# What Is an ID? A Survey Study

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**Abstract**

Instructional design positions in higher education require greater depth and breadth of knowledge, skill, and general competencies than the qualifications found in typical job descriptions and published industry competency sets (e.g., ibstpi). The eDesign Collaborative Research Team, a part of the University Professional Continuing Education Association (UPCEA), wished to explore the discrepancies that exist between commonly identified competencies and those deemed necessary by instructional designers (IDs) actively working in higher education, as results could be informative for administrators, managers, and designers alike as the design field expands.

The major competencies found in the literature and coded by the researchers after collecting survey responses included collaboration, communication, theoretical knowledge, problem-solving, course design and development, management (i.e., project management), research and analysis, technological expertise, ongoing learning, leadership, relationship management, evaluation, marketing, ethical and legal considerations of design, faculty development, and editing/proofreading. The participants rated these competencies and explored the relationship of the highly rated competencies with the actual work performed by the participants. Likewise, the study sought to explore the participants' career plans, goals, and access to professional development.

The results showed that a majority (56%) described the ID role as a mix of both faculty and content development. When asked what they would rather be doing with their time, an even mix between working more with faculty and working more on content development was observed. Many individuals also mentioned an interest in working more with technology and innovative projects. Collaboration with subject matter experts (SMEs), content experts, faculty, and instructors was by far the most valuable competency, both in importance and time spent. Research and marketing seemed to be least important and garnered the least amount of employee time.

*Keywords*: instructional design, competencies, career, higher education

## What Is an ID? A Survey Study

In March 2017, the University Professional and Continuing Education Association (UPCEA) published a white paper entitled "Instructional Design and Technology Teams: Work Experiences and Professional Development." Several opportunities for further exploration were identified after the UPCEA community engaged with the white paper. This included the observation that the role of an instructional designer (ID) seems to vary greatly between institutions and workspaces.

As a result, in June 2017, UPCEA's eDesign Collaborative research group designed and delivered a survey focused on the "Roles and Competencies of Current Instructional Designers" to answer the question, "What is an Instructional Designer?" This survey was conducted, in part, to examine differences between identified competencies and the regular work performed by IDs. A key element of this study was the development of a list of commonly referenced competencies that one could aggregate into a baseline definition of an ID. This fulfilled a critical need in the field, as the title *instructional designer* often includes a variety of subroles and duties under one commonly used position title. The roles of IDs are as varied as the institutions that employ them. An ID is typically thought of as a course builder who provides faculty and technology support along with other responsibilities. This study presents a comprehensive view of the regular duties and tasks of IDs working at UPCEA member institutions, which is presumed to be a representative sample of four-year institutions in the United States and Canada.

Employers and IDs alike will be interested to know about the work performed by IDs on a regular basis, as this information will influence future job descriptions, design team composition, and the expectations of design professionals seeking employment. The survey results inform all of these things, and can assist hiring managers in determining job-function questions, such as "What should an ID job description list?" and "What is an appropriate salary for an ID?" in addition to in-house explorations of what IDs are being asked to do and why.

### Background and Context

Instructional design, as a field, found its roots in the midst of World War II (Reiser, 2012). Psychologists and educators, such as Robert Gagne, were recruited by the military to utilize educational and psychological research to develop training materials based upon the known principles of instruction. Assessment and evaluation, informed by psychological perspectives, were also used to identify skills and to improve training of military personnel (Reiser, 2012). After the war, the psychologists and educators continued the work of instructional problems. The development of instructional design models and theories continued over the next several decades, informing computer-based instruction and job performance. These models and theories have been useful in many different educational contexts, from human performance to K–12 to higher education.

In the early part of the 21st century, instructional design as a field boomed with increased access to the Internet and the influx of online instruction (Reiser, 2012). A recent study on instructional design in higher education found that 13,000 IDs are working in the United States alone (Instructional Design in Higher Education, 2016). As the field has grown, so have the needs of employers and the demand for employees. However, the contexts and needs of a Fortune 500 company, a K–12 school district, and a higher education institution vary greatly, as do the skill sets of employees in these contexts (Sugar, Hoard, Brown, & Daniels, 2012). Likewise, within

these different contexts, competencies are often based on organizational culture (Larson & Lockee, 2009).

The research team members found this to be true when comparing the three different institutions where we work. Our respective views on the roles and competencies of an ID varied dependent upon our institutional cultures. The following descriptions of the four individual authors provide a view of how varied the positions can be across institutions that serve similar demographics (i.e., higher education for undergraduate, graduate, and professional studies).

One author is an instructional designer in a school that is decentralized from the private research university as a whole. While university-wide decisions are made on a large scale (i.e., choice of learning management system is a university-wide decision), the school has autonomy to make decisions for its programs and implement changes as it sees fit. The instructional design team supports specific faculty to create online courses, either from scratch or to convert a face-to-face course to an online course. IDs work with individual faculty in a cohort-based schedule from the planning stages to when a course is launched, typically over nine months. The skills IDs need in this setting include collaboration, consultation, technology expertise, project management, problem-solving, and editing/proofreading to name a few. The faculty-to-ID relationship is an integral part of the job, and relationship building is a top priority.

Two other authors at a public doctoral university have the roles of director and support manager. The support manager's responsibilities vary from running the learning management system help desk, counseling faculty on the principles of effective course design, and testing new technologies. There are no full-time employees dedicated solely to instructional design—just two employees with ID backgrounds. Faculty are not required to work with either of them even if they have no previous experience teaching online. The top priority, in this case, is to teach faculty how to be their own builders of quality online content.

