The Competencies for Instructional Designers in Higher Education

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The purpose of this chapter is to define and describe the roles and competencies of instructional designers working in the context of higher education. Inspired by existing research, this chapter summarizes these roles and competencies of instructional designers in higher education. We first review the context and settings in which these professionals work, delineate their common roles and responsibilities within these settings, and highlight the academic backgrounds and professional experiences that align with this career role. Next, we outline the core competencies for instructional designers in higher education by describing their typical work expectations and the necessary knowledge and skills needed to perform effectively and efficiently in this environment. Finally, we discuss how to gain the necessary competencies and experiences to serve in this capacity along with some closing remarks.

Introduction

As the field of instructional design continues to mature and evolve, the professional roles and competencies of the individuals who identify as instructional designers has become increasingly important. In particular, instructional designers working in the professional context of higher education serve important roles within their organizations. A few notable professional organizations provide standards for instructional design professionals (Martin & Ritzhaupt, 2020), yet the unique case of higher education provides several opportunities and obstacles for these professionals to use their academic preparation and experiences to best serve their institutions. This chapter summarizes the roles and competencies of instructional designers working in institutions of higher education based on current research and practice.

Organizational Context and Settings

Instructional designers in higher education can be found all over the organizational charts of an institution of higher education (Anderson et. al, 2019; Kumar & Ritzhaupt, 2017; Ritzhaupt, & Kumar, 2015), including in centers for teaching excellence, online course production centers, centers of teaching and learning, human resources offices, academic libraries, information and academic technology units, and within individual colleges and academic units providing tailored services to their faculty and administration. Additionally, instructional design professionals can be found in all types of institutions of higher education ranging from research institutions to comprehensive universities to community colleges in public and private settings. While these professionals might be identified with different titles (e.g., educational technologist, learning designer) within their academic institutions (Chongwony et al., 2020; Kang & Ritzhaupt, 2015), their roles and responsibilities share many elements in common across these institutions and

configurations. Instructional designers in higher education work with faculty across academic disciplines both as their primary stakeholders and as their subject-matter experts, but also acknowledge learners as their final stakeholders (Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015).

General Roles and Responsibilities

Instructional designers in higher education provide both professional services and products to their stakeholders in the form of course design, development, and evaluation; professional development opportunities; and technical and pedagogical support for faculty, staff, and students (Anderson et. al, 2019; Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015). The courses designed, developed, and evaluated with instructional designers may be fully online, blended, or face-to-face, depending on the needs of the faculty and academic units they serve (Anderson et. al, 2019). Additionally, it is not uncommon for instructional designers to provide ongoing professional development opportunities for faculty to learn about emerging technologies for teaching and learning or instructional strategies to best engage their students through workshops, one-on-one consultations, or teaching and learning certification programs within their institutions. Providing ongoing technical and pedagogical support is also a common job requirement that involves faculty, students, and staff, such as academic advisors or tutors (Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015). This ongoing support might manifest as assisting students or faculty with the use of the institution's Learning Management System (LMS) or in the form of answering direct questions about appropriate technologies to support a specific type of instructional strategy. Additionally, instructional design work necessitates collaborations with non-academic staff, information technology units, administrators, and librarians (Anderson et. al, 2019). As the roles of these professionals appear to be constantly evolving, instructional designers in higher education are in-demand professionals that must possess a wide-range of competencies.

Academic Backgrounds and Professional Experiences

Within the United States, instructional design is most commonly offered as a graduate degree or certificate program within institutions of higher education (Ritzhaupt & Kang, 2015), and while many professionals possess this academic pedigree, this is not the only path to entering the profession. For example, a recent job announcement analysis revealed that several positions in the field only require a bachelor's degree and several years of professional experience (Kang & Ritzhaupt, 2015). Many instructional designers also have extensive prior experience as an actual educator either in K-12 settings or in higher education, which can help as a professional experience in developing a rapport with faculty. The foundational competencies of instructional designers in higher education is a moving target and though we attempt to provide these competencies in the subsequent section, it is important for readers to recognize the role is constantly evolving as the needs of higher education also evolve.

