check one or two aspects of online and hybrid courses based on rubrics. For example, instructional designers may check if all institutional policies and technical support information are present in online courses for a given program. In formal quality assurance checks, instructional designers are responsible for implementing quality assurance throughout the course development process. For example, using the Quality Matters Higher Education rubric informs all design aspects of a course and evaluates the course design upon completion.

5. Educational Technology, Pedagogical, and Accessibility Support

Instructional designers possess project management skills necessary to support stakeholders in

educational technology, pedagogy, and accessibility. Depending on the reporting and structure, instructional designers may be designated liaisons for specific educational technology and accessibility resources. Instructional designers may also answer questions about Learning Management Systems (LMSs) (e.g., using new instructional technology tools) and make instructional materials accessible. Regardless of the delivery format (e.g., face-to-face, hybrid, fully online, or blended courses), it is crucial that instructional designers help create learning environments that are inclusive and responsive to students' diverse needs. Ensuring accessibility of learning materials and resources is a crucial step in creating equitable and inclusive learning environments. To do so, instructional designers reference resources that explain how to create accessible content. Below is a summary of the fundamental principles based on the recommendations provided by the ADA (Americans with Disabilities Act), Quality Matters rubrics, and the Universal Design for Learning principles (CAST, 2010; Quality Matters, 2021; Rabidoux, S., & Rottmann, 2017) that should be considered when designing courses, especially online courses:

- Images that are part of course content, including graphs and charts, should include descriptions. It can be done by providing descriptions in a separate document or providing descriptions using the alternative text feature embedded in the course LMS/development tool.
- It is important to use the appropriate hierarchy of different header levels (e.g., Heading 1, Heading 2, Heading 3, etc.) in documents provided as learning materials, such as a course syllabus and course web pages. Doing so ensures that learners with accessibility needs can easily navigate through documents or a particular course site.
- Considering the appropriate contrast of text and the background color is important to ensure usability and readability: The stronger the contrast, the better readability.
- Audio and video materials should be provided with written transcripts. Audio should be of good quality in both audio and video materials. Videos should be close-captioned and ensure closed captions provide accurate information of what is shown in the video. In addition, it is good practice to provide students with alternative ways to interact with the learning material such as providing accessible documents of lecture slides (e.g., accessible PDF files).
- Learning materials, such as Word or PDF documents, should be searchable, meaning that learners should be able to search for specific terms, words, or phrases within a document. Additionally, images that are part of the content, such as charts or graphs, should be described and tagged. In addition, it is important to make sure files contain the full file extension (e.g., .doc or .docx for Word files, .pdf for PDF files, .ppt or .pptx for PowerPoint files).
- Learning content should be presented clearly and logically so that learners can organize their knowledge and material in coherent mental structures. Learning activities should provide learners with options that allow them to demonstrate their knowledge and skill to their best ability. For instance, students could be given options on how to participate in introductory discussions such as writing a post or recording a short introductory video.

Below is a list of useful resources that Instructional Designers can refer to when ensuring accessibility of courses. Such resources include:

- [Making your Word documents accessible to people with disabilities provided by Microsoft](#)
- [Creating accessible PDFs by Adobe](#)

- [Universal Design for Learning \(UDL\) Web Accessibility guidelines](#)

- [Web Content Accessibility Guidelines \(WCAG\)](#)

- Some learning management systems (LMSs) have accessibility checkers. In addition, the following free online resources can be useful when checking course pages for accessibility: [Test with Wave](#) and [Contrast Checker](#)

6. Project Management for Different ID Projects

Project management is an essential skill for instructional designers to handle the above-mentioned types of ID projects effectively. According to the Project Management Institute (PMI, 2004) "Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements" (para. 5). Regardless of the organizational culture and type of ID project, Thamhain (1991) states that instructional designers must have three qualities: (1) interpersonal skills, (2) technical expertise, and (3) administrative skills. Interpersonal skills refer to skills related to providing direction, communicating, and dealing with stakeholders. Instructional designers bring a robust technical skill set that enables them to manage the technical aspects of projects and translate project requirements to stakeholders with varying degrees of understanding of technical knowledge. In terms of administrative skills, instructional designers must be able to organize, track, communicate, and oversee projects' progress at different stages.