Finally, the author team includes a lead designer at a public land-grant institution. The instructional design team is largely centralized, with the primary focus of increasing online opportunities and access for learners in both for-credit and noncredit environments. The development process is typically a 16-week schedule wherein each designer is their own project manager and works directly with the course representative (often, but not always, the teaching faculty). This particular design team has grown exponentially in the past two years, even pulling in individual designers from other schools and departments within the university to create an innovative learning group which collaborates with face-to-face instructional support groups to drive strategic growth and change. Due to this growth, administrative goals have shifted, which may require the doubling of each designer's workload going forward.

After discussing the differences of each institution's instructional design model, and even the variety among schools and colleges within the institutions, we determined that a study on the major competencies used across many institutions would not only be an interesting research project, but also the results could be informative for administrators, managers, and designers alike as the design field expands. A review of the literature on the competencies of IDs was the first step in the project.

# Review of Literature

We completed a literature review on instructional design competencies by searching several databases using a Boolean search. Search terms included *instructional design*, *instructional designers*, *roles*, *competencies*, *skills*, *knowledge*, and *higher education*. After an initial literature sweep, we found and reviewed over 25 peer-reviewed journal articles. Seven of the articles were eliminated because they did not focus on the topic of ID competencies and were found to be outside of the scope of this research project. Additionally, any references to Association of Talent Development (ATD) Talent Development Area of Expertise of Instructional Design, were eliminated as their work (as exemplified by their mission "Empower Professionals to Develop Talent in the Workplace") lies outside of the higher educational lens of this study (ATD Competency Model, 2014).

After the initial sweep and review, we then focused on creating a list of competencies in the literature. The competencies we found then guided the survey design. We further refined the competencies based on coding and findings in the survey responses (see Table 1). The top-cited competency found in the literature was *collaboration* followed closely by *communication* and *theoretical knowledge*, *course design*, and *problem-solving*. The following review first establishes a definition for instructional design and then discusses the most frequently cited competencies found in the literature as well as other less frequently cited competencies.

## Definition of Instructional Design

As expected, the literature offered a variety of definitions for instructional design, and those who carry it out in their job roles. Some of the key definitions used in this study originate from Sims and Koszella (2008) who define instructional design as a "purposeful activity that results in a combination of strategies, activities, and resources to facilitate learning" and an ID as "a person with the competencies to design instruction" (p. 570). Absent in both definitions is an actual list of instructional design competencies. We utilized these definitions as a framework to cull the literature found on instructional design and IDs to construct a list of the competencies necessary to design instruction.

## Collaboration

The most frequently cited competency for instructional design and designers in the literature is collaboration. Collaboration is a complex skill that requires IDs to carefully interact with a variety of stakeholders to accomplish a shared goal. This competency may occur with subject-matter experts (SMEs), content experts, faculty, or instructors, all of whom we refer to as SMEs in this paper.

IDs must consider multiple factors when working with SMEs, such as academic freedom for faculty in higher education institutions, consensus building among multiple stakeholders, and difficult decision-making based on resources and time (Brigance, 2011; Gray et al., 2015; Kelly, 2016). Solomonson (2008) suggests that IDs act as consultants, navigating and developing relationships with SMEs. Relationship building occurs, in part, through effective communication.

While the collaborative nature of the ID role is cited frequently in the literature, the tension between designer and faculty is also described. In a recent survey of faculty attitudes, under half of respondents who teach online have worked with an ID. These faculty did not believe that IDs could help them, and some did not have an interest in working with an ID (Jashick & Lederman, 2018). The Instructional Design in Higher Education (2016) report found that IDs consider lack of

faculty buy-in as the number one barrier to success. The lack of understanding of the ID role in higher education has contributed to tension between faculty and IDs. Clarity on the ID role and its competencies can decrease the barriers to successful ID–faculty collaboration.

## Communication

Communication is widely cited as imperative to successful instructional design since the primary goal of an ID is to work with others to facilitate learning. Communication includes written and verbal communication, as well as asynchronous (i.e., email) and synchronous (i.e., web conference) interactions. Kenny, Zhang, Schwier, and Campbell (2005) rate communication as one of the four main competencies for IDs. The International Board of Standards for Training, Performance and Instruction (ibstpi) rates communication as an essential competency (Instructional Design Competencies, 2012).

Yet Sims and Koszalka (2008) state that

the designer's communication skills must extend to combinations of asynchronous and synchronous interactions, and their ability to present instructional information must integrate key factors pertinent to the virtual environment. Even more frequently, instructional designers will have to rely on podcasts, wikis, and mobile phones to receive and respond to information; the traditional modes will be superseded by those underpinned by these emerging digital technologies. (p. 572)

Thus, IDs must be comfortable communicating with others as well as adapting to new ways of communicating. Additionally, good communication skills facilitate the explanation of instructional design frameworks, models, and/or theories to key stakeholders.

## Theoretical Knowledge

The literature cites knowledge and application of instructional design theory and models as necessary to the ID role. Instructional design theories and models include, but are not limited to, the Analyze, Design, Develop, Implement, and Evaluate (ADDIE) model, adult learning models based on adult learning theory (i.e., andragogy), teaching theory, and learning theory. IDs may use theoretical knowledge to assist in decisions about projects and instructional problems (Sugar & Luterbach, 2015). While recognized as important to the ID role, it is interesting to note that there is some debate on how often and how effectively theory is applied in practice, such as in day-to-day activities like course design and development that require IDs to constantly engage in problem-solving (Thompson-Sellers & Calandra, 2012).

## Problem-Solving

Many of the authors describe the instructional design process as one of problem-solving. Ertmer and Stepich (2005) define an ID as someone who can solve ill-defined problems. The design process requires an ID to find solutions to multiple instructional problems (Kenny et al., 2005). IDs make multiple, complex judgements based on situational factors when collaborating with SMEs and designing instruction and courses (Gray et al., 2015).

