Theory-Driven and Practice Oriented Perspectives on Instructional Design and Learning Experience Design

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Design Expertise
Design Practice
Instructional Design
Learning Experience Design

In this position paper, I argue that Learning Experience Design (LXD) is not different from Instructional Design (ID) but rather another natural evolution of ID. I make this argument through: (1) exploring the history and theory of Instructional Design and Technology (IDT) discipline, and (2) sharing a reflection on my own career as a learning designer, where I describe my journey toward becoming an experienced and expert learning designer through examples of my design work.

Learning Experience Design: Key Definitions and Meaning

Before I illustrate my position on how I view Learning Experience Design (LXD) as not different from Instructional Design (ID), but rather another natural evolution of the discipline, in this section I provide a brief overview of how LXD is discussed in the LXD literature. The section provides key arguments concerning LXD and its distinct features.

Learning experience design does not appear to have a clear definition, as it is positioned both as a new field and a new phenomenon (Jahnke et al., 2022; Schmidt et al., 2020). At the same time, Jahnke et al. (2022) stress that LXD is not distinct or separate from instructional design (ID), but rather "LXD sits alongside ID and UX [user experience] as a complementary approach to design for learning" (Jahnke et al., 2022, p. 52). An important part of design, LXD is characterized by its design intentionality as it engages the learner in the process of human-centered activities (Jahnke et al., 2022; Jahnke et al., 2020). The distinct feature of LXD is its focus on the learner and their sociocultural context. It is human-centric, and the design process is largely informed by user experience design (UXD) methods (Schmidt & Huang, 2021). In contrast, existing theories and approaches in ID have historically not accounted for actual learners' experiences when they navigate through their learning, specifically in digital learning environments.

LXD draws heavily from other design disciplines, including user experience (UX), user centered design (UCD), and human-computer interaction (HCI). It employs methods that are not widely used in instructional design, as, historically, the instructional design discipline

focused predominantly on processes, such as models (Gray, 2020). Such novel methods include creating personas and scenarios, prototyping digital environments for learning, rapid prototyping, paper prototyping, wireframing, card sorting, cognitive walkthroughs, heuristic evaluation, think-aloud user study, and eye tracking (Schmidt et al., 2020). Further, LXD uniquely considers the following three major dimensions when designing worthwhile learning experiences: the social/sociocultural dimension, the technological dimension, and the pedagogical dimension (Jahnke et al., 2020).

In sum, LXD employs novel methods and combines traditions from UXD and HCI to highlight the role of the learner and their experiences when designing web-based or digital learning experiences.

Instructional Design & Learning Experience Design: Are They Different?

In this section, I provide an overview of the major milestones in the instructional design discipline and describe the origin of epistemologically dominant claims about the novelty of LXD.

Change in Instructional Design and Technology is Constant

The discipline of instructional design and technology (IDT) is constantly evolving and experiencing changes in its paradigms and pedagogical approaches. Such changes have also brought new terms. Looking back on key milestones of the development of IDT, we can easily see how the discipline reflected contemporary trends in society. As Willis (2011) stressed, “Minds are not isolated thinking machines that operate independently of their context, other minds, and social relationships” (p. 13). IDT is not an exception.

The IDT discipline we are most familiar with today emerged in the form of visual media in the early 1900s in school museums (Molenda, 2022). This was the gateway to the use of creative instructional media and the encouragement of teachers to bring observable, sometimes tangible, objects to assist learning in a new way. Items such as film, photographs, and other visual aids were used to guide learning in exhibits (Molenda, 2022; Reiser, 2012).

Throughout history, there have been many prescriptive instructional design models created by leading scholars in the discipline to assist instructors with developing the best learning approaches for students. Among the many models were the Dick and Carey model, the Pebble-in-the-Pond model, and the ADDIE model (Branch & Merrill, 2012). Although some argue that ADDIE is not a model, it is often taught as a model in IDT programs. Such instructional models, which call for effective and efficient instruction, were developed in light of the need to educate a large and diverse group of individuals in the post-World War II era. For instance, the ADDIE model remains one of today’s most well-known tools across instructional systems technology (IST) and human performance technology (HPT) contexts,

as it represents the core elements necessary for both instruction and evaluation (Branch & Merrill, 2012). Along with the instructional design models, over the history of IDT, there have been different instructional design theories, including Robert Gagne's Nine Events of Instruction (Driscoll, 2005) and David Merrill's First Principles of Instruction (Merrill, 2002).