Foundational Competencies for Instructional Designers in Higher Education

In this section, we document foundational competencies of instructional design professionals working in institutions of higher education. These foundational competencies are formulated based on prior research and our interactions and practice with instructional design professionals. These general categories are not mutually exclusive and are not meant to document the only competencies for these nascent professionals. As higher education continues to evolve in the information economy, so do the roles of these professionals serving these institutions.

Strong Communication and Soft Skills

Across several studies of instructional design professionals, often the most highly rated or observed skill is strong written and verbal communication skills (Kang & Ritzhaupt, 2015; Ritzhaupt et al., 2018; Surrency et. al, 2019). These strong communication skills serve as critical to other competencies among these professionals, such as creating effective instructional resources and presentations or communicating to multiple stakeholders involved in typical instructional design projects (Chongwony et. al, 2020). Instructional designers must be able to communicate and

collaborate with subject-matter experts, graphic designers, multimedia developers, video producers, students, project managers, and more. They should be able to negotiate and communicate with diverse faculty, administrators, and students in nontechnical language (Surrency et. al, 2019). Communication skills, interpersonal skills, and soft skills are crucial for the building of effective working relationships and teamwork needed to successfully interface with various stakeholders and in a multicultural environment (Anderson et. al, 2019; Chongwony et. al, 2020; Schwier, & Wilson, 2010). In addition to communication skills, instructional designers in higher education must also possess diplomacy, problem-solving, interpersonal, and organizational skills to name a few (Kang & Ritzhaupt, 2015; Ritzhaupt et al., 2018). We place this foundational competency first in our list intentionally because it is perhaps one of the most important identified in current research and practice.

Instructional Design Models and Processes

While there are literally hundreds of instructional design models and processes defined and described in the academic research literature, instructional designers working in higher education need to be aware of these models and processes, and more importantly, know when to use a model or process that is appropriate for their current instructional design project. Prior research has shown that these professionals utilize many different instructional design models (e.g., Dick and Carey or backwards design), but often describe the phases of the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) to frame their workflow (Bond & Dirkin, 2020; Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015). Instructional designers in higher education appreciate the careful alignment among the learning objectives, instructional content, and assessments in any course design and delivery method. The instructional design models and processes they deploy help them ensure this alignment in the creation of their instructional resources, and use evaluation techniques to verify these outcomes are working in their course improvement efforts. These professionals also articulated the importance of being able to clearly explain the models and processes to their faculty stakeholders to have shared understanding of an instructional design project.

Learning Theories and Instructional Strategies

Instructional designers in higher education can express how different theoretical orientations shape their decision-making about appropriate instructional strategies for a given learner population, content domain, and delivery format (e.g., online). A traditional instructional design degree program will trace the history of learning theories from behaviorism to cognitivism to constructivism in the application of useful instructional strategies, and while some instructional designers subscribe to one of these theoretical positions, most take a pragmatic approach that blends ideas from each (Ertmer & Newby, 1993). Additionally, instructional designers are aware of different types of learning outcomes and domains, such as prescribed by the original writings of Bloom's taxonomy and domains (Bond & Dirkin, 2020; Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015). Interviews with instructional designers in higher education showed a wide array of theoretical influences, such as Malcolm Knowles's adult learning theory (Knowles, 1978), the Cognitive Theory of Multimedia Learning (CTML; Clark, & Mayer, 2016), and Merrill's first principles of instruction (Kumar & Ritzhaupt, 2017; Merrill, 2002; Ritzhaupt & Kumar, 2015). While these professionals report utilization of a wide-array of instructional strategies, instructional designers interviewed and surveyed in the research highlighted the importance of designing courses with constructivist principles, and student-centered and collaborative learning opportunities they serve (Bond, & Dirkin, 2020; Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015). Use of authentic assessments, project-based learning, and reflective learning opportunities like journaling are common student-centered instructional strategies among current practitioners of instructional design in higher education.