Instructional Design Project Management (IDPM) models incorporate elements of project management and the ID process to guide projects through the project management lifecycle of (1) initiating, (2) planning, (3) executing, (4) monitoring and controlling, and (5) closing. Greer (1992) created the 10-step ID project management model that guides instructional development. The first two steps of the project planning phase include project scope definition and project organization. The next five steps include information gathering, blueprint development, draft material creation, draft material testing, and master materials production in the instructional development phase. The follow-up phase focuses on three steps related to the production, distribution, and evaluation of instructional materials.

Gentry (1994) created the instructional project development and management model with eight processes that embed project management within the ID process. In Gentry's IDPM model, ID processes (i.e., production, design, adoption, needs assessment, evaluation, operation, installation, and prototyping) are interrelated steps that are sustained by six supporting components (i.e., management, facilities, personnel, resource acquisition and allocation, information handling, and communication). While supporting components are interdependent and interrelated to ID processes, executing project management processes efficiently is essential in the instructional design process.

Yang et al. (1995) used project management principles in software engineering to create a procedural workflow that describes the type of production activity in three phases: analysis, development, and evaluation. The analysis stage involves analyzing goals, learners, and resources. The development stage consists of constructing content, selecting strategies, materials, media, settings, and design measurements. The evaluation stage requires the implementation and pilot testing of instructional solutions.

Instructional Designers and Work Environments

Academia provides a diversity of work environments in which instructional designers perform their daily duties and take on new learning initiatives. Instructional designers' work environment defines the effectiveness and capacity for leading and collaborating with academic and non-academic departments on instructional design and technology-related projects. In short, instructional designers' work environment characterizes their capacity to manage projects. The most common types of higher education work environments that instructional designers work in are: (1) Centralized instructional design units (serving all universities' schools, colleges and departments), (2) Decentralized instructional design units (dedicated to schools, colleges, and departments), and (3) A mix of decentralized and centralized instructional design units. In all three types of work environments, instructional designers work in academic reporting lines (i.e., their role is placed in an organizational chart with the Dean, Provost or Academic Vice President on the top) or in non-academic staff/IT reporting lines (i.e., their role is placed in an organizational chart with a non-academic leader such as Vice President of Information Technology on the top; Drysdale, 2018).

Although the volume of projects and management strategies could be different to some extent, based on our experience, we believe that it does not matter whether an instructional designer is working in a centralized or decentralized instructional design unit. We do not think that there is a perfect way to organize instructional design units in higher education or in which instructional designers can manage their projects and perform their duties. Due to the specific and diverse organizational cultures, the institution's size, and the strategic plan each institution has in place to serve its mission, organizing ID units cannot follow a 'one-size-fits all' approach. Additionally, research on this topic is limited (Drysdale, 2018). Therefore, it is not certain as to what an ideal higher education work environment for instructional designers should be.

However, we advocate that instructional designers must work in academic reporting lines in either centralized or decentralized units. Instructional designers are as equally important as other academic staff and faculty and should be given the same resources, professional positions, and respect to manage their projects in a rigorous manner. Instructional designers - trained professionally as instructional designers - have received (and continue to receive) training to design learning and performance improvement in diverse contexts. They are trained in learning/educational psychology, ID theory, curriculum development, media design, applied research, educational and human-performance technology, project management, and many other aspects that qualify them to be academic staff or faculty members. Central to their role, instructional designers collaborate with other academic staff and faculty to manage their projects effectively. In this case, placing instructional designers in a non-academic reporting line will most likely provide limited opportunities for collaboration and mutual respect - a challenging factor for instructional designers to manage their projects. For example, an instructional designer working within an IT unit in a non-academic reporting line will most likely be perceived and approached by faculty as tech support staff. This instructional designer will not be given a role in making design decisions on course design and delivery that can prevent design failures (Lachheb, 2020). Instructional designers, in this case, will have a limited (if any) role in managing their projects.

Additionally, instructional designers design for learners, not for consumers. Instructional designers working under non-academic reporting lines could be constantly pressured to prioritize efficiency over thoughtful and slow design processes. They will be asked to adopt rapid/cheap processes for course development that mimic product development processes, to prioritize volume of work over

quality, and will be constantly judged by metrics that cannot capture the rigorous work they do. An instructional designer working within an academic reporting line usually is well-positioned within the institution to have an active and rigorous role in design for learning. From the initial meeting with a faculty member member to a course launch, evaluation, and iteration, an academic instructional designer acts as the guarantor of design (Nelson & Stolterman, 2012). Instructional designers working in academic reporting lines will have the opportunity to put their training into practice, enrich the learning experiences their institutions offer, and, most importantly, fully utilize their skills to make learning better.