## Course Design

IDs spend time designing instruction to facilitate learning. This is a key focus for the ID role. Course design may include crafting learning objectives, developing instructional strategies, developing assessment strategies, and finding resources for SMEs to use in instruction. Course development may include creating multimedia objects and other instructional activities

(Instructional Design Competencies, 2012; Villachica, Marker, & Taylor, 2010). Within the course design competency, there are other skills that are significant but varied in ID roles.

## Other Cited Competencies

Other frequently cited ID competencies that were commonly cited, but not as frequently as the previous five, include project management, research and analysis, and technical expertise. Skills like leadership, relationship management, faculty development, and editing were cited but even less frequently. Table 1 lists these competencies and the citations in which they appear. The vast number of competencies cited in the literature illustrate the multifaceted nature of instructional design, which is one of many reasons why this study is important for the field. Table 1 notes the 16 most frequently identified competencies out of the 21 found in the literature review.

*Table 1*

Competencies Cited in the Literature

| Competencies in the literature | Reference | Frequency |
|---|---|---|
| Collaboration | Brigance (2011)<br>Gray et al. (2015)<br>International Board of Standards for Training, Performance and Instruction (2012)<br>Kelly (2016)<br>Kenny et al. (2005)<br>Sims & Koszalka (2008)<br>Solomonson (2008)<br>Sugar & Lue vbbrbach (2015)<br>Sugar et al. (2012) | 9 |
| Communication | Brigance (2011)<br>International Board of Standards for Training, Performance and Instruction (2012)<br>Kelly (2016)<br>Kenny et al. (2005)<br>Sims & Koszalka (2008)<br>Solomonson (2008)<br>Sugar et al. (2012) | 7 |
| Theoretical knowledge | International Board of Standards for Training, Performance and Instruction (2012)<br>Sugar & Luterbach (2015)<br>Kenny et al. (2005)<br>Thompson-Sellers & Calandra (2012)<br>Sims & Koszalka (2008) | 6 |
| Problem-solving/solving ill-structured problems | Ertmer & Stepich (2005)<br>Ertmer et al. (2008)<br>Ertmer et al. (2009)<br>Kenny et al. (2005)<br>Tracey & Boling (2014)<br>Gray et al. (2015) | 6 |
| Course design and development | International Board of Standards for Training, Performance and Instruction (2012)<br>Kelly (2016)<br>Sugar & Luterbach (2015)<br>Villachica, Marker, & Taylor (2010)<br>Gray et al. (2015) | 5 |

| Competencies in the literature | Reference | Frequency |
|---|---|---|
| Management/ project management | International Board of Standards for Training, Performance and Instruction (2012)<br>Kelly (2016)<br>Kenny et al. (2005)<br>Sugar & Luterbach (2015) | 4 |
| Research and analysis | International Board of Standards for Training, Performance and Instruction (2012)<br>Kenny et al. (2005)<br>Sims & Koszalka (2008)<br>Villachica, Marker, & Taylor (2010) | 4 |
| Technical/ technology expertise | Kelly (2016)<br>Kenny et al. (2005)<br>Gray et al. (2015) | 3 |
| Ongoing learning/adaptation | International Board of Standards for Training, Performance and Instruction (2012)<br>Sims & Koszalka (2008)<br>Thompson-Sellers & Calandra (2012) | 3 |
| Leadership | Ashbaugh (2013)<br>Brigance (2011) | 2 |
| Relationship management | International Board of Standards for Training, Performance and Instruction (2012)<br>Solomonson (2008) | 2 |
| Evaluation | International Board of Standards for Training, Performance and Instruction (2012)<br>Villachica, Marker, & Taylor (2010) | 2 |
| Marketing | Kenny et al. (2005)<br>Villachica, Marker, & Taylor (2010) | 2 |
| Identify and resolve ethical and legal implications of design in the workplace | International Board of Standards for Training, Performance and Instruction (2012)<br>Sims & Koszalka (2008) | 2 |
| Faculty development | Kenny et al. (2005) | 1 |
| Editing/proofreading | Kenny et al. (2005) | 1 |

## Methods

We employed a convergent mixed-parallel mixed-methods approach for this study. With this approach, quantitative and qualitative data are collected simultaneously yet analyzed independently. Both sets of data are synthesized collectively to create an interpretation of the results (Creswell & Plano, 2011).

### Participants

The researchers used a non-probability-sampling technique to obtain participants. The survey was sent to a purposive sample with a targeted population of professionals, all associated with an organization involved in professional learning, including the fields of online and distance education. The survey was emailed to members of the UPCEA organization and posted on a UPCEA online discussion forum. However, the survey link could have been forwarded to colleagues, people outside of the organization, or other audiences.

**Instrumentation**

Data for this study was collected using a survey (Appendix A) that drew upon the list of competencies discovered in the literature review. The survey was designed to explore the relationships between and among ID roles, demographics, workplace, team makeup, actual work completed, the preferred work of IDs, and career goals of IDs. The survey began with an ID-specific section to rule out anyone who was not currently serving as an ID or in an ID-related role, which helped to increase the external validity of this study.

**Data Collection**

The survey was hosted through SurveyMonkey. The survey opened for response collection between July 20 and August 14, 2017. There were 139 respondents with a total of 104 qualified respondents, for a margin of error of ±9%.

