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# Examination of Formal Instructional Design Processes at Traditional Institutions of Higher Education in the United States Post-Pandemic Onset

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## Abstract

The purpose of this study is to identify the motivational elements of formal online instructional design processes that are being implemented at traditional institutions of higher education (IHEs) in the United States (U.S.). For this study, I conducted a comprehensive literature review identifying emerging issues of practice for instructional design partnerships between the onset of the COVID-19 pandemic during the spring of 2022 and the spring of 2023. This study was developed through the lens of Keller's (2010) attention, relevance, confidence, satisfaction, and volition (ARCS-V) model of motivation. An understanding of the elements of current processes that present as benefits and potential barriers to the motivation of participating course authors is vital to the research questions for this study. Keller's (2010) ARCS-V model provides an industry recognized theoretical framework for interpreting participant responses with respect to motivation. This qualitative study was conducted using a modified Delphi method requiring two rounds of active participation from panelists through the completion of a questionnaire generated from existing literature on the topic, and a final member check. The modified structure is intended to respect the time limitations of course authors who have recently reported increasing difficulty with meeting the demands of the longer timelines favored for designing online courses (June, 2020; Nworie, 2021).



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Heather L. D. Tobin

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## Abstract

The purpose of this study is to identify the motivational elements of formal online instructional design processes that are being implemented at traditional institutions of higher education (IHEs) in the United States (U.S.). For this study, I conducted a comprehensive literature review identifying emerging issues of practice for instructional design partnerships between the onset of the COVID-19 pandemic during the spring of 2022 and the spring of 2023. This study was developed through the lens of Keller's (2010) attention, relevance, confidence, satisfaction, and volition (ARCS-V) model of motivation. An understanding of the elements of current processes that present as benefits and potential barriers to the motivation of participating course authors is vital to the research questions for this study. Keller's (2010) ARCS-V model provides an industry recognized theoretical framework for interpreting participant responses with respect to motivation. This qualitative study was conducted using a modified Delphi method requiring two rounds of active participation from panelists through the completion of a questionnaire generated from existing literature on the topic, and a final member check. The modified structure is intended to respect the time limitations of course authors who have recently reported increasing difficulty with meeting the demands of the longer timelines favored for designing online courses (June, 2020; Nworie, 2021).

*Keywords:* Instructional design, instructional design processes, motivation, online course design, course authors

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## Chapter One: Introduction

Pressure to adapt existing face-to-face college and university programs for online delivery has been on the rise over the past decade, especially in the aftermath of the COVID-19 pandemic (Altindag et al., 2021; Joosten & Cusatis, 2019). A survey conducted in 2017 illustrated that enrollment rates for online education at Institutions of Higher Education (IHEs) have been consistently increasing each year despite a decline in overall student enrollments (Seaman et al., 2018). Online enrollment rates suddenly and dramatically increased again in 2020 as all students enrolled in IHEs in the United States (U.S.) were forced to participate virtually to mitigate exposure to the virus (Gillis & Krull, 2020).

Prior to 2020, no significant difference in quality between online and face-to-face courses had been found (Kurzweil, 2015; Watson, 2020). However, throughout the pandemic new studies have shown that there is a lack of consistent quality in online courses as compared to face-to-face (F2F) counterparts – especially those that have been recently converted for online delivery (Lederman, 2021). Universities lacked the time and resources necessary to produce intentional online courses when responding to swiftly changing pandemic-related mandates (Fain, 2019).

Consequently, most courses were quickly modified for 'emergency-remote delivery' which is less beneficial for course quality and student achievement than formally developed online courses (Beirne & Romanoski, 2018). For the purposes of this

study, ‘emergency-remote courses’ are defined as courses temporarily adjusted to allow for 100% online participation in response to crisis circumstances, with plans to revert to face-to-face (F2F) methods once the emergency ends (Hodges et al., 2020). In contrast, formally developed online courses are collaboratively created over a three-to-five-month timeline (Freeman, 2015).

**Persistent Problem of Practice**

Course design processes implemented in response to a shifting pandemic landscape in higher education led to improper and ineffective course designs (Abrahamsson & Lopez, 2021). As a result, many IHEs emerging from the recent COVID-19 pandemic are now focused on creating effective online educational experiences via traditional design processes. ‘Instructional design processes’ are systematic approaches to the creation of consistent and reliable educational and/or training experiences (Reiser & Dempsey, 2012). *Traditional* instructional design processes like the analysis, design, development, implementation, evaluation (ADDIE) model are favored because they frequently lead to improvements in overall course quality (Beirne & Romanoski, 2018). For the purposes of this study, ‘*traditional* instructional design processes’ are defined as collaborative and involve 100+ hours of authoring time spread out over a three-to-five-month timeline. These were the most common models implemented at online IHEs in the U.S. prior to the onset of the COVID-19 pandemic in the United States (U.S.) in spring of 2020 (Freeman, 2015; World Health Organization, 2020). An important distinction should also be made between *traditional* IHEs and *online* IHEs. There are no current universally accepted distinctions between IHEs that primarily offer F2F programs with *some* online courses and IHEs that *primarily* offer online

academic programs. Therefore, the terms ‘online IHE’ and ‘traditional IHE’ will be used throughout this study to differentiate.

Traditional online instructional design processes involve collaborative partnerships between course authors and instructional design staff who specialize in effective incorporation of academic technologies and the study of teaching and learning strategies. For the purposes of this study, ‘instructional designers’ are defined as design experts and advisors of quality responsible for providing guidance about content delivery, structure, usability, technologies, and instructional strategies for online courses (Halupa, 2019). ‘Course authors’ are defined as subject specific experts and content writers responsible for creating learning outcomes, materials, and assessments for online courses (Halupa, 2019). Course authors are typically full-time appointed faculty members at traditional IHEs (Restauri, 2004), though this sometimes includes contracted subject matter experts (SMEs) or external industry experts and course developers.

Course author and instructional designer partnerships are typically adopted when new educational technologies are incorporated into teaching and learning practices (Halupa, 2019). This is because faculty course authors often seek out the support of someone with technical expertise to help them navigate new and unfamiliar tools (Joosten & Cusatis, 2019). The importance of engaging in these processes is illustrated by evidence that courses developed through traditional instructional design processes are more likely to meet quality standards and therefore lead to greater levels of student achievement and satisfaction (Joosten & Cusatis, 2019).

Traditional processes typically involve several months of preparation and work on the part of the course author and do not appear to meet the needs of full-time appointed

faculty who are increasingly being tasked with most of the authoring work (Halupa, 2019). This is particularly true in the wake of the COVID-19 pandemic (Hodges et al., 2020). A survey of 165 faculty members who have taught both in person and online reported that an average of 70 hours is needed to effectively prepare an online course (Freeman, 2015).

For the purposes of this study, 'online' courses are defined as courses that are delivered 100% online, 'hybrid' courses are defined as those which are delivered over 50% online, 'blended' courses are defined as those that are delivered between 25-50% online, and 'face-to-face' (F2F) courses are defined as those that are delivered 100% in person (Hodges et al., 2020). It is becoming clear that faculty accustomed to developing face-to-face courses are resistant (and often unable) to meet the demands of more traditional long-term process-oriented timelines favored for designing fully online courses (June, 2020; Nworie, 2021). These issues are exacerbated by the sharp worldwide increase in demand for distance delivery of higher education courses resulting from the COVID-19 pandemic (Ali, 2020).

***National Context***

As of 2016, 31.6% of all students enrolled at IHEs in the U.S. were taking at least one online class (Seaman et al., 2018). Studies investigating the impact of online and face-to-face courses on achievement of student outcomes are mixed, with many indicating that most negative results disproportionately impact underserved student groups (Figlio et al., 2013). Recent studies indicate that online student success depends on elements of quality course design that are heavily promoted during systematic traditional course design processes including clarity of instructions, scaffolding of

concepts, appropriate levels of difficulty, and opportunities for reflection (Subramanian & Budhrani, 2020). It is also clear that collaborative instructional design processes involving both a professional instructional designer and a faculty member are more likely to lead to successful online course experiences for all students (Halupa, 2019; Hart, 2020). The added guidance that this study provides will benefit educators with varying backgrounds and needs relating to professional development and support for online course development as well as students with diverse needs who enroll in their online courses.

### *Purpose of the Study*

The purpose of this study is to identify the motivational elements of formal online instructional design processes that are being implemented at traditional IHEs in the U.S. within the current post-pandemic onset context.

### *Research Questions*

**Primary Question 1.** How are formal instructional design processes being implemented for the development of online courses at a traditional IHE in the U.S. in a post-pandemic onset context?

**Sub-Question A.** What factors of current instructional design processes present as potential motivational barriers for participating faculty course authors?

**Sub-Question B.** What factors of current instructional design processes present as motivational benefits for participating faculty course authors?

**Sub-Question C.** In what ways are online course quality expectations incorporated into current formal online instructional design processes across contexts?

## Defining the Terms

### *Blended Courses*

Courses that are delivered between 25-50% online (Hodges et al., 2020).

### *Centralized Instructional Design Processes*

Systematic collaborative approaches to online course development that are utilized across programs and colleges at IHEs (Richardson et al., 2019).

### *Course Authors*

Subject specific experts and content writers responsible for creating learning outcomes, materials, and assessments for online courses (Halupa, 2019). Also often referred to as Subject Matter Expert (SME), course developer, or faculty developer. The term "course author" is used throughout this study to limit preconceptions of the reader based on personal contextual experiences with related terminology.

### *Current Instructional Design Processes*

For the purposes of this study, *current* instructional design processes are defined as those that have been implemented since the onset of the COVID19 pandemic in the United States (U.S.) during the spring of 2020 in response to growing demands for online methods at IHEs.

### *Emergency Remote Teaching (ERT)*

Temporary adjustments made to the instructional delivery of courses at IHEs allowing for online participation in response to crisis circumstances (Hodges et al., 2020).

### *Face-To-Face (F2F) Courses*

Courses that are delivered 100% in person (Hodges et al., 2020).

### *Formal Online Instructional Design Processes*

Collaborative design processes involving at least one author and one designer that require 100+ hours of work spread out over a three-to-five-month timeline (Freeman, 2015).

### *High Quality Online Course Designs*

Online courses that meet industry recognized standards for design and user experience (Jaggars & Xu, 2016; Naidu, 2022). Common standards for high quality design include: availability of objectives, intuitive navigation, appropriate use of technology to promote engagement, student-to-student interaction, community building activities, availability of instructor contact information, transparency of expectations for communication, use of grading and assessment rubrics, alignment between assessments and objectives, links to institutional services, accommodations for different abilities, and statements of course policies for behavior expectations (Baldwin et al., 2018).

### *Hybrid Courses*

Courses that are delivered over 50% online (Hodges et al., 2020).

### *Informal Online Instructional Design Processes*

Process for designing online courses that are conducted individually by faculty without the aid of an instructional designer or centralized support unit and that are not held to a specific timeline (Baldwin et al., 2018).

### *Instructional Design Frameworks*

Many researchers use differing terms and definitions when discussing instructional design frameworks, models, and processes. In my experience, these terms are often used interchangeably to describe underlying concepts, basic procedures, and

complex strategies. To ensure clarity of meaning throughout this study I have chosen to use the term instructional design *frameworks* when addressing underlying functional concepts about effective course design practices that are informed by theories of learning and instruction.

### *Instructional Design Models*

For the purposes of this study, instructional design *models* are defined as proposed procedures for carrying out instructional design activities usually represented by a series of steps that provide a structure for instructional design processes.

### *Instructional Design Processes*

For the purposes of this study, instructional design *processes* are defined as systematic approaches to the development of courses that are informed by instructional design frameworks and models and are unique to specific institutional contexts.

### *Instructional Designers*

Experts responsible for determining the needs of learners, determining effectiveness of online courses, and providing guidance for content delivery, structure, usability, technology (Cennamo & Kalk, 2019). Often also responsible for coordinating project milestones, responsibilities, and deliverables necessary to the development of an online course (Morrison et al., 2004).

### *Online Courses*

Courses that are delivered 100% online (Hodges et al., 2020).

### *Online IHEs*

At this point, there is no universally accepted definition of online IHEs, with many individual institutions and researchers using the phrase at their own discretion.

Based on my professional experience and observations of themes throughout the literature, online IHEs are defined in this study as institutions with at least one accredited undergraduate or graduate academic *program* offered entirely online offered prior to spring of 2020.

***Post-Pandemic Onset***

Occurring any time after the initial declaration of the COVID-19 pandemic in the U.S. in spring of 2020.

***Theories of Learning and Instruction***

For the purposes of this study, theories of learning and instruction are defined as sets of ideas that attempt to explain the conditions for effective acquisition (or creation) of new skills, behaviors, and knowledge.

***Traditional Online Instructional Design Processes***

For the purposes of this study, *traditional* online instructional design processes are defined those that were implemented by IHEs in the U.S. prior to spring of 2020 including a range of 'formal' and 'informal' processes.

***Traditional IHEs***

For the purposes of this study and to differentiate between online IHEs and institutions that offer some online courses, traditional IHEs are defined as those that that did not offer any accredited academic *programs* in a fully online format prior to spring 2020..

**Personal Statement**

I come to this study as a full-time staff member in an online program services office at a mid-sized private research university in Denver, Colorado (CO). I have been

working in higher education settings since 2002 and have specifically focused on instructional design practices since 2013. I have also taught as an adjunct instructor and served as a course author for over 50 courses at various institutions of higher education between 2013 and now. In my current role, I am responsible for developing curriculum and instructional design support for new and existing graduate level programs delivered through online and hybrid methods.

I have personally experienced the reluctance of many faculty members who have suddenly been asked to participate in time consuming traditional instructional design processes over the past three years. I am also acutely aware of the simultaneous pressure to convert F2F programs for online delivery. In my experience, these issues have been compounded by the increased demand for online courses resulting from social distancing measures during the COVID-19 pandemic.

I intend for this study to provide knowledge that leads to a deeper understanding of the various practices that are being utilized at similar traditional IHEs in this post-pandemic context so that I and other practitioners can provide informed and evidence-based recommendations for moving forward productively. At the same time, I remain open to the possibility that this examination might illuminate the continued efficiency and effectiveness of traditional instructional design processes in the current context.

**Theoretical Framework and Conceptual Model**

This study will critically examine formal instructional design processes and strategies at traditional IHEs in the U.S. with specific consideration for the engagement and motivation of course authors. Course authors at traditional IHEs are typically full-time appointed faculty members and sometimes adjunct instructors or contracted external

industry experts (Restauri, 2004). The attention, relevance, confidence, satisfaction, and volition (ARCS-V) model of motivation will be used as a theoretical framework for evaluating the ways in which current instructional design processes impact course author motivation and engagement. While the ARCS-V model of motivation is rooted in motivational theories for learners, it is also widely used for the improvement of motivation for a range of purposes – from classrooms to online resources (Small, 2000).

### *ARCS-V Model of Motivation*

The original ARCS model of motivation was developed by American educational psychologist John Keller (1987) in response to the need for strategies solving challenges to learning motivation. The ARCS model includes four 'conditions' that characterize groups of motivational factors for human learners including attention, relevance, confidence, and satisfaction (Keller, 1987). In this early model 'attention' requires a balance between boredom or indifference and hyperactivity or anxiety, 'relevance' is the extent to which educational experiences offer opportunities for personal connection and meaning, 'confidence' refers to personal expectations for success, and 'satisfaction' embodies strategies for providing rewarding contingencies that lead to personal enjoyment (Keller, 1987).

The ARCS model was later expanded in 2010 to ARCS-V with the addition of a fifth condition 'volition' or, the idea that follow-through is fueled by individual commitment and the ability to apply it through self-regulation as illustrated in Figure 1.1 (Keller, 2010). The core assertion of the ARCS-V model is that motivation will increase when all five conditions are present and aligned to performance expectations.

**Figure 1.1**

*Modification of Keller's ARCS Model to Include 'Volition' (ARCS-V)*


*Note*. Graphic adapted from table provided in Keller, 2010.

The ARCS-V model will be used as a theoretical framework for this study providing a lens for interpreting course author perceptions of motivation. It will also be used to analyze the likelihood of specific practices satisfying motivational conditions. For example, a process that effectively leverages the attention condition might introduce novelty by beginning with questions posed to encourage the author to brainstorm innovative strategies for scaffolding course content. Consideration for relevance could be demonstrated through specific steps in the process informed by the author's personal areas of expertise or interest. Confidence can be developed through transparency about expectations in the design process. Satisfaction is often evidenced through compensation structures like stipends, course buy outs, and professional recognition. Finally, volition can be encouraged through practices that invite authors to set individualized project milestones.

The ARCS-V model of motivation centers on the idea that a person's desires and choices are reflected in each of the motivational conditions. Keller (1987) defines this concept through the lens of expectancy-value theory, arguing that it is possible to increase a person's motivation by ensuring perceptions of success and drawing

connections between that success and meaningful or rewarding outcomes as they relate to each motivational condition. Expectancy-value theory suggests that learner achievement is determined by expectations for success combined with the subjective value of individual tasks (Eccles et al., 1983). A formal instructional design process that requires authors and instructional designers to brainstorm innovative strategies to meet the attention condition would be effective within the expectancy-value theory of motivation when the author perceives the importance of the activity and is provided sufficient value through compensation or as it relates to personal or social goals.