With advances in communication media, the IDT discipline started witnessing the evolution of means used to deliver instruction, from audio-visual technology to distance education technology. Specifically, the IDT discipline began to focus on distance education in the 21st century as internet technology became more commonplace (Molenda, 2022). This new focus was a response to the need to make education better, more accessible, and more affordable.

Given the developments of educational technology, approaches to designing instruction could not stay the same over time; design approaches need to be responsive to existing realities and learning contexts. For instance, as Molenda (2008) stressed, digital technology enabled instructional designers to create learning environments with the use of verbal and visual media and pedagogies that allow for the integration of problem-solving with collaborative learning. Due to the philosophical shift to constructivism, the discipline changed its orientation toward the design of environments that facilitate learning and away from prespecified instructional routines (Januszewski & Molenda, 2008). Each period of advances in technology and instructional media results in new educational paradigms as new generations of professionals bring their backgrounds and values into the discipline (Molenda, 2008). With these changes, new terms appear in the discipline and learning experience design is one of them.

In today's realities, which include the ever-changing technological landscape and unprecedented challenges, such as the global COVID-19 pandemic, the IDT discipline cannot remain stagnant. It must not always follow the beaten path (Bonk, 2020; Hodges et al., 2020; Lachheb et al., in press). Instead, what is required is a flexible designer mindset (Boling et al., 2022), which implies a repertoire of design approaches and practices to make the design process and outcome more intentional and purposeful. The designer mindset entails the ability to use flexible thinking through framing and judgment-building processes. It also encompasses the use of design tools (Stolterman et al., 2008), the consideration of ethics in the design process (Moore & Tillberg-Webb, 2023), and the harnessing of design failure in the design process to explore new design possibilities (Lachheb, 2020). This flexible thinking, resourcefulness, and problem-solving (Tracey et al., 2022; Yanchar et al., 2010) allow designers to navigate through complex design situations.

As part of this design process, it is undoubtedly important to think through possible experiences that learners might have along the way. This might sound similar to identifying learning target audience and learning context as prescribed in the Dick and Carey model (Dick et al., 2014). However, as reported by learning experience designers themselves, this process goes deeper into the analysis of learner persona and identity as part of designing with diversity, equity, and inclusion in mind (Lachheb & Quintana, 2021). The IDT discipline remains open to innovative design approaches, both theoretical and practical, to create learning experiences that cater to diverse learners. I assert that the term "learning experience design" emerged in response to the need to design for diverse audiences, specifically when it comes to digital learning experiences. Unlike other approaches to

instructional design, LXD places greater emphasis on designing with equity, diversity, and inclusion in mind to better tailor to learners' unique experiences and identities. The purpose of designing such learning is to help learners better identify with their learning experiences and engage with learning on a deeper level. Thus, it can be argued that LXD is a result of the natural evolution of the IDT discipline and came into existence to fulfill the demand for scholars and practitioners to research and design meaningful learning today.

Learning Experience Design: What Does it Mean to Me as a Learning Designer?

I appreciate the perspective that above several LXD-oriented scholars offer, arguing that LXD can be viewed as more comprehensive and novel in comparison with ID. However, I resonate with the idea that LXD is an evolution of ID, especially when it comes to designing learning experiences in technology-enhanced (e.g., virtual reality and augmented reality) and digital environments. Nevertheless, I find certain arguments about LXD not to be unique to it as their origins can be traced back to instructional design.

First, the major claim of LXD is that it centers the learner during every step of the design process and at every stage of the design decision-making process. ID appears to make a similar, if not identical, claim, as evident in several instructional design theories (e.g., Reigeluth & Carr-Chellman, 2009). It appears in major design principles and theories that are meant to guide the design of learning experience (e.g., Keller's (1987) motivational theory). It also appears in the theoretical foundation of instructional design, such as Edgar Dale's (1946) influential textbook in which he expanded the idea of audiovisual instruction and proposed the idea of the Cone of Experience: learning experiences that range from direct/psychomotor experiences to vicarious/cognitive and affective with the use of visual media could be "arrayed in a continuum from concrete to abstract, and each type has a role to play" (Molenda, 2022). Parrish (2009) stated that designing instruction calls for a holistic approach to design learning experiences. Learning experiences include emotional, social, cultural, political, and aesthetic qualities/dimensions.