Best Practices for Instructional Design Project Management

During the ID process, Instructional designers need to keep their supervisors updated about their ID projects' progress. The following practices help ensure well-coordinated, effective, and efficient ID project management.

1. Clear Communication

Clear and concise communication, both oral and written, is key for managing ID projects effectively. Such communication occurs at different stages. During the first stage, instructional designers usually meet with faculty members for the first time to discuss a course design project (i.e., an overview of the course, its learning outcomes, assessment, and what kind of support faculty members need). It is crucial that instructional designers clearly understand how to best help faculty during the ID process and clearly communicate to faculty members. It is helpful to document key takeaways from the initial meeting which include tasks for instructional designers and/or faculty members to complete, timeline for completing tasks, and further design steps. A communication plan helps instructional designers keep their projects on track and avoid misunderstandings or confusion between instructional designers and faculty members. Additionally, documented meetings with key takeaways makes it easy for Instructional Designers to share progress with supervisors.

During the second stage, instructional designers communicate with faculty members on the course design process's progress and agree on the next design steps. Communication takes place via emails or virtual meetings. It is good practice to keep emails and meetings concise and on task. During the third stage, instructional designers and faculty members are ready to finish designing the course. Instructional designers review the course and identify anything that needs to be added or modified.

2. Well-Articulated Project Framing

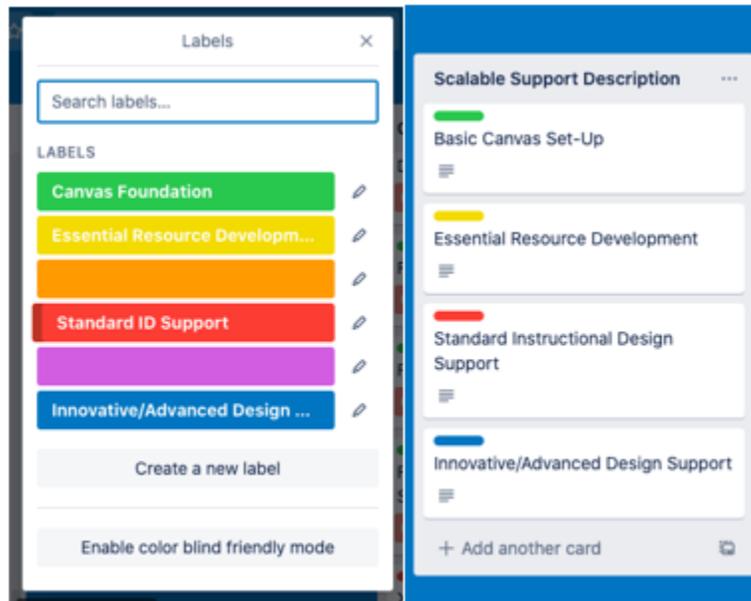
It is critical that instructional designers identify the goals and scope of a project from the initial meeting. This is done to ensure that other stakeholders (e.g., faculty members, other instructional designers, supervisors) understand the project's identified goals and scope. One of the best practices is distinguishing among different types of ID projects and levels of support that faculty need. The rationale behind this is to help instructional designers prepare project planning that includes the estimated time for a project's completion.

One example of different support types is basic ID support, standard ID support, and advanced ID support. Typically, basic ID support includes an ID consultation and resource sharing including a course site template that faculty can reuse. Standard ID support involves building a new course using a template and focusing on the alignment between course content and assessments. Advanced ID

support includes facilitating cross-departmental collaboration, creating interactivity and learner engagement activities, using enhanced branding and A/V content, and evaluating and aligning learning outcomes. One useful way to efficiently keep track of different ID projects is to use a web tool for project management, such as Trello, that allows for the use of labels and color codes for different projects (Figure 1).