### *ADDIE and Spiral Design Process Models*

Instructional design processes are industry recognized approaches to systematic development that are frequently used in the design of online courses and programs. This study examines current design processes modeled after two of the most prevalent models in the field today: analyze, design, develop, implement, evaluate (**ADDIE**) design process model, and iterative design process models. These models will be used as a basis for determining whether current processes follow pre-pandemic best practices for course development. Only the IHEs and units utilizing processes that mirror these practices will be found qualified for this study.

One of the most common process-oriented models utilized by course design teams in higher education prior to the COVID-19 pandemic is the ADDIE model. The ADDIE model is a general representation of a specific sequence of phases that embody a linear and cyclical approach to course design (Branch & Kopcha, 2014). The steps of the ADDIE model begin with the analysis phase followed by design, then development, then implementation, and finally evaluation (Molenda, 2003). Most modern process models

for instructional design require these steps (Benscoter et al., 2015). It is important to note that design teams following variations of the ADDIE model rarely adhere to the linear nature, instead moving fluidly between phases according to the needs of each individual project (Cennamo & Kalk, 2019). Experienced designers recognize that not all projects are a strong fit for linear processes. Instead, access to time and resources often requires shifting focus from one stage of development to the next to meet the needs of all individuals and stakeholders for a particular project.

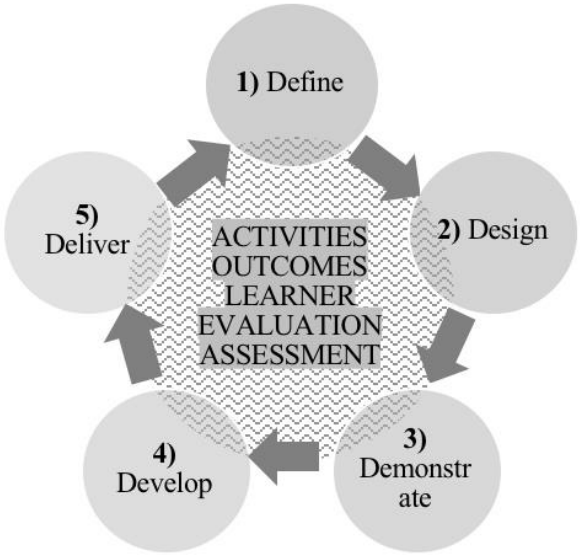
In contrast to ADDIE informed process models, iterative design process models require continuous and fluid movement between various steps (Reiser, 2001). Some iterative design processes referred to as rapid prototyping models originated for software development, but the general concept has also been applied to the design of online educational experiences that require focused incorporation of educational technologies and related design tasks. Rapid prototyping is a preferred approach for projects that are limited on time and resources and where linear processes are not feasible (Reiser, 2001).

The **spiral design process model** illustrated in Figure 1.2 is an advanced iterative rapid prototyping model that requires a series of cyclical phases for course design. Throughout the spiral design process previous phases are revisited to add detail and complexity as new ideas deepen the design in parallel with evolving understandings of each element of the process (Cennamo & Kalk, 2019). The spiral design process model provides a benchmark for recognized best-practices prior to the COVID-19 pandemic. Current instructional design process models will be evaluated for the use of iterative spiral design process-informed steps as these have shown to be aligned to the effective

systematic development of an online course as relevant to design staff in collaboration with course authors (Cennamo & Kalk, 2019).

**Figure 1.2**

*Spiral Design Process Model*




*Note.* Graphic adapted from Cennamo and Kalk, 2019.

**Summary**

This research study examines the elements of formal instructional design processes at traditional IHEs in the U.S. in the current post-pandemic onset context. This exploratory sequential study is intended to provide insight into the lived experiences of course authors participating in these processes to identify which elements present as benefits and which present as potential barriers to motivation. The study is aligned to Keller's (2010) ARCS-V model of motivation to illustrate strategies that are perceived to improve attention, relevance, confidence, satisfaction, and volition. Results will be used to form recommendations for improving these processes to better meet the needs of participating course authors moving forward.

# Chapter Two: Literature Review

## Overview

The purpose of this literature review is to illustrate recent shifts that have been made to instructional design processes at institutions of higher education (IHEs) in response to the COVID-19 pandemic. Additionally, this synthesis will clarify the impact that recent adjustments have had on course authors collaborating with instructional design support staff in a post-pandemic onset context. This will assist with refining the research questions by identifying gaps in current literature. Common themes found in the literature include trends in online higher education, lessons learned from emergency remote teaching (ERT), faculty engagement and motivation as course authors, considerations for online course quality, common instructional design processes in higher education, the benefits of informal vs. formal design processes, iterative design processes, and recent modifications to instructional design processes in response to the COVID-19 pandemic.

## Online Higher Education in the U.S.

Throughout the history of American higher education, most classroom experiences have been conducted entirely in person (McIsaac & Gunawardena, 1996). The earliest forms of education over a distance trace back to the 1800's when students at the University of Chicago began interacting with educators in different locations (McIsaac & Gunawardena, 1996). This method for conducting classes is commonly

referred to as ‘distance correspondence education’ which provided an alternative to the in-person norm when necessary. In the early 1900’s the invention of the radio offered new opportunities for enhancing distance correspondence practices beyond the use of physical delivery methods (McIsaac & Gunawardena, 1996).

This was followed by the introduction of television in the 1950’s and e-mail in the early 1970’s, both of which provided similar advancements to distance correspondence practices (Harasim, 2000). The creation of the World-Wide Web (WWW) in 1991 progressed practices even further as educators were suddenly able to create virtual communities by sharing dynamic online academic resources and materials more efficiently than ever before (Sun & Chen, 2016). Funding for colleges and universities began to decline in 2008, which amplified interest in the more cost-effective online practices for teaching and learning and even inspired some IHEs to begin offering entire academic degree programs virtually (Sun & Chen, 2016).

Online education continued to gain popularity among students and educators over the following two decades (Joosten & Cusatis, 2019). One reason is that online courses are independent of the limitations of physical space, which increases availability and allows students with a variety of professional and personal needs the flexibility to enroll in courses when they would not have been able to otherwise (Castro et al., 2021; Naidu, 2021). In 2004, approximately two million students were enrolled in online learning through IHEs with an expected growth of 20% per year moving forward (Moloney & Oakley, 2010). Throughout the following decade, online education was rapidly becoming a mainstream global trend in higher education (Kumar et al., 2017). In fact, over six million students (29.7% of all students) were enrolled in online learning through IHEs by

2017 – and a total of 14.3% of all higher education students were exclusively enrolled in online courses at that time (Allen & Seaman, 2017).

After the official declaration of the arrival of the COVID-19 virus in the U.S. during spring of 2020, IHEs began offering all previously in-person courses online to meet rapidly evolving social distancing measures without completely shutting down (Lederman, 2020). The most common strategy for shifting in-person courses to online delivery was uploading existing resources to a Learning Management System (LMS) already licensed by individual institutions combined with synchronous use of video-conferencing tools to maintain typically face-to-face (F2F) activities such as lectures and office hours (Lederman, 2020). These practical efforts in response to a sudden emergency are not illustrative of previously established best practices for online education (Gillis & Krull, 2020; Hodges et al., 2020; Lederman, 2020; Marek et al., 2021; Muller et al., 2021; Ralph, 2020).

Two instructors at St. Lawrence University in New York surveyed a combined total of 66 students in two separate sections of an introduction to sociology course that utilized ERT between March and April of 2020 to investigate the impact of ERT. The researchers intended to explore student perspectives about experiences across all ERT courses that they participated in during that period, including the sections taught by the researchers themselves (Gillis & Krull, 2020). Students reported a variety of instructional techniques ranging from synchronous to asynchronous (Gillis & Krull, 2020). The most frequently used synchronous practices include live drop-in office hours and Zoom lectures (Gillis & Krull, 2020). Gillis and Krull (2020) found that student perceptions about course effectiveness ranged widely from 18%-62% of positive reports (Gillis &

Krull, 2020). Student success in ERT courses also varied extensively during this time. Gillis and Krull (2020) argue that student perceptions of course effectiveness during the first months of the COVID-19 pandemic depended on the effectiveness of technologies used as well as pedagogical alignment of online learning experiences by the instructors.

**Lessons Learned from ERT**

The variation of teaching strategies used for ERT can be attributed to a general lack of experience with online methods, lowered expectations due to time constraints, and unequal access to learning technologies (Ralph, 2020). Faculty with previous experience teaching online were also 15% less likely to lower their expectations for student work or to modify their practices during the pandemic (Lederman, 2020) likely contributing greatly to inconsistent student experiences. On the other hand, the sudden experience with rapidly adjusting for online delivery of F2F courses also lead to a growing awareness among faculty that effective distance teaching requires substantial preparation (Marek et al., 2021).

In a survey of 418 faculty at IHEs across the world, Marek and colleagues (2021) found that most faculty reported higher stress and workloads during the initial shift to ERT than they had experienced prior to the spring of 2020. Faculty also reported that they did not rely on the functionality of an established learning management system (LMS) to deliver courses online (Marek et al., 2021). Instead, more than half of the survey participants used a wide variety of technologies with varying degrees of success (Marek et al., 2021).

A similar *Chronicle* survey conducted in May of 2020 included responses from 935 faculty and 595 academic administrators (June, 2020). Almost 80% of instructors

reported a sense of engagement with students as a primary struggle in the creation of an effective online learning experiences (June, 2020). Over 80% of academic administrators responding to the survey identified technical obstacles like unfamiliarity with technologies as a primary concern during this time (June, 2020). These findings highlight the need for professional development supporting effective online teaching strategies in addition to the use of new technologies. As Hodges and colleagues (2020) point out, effective online education requires careful and deliberate processes that were absent from ERT approaches due to time and resource constraints – especially during the initial months of the COVID-19 pandemic.

For the first year of the COVID-19 pandemic, most IHEs consistently provided online options for course participation to all students (Felson & Adamczyk, 2021). As infection rates began to drop many began to weigh the financial implications of distancing measures – in some cases, fully lifting mandates and reopening all in-person activities while implementing masking and social-distancing requirements to mitigate risk of infection (Felson & Adamczyk, 2021). By January of 2022, most IHEs in the U.S. had returned to in-person learning (Altindag et al., 2021; Felson & Adamczyk, 2021). However, the student demand for online courses and programs has substantially increased from where it stood prior to 2020 (Altindag et al., 2021) likely because new experiences have diminished many previously held uncertainties about quality and performance.

The *Chronicle* survey (June, 2020) revealed that 59% of higher education faculty and 62% of the design staff believed that the quality of online courses delivered through ERT were much worse than those offered in person. Despite negative opinions about ERT courses, 66% of professors surveyed stated that their experiences with remote

teaching were positive throughout the pandemic (June, 2020). While most educators at IHEs do not intend to utilize ERT to deliver courses in the future, they do report that the experiences of using online elements in their courses throughout the pandemic provided useful skills that they plan to incorporate moving forward (Muller et al., 2021).

For example, an educator delivering a *blended course* might choose to provide important resources and a just-in-time gradebook within the LMS for students. An instructor delivering a *hybrid course* might ask students to participate in discussions online to encourage deeper reflection and use of rich multimedia resources. Similarly, an instructor teaching a fully *online course* might focus on creating an accessible and engaging experience that provides learners with multiple options for engaging with learning materials. Most educators acknowledge that online learning is useful when leveraged to support intended learning outcomes, especially when practically incorporated rather than forced as with ERT efforts (Muller et al., 2021).

**Faculty as Course Authors**

Faculty are often primarily responsible for organizing, delivering, and assessing in-person classes, and are frequently required to take on additional roles as designer and technology specialist for online courses (Restauri, 2004). However, very few studies have surveyed the experiences of faculty as course authors participating in formal instructional design processes at IHEs (Bennett et al., 2016). Despite evidence that collaborative processes lead to higher quality course experiences (Morrison et al., 2004), most faculty are used to informal individual approaches (Baldwin et al., 2018). Formal collaborative processes with instructional designers are often new and initially uncomfortable to faculty course authors as a result (Halupa, 2019).

### *Professional Development*

Not all IHEs provide instructional design support to their online faculty, which can cause discomfort during times of rapid change like what was experienced during the COVID-19 pandemic (Chen & Carliner, 2021; Restauri, 2004). In a recent study of IHEs in the U.S., 61.5% of the participants reported that their institutions do not require online instructors to participate in related professional development (Bolliger & Martin et al., 2021). Faculty asked to develop courses on their own or as part of a design team often seek out technical support with online technologies regardless of previous experience (Abramenka-Lachheb et al., 2021).

As a result, a common theme across current studies is the increasing availability of centralized professional development resources and workshops supporting faculty in their creation of online courses. Boyd and colleagues (2021) assert that providing equitable access to these resources is paramount to the continued and future success of online educators at IHEs. Faculty supports for online course design should also be appropriately leveraged according to institutional resources. For example, IHEs that do not have centralized teaching and learning or design units offering professional development resources could respond by hiring external talent to address these needs (Lohman, 2021).

### *The Faculty and Instructional Designer Relationship*

There were an estimated 13,000 instructional designers working at IHEs in the U.S. in 2016 (Beirne & Romanoski, 2018). This demand continues to increase as IHEs turn to instructional designers for support to meet increased demand for online courses in the wake of the COVID-19 pandemic (Chen & Carliner, 2020). Prior to the pandemic,

instructional designers were often hired by IHEs to support faculty with the creation of online courses – yet confusion about best practices for developing strong collaborations between the two roles persists (Xie & Rice, 2021). Within the first 12 months of the pandemic, rapid shifts from in-person learning to online methods began to exacerbate this issue. This was especially true for faculty with previous experience teaching online courses (Lohman, 2021).

McDonald and colleagues (2021) found that inconsistent perceptions of the value that instructional designers add to course design processes can lead to delayed decision-making, lower production levels, and increased burn-out. On the other hand, collaborations between roles are much more successful when expectations about the individual responsibilities of instructional designers and course authors are transparent and clear – particularly when there is established rapport between the groups (Martin et al., 2021). Clear expectations might also contribute to satisfaction of the confidence condition of Keller's (2010) ARCS-V model of motivation by aligning perceptions of difficulty with the actual requirements for success.

**Online Course Quality**

It is generally understood that high quality online course designs are a vital element leading to student success in online courses (Jaggars & Xu, 2016). Insights gained through ERT experiences during the initial months of the COVID-19 pandemic have emphasized the need for a general set of principles to guide the development of learning experiences (Naidu, 2022). This call for action existed prior to the pandemic as well. Quality rubric tools are intended to provide structure to online course designs and ensure adherence to best practices supporting positive student experiences. The use of a

quality rubric tool supports the achievement of the relevance and confidence conditions of Keller's (2010) ARCS-V model of motivation by highlighting the relevance of design tasks and promoting awareness of expectations and requirements for each project.

In 2018 Baldwin and colleagues reviewed six publicly available rubric tools for measuring the quality of online course designs with the intention of providing a synthesis of shared markers of quality. Rubrics reviewed include the Blackboard exemplary course program rubric, the California Community Colleges course design rubric for the online education initiative (OEI Rubric), the open SUNY course quality review rubric (OSCQR), the Quality Matters rubric (QM), the Illinois online network's quality online course initiative (QOCI), and the California State University quality online learning and teaching (QOLT) rubric (Baldwin et al., 2018).

Baldwin and colleagues (2018) were able to identify six essential standards present in all available rubric tools through this review. The common standards identified include: availability of objectives, intuitive navigation, appropriate use of technology to promote engagement, student-to-student interaction, community building activities, availability of instructor contact information, transparency of expectations for communication, use of grading and assessment rubrics, alignment between assessments and objectives, links to institutional services, accommodations for different abilities, and statements of course policies for behavior expectations (Baldwin et al., 2018). This work has been furthered by IHEs opting to develop modified strategies drawing from several examples to meet the needs of their specific contexts rather than adopting publicly available rubrics of quality. For example, during the second year of the COVID-19 pandemic in the U.S. Martin and colleagues (2021) created a new online course design

elements (OCDE) instrument modeled after the findings of Baldwin et al., (2018). Martin and colleagues (2021) implemented the OCDE instrument with 222 online instructors and instructional designers and established good validity across all categories except for the use of collaborative activities and self-assessments.

Instructional designers at Indiana University and Indiana University East responded to an internal need for guidance in online course design by creating working tools to support individual faculty with the creation of effective learning environments (Kathuria & Becker, 2021). In lieu of a design rubric, Kathuria and Becker (2021) developed a checklist that links out to resources at the IHE supporting faculty achievement of best practices in online course design. The Indiana University (IU) course quality checklist organizes recommendations around four primary criteria including course orientation and policies, organization, alignment, and universal design for learning (Kathuria & Becker, 2021). While the researchers did not provide evidence of validity in this study, impact is demonstrated through decreased timelines required for peer review of online courses when using the checklist during the design process (Kathuria & Becker, 2021).