Second, one cannot refute the argument that ID historically focuses on processes, such as instructional design models for example (Gray, 2020; Boling & Gray, 2014), grounded in the principles of cognitive psychology that prescribe guidelines, best practices, and rules to follow. However, the formulaic nature of such models has been discussed and critiqued by different scholars in the discipline (Boling & Gray, 2014; Lachheb & Boling, 2018; Smith & Boling, 2009; Yanchar et al., 2010) who emphasized that strictly following prescribed steps can result in ignoring the learner and the uniqueness of their learning context. Thus, different authors in the ID discipline suggest taking a wide perspective on learning design that calls for going beyond prescribed steps and best practices (Smith & Boling, 2009; Yanchar et al., 2010). Therefore, the argument that only LXD takes a holistic approach to design and considers the learner in their sociocultural contexts at every stage of the design process appears to have insufficient evidence.

Third, LXD, as claimed by Jahnke et al. (2022), considers three important dimensions when designing for effective learning experiences in digital environments: the social/sociocultural, the technological, and the pedagogical. Arguably, needs analysis that is traditionally used in

ID does not target or consider the same dimensions. However, I argue that the purpose of needs analysis and assessment (Sleezer & Russ-Eft, 2009; Stefaniak et al., 2015; Stefaniak & Sentz, 2020) is to also consider the above dimensions, whether for face-to-face or online learning. Depending on how well a needs analysis and assessment is conducted, it may yield the information related to the listed dimensions about the learner.

LXD literature claims that LXD encompasses perspectives and approaches that are novel and more comprehensive than ones that have traditionally been used in ID and subtly implies that LXD is a better and more well-thought-out approach to designing learning experiences. My argument is that LXD approaches, methods, and claims are easy to follow and employ once a designer gains a high level of expertise that allows them to view their design work holistically and gives them the ability to reach out to neighboring design disciplines and use their methods (e.g., personas from HCI). I claim that LXD, at its core, does not differ from ID but rather represents a certain level of expertise and knowledge that a learning designer has accumulated.

This growth is not necessarily inevitable, but it can be experienced by every designer. It is possible to have years of experience that do not enrich a higher level of expertise because of staying comfortable in using one's current methods, practices, and approaches and refusing to evolve. As I have personally experienced, growth in expertise is the result of intentionally reflecting on one's work and gaining knowledge by staying abreast of new developments in the discipline. As Cross (2004) stressed, design expertise is not solely a matter of having design skills, abilities, or talent but is also the outcome of dedicated application and advancement of design knowledge in a specific design discipline.

Based on Dreyfus's skill-based model, there are six distinct levels of design expertise: (1) novice, (2) advanced beginner, (3) competent, (4) expert, (5) master, and (6) visionary (Dorst & Reymen, 2004; Lawson & Dorst, 2013). What distinguishes a novice designer from an expert (or a master or visionary) is the approach they use when working on a design problem. According to Cross (2004), a novice designer tends to approach a design problem by sequentially identifying and exploring design solutions in depth. In contrast, master designers employ a top-down approach, looking at the big picture first. Expert designers use strategies that novice designers might not yet possess. Additionally, expert designers possess richer design precedent knowledge, which allows them to explore multiple solutions. As part of their design knowledge, expert designers possess a more extensive repertoire of skills and experiences, or "gambits," (Lawson, 2004) through which they can approach a design problem on a deeper level. Therefore, it is safe to assert that the term "learning experience design" and the title "learning experience designer" are heavily tied to a high level of learning design expertise. Learning designers with more expertise are able to approach learning design situations from multiple perspectives.

Because a learner's experience is so multifaceted, LXD requires a holistic view that considers three different domains (cognitive, psychomotor, and affective). To create positive and effective learning experiences, it is crucial to employ methods not only from instructional design but also from other design disciplines. Such methods include personas, rapid prototypes, mock-ups, and user/learner testing to identify areas for design iterations.

In the next part of the paper, I present concrete examples of how growing expertise allows a designer to create more authentic and meaningful learning experiences. As a learning designer myself, I use this section to introduce my design work and philosophy. The purpose of this section is to illustrate how a person's approach to designing can mature over time and result in more meaningful and authentic learning experiences, regardless of whether one has the official title of Learning Experience Designer.