**Data Analysis**

To determine whether the items in the survey, specifically Questions 17 and 18 (Appendix A), did in fact correspond to our hypothesized constructs, the authors ran a principal components factor analysis using varimax rotation after first standardizing each item to the sample to reduce the differences in metrics. This analysis uses the covariance among items to estimate the potential solutions to a system of complex equations with the maximum number of distinct solutions corresponding to the number of items under consideration. The researchers applied the Kaiser rule and considered only eigenvalues greater than one, and the analysis determined the correspondence of each item to the underlying composite construct associated with each of these estimated solutions. These considerations, in turn, helped to determine empirically the likely content of that construct. For this process, the researchers considered only correlations of $r = .40$ or greater as evidence that an item correlated with a given construct, as this is common in social science studies that use factor analysis.

Along with the quantitative analysis, specific write-in text questions required qualitative analysis of the data. The responses from each qualitative question were brought into a collaborative document to allow for peer-to-peer coding collaboration. One researcher made an initial pass through the open-ended responses, organizing them into a priori and in vivo codes to capture emerging patterns and themes. After the initial round of coding was complete, a second researcher reviewed the codes to improve the analysis.

## Results

**Demographics**

Demographics data showed that nearly 70% of all respondents were female. Additionally, 75% of respondents had one to 10 years of ID experience, and 97% of that experience came from a higher education background. Nearly 88% had a graduate degree, with 49% of respondents stating that their respective degrees came from either an instructional design or educational technology program.

From an organizational perspective, 61% of respondents came from public higher education institutions. Nearly half (48%) stated that ID services are centralized at their institution, while 38% reported decentralized services. When looking at this information by institution type, nearly half of all public, private, and for-profit ID departments were centralized. Less than half

(45%) of all departments, regardless of institution type, had three or fewer IDs on staff. From this group, 27% had two to three IDs, and 22% had eight or more. Sixty-seven percent of for-profit private institutions had zero to one IDs, and 37% of private nonprofits had two to three IDs. Twenty-five percent of public institutions had eight or more IDs, while 60% had 20 or fewer team members. Overall, 56% of respondents do a mix of faculty and content development.

**Quantitative Findings**

The results on Question 17 revealed seven underlying constructs, labeled Program Evaluation, Theory, Top Down Leadership, Bottom-Up Leadership, Faculty Problems, Course Design/Editing, and Technology/Media. Table 2 shows the correlation of each item with these underlying constructs.

Table 2

*Correlations Between Question 17 Items and Underlying Constructs Derived From Factor Analysis*

| | Constructs | | | | | | |
|---|---|---|---|---|---|---|---|
| **Item** | **Evaluation and Analysis** | **Theory** | **Top-Down Leadership** | **Bottom-Up Leadership** | **Faculty Expertise** | **Course Design/ Editing** | **Technology/ Media** |
| Conduct needs analysis | .851 | | | | | | |
| Conduct task analysis | .828 | | | | | | |
| Evaluation | .662 | | | | | | |
| Research | .639 | | | | | | |
| Theory application | | .906 | | | | | |
| Theoretical knowledge | | .888 | | | | | |
| Teaching/ learning experience | | .764 | | | | | |
| Relationship management | | | .732 | | | | |
| Problem-solving | | | .674 | | | | |
| Management/ project management | | | .622 | | | | |
| Collaboration w/SME | | | .581 | | | | |

## Constructs

| Item | Evaluation and Analysis | Theory | Top-Down Leadership | Bottom-Up Leadership | Faculty Expertise | Course Design/ Editing | Technology/ Media |
|---|---|---|---|---|---|---|---|
| Written/ verbal communication | | | .535 | | | | |
| Ethics | | | | .719 | | | |
| Marketing | | | | .678 | | | |
| Leadership | | | | .601 | | | |
| Conduct pilot tests | | | | .596 | | | |
| Technical expertise | | | | | .861 | | |
| Multimedia expertise | | | | | .833 | | |
| Editing/ proofreading | | | | | | .812 | |
| Design | | | | | | .663 | |
| Faculty development | | | | | | | .801 |
| Learning/ adaptation to new situations | | | | | | | .696 |

The strongest construct, Evaluation and Analysis, is consistent with the literature, as the individual items within that construct speak to the observation, evaluation, and planning skills often employed by IDs as they begin the design process (Kenny et al., 2005). The Theory construct, which includes items mentioned prominently in the literature, is the second-strongest construct, presumably due to the influence of learning theory on the profession. The next two constructs center on the multidirectional nature of leadership: Top-Down Leadership and Bottom-Up Leadership.

While Table 2 helps explain *if* different constructs were deemed important by IDs, Table 3 illustrates *how* important IDs felt each item was. Table 3 shows the correlation of each item listed in Question 18 of the survey, with the exception of Marketing and Piloting, as no respondents listed either item in their top five.

Table 3

*Correlations Between Question 18 Items and Underlying Constructs Derived From Factor Analysis*

| Item | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | **Constructs** | | | | |
| TheoryKnow18 | .704 | | | | | | | |
| ProjMgmt18 | -.679 | | | | | | | .406 |
| TheoryApp18 | .621 | | | | | | | .443 |
| Comm18 | -.487 | | | | | | | |
| ProbSolv18 | | .734 | | | | | | |
| Tech18 | | -.651 | | | | | | |
| Collab18 | | -.530 | | -.414 | | | | |
| MultiMed18 | | | .755 | | | | | |
| AnalNA18 | | | .585 | | | | | |
| Design18 | | | -.556 | | -.409 | | | |
| Ldrship18 | | | | .836 | | | | |
| AnalTA18 | | | | .625 | | | | |
| FacDev18 | | | | | .832 | | | |
| Research18 | | | | | | | | |
| TLExp18 | | | | | | -.792 | | |
| EditProof18 | | | | | | .658 | | |
| RelatMgmt18 | | | | | | | -.739 | |
| Ethic18 | | | | | | | -.631 | |
| Eval18 | | | | | | | | |
| Adapt18 | | | | | | | | -.744 |

It is interesting to note that there are patterns of opposition within Construct 1 on Table 3. For Construct 1, the researchers took the four identified components. Most noticeably, the two theory items are working in opposition to each other. As shown in Table 4, when an additional factor analysis is conducted solely on the four items in Construct 1, it is shown that people who are likely to pick *management/project management* are very strongly not likely to pick *knowledge of theoretical foundations and instructional design models*.