Faculty interest in providing high quality online experiences understandably increased in reaction to experiences during the COVID-19 pandemic. Some IHEs responded by providing centralized resources like checklists and design rubrics. Others offered professional development to encourage faculty to hone new skillsets. Faculty who participated in related workshops for improving course quality at their IHEs produced more effective online courses as a result (Conklin et al., 2020).

Researchers at the University of North Carolina Wilmington examined the changes faculty made to online course designs after completing professional development through QM (Conklin et al., 2020). Conklin and colleagues (2020) analyzed student evaluations for these courses to determine whether the improvements impacted their perceptions. Findings were mixed demonstrating that student evaluations were not correlated to the design changes though marked improvements to the design were present after faculty completion of the QM trainings (Conklin et al., 2020). Future research should focus on establishing the validity of emerging instruments and tools for ensuring quality in online course designs as well as comparisons between adoptions of national tools and modified instruments developed for the individualized use of an IHE.

## Instructional Design Processes in Online Higher Education

Instructional design is a collection of methods and techniques for creating learning environments that are rooted in theories of teaching and learning (Dijkstra et al., 1997). This can include formal collaborative or informal individual planning for courses across all delivery methods – from face-to-face (F2F) to fully online. Instructional design *processes* are defined in this study as systematic approaches to the development of courses that are informed by instructional design frameworks and models. Applying an instructional design process reduces the negative effects of trial and error, often enhancing learner motivation and achievement instead (Morrison et al., 2004).

Instructional *designers* are responsible for determining learner needs, identifying appropriate tools and strategies to facilitate learning, and evaluating the effectiveness of learning experiences (Cennamo & Kalk, 2019). While instructional designers are typically staff members, faculty at some IHEs are sometimes asked to adopt these roles in

addition to their responsibilities as the course author and course instructor (Martin et al., 2021). Collaborative partnerships between at least two different people with specific skill sets as instructional designer and course author have shown to lead to greater student satisfaction and achievement in online classes (Hart 2020). This is especially true when the responsibilities between roles are clearly delineated (Halupa, 2019).

Online courses require advanced familiarity with evolving pedagogies on the part of faculty, yet those who have primarily taught F2F often do not have any previous experience with related technologies (Chen & Carliner, 2020). Instructional design partnerships provide important resources to novice online course authors, while instructional design itself ensures strategic use of appropriate methods and techniques for online teaching throughout these efforts. Student success is also dependent on the use of effective design strategies that include the creation of accessible course materials and activities for online courses (Subramanian & Budhrani, 2020). A focus on instructional design encourages effective use of technologies that increase accessibility including screen-readers, video captions, and audio transcripts – all of which promote the success of learners with diverse needs beyond what is currently possible in F2F settings (Kathuria & Becker, 2021).

### *A Brief History of Instructional Design in Higher Education*

In the early 1940's psychologists and educators were called on to conduct research for improving military trainings during World War II – these findings were then expanded by educational psychologists in the following years and formed the basis for instructional design as it is practiced today (Reiser, 2001). This rapidly growing body of research shifted focus toward systematic programmed instruction in the 1950's and 60's

(Reiser, 2001; Tennyson et al., 1997) which was heavily influenced by B.F. Skinner's (1954) work on the behavioral aspects of learning including his suggestions that chunking instruction into smaller steps, providing immediate feedback, and allowing for self-pacing through a learning experience improves achievement of desired outcomes. Around the same time, Benjamin Bloom (1956) published a *Taxonomy of Educational Objectives* which provided a categorical framework for conceptualizing desired educational outcomes within 'domains' of learning behaviors. This Taxonomy continues to be heavily utilized by modern instructional designers for the creation of measurable and actionable learning objectives in higher education today (Tennyson et al., 1997).

Educators at IHEs continued to incorporate the findings of Skinner, Bloom, and similar theorists into their teaching and learning practices over the next several years, which lead to the creation of innovative learning design models drawing from various theories of learning. In turn, these models provided coherent new strategies for course development. An example is Robert Gagne's (1965) publication of *The Conditions of Learning,* which combines domains of learning and conditions promoting their achievement into a comprehensive model for designing teaching activities as individual 'events of instruction.' Gagne's framework remains a key element in the foundation of most modern approaches to instructional design (Reiser, 2001).

In the early 1970's the focus of educational theorists shifted again, this time toward proposed systematic instructional design processes like the Morrison, Ross, and Kemp (1971) model and the Dick and Carey (1978) model. Each of these models provide a series of *linear* steps for course development (Reiser, 2001). The popularity of computers for instruction in the 1980's followed by increased demand for online delivery

of instruction over the subsequent 40 years further emphasized the importance of structured and systematic approaches to online instructional design in higher education.

There are a variety of contradictory understandings in the literature regarding differences between theories, frameworks, models, and processes for instructional design. However, clear distinction between these terms is vital to this examination of current practices. For the purposes of this study, instructional design *processes* are defined as systematic approaches to course development that are specific to individual IHEs and informed by theories of learning, instructional design frameworks, and instructional design models. Instructional design *frameworks* are defined as underlying concepts about design. Instructional design *models* are defined as proposed procedures for course design.

**Figure 2.1**

*Distinctions Between Processes, Frameworks, and Models*

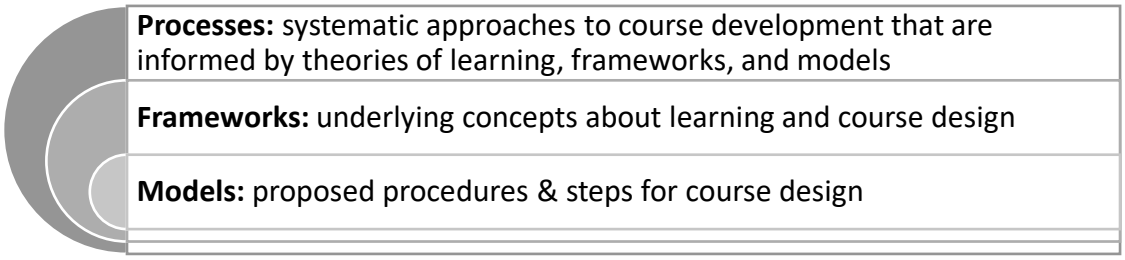


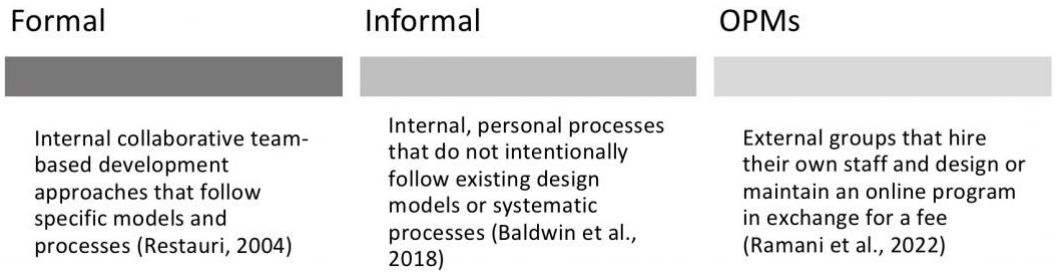

Figure 2.1 illustrates these distinctions between the three terms. These distinctions are intended to alleviate confusion throughout this study, however, there is substantial overlap between the concepts as well. For example, while an instructional design process is rooted in underlying sets of ideas about learning it will also include specific steps, procedures, roles, responsibilities, and timelines for the development of courses at IHEs.

### *Informal vs. Formal Instructional Design Processes*

There are currently three overarching approaches to online course design at IHEs in the U.S. The first two can be defined in terms of who is involved in the process. Individual faculty-only approaches are considered *informal* because they do not intentionally follow existing design models or systematic processes (Baldwin et al., 2018). On the other hand, collaborative team-based development approaches that follow specific models and processes are considered *formal* (Restauri, 2004). A third approach involves external resourcing through online program management providers (OPMs) that hire their own instructional designers and course authors and offer all services relating to the marketing, developing, and maintaining an online program in exchange for a fee (Ramani et al., 2022).

**Figure 2.2**

*Informal vs. Formal Instructional Design Processes*




*Note.* Definitions drawn from Restauri (2004), Baldwin et al., (2018), and. Ramani et al., (2022).

Two years prior to the COVID-19 pandemic, Baldwin and colleagues (2017) conducted a study exploring the practices of 14 faculty members for online course development. The researchers used open-ended interviews with semi-structured questions to uncover details about the processes that faculty commonly used to design online

courses. Findings illustrate that, when working independently, faculty rarely use instructional design models to complete their work because the time commitment associated with these processes is too heavy (Baldwin et al., 2017). On the other hand, results also suggest that the personal approaches faculty take are similar in many ways to the linear steps of the ADDIE model often including modified versions of the analysis, development, implementation, and evaluation stages (Baldwin et al., 2017). Baldwin and colleagues (2017) theorize that this is likely because systematic approaches to course design remain useful when thoughtfully adapted to fit the constraints of a given context. Personal modifications to processes are in line with satisfaction of the relevance condition in Keller's (2010) ARCS-V model by allowing faculty the flexibility to select the steps that they recognize as useful and applicable.

### *Online Program Management Providers (OPMs)*

There is a lack of research investigating the impact of IHEs using internal formal instructional design processes, which this study is intended to address. However, a case study investigating the impact of collaborative processes with external online program management (OPM) providers found that results varied for participating course authors based on assumptions, attitudes, and previous experience (Ramani et al., 2022). Ramani and colleagues (2022) conducted a case study analyzing the partnership between an external OPM and an IHE by interviewing 15 faculty and four instructional designers at a research university in the U.S. Results of this study indicate that the OPM did not provide adequate training to support inexperienced faculty in the creation of online courses (Ramani et al., 2022). In fact, there was an absence of consideration for faculty motivations within the process on the part of the OPM (Ramani et al., 2022).

Lack of relevant training is in direct opposition with efforts to satisfy the confidence condition or Keller's (2010) ARCS-V model of motivation. Faculty were not provided with accurate information about the requirements and expectations of each project and therefore unable to establish necessary self-assuredness. Neglect for faculty motivations results in the failure to meet the relevance condition of the ARCS-V model (Keller, 2010) as there is no evidence of matching responsibilities to individual motives or personal values. Future research exploring the elements of instructional design processes used by OPMs that present as motivational barriers and benefits to participating authors could prove useful for IHEs investing in this solution.

Further distinctions can be made between centralized resources offered to faculty across academic units at IHEs and decentralized resources offered within separate academic units at IHEs. While this distinction will be important for future studies, the current study is focused on the experiences of authors specific to their involvement with formal processes, which is not immediately influenced by the centralized or decentralized nature of the involved instructional design support unit. Therefore, this study will include both centralized and decentralized examples of formal instructional design processes as appropriate. While most formal instructional design processes continue to reflect variations of the generalized ADDIE model (Castro & Tumibay, 2021) some have begun to incorporate more flexible strategies in recognition of the limitations that linear models impose. Only IHEs and units that utilize ADDIE-informed or flexible spiral design-informed processes are included in this study.

### *Rapid Prototyping*

A few IHEs have recently begun describing their flexible spiral-design informed processes as "agile" and have developed a series of repeating steps that are influenced by values of constant re-design and learner centered decision-making as is the case at Kennesaw State University, the University of West Georgia, and Georgia College & State University (Woszczynski et al., 2021). Others, such as an instructor at Townson University and an instructional designer at Old Dominion University, have leaned into claims that rapid iterations of course designs refined over time yield the most responsive and relevant results (Cai & Moallem, 2021; Muljana, 2021).

Cai and Moallem applied a rapid-prototyping approach to the redesign of an online graduate course through a case study in August of 2021. The instructor engaged in a fast-paced process that bypassed traditional considerations for analysis found in most ADDIE-informed models (Cai & Moallem, 2021). Instead, the instructor conducted a needs assessment considering the course goals and previous student feedback and made design decisions based on quick analysis of the results (Cai & Moallem, 2021). Researchers relied on a student evaluation form to assess the impact of this process, initially finding no statistically significant difference in ratings between previous versions of the course, and the version developed through this rapid-prototyping approach (Cai & Moallem, 2021).

However, additional thematic analysis of the results suggests that students found the redesigned course to be more effective at connecting theory to real-world experience than the previous version (Cai & Moallem, 2021). Cai and colleagues (2021) also assert that the study highlights the practicality of using a design process that allows for fast and

flexible adaptations. Rapid and flexible processes offer an opportunity to meet the satisfaction and volition conditions of Keller's (2010) ARCS-V model by aligning enjoyment and personal satisfaction during the process to individual responsibilities for self-regulation and follow-through.

### Post-Pandemic Onset Instructional Design Processes

Most instructional design processes both before and after the official start of the COVID-19 pandemic involve variations of the step-by-step ADDIE model (Castro & Tumibay, 2021). During the first year of the pandemic, faculty were asked to rapidly develop courses for online delivery within a matter of weeks, which stands in stark contrast with the multi-month timelines utilized for most fully online courses developed by adjuncts or contracted subject matter experts prior to the spring of 2020 (Hodges et al., 2020). While the COVID-19 pandemic initially forced ERT strategies, IHEs in the U.S. quickly began to recognize that it would not be practical or advisable to continue using them, or to return to previous processes (Baggaley, 2020; Naidu, 2022). Instead, many IHEs either responded by increasing professional development efforts to support internal faculty with developing new skillsets or began hiring externally to fill the demand for online course authors (Lohman, 2021).

In a study exploring faculty experiences with shifting to ERT during the first year of the pandemic, Achen and Rutledge (2022) found that most reported lack of time and technological resources as primary barriers to course development. Some reported feeling relieved to receive assistance from instructional designers, but others saw these collaborations as additional strains (Achen & Rutledge, 2022). More recently, efforts to adjust expectations for online course design to meet the evolving needs of faculty as

course authors have begun to materialize. One example is the adoption of a layers-of-necessity model at Old Dominion University which attempted to simplify the steps for online course design by providing focused resources and streamlined guidance across fewer interactions with support staff (Muljana, 2021).

In an article calling for faculty support with course design in a post-pandemic onset context, Muljana (2021) also shares observations as an instructional designer who is profoundly familiar with the constraints of online course development in higher education. Muljana (2021) suggests adopting a 'layers-of-necessity' approach (Tessmer & Wedman, 1990) as a potential solution by placing the emphasis of instructional design processes on the needs of each individual project. Muljana (2021) champions the 'layers-of-necessity instructional development model' for incorporating flexibility into the design. The 'layers-of-necessity instructional development model' reflects the iterative steps of a spiral design process model. Frequent iteration aligns with satisfaction of Keller's (2010) attention condition within the ARCS-V model of motivation as it encourages uncertainty, incongruity, and moments of novelty throughout the process.

Meanwhile a team of four instructional designers at Indiana University Bloomington developed a rapid response protocol for instructional design that allowed them to analyze the needs of faculty course authors and provide support strategies to match the time constraints caused by ERT (Lachheb et al., 2021). As a result, Lachheb and colleagues (2021) created a six-step toolkit including rapid assessment of support needs through a three-item emailed questionnaire, a triage framework for just-in-time analysis of responses, a 15-minute initial design consultation, 15-minute follow-up design consultations, templated content and assignments incorporating usability principles, and

brief closeout sessions with open invitations for continued support. The authors concluded that this process was vital to their ability to support faculty course authors in a timely manner during the pandemic (Lachheb et al., 2021).

The University of California, Irvine took a different approach by appointing individual faculty members with previous experience teaching and designing online courses as project manager overseeing the development of online courses by their peers (Holton, 2020). A case study involving six online instructors teaching seven sections of general chemistry to 1,968 students at this IHE was conducted in the winter of 2020 (Holton, 2020). In this study, a lead instructor with previous experience teaching the course online was granted course releases to serve as an administrator, coordinator, and trainer for six colleagues adapting individual sections of the same chemistry course for online delivery (Holton, 2020). This is an example of a decentralized formal instructional design process as it is specific to an individual school within the IHE and involves collaboration with design staff.

Faculty participants of this study were allowed to choose the extent of their collaboration with the lead instructor with most choosing to engage in individual, informal processes (Holton, 2020). The resulting positive student feedback scores across all sections of the course encouraged the researcher to determine that this design approach was successful particularly due to faculty autonomy of choice for instructional design support (Holton, 2020). While the strategies highlighted in this study offer options for satisfying the relevance condition of Keller's (2010) ARCS-V model of motivation, it is unclear whether the findings would translate across institutional contexts.

A notable exception to these isolated case-studies is the agile collaboratively developed course (ACDC) model created for the shared development of an online MBA program by five faculty members from Kennesaw State University, University of West Georgia, and Georgia College & State University (Woszczynski et al., 2021). Five faculty members across the three institutions collaborated to generate an iterative course design process that embodies elements of the Agile Manifesto (2001) and applied it to the development of an online information systems course (Woszczynski et al., 2021). Woszczynski and colleagues (2021) compared the experiences of 101 students between the traditionally developed version of the information systems course and the ACDC developed version.