Positionality Statement: My Design Philosophy

Prior to showcasing certain design examples, I discuss the core values that guide my design work. As a learning designer, I subscribe to the idea that instructional design belongs to the family of design disciplines (Gibbons, 2013; Parrish, 2009). As such, learning design should address unique problems, serve a purpose, and be service oriented. Regarding design outcome, there is no such thing as a perfect design; there will always be room for improvement. A design will continue evolving over time, which makes the design ultimate. Therefore, design can be described as the ultimate particular (Nelson & Stolterman, 2014). Attempts to strictly apply existing instructional design models to a given design situation can result in ignoring the uniqueness of that design situation and designing stereotypical ways of learning (Gibbons et al., 2014).

My overall design philosophy foregrounds four main elements: meaningfulness, purpose, consistency, and appeal. Meaningfulness should manifest itself in the design of learning activities and assessments that are relatable to students on professional and/or personal levels. Relatedly, instructional designers should design learning experiences for a specific purpose, and learners should see the purpose of their learning. The third element of my design philosophy is consistency, which manifests itself in instructional design through alignment, such as the alignment of technology, instructional materials, and assessments with learning outcomes. Learners should feel that their activities are connected with each other and that nothing seems random or arbitrary in their learning process; the design creates an organic whole. The fourth element is appeal, which means that components of the learning experience, such as learning materials and content, should be well presented to learners.

Design Narrative: Learning Experience Design as a High Level of Expertise

By 2023, I had accumulated 12 years as a professional in the IDT discipline in diverse contexts, mainly in higher education settings. I have had the opportunity to design a wide range of learning experiences, including face-to-face courses, blended courses, and fully online courses, as well as onboarding and professional development face-to-face and online training. In 2022, I obtained my Ph.D. in Instructional Systems Technology from Indiana University Bloomington, where I was trained to be a scholar, an educator, and a designer, through coursework, professional experiences, mentorship, and minoring outside of

education majors—minoring in Human Computer-Interaction and Design (HCI/d) at the IU School of Informatics.

The Design of the Design Narrative

This professional experience in the IDT discipline of instructional design and technologies allowed me to have knowledge of both in situ design practice and a scholarly understanding of design practice—a scholar-practitioner design knowledge that is theory-driven and practice-oriented. I believe this kind of knowledge is important to share and learn from as it is valuable to inform (and why not guide) educators' practices, scholars' work, and fellow colleagues in the professional practice of learning design.

To access this knowledge and share it in this scholarly position paper, I drew upon autoethnographic approaches to qualitative inquiry (Ellis, 2004; Ellis et al., 2011), to gain inspiration on how to write this paper. I did not restrict myself to a specific methodological process to keep my authentic voice. The inspiration for autoethnographic approaches came from a few examples of autoethnographic research in IDT literature (Boling, 2016; McDonald et al., 2022). Additionally, I provide three different short design cases that capture my growth as a learning designer. Doing so allowed me to describe and analyze my personal experience in my respective professional settings to support my aforementioned claims in support of my position.

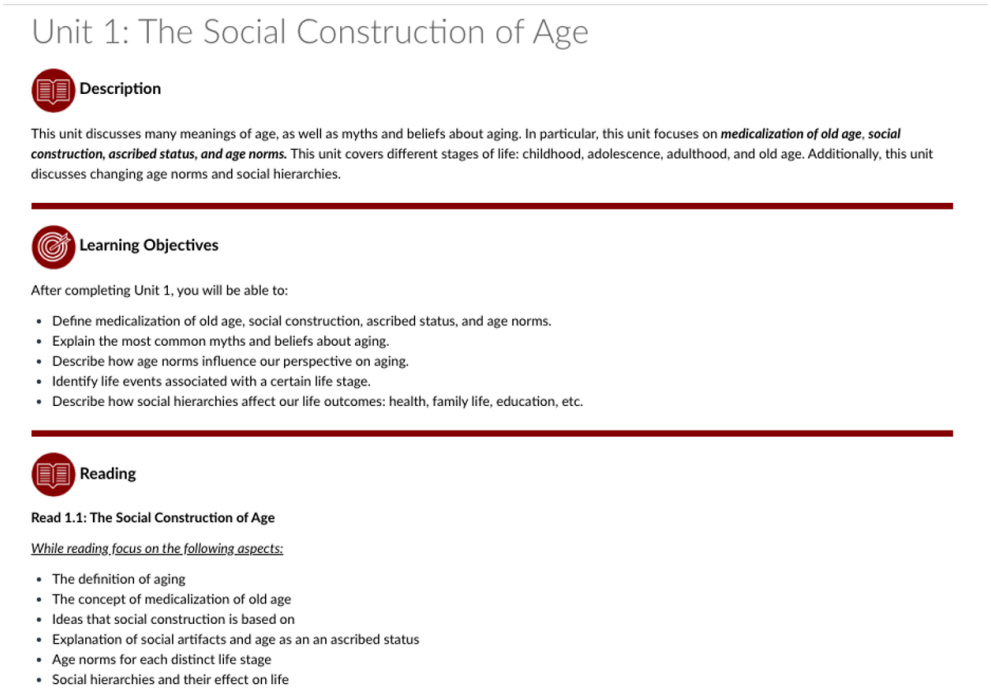
Example 1: Designing an Online Academic Course