Figure 1

A Screenshot of a Trello page showing Labels and Color Coding of Different ID Project Types



A Screenshot of a Trello page showing Labels and Color Coding of Different ID Project Types

3. Progress Tracking

Proper time management is at the core of ensuring that ID projects are completed in a timely manner. Therefore, instructional designers should find proper tools to keep track of projects. One way to track projects is to create a checklist with an estimated timeline and cross off items as the project progresses. Regardless of the tool, there should be an agreed upon system in place between instructional designers and supervisors to properly track project progress and a mutual understanding of the frequency at which the tool will be updated.

4. Project Close-Out and Reflection

Although there are certain general types of ID projects, each course design project is unique, and instructional designers always learn something new from each project. It is good practice to create a close-out document upon project completion and to share with faculty. A close-out document would include the name(s) of the instructional designer(s) and faculty, brief information about the project, lessons learned, ideas for the future, and links to project design assets (e.g., a link to a built course site, graphics created for a course site, etc.) The purpose of using this project close-out document is

two-fold. First, it is provided to faculty to share key resources to maintain their courses. Second, it serves as a reflection tool for instructional designers (Lachheb & Boling, 2020).

Lessons-Learned from Instructional Design Practitioners

In a survey of instructional designers in higher education by Intentional Futures (2016), the top ten challenges that instructional designers face are the following: (1) lack of faculty buy-in, (2) time, (3) resources, (4) leadership/administration, (5) tools and technology, (6) institutional bureaucracy, (7) awareness, (8) project management, (9) pedagogy, and (10) working with Subject Matter Experts (SMEs). Even though instructional designers may experience these challenges in varying work and reporting structures, we offer five suggestions that enable Instructional Designers to handle their job responsibilities and ID projects effectively.

1. Set a Communication Plan

While instructional designers rely on ID processes to accomplish design and development tasks, ID processes do not account for the preparation of a communication plan to engage with stakeholders. Regardless of the ID process, instructional designers need to allocate time for preparing a communication plan that sets the frequency of communication and project expectations. A communication plan also enables instructional designers and stakeholders to formatively assess ID projects at different development stages. Instructional designers should be aware that stakeholders, especially those new to working with an instructional designer, may be reluctant to provide project updates. For this reason, instructional designers should provide examples of successful ID projects and a communication plan that allows stakeholders to set a baseline for project success.

2. Invest Time in the Analysis of ID Projects: Do Your Homework

Instructional designers in higher education are often involved in several projects at once. Reflection of day-to-day tasks is essential to understanding the time commitments devoted to each project. While ID processes guide the creation of instruction, new instructional designers frequently spend more time in development tasks. However, experienced instructional designers “do their homework” before embarking on a new design project. They invest additional time in the analysis phase of project requirements, audience, instructional activities, and assessment.

3. Leverage Templates or Rubrics to Improve Efficiency

Establishing a workflow enables instructional designers to correctly identify requirements, assessments, and activities throughout the ID process. During and between steps in the ID process, smaller steps in ID projects support project milestones including creating objectives, uploading assessment items, creating modules, and performing informal quality checks. However, these smaller steps are time-consuming tasks and may distract instructional designers from allocating project time effectively. Templates and design precedents (Boling, 2020) allow instructional designers to work efficiently and spend less time on repetitive tasks.

4. Seek Professional Development as a Continuous Endeavor

Attending excellent professional development allows instructional designers to learn new ID tools, thus, enrich their ID toolbox, and strengthen their professional relationships with stakeholders. Effort

toward professional development should not be limited to one-time events such as conference presentations and workshops. Instead, professional development should be considered as a continuous endeavor toward seeking research-based evidence in pedagogy and educational technologies that support different instructional contexts and types of learners.

Instructional Design Project Management and Course Development Templates

Modalities of learning are evolving as the nature of higher education changes. Learners have become global and diverse. Higher education institutions strive to succeed in the 21st-century global environment. Meeting diverse learners' needs through offering accessible programs and courses for online and non-traditional learners is a priority. These rapidly changing factors call for rigorous professional character among instructional designers who could be true agents of change and guarantors of design (Nelson & Stolterman, 2012). We believe the following ID project management practices would support instructional designers' work in a rapidly changing higher education landscape.