Results indicated that the ACDC process leads to more consistent learning experiences for students overall (Woszczynski et al., 2021). The researchers also found that working together in this way increased the interactivity and engagement of participating faculty (Woszcynski et al., 2021). Interactivity and engagement support achievement of the satisfaction and volition conditions of Keller's (2010) ARCS-V model of motivation by providing positive outcomes that inspire commitment and follow-through.

**Limitations**

There is a paucity of empirical research available on the effectiveness of formal instructional design processes at IHEs in the U.S. both prior to the arrival of the COVID-19 pandemic in the spring of 2020 and after. Additionally, many of the studies found through this literature review address student perspectives, some address instructional designer perspectives, and some address faculty experiences with teaching. None of the

available literature addresses faculty perspectives as *course authors* in formal collaborative instructional design processes despite the increased prevalence of these practices. There is a gap in the literature around instructional design processes used at IHEs post-pandemic onset. There is also a lack of research investigating the ways that formal instructional design processes impact course authors. This study provides an exploration of current formal instructional design processes with specific consideration for elements that present as motivational barriers and benefits to course authors. The findings of this yield insights that can productively inform instructional design processes and strategies at IHEs in the U.S. moving forward.

**Summary**

The available literature provides examples of current evolving instructional design processes at IHEs in the U.S. The new processes developed in response to increased demand for online learning in the wake of the COVID-19 pandemic appear to be addressing some of the needs of course authors. However, there is a lack of empirical research to establish this claim. The current research also does not sufficiently clarify which strategies are emerging to meet the needs of appointed and full-time faculty as course authors participating in online instructional design processes. Awareness of the need for innovative instructional design processes that better meet the needs of all course authors is increasing. At the same time, understandings about the nature of best practices for online course design processes are rapidly evolving.

# Chapter Three: Methods

## Overview

This exploratory sequential qualitative study examines the strategies and practices that are currently being implemented for the design of online courses at traditional institutions of higher education (IHEs) in the United States (U.S.) with specific consideration for the lived experiences of participating course authors. This study is sequential so that information gathered in the initial phases could be made available to panelists to review and revise as appropriate, then used to form a thorough and accurate consensus about factors that present as benefits and potential barriers to author motivation. Collective insights about the experiences of course authors will add to the existing body of knowledge about best practices for instructional design. The information collected through this study is also interpreted to inform recommendations for future efforts that promote the development of effective online academic experiences at IHEs in the U.S.

### *Purpose of the Study*

The purpose of this study is to identify the motivational elements of formal online instructional design processes that are currently being implemented at traditional IHEs in the U.S. within the current pandemic context.

### *Research Questions*

**Primary Question 1.** How are formal instructional design processes being implemented for the development of online courses at a traditional IHE in the U.S. in a post-pandemic onset context?

**Sub-Question A.** What factors of current instructional design processes present as potential motivational barriers for participating faculty course authors?

**Sub-Question B.** What factors of current instructional design processes present as motivational benefits for participating faculty course authors?

**Sub-Question C.** In what ways are online course quality expectations incorporated into current formal online instructional design processes across contexts?

## Research Methodology and Study Design

The primary goal of this study was to establish consensus about the factors of post-pandemic onset formal instructional design processes at a traditional IHE in the U.S. that present as benefits and potential barriers to motivation for faculty course authors. This consensus is important to the study because it ensures that assumptions about priority and importance are informed by the authors themselves rather than by the researcher alone. Qualitative methods are useful when the variables involved in a topic are unknown (Creswell & Creswell, 2018). At present, the experiences of faculty course authors who participate in formal instructional design processes are unclear. The factors of those processes that motivate participating faculty to participate and follow best practices for online course design are also ambiguous.

The Delphi Technique is a specific qualitative approach that allows the researcher to establish consensus from the views of panelists with varying observations (Hsu &

Sandford, 2007). For this study, the problem described is best understood through an exploration of the lived experiences and collective perceptions of the subjects. There have historically been differences in definition and procedure across Delphi studies to accommodate for individual populations and contexts (von der Gracht, 2012). This study is primarily focused on finding consensus of opinion about elements of formal instructional design processes for participating course authors. Recent research indicates that this population is struggling with an inability to meet the time demands of formal instructional design processes (Halupa, 2019; Hodges et al., 2020). In light of these concerns, this study utilizes a condensed Delphi technique rather than a full three-phase structure to mitigate potential issues with willingness to participate.

### *The Delphi Technique*

The Delphi technique for research was developed in 1963 and has since become a widely used qualitative strategy for consensus-building that is conducted through a series of iterative questionnaires delivered to a panel of industry experts (Hsu & Sandford, 2007). The Delphi technique is useful as a descriptive explanatory approach to research when there is not a current consensus on a topic or issue (Richey & Klein, 2014). A thorough understanding of the elements of instructional design processes that present as benefits or barriers to motivation for course authors is vital to the primary research question of this study. None of the literature available at the time of this study addresses faculty perspectives as course authors or about the formal instructional design processes they are increasingly being asked to participate in. The Delphi technique offers the opportunity to develop a consensus about these emerging issues. Hasan et al. (2000) assert that research objectives seeking to generate consensus on the part of a particular

group or that correlate varying perspectives about a topic across disciplines particularly call for the use of a consensus-building method like the Delphi technique.

The Delphi technique also allows for delivery at a distance and subject anonymity. These elements increased the potential for participation and decreased the likelihood for persuasion or skewed responses based on dominant viewpoints (von der Gracht, 2012). In their review of the literature, Hsu and Sandford (2007) assert that a study using the Delphi technique should allow for at least two weeks of response-time for all panelists between each phase to further encourage participation while navigating other responsibilities. Therefore, each of the survey and questionnaire tools designed for this study are intended to take no more than one hour for panelists to complete at their own convenience over the two-week timeframe.

**Setting.** This study is focused on a traditional IHE in the U.S. as most of the existing empirical research on the topic of instructional design processes post-pandemic onset has been conducted internationally. I am specifically interested in traditional IHEs as this is the closest approximation to my own experiences supporting course authors through formal instructional design processes. The International Society for Technology in Education (ISTE) is the community partner for this study. ISTE is a nonprofit organization focused on accelerating innovation through technology in education (ISTE, n.d.). Online teaching practices are a top priority in these efforts. My primary contact at ISTE is interested in uncovering information relating to the use of formal instructional design processes to create high quality online educational experiences, particularly as it relates to the use of measures of quality for course design.

Potential participating IHEs for this study originally included traditional institutions across the U.S. to provide a comprehensive understanding of existing instructional design processes utilized in higher education today. Contacts in eligible units at each of the six eligible peer institutions declined to respond when asked to participate. Instead, I focused on recruiting panelists from a variety of units and academic departments internally to IHE where I currently work. The IHE of focus will be referred to as 'IHE 1' for the duration of these findings to protect participant anonymity. The setting for each phase of this study was entirely virtual to allow for efficiency in communication across distances. This increased the likelihood that adjunct faculty developing online courses would be able to participate. Surveys and responses were conducted over Qualtrics which is an online survey tool with links to the survey provided over email.

**Participants.** Purposeful and snowball sampling were used to identify panelists for this study. The study is primarily focused on exploring the experiences of course authors at institutions like IHE 1, where I am currently working within an office that utilizes formal instructional design processes. Therefore, potential participating IHEs were purposefully culled from the list of 23 peer institutions published on the Institutional Research and Analysis website for IHE 1 (University of Denver Institutional Research & Analysis, n.d.). Potentially participating IHEs included those with formal instructional design processes that mirror an ADDIE-informed or spiral design-informed process and support potentially qualifying course authors.

Dalkey et al. (1969) suggest that measures for consensus are more accurate in questionnaire-based Delphi studies when there are 13 panelists, while studies based on

face-to-face interviews are more accurate when there are seven panelists. Similarly, Adler and Ziglio (1996) reported that small panel sizes of 10-to-15 often yield better results. For this reason, a target of 10-to-15 initial panelists was set with the intention of mitigating potential concerns with retention throughout two panelist-driven phases. Eleven initial panelists equally representative of all five eligible units at IHE 1 were identified for the second phase of this study. The initial pool of 11 panelists yielded a 100% retention rate throughout subsequent phases. This is likely due to modifications to the Delphi method which decreased participation requirements from three two-week phases to two.

Table 3.1 on page 45 illustrates the five procedures I used to recruit participants. These procedures included: 1) a systematic web-based review of units at IHE 1 and 23 peer institutions, 2) a targeted outreach email sent to leadership of the potentially qualifying IHE units, 3) an IHE unit eligibility survey, 4) a snowball outreach flyer shared with participating unit leadership and disseminated to potentially eligible course author panelists, and 5) a panelist eligibility survey.

Table 3.1 illustrates the process used to identify and connect with panelist participants. For the first step, I conducted a systematic web-based review of related administrative offices at IHE 1 and each of the peer institutions to determine which outwardly advertise the use of formal instructional design processes for the development of online courses. Search terms used included: center for teaching and learning, office of teaching and learning, eLearning, distance learning, online learning, instructional design, and course design. I then reached out directly to the leadership of eligible units that describe formal instructional design processes using a targeted outreach and recruitment

email (see Appendix A) with a detailed survey to further establish eligibility (see Appendix B). IHEs that conducted formal instructional design processes in collaboration with course authors between the onset of the COVID-19 pandemic in the U.S. during the spring of 2020 and the fall of 2022 were found to be eligible for the study.

**Table 3.1**

*Participant Recruitment Process*

| Procedure | Outcome |
|---|---|
| 1. Systematic web-based review of units at IHE 1 and 23 peer institutions | Identification of potentially eligible units that utilize formal instructional design processes for the creation of online courses |
| 2. Targeted outreach email sent to leadership of potentially qualifying IHE units | Identification of potentially eligible units that were willing to participate in the study |
| 3. IHE Unit Eligibility Survey | Confirmation of unit eligibility |
| 4. Snowball outreach flyer shared with participating unit leadership and disseminated to potentially eligible course author panelists | Identification of potentially eligible course author panelists |
| 5. Panelist Eligibility Survey | Confirmation of panelist eligibility |

**Narrative for Table 3.1**

As illustrated in table 3.1, six of 23 peer institutions to IHE 1 were found to be eligible for the study through this review. The names of all eligible institutions and units have not been included to protect anonymity. I reached out directly to contacts in all potentially qualifying units at each eligible IHE. However, none of the contacts at the six qualified peer institutions opted to participate in this study. As a result, I focused efforts on recruiting leadership participants from various eligible units at IHE 1 using the same

web-based criteria. Three centralized units and two centralized academic departments were found eligible for this study and all expressed willingness to participate.

**IHE Unit Eligibility.** Eligible course authors are defined for this study as those who have participated in a formal instructional design process to develop at least one online course for a qualifying IHE between the onset of COVID-19 in the U.S. in the spring of 2020 and the spring of 2022. Eligible panelists were also required to report having developed at least one F2F course (at any point) and at least one online course prior to the onset of the COVID-19 pandemic. These criteria allowed me to establish a baseline among Delphi panelists ensuring that all panelists are industry experts with related backgrounds and experiences concerning the impact of formal online instructional design processes on course authors. Course author panelists were recruited using snowball sampling. First, recruitment flyers were sent to the leadership of qualifying units for distribution to course authors that had collaborated with these groups during the appropriate timeframe (see Appendix C). After reaching out in response to the recruitment flyer, interested panelists were then surveyed individually to confirm eligibility prior to engaging in the study (see Appendix D). Table 3.2 provided on page 47 illustrates the IHE Unit Eligibility survey.

**Table 3.2**

*IHE Unit Eligibility Survey*

| Survey Question | Rationale |
|---|---|
| Has your unit supported course authors in the creation of online courses between the spring of 2020 and the fall of 2022?<br><br>***Options:*** *Yes, No, or Other (short answer)* | Collect general information about IHE settings to confirm relevance to the study |
| Are the instructional design processes that course authors at your institution of higher education participate in **collaborative** (requiring involvement from an author, and at least one design staff person) rather than **individual** (requiring involvement of only the author)?<br><br>***Options:*** *Yes, No, or Other (short answer)* | Collect general information about IHE settings to confirm relevance to the study |
| Are the course authors that your unit supports primarily full-time appointed faculty at the institution of higher education?<br><br>***Options:*** *Yes, No, or Other (short answer)* | Collect socio-demographic characteristics |
| Do you anticipate that at least five individuals who have been supported as course authors by your unit would be willing to participate in a modified Delphi study spanning approximately two months and requiring approximately nine total hours of time?<br><br>***Options:*** *Yes, No, or Other (short answer)* | Collect general information about potential panelists to confirm relevance to study |
| Please describe the current instructional design processes that your unit provides for course authors creating online courses at the institution of higher education<br><br>***Options:*** *Short answer* | Collect detailed information about IHE settings to further confirm relevance to the study |

*Note.* The definition of terms provided in Chapter 1 were also included in the survey for IHE participants to encourage accuracy of self-reporting.

**Narrative for Table 3.2**

Table 3.2 illustrates each of the questions used to determine IHE unit eligibility. The first column provides each survey question as well as the optional responses. Survey questions include: 1) Has your unit supported course authors in the creation of online courses between the spring of 2020 and the fall of 2022?, 2) Are the instructional design processes that course authors at your institution of higher education participate in **collaborative** (requiring involvement from an author, and at least one design staff person) rather than **individual** (requiring involvement of only the author)?, 3) Are the course authors that your unit supports primarily full-time appointed faculty at the institution of higher education?, 4) Do you anticipate that at least five individuals who have been supported as course authors by your unit would be willing to participate in a modified Delphi study spanning approximately two months and requiring approximately nine total hours of time?, and 5) Please describe the current instructional design processes that your unit provides for course authors creating online courses at the institution of higher education. The second column includes the rationale for each question including: 1) collect general information about IHE settings to confirm relevance to the study, 2) collect general information about IHE settings to confirm relevance to the study, 3) collect socio-demographic characteristics, 4) collect general information about potential panelists to confirm relevance to study, and 5) collect detailed information about IHE settings to further confirm relevance to the study.

**Participant Eligibility.** Leadership at each eligible IHE were sent a recruitment flyer for dissemination to potentially eligible panelists participants. Potential participants reached out directly to the researcher and were sent the Participant Eligibility survey to

confirm their expertise as a panelist. Table 3.3 provided on page 49 illustrates the Participant Eligibility survey.

**Table 3.3**

*Participant Eligibility Survey*

| Survey Question | Rationale |
|---|---|
| Have you collaborated with design staff at an institution of higher education in the creation of an online course between the spring of 2020 and the fall of 2023?<br><br>***Options:*** *Yes, No, or Other (short answer)* | Collect general information about participants to confirm relevance to study |
| Have you created a face-to-face course for an IHE at any point?<br><br>***Options:*** *Yes, No, or Other (short answer)* | Collect general information about participants to confirm expertise as a panelist |
| Have you created an online course for an institution of higher education at any point prior to the spring of 2020?<br><br>***Options:*** *Yes, No, or Other (short answer)* | Collect general information about participants to confirm expertise as a panelist |
| Were you a full-time appointed faculty member at the institution of higher education where you collaborated with design staff to create an online course between the spring of 2020 and the fall of 2023?<br><br>***Options:*** *Yes, No, or Other (short answer)* | Collect socio-demographic characteristics |
| Are you willing to participate in a two-part modified Delphi study spanning approximately one month and requiring approximately four total hours of your time?<br><br>***Options:*** *Yes, No, or Other (short answer)* | Collect general information about participants to confirm relevance to study |

*Note.* The definition of terms provided in chapter 1 were also included in the survey for interested participants to encourage accuracy of self-reporting.

**Narrative for Table 3.3**

Table 3.3 illustrates the survey used to determine participant eligibility. The first column provides each survey question as well as the optional responses. Survey questions included: 1) Have you collaborated with design staff at an institution of higher education in the creation of an online course between the spring of 2020 and the fall of 2023?, 2) Have you created a face-to-face course for an IHE at any point?, 3) Have you created an online course for an institution of higher education at any point prior to the spring of 2020?, 4) Were you a full-time appointed faculty member at the institution of higher education where you collaborated with design staff to create an online course between the spring of 2020 and the fall of 2023?, and 5) Are you willing to participate in a two-part modified Delphi study spanning approximately one month and requiring approximately four total hours of your time? The second column contains the rationale for including each question. The rationale for each question includes: 1) collect general information about participants to confirm relevance to study, 2) collect general information about participants to confirm expertise as a panelist, 3) collect general information about participants to confirm expertise as a panelist, 4) collect socio-demographic characteristics, 5) Collect general information about participants to confirm relevance to study.

### *Data Collection Procedures*

**Delphi Phase 1.** The Delphi method traditionally consists of at least two phases of iterative questionnaires followed by a member-check (Hsu & Sandford, 2007). However, it is also common to utilize a structured questionnaire for the first round that is generated by the researcher through a detailed literature review (Hsu & Sandford, 2007).