At the beginning of my journey as a learning designer, I mostly designed academic courses. This offered a well-defined design space since the structure of the course was easy to identify as the course spanned a semester. The learning objectives of the courses were also clearly formulated, as they were tied to specific professional competencies. My key purposes were to ensure alignment with learning objectives and assessments, update learning content with affordable open educational resources, and make assignments more hands-on and practice oriented. Therefore, the design process simply entailed thoroughly thinking through each step and sequentially moving from one design step to the next, such as formulating learning objectives first and then checking for alignment.

At that point in my career, I believed that having such a structure in the design process guaranteed that learners would enjoy the course. There is no doubt that identifying key milestones in the design process and outlining next design steps and moves is crucial, but with more years of experience and as my expertise grew, I realized that it involves a more intense thinking process. As a manifestation of my design approach and process at that time, the courses that I designed were presented in a structured and linear way (see Figure 1).

Figure 1

Example of a Page Structure of an Online Course



Unit 1: The Social Construction of Age

Description

This unit discusses many meanings of age, as well as myths and beliefs about aging. In particular, this unit focuses on ***medicalization of old age***, ***social construction, ascribed status, and age norms.*** This unit covers different stages of life: childhood, adolescence, adulthood, and old age. Additionally, this unit discusses changing age norms and social hierarchies.

Learning Objectives

After completing Unit 1, you will be able to:

- Define medicalization of old age, social construction, ascribed status, and age norms.
- Explain the most common myths and beliefs about aging.
- Describe how age norms influence our perspective on aging.
- Identify life events associated with a certain life stage.
- Describe how social hierarchies affect our life outcomes: health, family life, education, etc.

Reading

Read 1.1: The Social Construction of Age

While reading focus on the following aspects:

- The definition of aging
- The concept of medicalization of old age
- Ideas that social construction is based on
- Explanation of social artifacts and age as an an ascribed status
- Age norms for each distinct life stage
- Social hierarchies and their effect on life

Using Dreyfus' skill-based model (Dorst & Reymen, 2004; Lawson & Dorst, 2013), I would consider myself at that stage in my career as a novice, slowly becoming a competent designer. Like a novice, at that time I treated the goals and objectives of a design project as if they were given to me by the experts (a lead learning designer and a supervisor) and strictly followed the prescribed steps. I would carefully follow a suggested instructional design model to complete a project. Yet, like a competent designer, I started paying closer attention to the contextual nuances of each design project. I began to focus on the goals of the course and learners rather than only following the prescribed steps. However, I still needed guidance from expert designers in situations in which I had no previous knowledge or experience, such as a designing completely new course or employing a new format.

Eventually, I realized that ensuring the alignment of learning objectives with assessments is not enough to ensure a positive learning experience. Over time I gained more knowledge about design as a discipline and dove deeper into mapping learner experiences and learner analysis. The next time I worked on the above-mentioned course, I used a different design method with four new techniques (Abramenka-Lachheb, 2022). First, I created a learner persona, which helped me as a designer better analyze key characteristics of learners (e.g., demographic, career aspirations, identity) who would typically take this course and those who would usually not take this course. Second, I employed learning experiences mapping (Buchenau & Suri, 2000; Kalbach, 2020), which included brainstorming and deliberation sessions with a faculty member regarding the experience that learners/students would have. I asked: What could be confusing? What could be too easy to complete? What would resonate with them better on both professional and personal levels? Third, I designed authentic learning projects that would ask students to apply competencies that they were supposed to acquire to a real-life project. Fourth, I created a rapid prototype of the course site, which allowed for testing and identifying areas for design iterations and improvement.