Table 4

*Correlations Between Question 18 Construct 1 Items Derived From Factor Analysis*

|  | **Construct** | |
| --- | --- | --- |
| **Item** | **1** | **2** |
| ProjMgmt18 | -.867 | |
| TheoryKnow18 | .744 | |
| Comm18 | | -.862 |
| TheoryApp18 | | .721 |

Further, it appears as though IDs picked one of the theory items at random. Had they not, the two theory items would have aligned with each other after the exploratory factor analysis.

The final factor analysis (Table 5) shows the importance of items that comprised Top-Down Leadership and Bottom-Up Leadership in Question 18.

Table 5

*Correlations Between Top-Down Leadership and Bottom-Up Leadership Items Derived From Factor Analysis on Question 18*

|  | **Construct** | | | |
| --- | --- | --- | --- | --- |
| **Item** | **1** | **2** | **3** | **4** |
| Ldrship18 | .841 | | | |
| Collab18 | -.775 | | | |
| RelatMgmt18 | | .789 | | |
| Ethic18 | | .673 | .479 | |
| ProjMgmt18 | | | .891 | |
| Comm18 | | | | .974 |

It is interesting to note that when IDs pick *relationship management* as important, they are also more likely to pick *identify and resolve ethical and legal implications of design in the workplace* as important. If they pick it, they also are more likely to pick *management/project management*. Even though this ethically tied item was part of the Top-Down Leadership construct in Table 2, when picking items of importance, ethical and legal implications corresponded to the importance they placed on management. The participants who picked management items were more likely to pick *ethical and legal implications* as an important item. Additionally, the participants who cared about leadership were in direct contrast to those who cared about collaboration. Picking one substantially reduced the likelihood to pick the other. The participants who identified

communication as important had no relationship to identifying any of the other leadership components as important, as participants were no less or more likely to pick any of the other items within that construct.

## Qualitative Findings

Question 4 asked, "How do you define your role as an instructional designer or what an instructional designer does?" The data can be broken down into 10 categories, in order of highest to lowest responses: (1) collaborating, (2) content creating, (3) consulting, (4) support, (5) theory, (6) designing, (7) training, (8) project management, (9) reviewing, and (10) policy. The first five categories were the largest represented answers, with 170 instances of IDs supplying evidence for those roles. The last five categories made up only 50 different examples from IDs. The following section describes the open-ended answers from these respondents.

**Collaboration, content, and consulting.** The highest responses for the top three competencies of collaborating, content creating, and consulting all focused on working with faculty and creating or giving advice on course content. Being a collaborator was one of the most described roles, with emphasis on ways in which IDs collaborate with faculty or SMEs. Going along with that competency, and overlapping it a bit, IDs described their role as that of course content creator. When not creating content, many IDs detailed their roles as consultants who coach faculty on best practices to use in their courses. One respondent described the relationship as such:

> An instructional designer bridges the gap between an instructor and the learner - closely identifying objectives and content and aligning that with best practices for activities and assessments to help the learners and instructors in the best methods possible for maximum learning.

Despite the emphasis on collaboration and consulting, the faculty–ID relationship is not always easy. As one participant mentioned,

> I wish I was spending time working with faculty to help them come up with new and innovative ways to teach online that use the latest technology and research to make the highest quality course. … Faculty who do not adhere to an agreed-upon timeline prevents me from spending my time this way. Faculty are often submitting content for review far past the due date to the point that I'm scrambling to get their content prepared for student availability and there's no time for back-and-forth negotiation on how things could be improved.

Another ID said, "Right now I train and support faculty through the design and building process. There is a lot of nagging people to get things done which I don't really like."

The data show that the collaborative relationship between IDs and faculty can be challenging. Many of the respondents wished to be creative and innovative while perceiving faculty as resistant to change. As one ID described, "Most faculty are too busy or stuck in 'their way' of doing things to be creative and think outside the box." Another ID put it simply that, "Faculty have their own way of creating content." One ID felt that they were unable to actually design because they are "forced to do what the prof wants." Similarly, one respondent thought they couldn't design learning modules because "faculty think they can do it better."

**Support and theory.** Instructional designers also described their support roles and the ID theory they used. There were 27 participants that gave examples of the support they give to users and the assistance they provide to faculty with their technology usage. Part of this support was

helping faculty understand not only how to use the technology but also how to apply best practices and teaching theory, as evidenced by many participants who mentioned using the ADDIE model, backward design, pedagogy, andragogy, learning theory, universal design for learning (UDL), and scholarship of teaching and learning (SoTL). Many of the respondents consider themselves experts in teaching and learning. One suggested the following:

> I act as the SME for adult learning and teaching theories and provide a structure and process for an instructor or SME on specific topics. They may know their topic well, but instructional designers know the best way to teach and how people best learn and incorporate that in an instructor/SMEs courses.

Another ID said, "When I explain to other people what an ID does, I explain that my expertise is knowing how people learn and using that to help faculty develop meaningful online classes." The focus on support and theory is a matter of pride for some IDs. One ID described the most exciting part of the job as "when you actually get to design a course or a program, from the learning objectives on, where you're involved in the philosophy and the pedagogy and the building."