The intended pool of panelists for this study includes faculty who have participated as course authors since the onset of the COVID-19 pandemic in the United States. This is a group that has recently reported increasing inability to meet time requirements for related efforts (Halupa, 2019; Hodges et al., 2020). Rather than asking panelists to spend two hours responding to open-ended interview questions, the first phase of this study began with an extensive review of academic articles published between the spring of 2020 and the fall of 2023 which were then used to generate a structured questionnaire for the second phase. The articles found through this search yielded information about general topics and themes relating to formal instructional design processes, but none provided information about course author perspectives. Topics uncovered through the literature review were used to form initial elements that were then aligned to the five conditions of Keller's (2010) ARCS-V model of motivation to form a structured questionnaire for phase 2 as illustrated in table 3.4 on page 53.

It is recommended that all questionnaires for qualitative studies be pilot tested with a small group of individuals prior to implementation (Hassan et al., 2000). For this reason, an early version of the panelist questionnaire was piloted with a small group of non-participants. The pilot questionnaire included several open-ended questions with prompting language that provided each of the conditions of Keller's (2010) ARCS-V by name rather than by definition. All pilot participants reported confusion with the questions in this early version. Many shared a lack of familiarity with the ARCS-V terminology as a primary point of confusion. Participants also misunderstood the nature of many of the questions as evidenced through written in responses stating that they did not know what was being asked of them. Therefore, the pilot questionnaire was modified

to include structured statements describing each condition of motivation as well as comprehensive lists of elements for panelists to rank-order by personal priority. Each revised question also included the option to select 'other' with a written explanation allowing for the emergence of panelist-driven themes and statements as appropriate.

**Delphi Phase 2.** During the second phase of this study, each of the panelists were sent the refined panelist questionnaire which began to explore the formal online instructional design processes currently being used at participating IHEs and the lived experiences of authors participating in those processes. The panelist questionnaire illustrated in table 3.4 on page 53 included a combination of 10 demographic questions, 11 questions designed to gauge level of agreement or disagreement on a five-point Likert scale, and 10 rank-order questions providing panelists with the opportunity to list statements in order of personal importance with respect for conditions of motivation. Instructions are provided for each of the three main sections of the questionnaire including the Demographic Questions, Likert-Scale Questions, and Rank-Order Questions. The references used to develop each statement for the panelist questionnaire are provided for all questions. Lists of multiple-choice options are provided for each of the demographic questions. All of the Likert-scale questions utilized the same five-point scale including: 1-Strongly Disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, or 5-Strongly Agree. Similarly, lists of element options are provided for each of the rank-order questions. The lists of rank-ordered elements vary for each question to ensure relevance to the intended condition of Keller's (2010 ARCS-V).

**Table 3.4**

*Phase 2 Panelist Questionnaire*

| Question | Rationale | Citation |
|---|---|---|
| **Demographic Question Instructions:** For the following questions, please select the item that best represents you and/or the institution of higher education where you have worked as a course author. There are a total of 10 questions in this portion of the survey. Once finished, be sure to click the arrow to continue to the next section of the survey. | | |
| 1) What is/was your primary role at the institution of higher education where you have worked as a course author? ***Options:*** *Appointed or tenured faculty member, Adjunct faculty member, Lecturer or instructor, Full-time staff member, Part-time or contracted staff member, Other (please explain)* | Collect general information about the instructional design processes used at this IHE | Morrison et al. (2004) Restauri (2004) Bennett et al. (2016) Baldwin et al. (2018) Martin et al. (2021) |
| 2) What primary role do most course authors hold at this institution of higher education? ***Options:*** *Appointed or tenured faculty member, Adjunct faculty member, Lecturer or instructor, Full-time staff member, Part-time or contracted staff member, Other (please explain)* | Collect general information about the instructional design processes used at this IHE | Morrison et al. (2004) Restauri (2004) Bennett et al. (2016) Baldwin et al. (2018) Martin et al. (2021) |
| 3) How much experience do you have with online course authoring for college or university classes? ***Options:*** *Less than 2 courses, 2-5 courses, 5-10 courses, Greater than 10 courses* | Collect general information about the instructional design processes used at this IHE and adherence to pre-pandemic recognized best practices for spiral design process-informed steps | Baldwin et al. (2018) |
| 4) What is your gender identity? ***Options:*** *Male, Female, Another (written-in response), I prefer not to respond* | Collect general information about the panelist | Baldwin et al. (2018) |

| Question | Rationale | Citation |
|---|---|---|
| 5) What is your age range?<br>***Options:*** *Less than 30, 30-39, 40-49, 50-59, Over 60, I prefer not to respond* | Collect general information about the panelist | Baldwin et al. (2018) |
| 6) As a course author, were you provided with access to digital resources that supported your creation of an online course (such as online repositories, guides, instructions, or knowledge bases)?<br>***Options:*** *Yes, No, I'm not sure, Other (please explain)* | Collect general information about the instructional design processes used at this IHE | Baldwin et al. (2018)<br>Keller, (2010)<br>Eccles et al., (1983) |
| 7) As a course author, were you provided with access to live resources that supported your creation of an online course (such as consultations, webinars, workshops, or trainings)?<br>***Options:*** *Yes, No, I'm not sure, Other (please explain)* | Collect general information about the instructional design processes used at this IHE | Baldwin et al. (2018)<br>Keller, (2010)<br>Eccles et al., (1983) |
| 8) Were there any required trainings or workshops for course authors at the institution of higher education where you created on online course?<br>***Options:*** *Yes, No, I'm not sure, Other (please explain)* | Collect general information about the instructional design processes used at this IHE | Baldwin et al. (2018)<br>Keller, (2010)<br>Eccles et al., (1983) |
| 9) What incentives were you provided with as a result of participating in the online instructional design processes at this institution of higher education? Please select all that apply.<br>***Options****: Course release(s), Monetary stipend(s), Certification(s), Tenure and promotion related acknowledgement(s), Other (please explain), None* | Collect general information about the incentives provided to authors participating in the instructional design processes at this IHE | Baldwin et al. (2018)<br>Chen and Carliner (2020) |

| Question | Rationale | Citation |
|---|---|---|
| 10) Do the online instructional design processes that you participated in require the use of standard measures for online course quality (such as Quality Matters, the SUNY Online Course Quality Measures OSCQR, or a custom quality rubric) in any way?<br>***Options:*** *Yes, No, I'm not sure, Other (please explain)* | Collect general information about the instructional design processes used at this IHE and adherence to pre-pandemic recognized best practices for spiral design process-informed steps | Baldwin et al. (2018) |
| **Likert-Scale Instructions:** For the following questions, please select the item on a scale of 1-5 that best fits your perspective as an online course author: **1-Strongly Disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, or 5-Strongly Agree.** There are a total of 11 questions in this portion of the survey. Once finished, be sure to click the arrow to continue to the final section of the survey. | | |
| 1) I find the online instructional design processes in which I have participated in as a course author to be clear and/or easy to understand**.** | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *attention*. | Eccles et al., (1983)<br>Keller, (2010)<br>Achen and Rutledge (2022) |
| 2) The online instructional design processes in which I participated in as a course author have required adequate and reasonable time commitments. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *attention*. | Eccles et al., (1983)<br>Keller, (2010)<br>Achen and Rutledge (2022) |
| 3) I find the online instructional design processes in which I have participated in as a course author to be useful and/or productive. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *relevance*. | Eccles et al., (1983)<br>Keller, (2010)<br>Achen and Rutledge (2022) |

| Question | Rationale | Citation |
|---|---|---|
| 4) I believe that engaging in online instructional design processes as a course author reduces the workload when teaching an online course. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *relevance*. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| 5) I am confident in my ability to effectively achieve each of the requirements or steps of the online instructional design processes in which I have participate in as a course author. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *confidence*. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| 6) I have access to all of the technical support that I need when engaging in online instructional design processes as a course author. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *confidence*. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| 7) I feel that my work as course author has been sufficiently rewarded and/or compensated**.** | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *satisfaction*. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |

| Question | Rationale | Citation |
|---|---|---|
| 8) Participating in online instructional design processes as a course author provides me with an added sense of pride and accomplishment. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *satisfaction*. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| 9) The online instructional design processes that I have participated in as a course author have contributed to my creation of meaningful and effective learning experiences. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *volition*. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| 10) I am satisfied with the amount of autonomy and flexibility I have had as a course author when participating in online instructional design processes. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of *volition*. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| 11) I find an emphasis on best practices for online course design helpful when participating as a course author in online instructional design processes. | Collect general information about the author perspectives relating to the instructional design processes used. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |

| Question | Rationale | Citation |
|---|---|---|
| **Rank-Order Instructions:** For the following questions, please re-arrange the items in order of your personal priority listing those that are most important to you first**,** and those that are the least important to you last**.** There are a total of 5 questions in this final portion of the survey. Once finished, be sure to click the arrow to submit your responses. | | |
| 1) Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to your understanding of the required steps and tasks of an online instructional design process. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of attention. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| ***Options:*** *One-on-one consultations with instructional design staff, self-paced workshops, live facilitated workshops, drop-in office hours with instructional designers, step-by-step guides, course design expectations or checklists, course design quality rubrics, standardized templates for course design, other (please explain)* | | |
| 2) Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing your sense of the usefulness and relevance of engaging in online instructional design processes. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of relevance. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| ***Options:*** *One-on-one consultations with instructional design staff, tenure or promotion related acknowledgements, monetary stipends, course releases, recognition from supervisors or campus leadership, mandates or requirements for participating in online instructional design processes, testimonials from other course authors who have engaged in the online instructional design processes, evidence of impact that the online instructional design processes have on the student experience, evidence of impact that the online instructional design processes have on the faculty experience, curated lists of evidence-based resources highlighting the importance of online instructional design processes, other (please explain)* | | |
| 3) Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority | Collect general information about the author perspectives | Eccles et al., (1983) Keller, (2010) |

| Question | Rationale | Citation |
|---|---|---|
| last) as they relate to increasing internal confidence in your ability to achieve the expectations and requirements of course authors engaging in online instructional design processes. | relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of confidence. | Achen and Rutledge (2022) |
| ***Options:*** *Clearly defined minimum expectations for online course designs, course design expectations or checklists, course design quality rubrics, standardized templates for course design, written documentation of expectations (i.e. contract, scope of work, project outline, service agreement, etc.), clarity about individual course design milestones and deliverables, access to peer mentors (other successful course authors), access to instructional design staff, access to multimedia design staff, access to media creation tools (i.e. recording equipment, editing software, etc.), access to live technical support, facilitated design trainings or workshops, access to recorded course design tutorials, reference guides, or resources, course releases accommodating for the time commitment of engaging in online instructional design processes, other (please explain)* | | |
| 4) Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to enhancing your sense of satisfaction or enjoyment when engaging in online instructional design processes. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of satisfaction. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| ***Options:*** *Course releases accommodating for the time commitment of engaging in online instructional design processes, tenure or promotion related acknowledgements, monetary stipends, recognition from supervisors or campus leadership, evidence of impact that the online instructional design processes have on the student experience, evidence of impact that the online instructional design processes have on the faculty experience, access to a community of peers who are engaging in similar work as course authors, student partnerships/involvement in the instructional design process, transparency about the expertise levels of all members of the design team, other (please explain)* | | |

| Question | Rationale | Citation |
|---|---|---|
| 5) Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to your ability to follow through and commit to the completion of online instructional design processes as a course author. | Collect general information about the author perspectives relating to the instructional design processes used at this IHE and satisfaction of Keller's (2010) condition of volition. | Eccles et al., (1983) Keller, (2010) Achen and Rutledge (2022) |
| ***Options:*** *Course releases accommodating for the time commitment of engaging in online instructional design processes, monetary stipends, tenure or promotion related acknowledgements, access to a community of peers who are engaging in similar work as course authors, access to instructional design staff, facilitated course design trainings or workshops, access to recorded course design tutorials, reference guides, or resources, course design expectations or checklists, course design quality rubrics, standardized templates for course design, flexible timelines, clarity about individual course design milestones and deliverables, other (please explain)* | | |

**Narrative for Table 3.4**

Table 3.4 illustrates the full panelist questionnaire. The first column includes each question as well as the optional responses. Many Delphi studies also collect qualitative comments that are then quantified and summarized in subsequent phases (Hasson et al., 2000). For this reason, panelists had the option to select 'other: please explain' and provide a 'written in' personal response on every rank-order question, though no panelists opted to do so. Panelists were also invited to provide verbal recorded responses if preferred. All panelists were allotted a two-week period to submit their responses. On average, the questionnaire took between 5 and 20 minutes for panelists to complete.

The second column includes the rationale for including each question. The third column provides citations for references that informed the inclusion of each questions in relation to the research questions for this study.

**Delphi Phase 3.** The data for questionnaire responses that illustrated consensus were converted into tables to illustrate the areas of agreement and disagreement among panelist participants. For the third and final phase of this study panelists were sent a member-check email with a .pdf version of the tables reflecting the consensus that began to take shape through the results of their responses, as well as a summary of preliminary priorities among statements and themes. Delphi studies often include a series of iterative tools such as revised questionnaires and member-checks that are summarized and presented back to panelists to generate a common consensus (Hasson et al., 2000). For this reason, panelists were provided with the opportunity to clarify and revise their initial judgements based on the information collected from others. This phase allowed the consensus to be shaped through participant considerations and interpretations rather than through the assumptions of the researcher alone. Panelists had the option to provide verbal recorded responses to the questionnaire if preferred over written responses. Panelists were allotted a one-week period to submit their responses.

**Modified Delphi-Technique.** To better meet the needs of the intended panelist participants, this study utilized a modified Delphi Technique. Logic for the modifications made are provided above. Table 3.5 illustrated on page 62 provides an overview of each phase and stage of this study.

**Table 3.5**

*Methodological Approach – Delphi Technique*

| | Stage/Phase | Procedure | Outcome |
|---|---|---|---|
| I) | Recruitment | Researcher reached out directly to leadership in qualifying units at DU and peer institutions to identify interest | Participant demographics |
| | | | Descriptive statistics |
| | | Recruitment email with eligibility survey sent to leadership to distribute to potentially qualifying panelists | Examination of variables |
| II) | Delphi Phase 1 | Extensive literature review | Emergent themes |
| III) | Synthesis 1 | Alignment of emergent themes to Keller's (2010) ARCS-V model of motivation | Panelist questionnaire |
| IV) | Delphi Phase 2 | Structured questionnaire emailed to panelists | Areas of agreement and disagreement among panelists |
| V) | Synthesis 2 | Descriptive statistics (mean, mode, and percentages of agreement/disagreement) | Emergent themes |
| | | | Emergent consensus of opinions |
| | | | Illustration of summarized results |
| | | Summarization of participant responses and comments | Member feedback email |
| VI) | Delphi Phase 3 | Member feedback email with summarized themes and priorities sent to panelists | Emergent themes |
| | | | Consensus of panelists |
| VII) | Data Analysis | Statistical analysis | Measures of consensus including central tendency (mean and median), dispersion |
| | | Thematic analysis | |

| Stage/Phase | Procedure | Outcome |
|---|---|---|
| | | (variance), and frequency (mode)<br><br>Generation of themes |
| VIII) Integration | Explanation of findings as related to Keller's (2010) ARCS-V model of motivation | Discussion<br><br>Implications<br><br>Future research |

**Summary of Table 3.5**

Table 3.5 illustrates the structure of this study. Column one provides the name of each stage or phase of the study including: I) Recruitment, II) Delphi Phase 1, III) Synthesis 1, IV) Delphi Phase 2, V) Synthesis 2, VI) Delphi Phase 3, VII) Data Analysis, and VIII) Integration. Column two describes the procedures used within each stage of the study including; I) the researcher reached out directly to leadership in qualifying units at DU and peer institutions to identify interest and recruitment email with eligibility survey sent to leadership to distribute to potentially qualifying panelists, II) extensive literature review, III) alignment of emergent themes to Keller's (2010) ARCS-V model of motivation, IV) structured questionnaire emailed to panelists, V) descriptive statistics (mean, mode, and percentages of agreement/disagreement) and summarization of participant responses and comments, VI) member feedback email with summarized themes and priorities sent to panelists, VII) statistical and thematic analysis, and VIII) explanation of findings as related to Keller's (2010) ARCS-V model of motivation. Column three includes the intended outcome of each stage including: I) participant demographics, descriptive statistics, and examination of variables, II) emergent themes, III) panelist questionnaire, IV) areas of agreement and disagreement among panelists, V)

emergent themes, emergent consensus of opinions, illustration of summarized results, and member feedback email, VI) emergent themes and consensus of panelists, VII) measures of consensus including central tendency (mean and median), dispersion (variance), and frequency (mode) and generation of themes, and VIII) discussion, implications, and future research.