It was a more time- and thought-intensive design process, but, as was reported by learners/students, it ultimately resulted in more meaningful learning for them. I believe that I progressed from the novice designer level to the competent designer level as I engaged in this new design process. A competent designer identifies the most important issues in each design situation and devises an appropriate plan to solve that problem. Based on the analysis of student feedback, the problem in this example was that the course lacked opportunities for students to apply knowledge and skills that would mirror what professionals did in the real world. This realization led us to incorporate a real-life authentic learning project, providing students with the opportunity they desired.

My other two examples are about designing online trainings. The first online training I designed onboarded new staff members at an Assistive Technology and Accessibility Center at a large midwestern university. I designed the other training for postdoctoral fellows and faculty members who desired to learn more about using mathematical methods for conducting research. In both cases, I was not familiar with the subject matter, and both were new design situations for me.

Example 2: Designing an Online Training for New Staff Members

The training was originally designed for new alternate media editors whose job was to create accessible learning materials for students with special needs. My role as a learning designer was to create a self-paced online training that would walk learners through the major steps in creating accessible learning materials. The training targeted both declarative knowledge (i.e., knowledge about assistive technology) and procedural knowledge (i.e., how to prepare and create accessible learning materials), although the focus was on the latter.

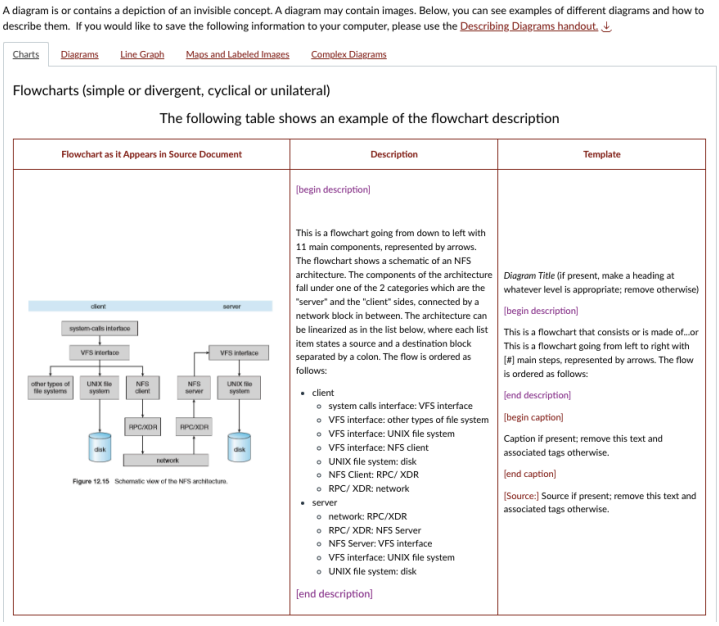
As I had never worked as an alternate media editor, my first task was to gather as much information about the role of alternate media editors. To do so, I had meetings with current alternate media editors and their supervisor to ask questions about the nature and most challenging aspects of their jobs. This information helped me prepare a detailed design outline document that served as my road map during the design process. Prior to starting to design the course, I had follow-up meetings with both the staff and their supervisor. In these meetings, to research the experience of learners (e.g., identify what type of information to include and, most importantly, how to best present it) (Kalbach, 2020), I asked scenario questions, like: *If you were on this course site, what else would you like to see? If you did not know how to describe this type of visual, how could this type of training help you? Once on this particular page, what would you click first to proceed? What makes an intuitive sense to you?* Such scenario questions allowed me to gain a stronger understanding of their work and build empathy with them.

This led me to building the “experience prototype” (Buchenau & Suri, 2000, p. 424) of the course site, which I showcased to the existing media editors. What made it an “experience prototype” was its emphasis on the experiential aspects of the course site/system. For instance, I made sure to clearly show the structure of the course, navigation, materials to be included, and how they would be represented—all the elements that appeared to be crucial according to what the existing media editors and their supervisors had shared. This allowed

me to validate my design decision to include short video demonstrations and step-by-step instructions, coupled with handouts that new staff could print out and keep at their desks. As the training mostly focused on procedural types of knowledge, I heavily relied on visual aspects of the course, such as clear examples of the materials that new alternate media editors would make accessible (see Figure 2).