**Other competencies.** The authors wished to ensure that the competencies cited in the survey encompassed the competencies the respondents considered important. For the most part, the respondents agreed that the list of competencies was reflective of what they considered critical in their role. Of the lesser identified roles, designing and training were mentioned the most, with examples of how IDs help faculty understand how to design courses or how they lead workshops, departmental trainings, or one-on-one trainings to guide faculty. Only nine participants shared that they have an element of project management in their job. Another nine shared that they have elements of reviewing and quality control in their job, one in particular citing Quality Matters, an organization devoted to online course-quality review. Five of the respondents mentioned their work with policy, enforcing existing policy, and working with standards.

IDs described additional competencies in response to Question 22, "Are there competencies not listed that you think are important in your role?" These included such things as being "forward-thinking," "translat[ing] theory and design principles to academics," "being humble," "having an open mind," possessing "knowledge and skills related to accessibility," and being able to conduct "negotiation" as well as qualities such as "diplomacy," "patience," "flexibility," and "strategic thinking."

## Time Spent

Questions 20 and 21 asked, "What do you wish you were spending your time at work on?" and "What prevents you from spending your time in this way?" Many of the IDs discussed issues with having tasks outside the collaboration/consultation role that prevent them from doing what they consider ID work. One individual related that they wish they could spend more time, "working on longer-term projects to improve processes and course development" but instead are "putting out fires and faculty-perceived emergencies and fixing existing issues in courses designed several years before I arrived here."

Another ID said they wish they were able to spend more time "collaborating with and development of faculty and SMEs to produce higher quality online courses; researching new technologies, developing ways for use of the tech in an online environment and passing that information along to faculty" and that "[the] university's lack of structure, direction and leadership for online education; being woefully understaffed; lack of specialization within the units that

support online learning" prevent them from being able to do so. One ID mentioned that they are expected to provide tech support, which eats up their time, saying, "I support the CMS [content management system] and [wish to have] more time working with faculty to improve the quality of their courses online." The response to what prevents this individual from doing so was simply stated, "Department stove pipes."

Others wished they were applying theoretical knowledge, researching, working more with faculty, innovating, applying new technologies, designing more, being more creative, developing relationships with leadership, and managing projects. The main things that are getting in the way include faculty misunderstanding of ID roles, email and administrative tasks, lack of resources and IDs, organization culture that impedes design, innovation, and relationship building.

Only a couple of respondents who answered Questions 20 and 21 had a more positive outlook regarding their role. For example, one ID said that they wish they were "[working on] everything that I currently work on. It is a dynamic mix of activities, courses, programs and initiatives. Never a dull moment. Not necessarily all ID, but I prefer it that way." Another participant responded that they are "doing what I want to be doing, for the most part" but that "administrative" items can get in the way of doing what they wish. Another ID said, "No two days are ever the same and the skillset is very wide ranging."

## Goals of IDs

When asked about career plans in the next three to five years, 41% of individuals responded that they were planning on staying put and continuing what they're doing. An additional 22% mentioned an interest in moving up in positions within their institution, with over half (53%) of individuals expressing interest in becoming administrators in the future.

To attain these goals, 71% of those individuals felt that access to professional development will help. In addition, just under half (43%) of individuals were interested in continuing their education in the future, with 10% already doing so.

## Discussion and Implications

Quantitatively, the responses to Question 17, wherein IDs were asked to rank the importance of each competency based upon how they each operated in their role, revealed seven underlying constructs: Program Evaluation, Theory, Top-Down Leadership, Bottom-Up Leadership, Faculty Problems, Course Design/Editing, and Technology/Media. The findings show that IDs believed skills related to program evaluation and theory were the most important competencies.

The results suggest that the ability to evaluate programs, coupled with incorporating learning theories, are the most critical competencies for the profession. These items additionally make sense in the top positions because framing learning in an effective and organized manner is at the forefront of learning development. It is not a surprising finding considering nearly half of respondents with graduate degrees (49%) completed programs in instructional or learning design.

While responses to Question 17 explained whether different constructs were important to IDs, Question 18 showed how important IDs perceived each item. IDs responded that they preferred more autonomy to do the things they want to do and less being told what to do, behavior more commonly associated with the collaborative aspects of bottom-up leadership. Collaboration

was the most frequently cited item in the literature, supporting the idea that IDs prefer to work with others collaboratively while having the ability to make decisions independently.

They responded unfavorably to top-down leadership and its penchant for more structured lines of authority. This finding does not imply that IDs do not like top-down leadership or even structured authority lines. Rather, it sheds light on what competencies they see as important or unimportant to do their job. The qualitative responses demonstrate that often the IDs are bogged down by administrative tasks that prevent them from using their ID skills on a regular basis.

The implications of the findings have the potential to contribute to discussions about the basic knowledge, skills, and abilities, or competencies IDs need to possess to be successful in the field. These findings alone can be used when creating a job description that accurately outlines employment expectations at the onset of the job. Further, leadership can use these competencies to identify potential employee knowledge gaps, which in turn can be used to identify the most pertinent professional development opportunities. With regard to leadership, these findings also provide insight to leaders that helps them understand how IDs best work with leaders and followers. For example, the qualitative results suggest that IDs are often unable to apply basic ID skills (i.e., working with faculty, collaborating, providing theoretical knowledge) during their normal routine because they are often putting out fires, emailing, or attending meetings. Managers of IDs may benefit from the knowledge that IDs typically wish to employ their higher level skills but do not have the time or capacity to do so. Eliminating some of these barriers may increase the productivity of IDs while also improving job satisfaction.