### *Data Analysis Process*

This study relied on a questionnaire collecting perceptions of course authors relating to efficiency, benefit, and impact of elements of formal instructional design processes. Responses from the questionnaire were analyzed using descriptive statistics which are primarily used for Delphi studies given the traditionally small sample sizes (von der Gracht, 2012). Delphi studies typically focus on measures of consensus, which are best represented through central tendency, dispersion, and frequency (von der Gracht, 2012). The data for this study was collected through multiple choice questions, an ordinal five-point Likert scale, and rank-ordering across sets of structured items. An adequate sample population for inferential data analysis must be effectively representative of the larger population (Best & Kahn, 2006). For this reason, and given the small panel size of 11, measures of dispersion including standard deviation and interquartile range were not found to be relevant to the results of this study. Instead, central tendency is captured through mean while frequency is illustrated by the mode for each set of responses.

The total percentage of responses to each Likert-scale question falling above the mean (Strongly Agree and Agree) was used to determine areas of agreement. The total percentage of responses falling below the mean (Disagree and Strongly Disagree) was used to determine areas of disagreement. Consensus for Likert-scale questions was

achieved when more than 60% of responses for a particular item fell above or below the mean. Consensus for rank-ordering questions was achieved when 70% or more of the responses fell above or below the mean.

Responses were also analyzed using interpretive phenomenological analysis to identify themes in the ways that panelists made sense of their experiences through shared consensus. Interpretive phenomenological analysis is useful when the rationale for participant perceptions is important to the study (Adu, 2019). Interpretation-focused coding is a strategy for studies with the purpose of interpreting personal experiences that involves applying a systematic process to summarize and reduce the open-ended responses collected through the initial questionnaire into a consistent and reliable set of data (Adu, 2019). The themes generated through these results were summarized and shared with panelists during the third phase of the study.

### *Ethical Considerations and Limitations*

There are four general weaknesses with the Delphi technique including: an increased probability for low response rates as compared to other methods, the time-consuming nature of conducting multiple phases, the potential for opinions to be molded by dominant voices, and the possibility that information from panelists with varying levels of expertise could be generalized inappropriately (Hsu & Sandford, 2007). The following steps were taken to address these limitations. To off-set the drawbacks of the time-consuming nature, the first phase of the study was modified to an in-depth literature review in lieu of participant interviews. The questionnaire for phase two also combined statements measuring areas of agreement with rank-ordered lists gauging personal relevance of motivating elements rather than presenting the two consensus-forming

structures across separate phases. These strategies decreased the overall time commitment of all panelist participants by four weeks.

To off-set potential issues with molded opinions, the study was concluded after the first round of member-checks once stability across phases was achieved. All panelists reported acceptance with the results during the member-check. For this reason, the study was concluded after the phase 3 member check.

The anonymity of the process was emphasized throughout this study to off-set concerns about the potential effects of group pressure on unit participation or panelist responses. All summarized results were anonymized to ensure that panelists would not be able to identify one another. The study was also conducted entirely online so that panelists did not meet face-to-face with each other or the researcher. Applying statistical techniques such as eliminating outlier responses allowed for proper removal of extraneous data and control over potential influence on the results from dominant voices.

Finally, eligible panelists were narrowed to those with sufficient previous experience to decrease the potential for inappropriate generalizations of perspective based on varying levels of expertise. The benefits of the Delphi technique as a method for generating consensus about the emerging experiences of faculty course authors currently outweigh potential limitations. Nevertheless, the possible influences of this process were continuously monitored and identified throughout the collection of data and reporting of findings.

This study was intended to be conducted cross-institutionally and was modified to focus on various contexts at IHE 1 after all peer IHEs declined to participate. While this modification can be viewed as a limitation to the original intentions of the study, it also

strengthened the integrity of the results in unexpected ways. One criticism of Delphi studies is the tendency for researchers to over-generalize and interpret the results of one group as correct or predictive answers for other groups (Hasson et al., 2000). The focused nature of this panel on one institution allowed for less variation across institutional context and more directed attention to the aspects of formal instructional design processes that are implemented for different purposes at an individual site. Panelists recruited from IHE 1 represent five distinct units and include both centralized and decentralized formal instructional design processes. Should this study be replicated at other IHEs in the future, a comparison of areas of consensus would yield even more comprehensive results about the elements of these processes that present as benefits and barriers to course authors across institutional contexts.

**Summary**

Delphi studies allow for qualitative iterations that establish consensus among panelists with various points of view (Hsu & Sandford, 2007). This study utilizes a modified Delphi technique. The study began with a questionnaire developed through a comprehensive literature review that combines Likert-scale statements with rank-ordered lists. Analysis of questionnaire responses allowed the research to begin generating themes of consensus about course author perspectives when participating in formal instructional design processes at traditional IHEs. The themes that emerged from this analysis are central to answering the primary research question for this study as well as the three sub-questions.

# Chapter Four: Findings and Results

## Overview

The primary goal of this study is to establish consensus about factors of formal instructional design processes at traditional institutions of higher education (IHEs) in the United States (U.S.) that present as motivational benefits and barriers to faculty course authors. Consensus is important to the study because it ensures that assumptions about priority and importance are informed by the course authors themselves rather than by the researcher alone. Therefore, data reflecting levels of agreement with statements and rank-ordering of priorities relating to course author experiences in formal instructional design processes was collected through a panelist questionnaire and subsequent member-feedback round.

### *Purpose of the Study*

The purpose of this study was to explore the formal online instructional design processes that are being implemented at traditional IHEs in the U.S. within the current post-pandemic onset context.

### *Research Questions*

**Primary Question 1.** How are formal instructional design processes being implemented for the development of online courses at a traditional IHE in the U.S. in a post-pandemic onset context?

**Sub-Question A.** What factors of current instructional design processes present as potential motivational barriers for participating faculty course authors?

**Sub-Question B.** What factors of current instructional design processes present as motivational benefits for participating faculty course authors?

**Sub-Question C.** In what ways are online course quality expectations incorporated into current formal online instructional design processes across contexts?

### *Study Structure and Rationale*

At present, the experiences of course authors participating in formal instructional design processes are unclear. The factors of those processes that motivate and demotivate participating faculty are also ambiguous. Qualitative research methods are useful when the variables involved in a topic are unknown (Creswell & Creswell, 2018). The Delphi technique is a specific qualitative approach that allows the researcher to establish consensus from the views of panelists with varying observations (Hsu & Sandford, 2007). For this study, the problem described will be best understood through an exploration of the lived experiences of the subjects as this allows for a more accurate understanding of shared perspectives about elements that present as benefits and barriers to motivation for them. Thus, the Delphi technique was selected as the foundational structure for this study.

## Description of Delphi Panel

A total of 11 panelists completed the first phase of the study. The study was conducted online through an anonymous Qualtrics questionnaire. Panelists were asked to respond to the questionnaire with data relevant to their experiences. Table 4.1 provided on page 70 highlights some of the similarities of panelists across institutional and personal contexts as well as some of the differences.

**Table 4.1**

*Participant Characteristics*

| ID | Activity | Time Spent | Role at IHE | Course Author Experience | Gender Identity | Age |
|---|---|---|---|---|---|---|
| P1 | Online Qualtrics survey | 6 min | Appointed or tenured faculty | Greater than 10 courses | Male | 50-59 |
| P2 | Online Qualtrics survey | 6 min | Adjunct faculty | 5-10 courses | Male | 40-49 |
| P3 | Online Qualtrics survey | 16 min | Adjunct faculty | 5-10 courses | Female | 40-49 |
| P4 | Online Qualtrics survey | 15 min | Lecturer or instructor | 5-10 courses | Male | 50-59 |
| P5 | Online Qualtrics survey | 5 min | Adjunct faculty | Less than 2 courses | Female | Prefer not to respond |
| P6 | Online Qualtrics survey | 20 min | Appointed or tenured faculty | 5-10 courses | Male | Over 60 |
| P7 | Online Qualtrics survey | 15 min | Appointed or tenured faculty | 5-10 courses | Female | 30-39 |
| P8 | Online Qualtrics survey | 17 min | Appointed or tenured faculty | 2-5 courses | Female | 40-49 |
| P9 | Online Qualtrics survey | 8 min | Adjunct faculty | Less than 2 courses | Prefer not to respond | Prefer not to respond |
| P10 | Online Qualtrics survey | 9 min | Lecturer or instructor | Greater than 10 courses | Male | 40-49 |

| ID | Activity | Time Spent | Role at IHE | Course Author Experience | Gender Identity | Age |
|---|---|---|---|---|---|---|
| P11 | Online Qualtrics survey | 15 min | Appointed or tenured faculty | Greater than 10 courses | Female | 40-49 |

*Note.* All panelists participated in the study through online surveys and emailed follow up. None of the panelists opted to submit recorded verbal responses.

**Narrative for Table 4.1**

Of the 11 total panelists, 45.5% identify as male, 45.5% identify as female, and 9% preferred not to respond. A majority 73% of panelists reported having been a course author for at least five online courses while 27% reported authoring less than five online courses. A total of 45% of panelists hold appointed or tenured faculty positions at IHE 1, 36% are adjunct faculty, and 18% reported roles as lecturers or instructors. All panelists opted to complete the questionnaire online with written responses rather than recorded responses. On average, panelists took 12 minutes to complete the questionnaire.

All names have been de-identified and replaced with panelist (P) numbers in the first column of this table. The second column provides the number of minutes that each panelist took to complete the questionnaire. The remaining six columns illustrate each panelist's response to demographic questions.

**Description of Delphi Phases**

Five units at IHE 1 were contacted after an initial web-review for potential eligibility. Leadership contacts at each of the five units completed the IHE eligibility survey and all were found eligible for this study. Each unit then identified five-to-six potential panelists for a total of 26. After receiving the recruitment flyer via email, 17 of

the 26 potential panelists completed the eligibility survey. Following confirmation of eligibility, 11 of the 17 potential panelists completed the phase 2 panelist questionnaire. All 11 panelists responded to the member check during phase 3. Each participating unit at IHE 1 provided two-to-three qualified panelists leading to 18%, 18%, 18%, 18%, and 27% representation. The names of the units are not included in these results to protect anonymity. All five of the units utilized formal instructional design processes to support faculty authors between the onset of the COVID-19 pandemic in the U.S. in the spring of 2020 and the spring of 2023. Though it is not immediately relevant to this study, two of the five participating units provide centralized support to course authors while the other three provide variations of decentralized support to the entire university.

**Phase 1 Results**

The purpose of the first phase of this study was to generate a structured panelist questionnaire through a detailed literature review. Topics relating to course author perspectives uncovered through relevant academic articles were aligned to the five conditions of Keller's (2010) ARCS-V model of motivation to form structured questions. The final questionnaire includes 10 multiple-choice demographic questions, 11 five-point Likert-scale questions, and 10 rank-order questions. Two Likert-scale questions were created for each of the five conditions of Keller's (2010) ARCS-V model of motivation. The 11$^{th}$ Likert-scale question is designed to uncover panelist perspectives about the use of measures of quality for online courses. Similarly, one rank-order question is aligned to each of the five conditions of Keller's (2010) ARCS-V model (see table 3.3 on page 51).

**Phase 2 Results**

The purpose of the second phase of this study was to begin exploring the perspectives and lived experiences of panelists who have participated as course authors in formal instructional design processes for online courses at an IHE in the U.S. since the onset of the COVID-19 pandemic in the spring of 2020. Panelists completed a 26-item questionnaire sharing their perspectives and lived experiences with formal instructional design processes. The questionnaire consisted of 10 demographic questions, 11 Likert-scale questions, and five rank-order questions. Eight of the 11 Likert-scale questions achieved consensus of agreement. A total of 39 items from the rank-order questions achieved consensus presenting as either benefits or potential barriers to the satisfaction of the conditions of Keller's (2010) ARCS-V model of motivation.

The 10 demographic questions are designed to clarify which elements of formal instructional design processes participants have experienced in the past as well as to establish their expertise and background as a panelist. The 11 Likert-scale questions are designed to gauge each panelist's level of agreement with opinion statements about current formal instructional design processes since the onset of the of the COVID-19 pandemic in the spring of 2020. The five rank-order lists (one per ARCS-V condition) are designed to provide panelists with the opportunity to identify which elements they perceive to be more or less helpful with relation to specific conditions for motivation. Table 4.2 on page 74 illustrates all Likert-scale responses.

**Table 4.2**

*Likert-Scale Responses*

| Statement | *n* of Strongly Agree and Agree responses (N=11) | *n* of Neither Agree or Disagree (N=11) | *n* of Disagree and Strongly Disagree (N=11) |
|---|---|---|---|
| **Attention:** I find the online instructional design processes in which I have participated in as a course author to be clear and/or easy to understand. | 6 | 2 | 3 |
| **Attention:** The online instructional design processes in which I participated in as a course author have required adequate and reasonable time commitments. | 7* | 2 | 2 |
| **Relevance:** I find the online instructional design processes in which I have participated in as a course author to be useful and/or productive. | 7* | 3 | 1 |
| **Relevance:** I believe that engaging in online instructional design processes as a course author reduces the workload when teaching an online course. | 7* | 2 | 2 |
| **Confidence:** I am confident in my ability to effectively achieve each of the requirements or steps of the online instructional design processes in which I have participate in as a course author. | 6 | 2 | 3 |

| Statement | *n* of Strongly Agree and Agree responses (N=11) | *n* of Neither Agree or Disagree (N=11) | *n* of Disagree and Strongly Disagree (N=11) |
|---|---|---|---|
| **Confidence:** I have access to all of the technical support that I need when engaging in online instructional design processes as a course author. | 7* | 2 | 2 |
| **Satisfaction:** I feel that my work as course author has been sufficiently rewarded and/or compensated. | 3 | 3 | 5 |
| **Satisfaction:** Participating in online instructional design processes as a course author provides me with an added sense of pride and accomplishment. | 9* | 2 | 0 |
| **Volition:** The online instructional design processes that I have participated in as a course author have contributed to my creation of meaningful and effective learning experiences. | 11* | 0 | 0 |
| **Volition:** I am satisfied with the amount of autonomy and flexibility I have had as a course author when participating in online instructional design processes. | 10* | 1 | 0 |

| Statement | *n* of Strongly Agree and Agree responses (N=11) | *n* of Neither Agree or Disagree (N=11) | *n* of Disagree and Strongly Disagree (N=11) |
|---|---|---|---|
| **Measures of Quality:** I find an emphasis on best practices for online course design helpful when participating as a course author in online instructional design processes. | 10* | 0 | 1 |

*Note.* An asterisk (*) next to the value in column three indicates statements that achieved 60% or higher consensus. A granular breakdown of responses by level of agreement is provided in Appendix E.

**Narrative for Table 4.2**

Table 4.2 arranges data from panelist responses into categories of those that fall above the mean (Strongly Agree and Agree), those that fall at the mean (Neither Agree or Disagree) and those that fall below the mean (Disagree or Strongly Disagree). This table is intended to visually categorize similar perspectives and begin to illustrate areas of consensus. The second column identifies the number of panelists out of the total n of 11 who responded to each question. The third column provides the number of panelists who either strongly agreed, or agreed with each statement. The fourth column provides the total number of panelists who neither agreed or disagreed with each statement. The fifth column provides the total number of panelists who either disagreed or strongly disagreed with each statement.

A percentage of agreement above 60% illustrates initial consensus for the Likert-scale questions. Therefore, when seven or more panelists responded within one of the

three ranges, consensus was identified. All areas of consensus were summarized and reported to panelists during phase 3 of the study. Consensus was not achieved for three of the questions. Consensus was reached for eight of the Likert-scale questions. No areas of disagreement reached consensus for the Likert-scale questions.

Panelists reported a lack of consensus about: whether or not online design processes are clear and easy to understand, confidence in their ability to effectively achieve each of the requirements or steps of the online instructional design processes, and whether their work as a course author was sufficiently compensated. Areas of agreement include the beliefs that: online instructional design processes require adequate and reasonable time commitments, online instructional design processes are useful and/or productive, there is adequate access to technical support when engaging in online instructional design processes, engaging in online instructional design processes as a course author reduces the workload when teaching an online course, participating in online instructional design processes provides an added sense of pride and accomplishment, online instructional design processes contribute to the creation of meaningful and effective learning experiences, the amount of autonomy provided to course authors is satisfying, and an emphasis on best practices for online course design helpful.

The strongest areas of agreement resulted in 82-100% consensus. A sense of pride and accomplishment when participating in online instructional design processes which aligns to the satisfaction condition of Keller's (2010) ARCS-V model of motivation yielded 82% agreement. The similarly aligned sense of satisfaction with autonomy and flexibility of online course design processes yielded 91% agreement. An emphasis on

best practices for online course design, which does not align to a specific condition of Keller's ARCS-V model of motivation, was reported as helpful by (91%). All 11 panelists reported 100% consensus agreeing that participation in online course design processes leads to the creation of meaningful and effective learning experiences, which aligns to satisfaction of the volition condition of Keller's (2010) ARCS-V model of motivation.