Figure 2

Example of a Page Showing the Use of Visuals with Instructions



A diagram is or contains a depiction of an invisible concept. A diagram may contain images. Below, you can see examples of different diagrams and how to describe them. If you would like to save the following information to your computer, please use the Describing Diagrams handout.

Charts | Diagrams | Line Graph | Maps and Labeled Images | Complex Diagrams

Flowcharts (simple or divergent, cyclical or unilateral)

The following table shows an example of the flowchart description

Flowchart as it Appears in Source Document	Description	Template

client server system-calls interface VFS interface VFS interface other types of file systems UNIX file system NFS client NFS server UNIX file system RPC/XDR RPC/XDR disk network disk
Figure 12.15 Schematic view of the NFS architecture.
	[begin description]
	This is a flowchart going from down to left with 11 main components, represented by arrows. The flowchart shows a schematic of an NFS architecture. The components of the architecture fall under one of the 2 categories which are the "server" and the "client" sides, connected by a network block in between. The architecture can be linearized as in the list below, where each list item states a source and a destination block separated by a colon. The flow is ordered as follows:
	• client
	  ○ system calls interface: VFS interface
	  ○ VFS interface: other types of file system
	  ○ VFS interface: UNIX file system
	  ○ VFS interface: NFS client
	  ○ UNIX file system: disk
	  ○ NFS Client: RPC/ XDR
	  ○ RPC/ XDR: network
	• server
	  ○ network: RPC/XDR
	  ○ RPC/ XDR: NFS Server
	  ○ NFS Server: VFS interface
	  ○ VFS interface: UNIX file system
	  ○ UNIX file system: disk
	[end description]
		Diagram Title (if present, make a heading at whatever level is appropriate; remove otherwise)
		[begin description]
		This is a flowchart that consists or is made of...or This is a flowchart going from left to right with [#] main steps, represented by arrows. The flow is ordered as follows:
		[end description]
		[begin caption]
		Caption if present: remove this text and associated tags otherwise.
		[end caption]
		[Source:] Source if present; remove this text and associated tags otherwise.

The experience prototype also helped me identify how to make this learning experience more relatable. For instance, existing media editors helped me create the narrations, and they specifically mentioned confusing and challenging aspects of the work. Their personal stories emotionally engaged new media editors by reassuring them that a specific task was challenging for everyone, not just them, and simply would require more practice.

My career-long habit of reflecting on my practice as a designer and thinking through methods that could serve me well in a specific design situation led me to follow this method. By advancing my knowledge about design methods and gaining more experience designing different types of learning, I arrived at the conclusion that I should go beyond prescribed instructional design procedures and theories in my design work.

Example 3: Designing an Online Training for Postdoctoral Fellows and Faculty Members

My third example is an online training that I designed for postdoctoral fellows and faculty members who aimed to apply mathematical principles in conducting research in the area of nutrition and obesity. As opposed to the second training, I worked on the design of this training in tandem with other faculty members. Their role was to curate reading resources and coordinate guest lectures with experts in the subject matter. My role as a learning

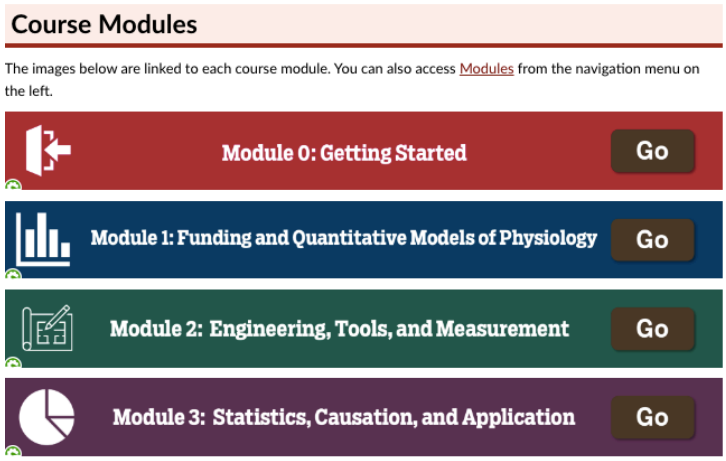
designer was to “orchestrate” experience (Risdon & Quattlebaum, 2018), which meant that I was responsible for making this course engaging, interactive, and responsive.