Instructional Designers' Interpersonal and Communication Skills Built Around Project Management

For an instructional designer involved in a project, stakeholders are the primary beneficiaries of the project deliverables, services, or outcomes. In daily operations, instructional designers collaborate and communicate with each stakeholder at different levels of the institution. For high visibility projects, such as online program development with many stakeholders, instructional designers need to make sure the wider audience has accurate information about the project. Instructional designers need to know each stakeholder's role clearly and communicate at all authority levels. Interpersonal and communication skills are essential for instructional designers to manage a successful project.

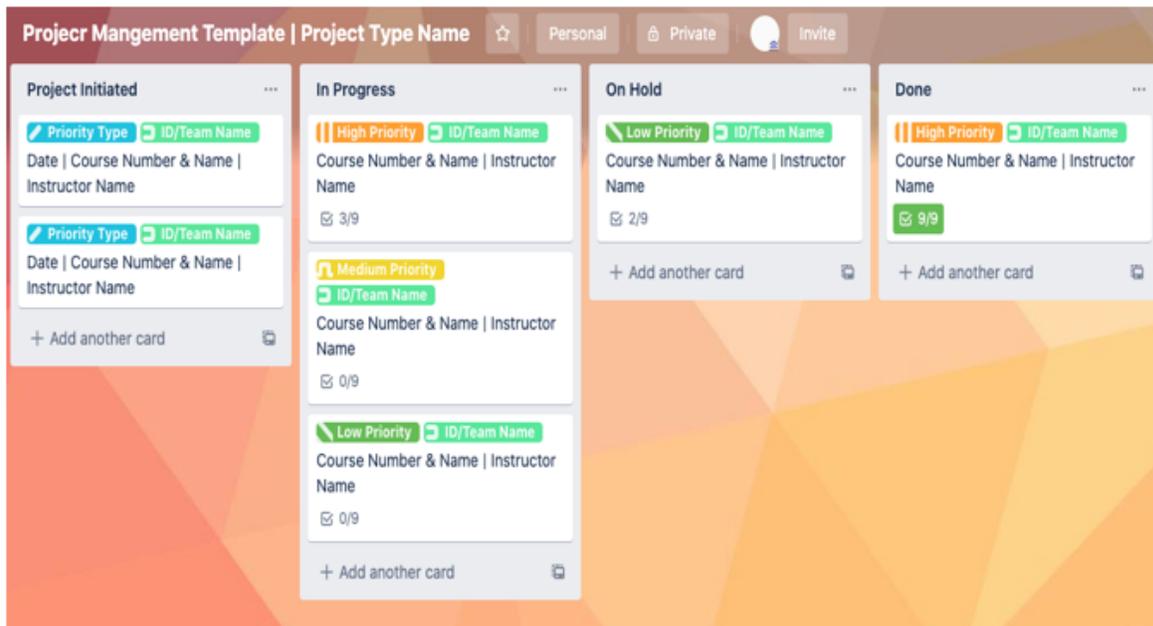
Instructional Design Project Management Process and Templates

Richey et al. (2001) identified four roles for instructional designers: analyst, evaluator, e-learning specialist, and project manager. The project manager's role is essential and provides solutions to the changing demands in higher education. When managing a project, instructional designers plan the project's scope and create a Work Breakdown Structure (WBS) by dividing the project deliverables and work into manageable components (e.g., design and build a plan with specific milestones for the project). During the implementation process, they perform the planned design and development efforts and engage the stakeholders to ensure that adequate information is exchanged with them.

At the end of the project, instructional designers review the project to ensure outcomes (e.g., online courses and programs) meet standards or quality assurance. They may also verify that project implementation was completed according to the agreed upon services with stakeholders through feedback collected to enhance these deliverables in the future (e.g., feedback surveys). The following template provides an example to help instructional designers or instructional designer teams manage a project and track progress. If necessary, the stakeholders can also be added to engage with the process by receiving up-to-date project statuses and exchanging effective information (Figure 2).

Figure 2

Instructional Design Project Management Template using Trello



Picture of a Trello planning template

Further, course design tips are offered through a [lesson planning template](#), which aligns a broad course goal, a lesson objective, student learning outcomes, and student learning artifacts. This template can also be easily adapted into a course blueprint for the early stages of course planning.