Technologies in Instructional Designer Practice

Instructional designers working in higher education must be knowledgeable in multiple forms of technologies, including Learning Management Systems (LMSs) (e.g., Canvas), multimedia authoring and production tools (e.g., Captivate or Photoshop), video production and editing software (e.g., Premiere) standard office productivity tools (e.g., Microsoft Word or Excel), assessment technologies (e.g., Respondus), cloud-based solutions for collaboration and document sharing (e.g., Google Drive or Dropbox), synchronous video conferencing and classroom technologies (e.g., Zoom), and even basic HTML (Hyper-text Markup Language) and CSS (Cascading Style Sheets). While most instructional designers

reported that they did not need high-end programming skills (e.g., JavaScript), they did indicate that awareness of these tools was important to their roles (Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015). Instructional designers need these technologies to support their abilities to provide communication, collaboration, management, and development of instructional resources for their stakeholders and to provide ongoing technical and pedagogical support (Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015; Schwier, & Wilson, 2010).

Project Management in Instructional Design

Although project management coursework is not consistently required across academic degree programs in the field (Van Rooij, 2010), instructional designers in higher education are often assigned to either manage or participate in multiple projects on any typical day of their work. Often instructional designers develop into project managers and need skills and knowledge in managing people, processes, and resources to achieve their objectives within diverse working environments (Chongwony, et. al, 2020; Schwier, & Wilson, 2010; Surrency et. al, 2019). These skills and knowledge include important project management competencies like schedule management, scope management, human resources management, budget management, stakeholder management, and quality management (Kline et al., 2020). Unsurprisingly, these competencies align to contemporary project management literature (e.g., Project Management Body of Knowledge or PMBOK) and certifications (e.g., Project Management Professional or PMP). While those working as project managers in instructional design in higher education have mixed emotions about these professional certifications, there is clearly alignment between the body of research in instructional design and project management (Kline et al., 2020).

Formative and Summative Evaluation

Though formative and summative evaluation is strongly rooted in contemporary instructional design models, we intentionally created a separate section to address this area because of its critical relevance to instructional designers in higher education. Instructional designers assist faculty with not only the original design and development of their courses, but they also assist with the ongoing course improvement efforts from semester-to-semester or quarter-to-quarter (Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015; Surrency et. al, 2019). Instructional designers are using a variety of data sources to inform evaluation efforts within the courses they help to create, including survey data or end-of-course evaluations, student performance data on course activities such as projects or quizzes or examinations, and increasingly, learning analytics data derived from the LMS activity logs (Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015). All of these data sources serve as evaluation evidence to ensure the learning objectives are achieved by the students within the courses and adjustments are made in a continuous process improvement effort to ensure high-quality learning experiences. These reflective cycles of course improvement are what help faculty create effective learning experiences.

Faculty Professional Development and Support

While not all organizational contexts and settings require instructional designers to provide professional development opportunities for faculty, depending on several factors, instructional design professionals might also be providing workshops or online courses and certification programs within their institutions to build the capacity of their faculty to teach online or use student-centered instructional strategies (Ritzhaupt & Kumar, 2015; Kumar & Ritzhaupt, 2017). The content of these professional development experiences range from technical offerings on how to use tools such as Canvas or Zoom to support teaching and learning to more pedagogical offerings on using project-based learning or effective feedback practices. These offerings are often a part of an institution's certification program for faculty to teach online or blended coursework. Additionally, some settings have instructional designers provide ongoing support to faculty, students, and staff by answering helpdesk questions or one-on-one consultations (Kumar & Ritzhaupt, 2017; Ritzhaupt & Kumar, 2015).

Change Management and Leadership

Instructional designers in higher education are uniquely positioned to facilitate educational innovations and transformations that involve changes at all levels in teaching and learning in classrooms and online, faculty

development, departments and colleges, and in an institutional level. The ability to implement, manage, and lead change is necessary to the successful performance of their role (Anderson et. al, 2019; Kline, et. al, 2020; Schwier, & Wilson, 2010). An analysis of job posts revealed that expertise in general leadership and management was among the three top desired competencies that occurred frequently among leaders of instructional design (Chongwony et. al, 2020).