First, I looked at examples of training courses that were offered before. This expanded my repertoire of design exemplars (Bardzell, 2011) and allowed me to use them as a starting point. While going through these exemplars, I carefully examined the design elements that fostered or failed to foster engagement. I also paid close attention to the look and feel of the training course sites. This allowed me to imagine what this training course could look like. Next, I asked the faculty members specific questions about the type of learners enrolled in the training to ensure accessibility of learning materials and resources to diverse groups of learners. Since learners answered questions regarding their physical location, special accommodations, occupation, and career aspirations, upon registration, I learned that we had learners who took this training outside the United States. This information was crucial to ensure intentionality and purposefulness in my design.

Consequently, I created a clear and consistent layout throughout the course site to help learners go through the training seamlessly. I focused on visual elements that were necessary to see different sections of the training and ensure ease of navigation. While aesthetics is one of the most important aspects of fostering emotions (Pine et al., 1999) when designing for learning experiences, I used visuals only for functional purposes. Rather than including a variety of decorative images, I only included those that were helpful in navigating the training (see Figure 3). That was the engagement piece that I found lacking in the training examples.

Figure 3

Example of the Use of Visuals for Navigation



To help ensure that learners were engaged with the material, I included clear descriptions of each session and provided easy-to-use navigation elements that allowed learners to go to the topic of their interest. My role was to create a learning environment that was aesthetically pleasing, functional, and informational.

As I continued to expand my experience working on different types of learning design projects, I saw myself grow from the competent designer level to the expert designer level.

The expert level is characterized by the designer's ability to respond to a specific situation intuitively and immediately take the appropriate action. While working on the project described above, most design decisions, like placing a focus on visual elements and including additional navigation elements, came almost entirely from my precedent knowledge (Boling, 2021) – a repertoire of design knowledge, professional and personal experiences stored in my mind in the form of cognitive schema. It is also worthwhile to note that while as designers we have a variety of methods at our disposal, there is always room for design judgments (Boling et al., 2017; Nelson & Stolterman, 2014) that are unique to every designer and instrumental during the design process.

The expert level is a comfortable level, and many professionals do not go beyond this point of expertise (Dorst & Reymen, 2004; Lawson & Dorst, 2013). In my current professional practice, I design training and workshops, primarily for online higher education staff development and training. Because of my academic training and passion for the IDT discipline, I continue to engage in (award-winning) research and teaching, as well as independent consulting. This makes me operate from a master level of design expertise, as Lawson & Dorst (2013) explain:

> *The master sees the standard ways of working that experienced professionals use not as natural but as contingent. A master displays a deeper involvement into the professional field as a whole, dwelling on successes and failures. This attitude requires an acute sense of context and openness to subtle cues. (p. 99)*

Conclusion

The Instructional Design and Technology (IDT) discipline has undergone changes in its pedagogical and design approaches since its inception. These changes have reflected changes in the way we view learning and ways to make it more efficient and effective. As time passes, new professionals enter the discipline, bringing their own core beliefs, values, and perspectives. This naturally results in new theories, terms, philosophies, paradigms, and practices. Additionally, technology is ever-evolving, so the IDT discipline naturally cannot stay the same. Using the same approaches would cause IDT to become obsolete and irrelevant. Therefore, a mere focus on efficacy and efficiency, or cognitive or psychomotor domains, is no longer the only way to ensure quality of learning.

In IDT, the word "experience" allows us to think beyond mere acquisition of knowledge and skills. This deeper understanding of learning experience comes with a certain level of expertise, which is a result of dedicated efforts and practice in a design discipline. The provided examples in this paper illustrate that Learning Experience Design (LXD) does not necessarily deviate from the canon of Instructional Design (ID) in an attempt to create quality learning experiences but rather raises ID to a higher level. As design situations become increasingly complex, they call for more complex solutions, which require a diverse design skillset. The IDT discipline will likely witness the emergence of new theories, approaches, and practices as technology continues to advance and/or challenging situations occur (e.g., pandemics, wars, and acts of nature). As such, IDT scholars and practitioners should work hand in hand to analyze complex, ill-structured design situations and/or problems in which prescriptive design models cannot provide necessary guidance

(Tracey et al., 2022; Yanchar et al., 2010). This may open more avenues for mutual exchange between research and practice to inform each other; as research serves practice, practice may unveil new areas of research.

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