While the findings showed how IDs define their role and the varying ways they approach their work, some clear patterns emerge. The highest commonality in the responses was the work of collaborating, creating content, and consulting. Specifically, participants in the study work with faculty, either creating content for them or giving advice on how to create content. This is further supported by noting the frequency of roles such as support, theory, designing, training, and reviewing. The findings demonstrate that it is important for IDs to have competencies in learning design and theory, which will cover many of the tasks they will be asked to do on the job, and that IDs are often proud of their expertise in this area and wish to use this expertise frequently.

Given that 88% of respondents had a graduate degree, with 49% of respondents' degrees focused on instructional design or educational technology, it is clear that IDs come into the collaborative space with a great deal of knowledge and expertise in teaching and learning. However, IDs consistently described the relationship with faculty as strained. IDs reported having to wait for faculty to complete work outside of agreed upon timelines. Some reported working with faculty who simply did not value or understand the ID role in the design process. Three main points in the Instructonal Design in Higher Education (2016) report state that there is a lack of understanding of the ID role, little enticement from administration to work with IDs, and a lack of motivation for faculty to change their teaching practices to adapt to the online environment. More research is needed on the relationship and tensions that ID and faculty experience, as the success of one is the success of the other and ultimately—and arguably most important—the learner.

Because there is a gap between what IDs stated they do on a regular basis and what their goals are, with barriers to attaining those goals, it would be beneficial to conduct research on employers' expectations of the ID role, and how an ID's skill set changes depending on the type of institution or job he or she holds. It would be also be interesting to explore how an ID's job satisfaction and career path are impacted when juggling many responsibilities and when wearing

many hats. Employers would benefit from such research when crafting job descriptions, onboarding new IDs, and evaluating an institution's overall culture and goals and how instructional design fits into it.

Furthermore, additional study could be conducted into the fact that IDs who selected *management/project management* and *communication* as top-five competencies were very unlikely to pick *knowledge of theoretical foundations and instructional design models* and *application of theory*, respectively. Is this because those who manage instructional design teams do not need to know theoretical foundations and design models to lead? If so, how do IDs feel about having leaders who cannot do what they must?

It is interesting to note that a smaller subset of IDs reported having project management and policy-reviewing responsibilities. This may be explained by the role, such as a lead ID who has other IDs working under them, but it may also point to a needed skill for IDs. Even if they are not supervising other IDs, it is important to have well-thought-out project management techniques to ensure projects are finished on time.

Further research on these gaps will also inform professional development for IDs. Many of the IDs in this study were happy to remain in their role over the next three to five years (41%), and indeed only 22% of respondents stated that they wished to "climb the ladder." However, 53% of respondents are looking to move into an administrative role as their next career step. Managers of IDs may consider surveying their IDs to find out if this is something they are interested in pursuing. IDs who wish to move into a leadership role will benefit from professional development centered around leadership skills and project management over technical or instructional design skills. This may address some of the concerns regarding those who manage IDs (i.e., lack of theoretical knowledge or application of theory) and the IDs who perform the day-to-day ID role. With thoughtful planning and professional development, future ID managers will have both leadership and management skills as well as the foundational ID skills.

## Limitations

The main limitations in the study include the recruitment of participants, the response rate, the short-term nature of the project, and the potential biases of the researchers. The survey was distributed to members within the UPCEA professional organization. There was no way to know if the members who received notice of the study distributed the survey link to participants outside UPCEA. A further concern is that the number of IDs within the UPCEA is unknown. The survey was sent out to 577 registered eDesign Collaborative members, the group within the UPCEA likely to contain ID membership. There were 134 responses, but only 104 of those were usable, based on the criteria of the survey.

The study was a snapshot of the IDs' thoughts on their practice rather than longitudinal study distributed over a long period. It would be interesting to conduct a cohort study of a group of IDs over time to understand how their roles change and/or if their roles change based on the nature of projects assigned. Despite the short-term nature of this study, the ID responses are valuable for those interested in what IDs do in their daily practice.

Finally, we are all working in the field of instructional design at different institutions. As mentioned previously, one of the researchers holds a leadership position and supervises IDs, including one of the other research team members. The other two researchers are IDs. At the onset of the study, each of the researchers held preconceived notions of what an ID's role and

competencies were. We conducted peer checks among the team with all qualitative data to decrease likelihood of bias. We could have sent the data to outside peer reviewers to further decrease bias but were not able to within the time frame of the study.

## Conclusion

The state of higher education, online learning, and instructional design is constantly, and rapidly, changing. This study shows that IDs generally know what they need to know and are interested in knowing more, including being willing to level up not only their skills but their roles. More importantly, IDs know what does not work in their profession, and cite that the time they spend on other projects and administrative tasks is a barrier to skill development and career growth. For example, there is a gap between what they are required to do on a daily basis and what they wish they were spending time on—namely, content development, new/innovative strategies and technologies, working with faculty, and research/analysis. This illustrates that the professionals in this field are prepared to adapt to the needs of their employer, and it is important for employers to adapt the changing field of instructional design as well.