**Statistical Analysis of Likert-Scale Questions.** Table 4.3 provided on page 79 further establishes findings by illustrating the percentage of consensus achieved for each statement as well as measures of central tendency (mean and mode) and of distribution (variance). Statements that achieved over 60% agreement, .2 or lower difference between the calculated mean and mode, or less than 1.0 variance were considered to be in strong agreement. Statements that achieved over 60% agreement and a variance over 1.0 were considered to be in moderate agreement as this reflects a response pool with at least one outlier. For this reason, agreement about: online instructional design processes being useful and productive, participation in online instructional design processes leading to reduced workload when teaching, and access to adequate technical support are considered to be lower in terms of the level of consensus that was achieved between panelists on the Likert-scale questions.

**Table 4.3**

*Statistical Analysis of Likert-Responses*

| Statement | Mean | Mode | Variance | % Strongly Agree & Agree | % Neither Agree or Disagree | % Disagree or Strongly Disagree |
|---|---|---|---|---|---|---|
| *Attention:* I find the online instructional design processes in which I have participated in as a course author to be clear and/or easy to understand. | 3.45 | 4 & 5 | 1.7 | 54% | 9% | 27% |
| *Attention:* The online instructional design processes in which I participated in as a course author have required adequate and reasonable time commitments. | 3.36 | 4 | .96 | 64%* | 18% | 18% |
| *Relevance:* I find the online instructional design processes in which I have participated in as a course author to be useful and/or productive. | 3.64 | 4 | 1.14* | 64%* | 27% | 9% |

| Statement | Mean | Mode | Variance | % Strongly Agree & Agree | % Neither Agree or Disagree | % Disagree or Strongly Disagree |
|---|---|---|---|---|---|---|
| *Relevance:* I believe that engaging in online instructional design processes as a course author reduces the workload when teaching an online course. | 3.64 | 5 | 2.05* | 64%* | 18% | 18% |
| *Confidence:* I am confident in my ability to effectively achieve each of the requirements or steps of the online instructional design processes in which I have participate in as a course author. | 3.36 | 4 | 1.5 | 54% | 18% | 27% |
| *Confidence:* I have access to all of the technical support that I need when engaging in online instructional design processes as a course author. | 3.6 | 4 | 1.44* | 64%* | 18% | 18% |

| Statement | Mean | Mode | Variance | % Strongly Agree & Agree | % Neither Agree or Disagree | % Disagree or Strongly Disagree |
|---|---|---|---|---|---|---|
| *Satisfaction:* I feel that my work as course author has been sufficiently rewarded and/or compensated. | 2.45 | 1 | 1.88 | 27% | 27% | 45% |
| *Satisfaction:* Participating in online instructional design processes as a course author provides me with an added sense of pride and accomplishment. | 4.09 | 4 | .45 | 82%* | 18% | 0% |
| *Volition:* The online instructional design processes that I have participated in as a course author have contributed to my creation of meaningful and effective learning experiences. | 4.27 | 4 | .2 | 100%* | 0% | 0% |

| Statement | Mean | Mode | Variance | % Strongly Agree & Agree | % Neither Agree or Disagree | % Disagree or Strongly Disagree |
|---|---|---|---|---|---|---|
| *Volition:* I am satisfied with the amount of autonomy and flexibility I have had as a course author when participating in online instructional design processes. | 4.18 | 4 | .33 | 91%* | 9% | 0% |
| *Measures of Quality:* I find an emphasis on best practices for online course design helpful. | 4.09 | 4 | 1.17 | 91%* | 0% | 9% |

*Note.* An asterisk (*) next to the variation value indicates statements with moderate consensus. An asterisk (*) next to the percentage value indicates statements with the strongest level of consensus.

**Narrative for Table 4.3**

The first column of table 4.3 includes each statement from the Likert-scale section of the panelist questionnaire. Likert-scale statements include: 1) I find the online instructional design processes in which I have participated in as a course author to be clear and/or easy to understand, 2) The online instructional design processes in which I participated in as a course author have required adequate and reasonable time commitments, 3) I find the online instructional design processes in which I have participated in as a course author to be useful and/or productive, 4) I believe that

engaging in online instructional design processes as a course author reduces the workload when teaching an online course, 5) I am confident in my ability to effectively achieve each of the requirements or steps of the online instructional design processes in which I have participate in as a course author, 6) I have access to all of the technical support that I need when engaging in online instructional design processes as a course author, 7) I feel that my work as course author has been sufficiently rewarded and/or compensated, 8) Participating in online instructional design processes as a course author provides me with an added sense of pride and accomplishment, 9) The online instructional design processes that I have participated in as a course author have contributed to my creation of meaningful and effective learning experiences, 10) I am satisfied with the amount of autonomy and flexibility I have had as a course author when participating in online instructional design processes, and 11) I find an emphasis on best practices for online course design helpful. The aligned condition of Keller's (2010) ARCS-V model of motivation is also listed in column 1 for each of the 11 questions. The remaining columns include the collective mean, mode, variance, percentage of strongly agree and agree rankings, percentage of neither agree or disagree rankings, and percentage of disagree and strongly disagree rankings. Statistical analysis for the first rank-order question is provided in table 4.4 on page 82.

**Statistical Analysis of Rank-Order Responses for Attention.** The first of the rank-order questions required panelists to arrange all items in order of importance as they relate to the panelist's understanding of required steps and tasks of an online instructional design process. Table 4.4 on page 82 illustrates the mean, mode, variance, and percentages of consensus achieved for each rank-ordered item in terms of panelist

perceptions of importance relating to satisfaction of the attention condition of Keller's (2010) ARCS-V model of motivation. Items with a percentage of rankings falling below the median of 4.5 that reach 70% or higher are considered to have achieved consensus as helpful for supporting attention in online instructional design processes.

Items with a percentage of rankings falling above the median of 4.5 that reach a 70% or higher are considered to have achieved consensus as potentially unhelpful for attention in online instructional design processes. Consensus was not achieved for items falling below 70% in rankings either above or below the median. Priorities are ranked in relation to an understanding of the required steps and tasks of an online instructional design process. An asterisk (*) indicates items with a percentage of consensus that meets a threshold of at least 70% in terms of importance to panelists for a specific condition of Keller's (2010) ARCS-V model of motivation.

**Narrative for Table 4.4**

Consensus was achieved for five of the seven items in relation to attention. One-on-one consultations with instructional design staff, standardized templates for course design, and step-by-step guides were ranked as helpful by 70% or more of the panelists. Contrastingly, course design quality rubrics, and live facilitated workshops were ranked as potentially unhelpful by 70% or more of the panelists. Split opinions that did not achieve consensus were reported for the helpfulness of self-paced workshops, drop-in office hours with instructional designers, and course design expectations or checklists. None of the panelists selected the 'other' or opted to add comments.

**Table 4.4**

*Statistical Analysis of Rank-Order Responses: Attention*

| Element | Mean | Mode | Variance | Agreement (% responses below median 4.5) | Disagreement (% responses above median 4.5) |
|---|---|---|---|---|---|
| One-on-one consultations with instructional design staff | 2.85 | 1 | 6.13 | 73%* | 27% |
| Self-paced workshops | 4.08 | 3 | 4.53 | 45% | 55% |
| Live, facilitated workshops | 5.46 | 5 | 3.79 | 9% | 91%* |
| Drop-in office hours with instructional designers | 4.46 | 2 | 3.79 | 55% | 45% |
| Step-by-step guides | 3.85 | 4 | 1.51 | 82%* | 18% |
| Course design expectations or checklists | 4.62 | 5 & 6 | 3.78 | 45% | 55% |
| Course design quality rubrics | 6.54 | 8 | 3.33 | 18% | 82%* |
| Standardized templates for course design | 4.15 | 3 | 6.59 | 73%* | 27% |
| Other (please explain) | 0 | 9 | 0 | 0% | N/A |

*Note.* A granular breakdown of rankings by participant is provided in Appendix F.

**Statistical Analysis of Rank-Order Responses for Relevance.** The second of the rank-order questions required panelists to arrange all items in order of importance as they relate to the panelist's increased sense of the usefulness and relevance of engaging in online instructional design processes. Statistical analysis for this question is provided in

table 4.5 on page 87. Table 4.5 illustrates the mean, mode, variance, and percentages of consensus achieved for each rank-ordered item in terms of panelist perceptions of importance relating to satisfaction of the relevance condition of Keller's (2010) ARCS-V model of motivation.

Items with a percentage of rankings falling below the median of 5.5 that reach 70% or higher are considered to have achieved consensus as helpful for supporting attention in online instructional design processes. Items with a percentage of rankings falling above the median of 5.5 that reach a 70% or higher are considered to have achieved consensus as potentially unhelpful for attention in online instructional design processes. Consensus was not achieved for items falling below 70% in rankings either above or below the median. Priorities are ranked in relation to increasing a sense of the usefulness and relevance of engaging in online instructional design processes. An asterisk (*) indicates items with a percentage of consensus that meets a threshold of at least 70% in terms of importance to panelists for a specific condition of motivation. Consensus was achieved for five of the 10 items in relation to relevance.

**Table 4.5**

*Statistical Analysis of Rank-Order Responses: Relevance*

| Element | Mean | Mode | Variance | Agreement (% responses below median 5.5) | Disagreement (% responses above median 5.5) |
|---|---|---|---|---|---|
| One-on-one consultations with instructional design staff | 4.42 | 5 | 3.58 | 73%* | 27% |
| Tenure or promotion related acknowledgements | 4.83 | N/A | 6.81 | 55% | 45% |
| Monetary stipends | 3 | 1 | 3.67 | 82%* | 18% |
| Course releases | 5.08 | 2 | 10.08 | 55% | 45% |
| Recognition from supervisors or campus leadership | 5.5 | N/A | 3.75 | 55% | 45% |
| Mandates or requirements for participating in online instructional design processes | 7.58 | 10 | 4.41 | 18% | 82%* |
| Testimonials from other course authors who have engaged in the online instructional design processes | 6.75 | N/A | 7.85 | 27% | 73%* |
| Evidence of impact that the online instructional design processes have on the student experience | 4.83 | 1 | 9.97 | 64% | 36% |
| Evidence of impact that the online instructional design processes have on the faculty experience | 5.83 | N/A | 8.47 | 55% | 45% |

| Element | Mean | Mode | Variance | Agreement (% responses below median 5.5) | Disagreement (% responses above median 5.5) |
|---|---|---|---|---|---|
| Curated lists of evidence-based resources highlighting the importance of online instructional design processes | 8 | N/A | 4 | 9% | 91%* |
| Other (please explain) | 10.17 | 11 | 7.64 | 9% | N/A |

*Note.* A granular breakdown of rankings by participant is provided in Appendix G.

**Narrative for Table 4.5**

One-on-one consultations with design staff, and monetary stipends were ranked as helpful by 70% or more of the panelists. Curated lists of evidence-based resources highlighting the importance of online instructional design processes, mandates or requirements for participating in online instructional design processes, and testimonials from other course authors who have engaged in the online instructional design process were ranked as potentially unhelpful by 70% or more of the panelists. Split opinions that did not achieve consensus were reported for tenure or promotion related acknowledgements, course releases, recognition from supervisors or campus leadership, evidence of impact that the online instructional design processes have on the student experience, and evidence of impact that the online instructional design processes have on the faculty experience. One panelist selected the 'other' and shared that they found "the need within our community partners for online programming" to be the most useful for increasing a sense of the usefulness and relevance of engaging in online instructional design processes.

**Statistical Analysis of Rank-Order Responses for Confidence.** The third of the rank-order questions required panelists to arrange all items in order of importance as they relate to the panelist's increased internal confidence for achieving the expectations/requirements of online instructional design processes. Statistical analysis for this question is provided in table 4.6 on page 90. Table 4.6 illustrates the mean, mode, variance, and percentages of consensus achieved for each rank-ordered item in terms of panelist perceptions of importance relating to satisfaction of the confidence condition of Keller's (2010) ARCS-V model of motivation. Items with a percentage of rankings falling below the median of 7.5 that reach 70% or higher are considered to have achieved consensus as helpful for supporting attention.

Items with a percentage of rankings falling above the median of 7.5 that reach a 70% or higher are considered to have achieved consensus as potentially unhelpful for confidence in online instructional design processes. Consensus was not achieved for items falling below 70% in rankings either above or below the median. Priorities are ranked in relation to increasing internal confidence in the ability to achieve expectations and requirements of course authors engaging in online instructional design processes. An asterisk (*) indicates items with a percentage of consensus that meets a threshold of at least 70% in terms of importance to panelists for a specific condition of motivation.

**Table 4.6**

*Statistical Analysis of Rank-Order Responses: Confidence*

| Element | Mean | Mode | Variance | Agreement (% responses below median 7.5) | Disagreement (% responses above median 7.5) |
|---|---|---|---|---|---|
| Clearly defined minimum expectations for online course designs | 6 | N/A | 21.64 | 60% | 40% |
| Course design expectations or checklists | 4.36 | N/A | 6.6 | 90%* | 10% |
| Course design quality rubrics | 7.73 | 5 | 8.2 | 50% | 50% |
| Standardized templates for course design | 6 | N/A | 11.45 | 60% | 40% |
| Written documentation of expectations (i.e. contract, scope of work, project outline, service agreement, etc.) | 5.36 | 5 | 8.23 | 80%* | 20% |
| Clarity about individual course design milestones and deliverables | 4.64 | 4 | 4.23 | 80%* | 20% |
| Access to peer mentors (other successful course authors) | 7.64 | 9 | 10.05 | 30% | 70%* |
| Access to instructional design staff | 5.45 | N/A | 10.25 | 70%* | 30% |
| Access to multimedia design staff | 9.18 | N/A | 9.97 | 30% | 70%* |
| Access to media creation tools (i.e. | 9.91 | 11 | 5.36 | 20% | 80%* |

| Element | Mean | Mode | Variance | Agreement (% responses below median 7.5) | Disagreement (% responses above median 7.5) |
|---|---|---|---|---|---|
| recording equipment, editing software, etc.) | | | | | |
| Access to live technical support | 9.91 | N/A | 15.72 | 20% | 80%* |
| Facilitated course design trainings or workshops | 10.09 | 12 | 13.17 | 30% | 70%* |
| Access to recorded course design tutorials, reference guides, or resources | 9.64 | N/A | 16.78 | 40% | 60% |
| Course releases accommodating for the time commitment of engaging in online instructional design processes | 9.09 | 14 | 23.23 | 40% | 60% |
| Other (please explain) | 15 | 15 | 0 | 0% | N/A |

*Note.* A granular breakdown of rankings by participant is provided in Appendix H.

**Narrative for Table 4.6**

Consensus was achieved for nine of the 13 items in relation to confidence. Written documentation of expectations (i.e. contract, scope of work, project outline, service agreement, etc.), clarity about individual course design milestones and deliverables, access to instructional design staff, and course design expectations or checklist were ranked as helpful by 70% or more of the panelists. Access to peer mentors (other successful course authors, access to multimedia design staff, access to media creation tools (i.e. recording equipment, editing software, etc.), access to live technical

support, and facilitated course design trainings or workshops were ranked as potentially unhelpful by 70% or more of the panelists. Split opinions that did not achieve consensus were reported for clearly defined minimum expectations for online course design, course design quality rubrics, standardized templates for course design, access to recorded course design tutorials, reference guides, or resources, and course releases accommodating for the time commitment of engaging in online instructional design processes. None of the panelists selected the "other" or opted to add comments.

**Statistical Analysis of Rank-Order Responses for Satisfaction.** The fourth of the rank-order questions required panelists to arrange all items in order of importance as they relate to the panelist's sense of satisfaction or enjoyment when engaging in online instructional design processes. Table 4.7 on page 93 illustrates the mean, mode, variance, and percentages of consensus achieved for each rank-ordered item in terms of panelist perceptions of importance relating to satisfaction of the satisfaction condition of Keller's (2010) ARCS-V model of motivation. Items with a percentage of rankings falling below the median of five that reach 70% or higher are considered to have achieved consensus as helpful for supporting attention in online instructional design processes.

Items with a percentage of rankings falling above the median of five that reach a 70% or higher are considered to have achieved consensus as potentially unhelpful for attention in online instructional design processes. Consensus was not achieved for items falling below 70% in rankings either above or below the median. Priorities are ranked in relation to a sense of satisfaction or enjoyment when engaging in online instructional design processes. An asterisk (*) indicates items with a percentage of consensus that

meets a threshold of at least 70% in terms of importance to panelists for a specific condition of motivation.

**Table 4.7**

*Statistical Analysis of Rank-Order Responses: Satisfaction*

| Element | Mean | Mode | Variance | Agreement (% responses below median 5) | Disagreement (% responses above median 5) |
|---|---|---|---|---|---|
| Course releases accommodating for the time commitment of engaging in online instructional design processes | 3.45 | 1.88 | 3.52 | 73%* | 27% |
| Tenure or promotion related acknowledgements | 5 | 4 | 6.73 | 55% | 45% |
| Monetary stipends | 2.36 | 1 | 2.23 | 91%* | 9% |
| Recognition from supervisors or campus leadership | 4.82 | N/A | 4.15 | 45% | 55% |
| Evidence of impact that the online instructional design processes have on the student experience | 3.17 | 1 | 3.97 | 73%* | 27% |
| Evidence of impact that the online instructional design processes have on the faculty experience | 4.73 | 5 | 3.65 | 36% | 63% |
| Access to a community of peers who are engaging in similar work as course authors | 6.55 | 7 | 2.79 | 18% | 82%* |

| Element | Mean | Mode | Variance | Agreement (% responses below median 5) | Disagreement (% responses above median 5) |
|---|---|---|---|---|---|
| Student partnerships/involvement in the instructional design process | 6.45 | N/A | 2.79 | 9% | 91%* |
| Transparency about the expertise levels of all members of the design team | 8.45 | 9 | .98 | 0% | 100%* |
| Other (please explain) | 10 | 10 | 0 | 0% | N/A |

*Note.* A granular breakdown of rankings by participant is provided in Appendix I.