Professional Development for Instructional Designers

Professional development efforts should focus on staying current in pedagogical and technological approaches. International and national conferences are great venues for presenting and sharing knowledge with colleagues. In contrast, local and regional conferences provide a close-knit network of professionals dedicated to educational technology support and course development management. Table 1 (see next page) summarizes the conferences dedicated to ID and online learning in higher education and the different types of audiences these conferences best serve (See also [Inside HigherEd](#) which delivers a directory of conference events in higher education).

Table 1

National and Regional Conferences and Who They Best Serve

National & International	Who They Best Serve				
	Instructional Designer/ Consultant	Instructional Technologist/ Tech. Coach	Educational Technology Director	Faculty/ Researcher	K-12 Teacher
Association for Educational Communication and Technology (AECT)	•	•	•	•	•
American Talent Development (ATD)	•	•	•	•	
Online Learning Consortium (OLC)	•	•	•	•	
International Society of Technology in Education (ISTE)		•	•	•	•
American Educational Research Association (AERA) - Instructional Technology Special Interest Group	•	•	•	•	•
University Professional and Continuing Education Association (UPCEA)			•	•	
International Council for Open and Distance Education (ICDE)			•	•	
EDUCAUSE			•	•	
Open Education Conference (OpenEd)	•	•	•		
Distance Teaching and Learning (DT&L) Conference		•	•	•	
Association for the Advancement of Computing Education (AACE)	•	•	•	•	•
Society for Information Technology and Teacher Education (SITE)	•	•	•	•	•
EdMedia + Innovate Learning	•	•	•	•	•
Association on Higher Education and Accessibility (AHEAD)	•	•	•	•	•
Regional Organizations					
Summer Institute on Distant Learning and Instructional Technology (SIDLIT)	•	•	•	•	
Association for Career and Technical Education (ACTE)	•	•	•		
Focus on Teaching and Technology (FTTC)	•	•	•	•	
eMints National Center		•			•

Instructional Designers should be able to self-assess professional knowledge and take steps towards professional growth and learning aligned with institutional goals. In the ID field, prominent

professional organizations are the American Talent Development (ATD), Association for Educational Communication and Technology (AECT), Online Learning Consortium (OLC), International Society of Technology in Education (ISTE), and International Board of Standards for Training, Performance, and Instruction (IBSTPI). Table 2 provides information on each organization’s competencies and different distance learning quality frameworks that can be sought.

Table 2

Instructional Design Competencies and Distance Learning Quality Frameworks

Instructional Design Competencies	Distance Learning Quality Frameworks
ATD - Competency Model for Learning and Development Professionals	International Council for Open and Distance Education: Quality Models in Online and Open Education Around the Globe
AECT - Instructional Design Standard for Distance Learning	National Standards for Quality Online Programs (for K-12)
ISTE - Standards for Teachers, Students, Leaders and Coaches	iNACOL National Standards for Quality Online Programs
IBSTPI - Instructional Designer Competencies	Blackboard Inc Exemplary Course Program
	OLC - Five Pillars of Quality Online Education
	QM Higher Education Course Design Rubric

Conclusion

In this book chapter, we detail our professional experiences regarding the different types of projects that ID professionals manage within their respective institutions of higher education. In return, instructional designers of varying degrees of professional experience can equip themselves with an understanding of how their work environments and reporting structures influence the management, collaboration, and implementation of ID projects. We hope that instructional designers enhance their existing pedagogical and technical toolkit to support the development of effective, efficient, equitable, and enjoyable learning experiences. Instructional designers possess diverse skill sets that are important to maintain and enrich through professional development events and opportunities. The significant ID project management practices shared in this chapter will support instructional designers’ work in a rapidly changing higher education landscape.

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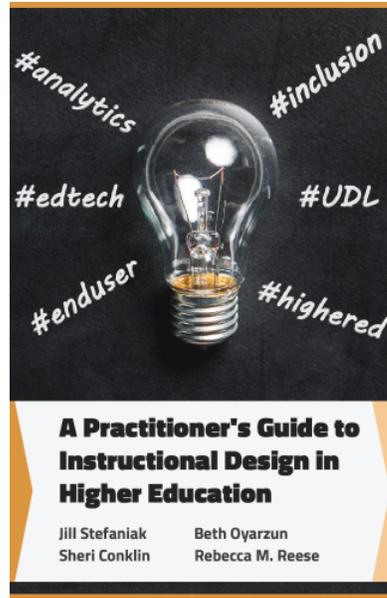
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