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**Appendix A**
**Roles and Competencies of Current Instructional Designers Survey**

**ID specific**
1. Is your current job title or role focused on instructional design or similar (*The Association for Educational Communications and Technology (AECT) defines this as "a system of procedures for developing education and training curricula in a consistent and reliable fashion" (Branch & Merrill, 2012, p.8)*))?
2. Yes No
3. Survey logic note:
    a. If yes
        i.    What is your title and role (text response)
        ii.   move to #4 (How many years…) question
    b. If no,
        i.    What is your title and role? (text response)
    c. Do you consider what you do instructional design work, based upon the AECT definition? Yes No
        i.    (If no, ask) Do you manage IDs? Yes No
            1.   (If no, ask) Are you a multimedia designer?
            (If yes, to all of the above, send to "Thank you for your input. We plan to reach out to multimedia designers. If you are interested in either taking the survey or helping craft it, please input your name and contact email below." message.
4. How do you define your role as an instructional designer or what an instructional designer does? (text response)
5. How many years have you been employed as an instructional designer?
    a. Years: 0, <1, 1-5, 6-10, 11-15, 16-20, >20
6. Which of the following fields are you currently employed?
   K-12, Higher Education, Private Industry (select one)
7. Select each of the sectors have you have done instructional design work in prior to your current position.
    a. Fields: K-12, Higher Education, Private Industry (select as many as necessary)
8. What is your highest completed degree?
    a. None, Bachelor's, Master's, Doctorate
9. What is the Major/Field of your highest completed degree? Text box for answer

**Demographics:**
10. Gender: Male, female, other, wish not to say
11. Age range: 18-25, 26-35, 36-45, 46-55, 56-65, 66 or older

**Workplace**
12. What best describes the institution where you are currently employed?
    a. Public, Private (non-profit), Private (for-profit), Government, Industry
13. Are instructional designers at your institution centralized, decentralized on-site, or decentralized remote (i.e. institutional wide office vs. individual college or program office)?
    a. Decentralized
    b. Centralized
    c. Other - describe (e.g. only designer for institution) (open comment)

**Team make-up**

14. How many IDs do you have in your department?
     a. 0-1; 2-3; 4-5; 6-8; 8 or more
15. How many total employees do you have in your department? Text box answer

16. Which of the following best describes your development role: (select one)
     a. Primarily faculty development
     b. Primarily content development
     c. Mix of both faculty development and content development

**Ratings of Competencies**

17. The following list represents the most frequently mentioned competencies in the literature on the ID field. Thinking of how you operate in your ID role, please indicate the importance of **each** item using the provided scale. (1 = least important; 5 = most important).
     a. Collaboration with SMEs/content experts/faculty/instructors
     b. Course design/development/design judgements; Write learning objectives
     c. Technical/technology expertise
     d. Multimedia expertise (graphic design)
     e. Knowledge of theoretical foundations and instructional design models
     f. Applying theoretical foundations and instructional design models
     g. Teaching and Learning expertise; Applying theory to teaching practice and student learning experience
     h. Leadership
     i. Written/verbal communication; Asynchronous, synchronous
     j. Problem-solving/solving ill-structured problems
     k. Relationship management
     l. Management/Project management
     m. Research
     n. Analysis - Conduct needs assessment
     o. Analysis - Conduct task analysis
     p. Evaluation
     q. Faculty Development
     r. Marketing
     s. Conduct pilot tests
     t. Editing/proofreading
     u. Ongoing learning and adaptation to new situations
     v. Identify and resolve ethical and legal implications of design in the workplace
     w. Competencies
     x. Other, not listed text field
18. Based on your professional experience, what do you think are the top five competencies for an ID? Please indicate in no particular order your top five competencies from the following list. (check boxes; max five choices).
     a. Collaboration with SMEs/content experts/faculty/instructors
     b. Course design/development/design judgements; Write learning objectives
     c. Technical/technology expertise

d. Multimedia expertise (graphic design)
e. Knowledge of theoretical foundations and instructional design models
f. Applying theoretical foundations and instructional design models
g. Teaching and Learning expertise; Applying theory to teaching practice and student learning experience
h. Leadership
i. Written/verbal communication; Asynchronous, synchronous
j. Problem-solving/solving ill-structured problems
k. Relationship management
l. Management/Project management
m. Research
n. Analysis - Conduct needs assessment
o. Analysis - Conduct task analysis
p. Evaluation
q. Faculty Development
r. Marketing
s. Conduct pilot tests
t. Editing/proofreading
u. Ongoing learning and adaptation to new situations
v. Identify and resolve ethical and legal implications of design in the workplace
w. Competencies
x. Other, not listed (Text field)

19. The following nine competencies were most frequently listed in the literature. Rate the hours per work week you spend employing each of these competencies.

| Competency | Average hours spent each week |
|---|---|
| Collaborating with SMEs/content experts/faculty/instructors | Dropdown with 0, 1-5, 6-10, 11-15, 16-20, 21-30, 31+ |
| Communicating through written, verbal, asynchronous, and synchronous formats | |
| Knowledge of ID models; Applying theory and models; Teaching and Learning expertise; Applying theory to teaching practice and student learning experience | |
| Course design/development; Writing learning objectives | |
| Problem-solving; solving ill-structured problems | |
| Project management | |
| Research and Analysis | |

| Competency | Average hours spent each week |
|---|---|
| (including conducting needs assessments or task analysis) | |
| Technical/technology expertise | |
| Ongoing learning and adaptation to new situations | |

20. What do you wish you were spending your time at work on? (text response)
21. What prevents you from spending your time in this way? (text response)
22. Are there competencies not listed that you think are important in your role? (text response)

**ID Goals**

23. a. Do you wish to become an administrator or manager in the future?
    a. Yes, No, Not sure
        i. If yes:
        ii. What competencies do you think you need to reach this goal? (text response)
        iii. Do you feel that you have access to professional development that will help you achieve this goal?
    b. If no or not sure:
        i. What are your career plans in the next 3-5 years? (text response)
        ii. Do you plan to continue your education (if you aren't already pursuing a degree, certificate or micro-credential)? Yes No
            1. What competencies do you think you need to reach your goals? (text response)