Gaining the Competencies and Experiences for the Role

This section provides a brief overview of how individuals interested in the profession of instructional design in higher education can gain the necessary competencies and experiences to serve in this role. Additionally, we review the role of professional associations in supporting the professional networking, leadership, and career development needs of emerging instructional designers in higher education.

Academic Preparation

While the traditional route to become an instructional designer is the completion of a graduate degree in the field, there are other avenues to gain the academic preparation necessary to effectively serve in this capacity. As previously noted, many of the instructional designers have extensive teaching experiences in either higher education or K-12 and use these experiences to inform their approach to the craft. In addition to the typical graduate degree, many academic institutions also offer graduate certificate programs with select coursework to prepare instructional designers. These programs require fewer academic credits to earn the credential and skills and knowledge to begin in this domain. We also note that several professional associations offer certification and professional development programs and some existing educational platforms such as Coursera or LinkedIn Learning offer lower cost options.

Connecting to Professional Associations

Instructional designers in higher education have several choices for a professional association to nurture their professional networking, leadership, and career development needs (Ritzhaupt et al., 2020). These professional associations provide a wide range of services including:

1. Professional networking services

2. Growth and advocacy services

3. Professional communication services

4. Ancillary discount services

5. Leadership and mentoring services

6. Relevant literature services

7. Training and credentialing services

8. Vendor and continuing education services (Ritzhaupt et al., 2020).

Table 1 provides a list of some of the major professional associations available within the field. Emerging instructional designers are encouraged to select one or more professional associations that match their needs and career goals.

Table 1

Professional associations related to the field of instructional design

Professional Association Name

Association for Talent Development
Association for the Advancement of Computing in Education
Association for Educational Communications and Technology
EDUCAUSE
International Society for Performance Improvement
International Society for Technology in Education
Online Learning Consortium
Learning Guild
United States Distance Learning Association

Aligning Professional Experiences

A common problem across many professions is gaining the professional experiences to enter the market as a competitive job applicant. One common practice in instructional design degree programs is to encourage students to develop an e-portfolio to document their projects and experiences. Additionally, these degree programs will often provide authentic learning opportunities where students can work on real-world projects. There are also service opportunities within professional associations in which students can work on collaborative, real-world projects for service learning opportunities. The key is that emerging instructional designers must be intentional about both gaining real-world professional experiences and documenting these experiences to showcase to potential employers. As is true in many professions, an academic degree alone is often insufficient to secure employment opportunities.

Improving Competencies on the Job

Despite the academic and certificate programs that prepare instructional designers and professional networks that provide professional development opportunities, instructional designers can find it difficult to apply what they have learned when they begin a job, given the complexity of instructional design projects and the diverse stakeholders involved (Stefaniak, 2017). Research on novice and expert instructional designers illustrates ways in which instructional designers can improve and develop their competencies on the job (Hoard et al., 2019; Lowell, & Ashby, 2018). Professional development models that practice cognitive apprenticeship on the job, such as the Development of Instructional Designers Apprenticeship (DIDA) model also highlight the value of coaching and reflection for the competency development of instructional designers (Mancilla, & Frey, 2020).

Closing Remarks

Working as an instructional designer in higher education provides many growth opportunities and non-pecuniary benefits beyond just a competitive salary. For instance, a professional instructional designer would benefit from the rich-learning environment at an institution of higher education and resources (e.g., academic library) available. Listed as number 38 out of 100 in CNN Best Jobs in America in 2012 (CNN Best Jobs, 2012), instructional designers are increasingly becoming a mission-critical resource to institutions of higher education. We hope this chapter provides a

snapshot of the many competencies and roles required by these professionals to better prepare academic and professional experiences to align to the work of an instructional designer in higher education.

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