**Narrative for Table 4.7**

Consensus was achieved for six of the nine items in relation to satisfaction. Course releases accommodating for the time commitment of engaging in online instructional design processes, monetary stipends, and evidence of impact that the online instructional design processes have on the student experience were ranked as helpful by 70% or more of the panelists. Access to a community of peers who are engaging in similar work as course authors, student partnerships/involvement in the instructional design process, and transparency about the expertise levels of all members of the design team were ranked as potentially unhelpful by 70% or more of the panelists. Split opinions that did not achieve consensus were reported for tenure or promotion related acknowledgements, recognition from supervisors or campus leadership, and evidence of impact that the online instructional design processes have on the faculty experience. None of the panelists selected the "other" or opted to add comments.

**Statistical Analysis of Rank-Order Responses for Volition.** The fifth and last of the rank-order questions required panelists to arrange all items in order of importance as they relate to the panelist's perceived ability to follow through and commit to the completion of online instructional design processes. Table 4.8 on page 95 illustrates the mean, mode, variance, and percentages of consensus achieved for each rank-ordered item in terms of panelist perceptions of importance relating to satisfaction of the volition condition of Keller's (2010) ARCS-V model of motivation. Items with a percentage of rankings falling below the median of 6.5 that reach 70% or higher are considered to have achieved consensus as helpful for supporting attention in online instructional design processes.

**Narrative for Table 4.8**

Priorities are ranked in relation to the ability to follow through and commit to the completion of online instructional design processes as a course author. An asterisk (*) indicates items with a percentage of consensus that meets a threshold of at least 70% in terms of importance to panelists for a specific condition of motivation. Items with a percentage of rankings falling above the median of 6.5 that reach a 70% or higher are considered to have achieved consensus as potentially unhelpful for attention in online instructional design processes. Consensus was not achieved for items falling below 70% in rankings either above or below the median.

**Table 4.8**

*Statistical Analysis of Rank-Order Responses: Volition*

| Element | Mean | Mode | Variance | Agreement (% below median 6.5) | Disagreement (% above median 6.5) |
|---|---|---|---|---|---|
| Course releases accommodating for the time commitment | 4.36 | 8 | 7.69 | 64% | 36% |
| Monetary stipends | 3.91 | N/A | 8.45 | 73%* | 27% |
| Tenure or promotion related acknowledgements | 7.64 | 12 | 13.69 | 36% | 64% |
| Access to a community of peers who are engaging in similar work as course authors | 8.36 | 10 | 3.69 | 27% | 73%* |
| Access to instructional design staff | 4.55 | N/A | 5.16 | 73%* | 27% |
| Facilitated course design trainings or workshops | 9.09 | 9 | 2.81 | 91%* | 9% |
| Access to recorded course design tutorials, reference guides, or resources | 8.64 | 11 | 6.96 | 27% | 73%* |
| Course design expectations or checklist | 4.55 | 5 | 3.88 | 82%* | 18% |
| Course design quality rubrics | 11 | 11 | 7.17 | 27% | 73%* |
| Standardized templates for course design | 5.55 | 3 | 8.98 | 73%* | 27% |
| Flexible timelines | 7.45 | 8 | 13.34 | 36% | 63% |

| Element | Mean | Mode | Variance | Agreement (% below median 6.5) | Disagreement (% above median 6.5) |
|---|---|---|---|---|---|
| Clarity about individual course design milestones and deliverables | 4.82 | 2 | 14.88 | 73%* | 27% |
| Other (please explain) | 13 | 13 | 0 | 0% | N/A |

*Note.* A granular breakdown of rankings by participant is provided in Appendix J.

Consensus was achieved for seven of the 12 items in relation to volition. Monetary stipends, access to instructional design staff, facilitated course design trainings or workshops, and course design expectations or checklists were ranked as helpful by 70% or more of the panelists, access to recorded course design tutorials, reference guides, or resources, access to a community of peers who are engaging in similar work as course authors, and course design quality rubrics were ranked as potentially unhelpful by 70% or more of the panelists. Split opinions that did not achieve consensus were reported for course releases accommodating for the time commitment of engaging in online instructional design processes, tenure or promotion related acknowledgement, and flexible timelines. None of the panelists selected the "other" or opted to add comments.

**Rankings Across Conditions.** Table 4.9 on page 98 illustrates items in the rank-order questions that reached consensus. Consensus is illustrated with a 'Y' for items that were perceived benefits to motivational conditions. Consensus is illustrated with an 'N' for items that were perceived potential barriers to motivational conditions.

**Table 4.9**

*Rankings Across Conditions of Keller's (2010) ARCS-V Model of Motivation*

| Items | Attention | Relevance | Confidence | Satisfaction | Volition |
|---|---|---|---|---|---|
| Step-by-step guides | Y | | | | |
| Standardized templates for course design | Y | | | | Y |
| One-on-one consultations with instructional design staff | Y | Y | | | |
| Live, facilitated workshops | N | | | | N |
| Course design quality rubrics | N | | | | N |
| Monetary stipends | | Y | | Y | Y |
| Curated lists of evidence-based resources highlighting the importance of online instructional design processes | | N | | | |
| Mandates or requirements for participating in online instructional design processes | | N | | | |
| Testimonials from other course authors who have engaged in the online instructional design processes | | N | | | |
| Course design expectations or checklists | | | Y | | Y |
| Written documentation of expectations (i.e. contract, scope of work, project outline, service agreement, etc.) | | | Y | | |
| Clarity about individual course design milestones | | | Y | | Y |
| Access to media creation tools | | | N | | |

| Items | Attention | Relevance | Confidence | Satisfaction | Volition |
|---|---|---|---|---|---|
| Access to multimedia design staff | | | N | | |
| Access to live technical support | | | N | | |
| Course releases accommodating for the time commitment of engaging in online instructional design processes. | | | | Y | |
| Evidence of impact that the online instructional design processes have on the student experience | | | | Y | |
| Transparency about the expertise levels of all members of the design team | | | | N | |
| Student partnerships/involvement in the instructional design process | | | | N | |
| Access to a community of peers who are engaging in similar work | | | | N | N |
| Access to instructional design staff | | | | | Y |
| Access to recorded course design tutorials, reference guides, or resources | | | | | N |

*Not*e. Y values indicate an item that reached consensus because more than 70% of panelists ranked it as most important with relation to the condition of Keller's (2010) ARCS-V model of motivation designated for that respective column. N values indicate an item that reached consensus because more than 70% of panelists ranked it as least important with relation to the condition of motivation for that respective column.

**Narrative for Table 4.9**

The first column of table 4.9 includes each item provided in the rank-order questions. The remaining columns indicate which conditions the elements were found to be benefits for as identified with a Y, as well as the conditions that elements were found

to be potential barriers for as identified with an N. Of the 22 total elements achieving consensus through the rank-ordered questions, 10 elements were identified as perceived benefits to motivation. The elements identified as benefits to motivation include: step-by-step guides, standardized templates for course design, one-on-one consultations with instructional design staff, monetary stipends, course design expectations or checklists, written documentation of expectations (i.e. contract, scope of work, project outline, service agreement, etc.), clarity about individual course design milestones, course releases accommodating for the time commitment of engaging in online instructional design processes, evidence of impact that the online instructional design processes have on the student experience, and access to instructional design staff. On the other hand, 12 of the 22 total elements were identified as potential barriers to motivation. The elements identified as potential barriers to motivation include: live facilitated workshops, course design quality rubrics, curated lists of evidence-based resources highlighting the importance of online instructional design processes, mandates or requirements for participating in online instructional design processes, testimonials from other course authors who have engaged in the online instructional design processes, access to media creation tools, access to multimedia design staff, access to live technical support, transparency about the expertise levels of all members of the design team, student partnerships/involvement in the instructional design process, access to a community of peers who are engaging in similar work, and access to recorded course design tutorials, reference guides, or resources.

**Emergent Themes.** Table 4.10 provided on page 101 illustrates grouping of initial items of consensus determined through descriptive statistical analysis into common

emergent themes. An asterisk (*) next to a value indicate themes with more than one contributing consensus item. Initial results generated a total of 30 themes relating to panelist perspectives as course authors when participating in formal instructional design practices for online courses.

**Table 4.10**

*Emergent Themes*

| Theme | *n* of Likert-scale consensus items contributing (N=8) | *n* of rank-order consensus items contributing (N=31) |
|---|---|---|
| **Theme 1:** Current instructional design processes achieved the highest ratings for elements that support volition (author ability to follow through and commit to the completion of online instructional design processes as a course author). | 2* | N/A |
| **Theme 2:** Current instructional design processes achieved the lowest ratings for elements that support attention (panelist understandings of the required steps and tasks of online instructional design processes) and relevance (panelist perceptions of the usefulness and relevance of engaging in online instructional design processes) | 4* | N/A |
| **Theme 3:** Most panelists agree that online instructional design processes require adequate and reasonable time commitments. | 1 | N/A |
| **Theme 4:** Most panelists agree that online instructional design process are useful and/or productive. | 1 | N/A |
| **Theme 5:** Most panelists agree that they have access to adequate technical support when engaging in online instructional design processes. | 1 | N/A |

| Theme | *n* of Likert-scale consensus items contributing (N=8) | *n* of rank-order consensus items contributing (N=31) |
|---|---|---|
| **Theme 6:** Most panelists agree that participating in online instructional design processes provides an added sense of pride and accomplishment. | 1 | N/A |
| **Theme 7:** All panelists agree that online instructional design processes contribute to the creation of meaningful and effective learning experiences. | 1 | N/A |
| **Theme 8:** Most panelists are satisfied with the amount of autonomy and flexibility provided when participating in online instructional design processes. | 1 | N/A |
| **Theme 9:** All panelists agree that an emphasis on best practices for online course design is helpful when participating as a course author. | 1 | N/A |
| **Theme 10:** Monetary stipends present as a benefit to motivation for panelists when participating in online instructional design processes. | N/A | 3* |
| **Theme 11:** Standardized templates for course design present as a benefit to motivation for panelists when participating in online instructional design processes. | N/A | 2* |
| **Theme 12:** One-on-one consultations with instructional design staff present as a benefit to motivation for panelists when participating in online instructional design processes. | N/A | 2* |
| **Theme 13:** Clarity about individual course design milestones presents as a benefit to motivation for panelists when participating in online instructional design processes. | N/A | 2* |

| Theme | *n* of Likert-scale consensus items contributing (N=8) | *n* of rank-order consensus items contributing (N=31) |
|---|---|---|
| **Theme 14:** Course design expectations or checklists present as a benefit to motivation for panelists when participating in online instructional design processes. | N/A | 2* |
| **Theme 15:** Step-by-Step Guides present as a benefit to motivation for panelists when participating in online instructional design processes. | N/A | 1 |
| **Theme 16:** Written documentation of expectations (i.e. contract, scope of work, project outline, service agreement, etc.) presents as a benefit to motivation for panelists when participating in online instructional design processes. | N/A | 1 |
| **Theme 17:** Course releases accommodating for the time commitment of engaging in online instructional design processes present as a benefit to motivation for panelists when participating. | N/A | 1 |
| **Theme 18:** Evidence of impact that the online instructional design processes have on the student experience presents as a benefit to motivation for panelists when participating in online instructional design processes. | N/A | 1 |
| **Theme 19:** Access to instructional design staff presents as a benefit to motivation for panelists when participating in online instructional design processes. | N/A | 1 |
| **Theme 20:** Course design quality rubrics present as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 2* |

| Theme | *n* of Likert-scale consensus items contributing (N=8) | *n* of rank-order consensus items contributing (N=31) |
|---|---|---|
| **Theme 21:** Access to a community of peers who are engaging in similar work present as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 2* |
| **Theme 22:** Live facilitated workshops present as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 1 |
| **Theme 23:** Curated lists of evidence-based resources highlighting the importance of online instructional design processes present as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 1 |
| **Theme 24:** Mandates or requirements for participating in online instructional design processes present as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 1 |
| **Theme 25:** Testimonials from other course authors who have engaged in the online instructional design processes present as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 1 |
| **Theme 26:** Access to media creation tools, multimedia staff, and live technical support present as potential barriers to motivation for panelists when participating in instructional design processes. | N/A | 3* |

| Theme | *n* of Likert-scale consensus items contributing (N=8) | *n* of rank-order consensus items contributing (N=31) |
|---|---|---|
| **Theme 27:** Transparency about the expertise levels of all members of the design team presents as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 1 |
| **Theme 28:** Student partnerships/involvement in the instructional design process present as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 1 |
| **Theme 29:** Facilitated course design trainings and workshops present as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 1 |
| **Theme 30:** Access to recorded course design tutorials, reference guides, or resources presents as a potential barrier to motivation for panelists when participating in instructional design processes. | N/A | 1 |

**Summary of Table 4.10**

The first column of table 4.10 includes each of the themes generated from analysis of the results of all panelist responses. Column two identifies the number of consensus items from the Likert-scale questions out of the total n of eight that contributed to each theme. Column three provides the number of consensus items from the rank-order questions out of the total n of 31 that contributed to each theme. There are a total of 39 consensus items between the Likert-scale and rank-order responses received from panelists. Table 4.10 distills the consensus items into a set of 30 emergent themes.

When consensus was achieved through a percentage of agreement above 60% for Likert-scale questions, the item is considered to be a current benefit of participating in formal instructional design processes. When consensus was achieved through a percentage of disagreement above 60% for Likert-scale questions, the item is considered to be a current barrier to motivation when participating in formal instructional design processes. The first nine emergent themes relate to panelist perceptions of current formal online instructional design processes. Specifically, panelists agreed that current instructional design processes: support volition more than any other condition of Keller's (2010) ARCS-V model of motivation, provide the least support for the achievement of attention, require adequate and reasonable time commitments, are useful and/or productive, include adequate technical support, add to a sense of pride and accomplishment, contribute to the creation of meaningful and effective learning experiences, and include an adequate amount of autonomy. Panelists also agreed that an emphasis on best practices for online course design is helpful when participating as a course author.

When consensus was achieved through a percentage of rank-ordering that placed an element below the median in terms of helpfulness, the item is considered to be a benefit to motivation. Themes 10 through 19 illustrate items that present as benefits to motivation. Specifically, panelists reported: step-by-step guides, standardized templates for course design, one-on-one consultations with instructional design staff, monetary stipends, course design expectations, written documentation of expectations (i.e. contract, scope of work, project outline, service agreement, etc.), clarity about individual course design milestones, course releases accommodating for the time commitment of engaging

in online instructional design processes, evidence of impact that the online instructional design processes have on the student experience, and access to instructional design staff as benefits to their motivation when participating in online instructional design processes.

When consensus was achieved through a percentage of rank-ordering that placed an element above the median in terms of helpfulness, the item is considered to be a potential barrier to motivation. Themes 20 through 30 illustrate items that present as potential barriers to motivation. Specifically, panelists reported: live facilitated workshops, course design quality rubrics, curated lists of evidence-based resources highlighting the importance of online instructional design processes, mandates or requirements for participating in online instructional design processes, testimonials from other course authors who have engaged in the online instructional design processes, access to media creation tools, access to multimedia design staff, access to live technical support, transparency about the expertise levels of all members of the design team, student partnerships/involvement in the instructional design process, access to a community of peers who are engaging in similar work, facilitated course design workshops, and access to recorded course design tutorials, reference guides, or resources as potential barriers to their motivation when participating in online instructional design processes.

**Phase 3 Results**

The purpose of phase 3 was to summarize the themes emerging from all questionnaire responses and present panelists with the information while providing them with the opportunity to change original rankings, ask clarifying questions, and make additional comments. One participant initially shared confusion about why monetary

stipends would show up as a benefit for more than one condition of motivation. This panelist wondered if monetary stipends should not have been an option for satisfaction as well as volition stating “For me, I think it would be counted in volition as a means of accountability. Satisfaction comes from doing a job well and having time to do it.” This participant suggested that the headers for each category of motivation should have been included to help clarify this if monetary stipends could, indeed, be considered an element that would support both conditions. A response was sent through email to the panelist clarifying that the headers were intentionally not included in the questionnaire so that participant bias resulting from personalized interpretations of individual terms would be less likely to occur. Instead, each rank-order question prompted panelists to re-arrange the elements with relation to how helpful they are for the achievement of a condition of motivation via the descriptive definition of what the term represents within Keller’s (2010) ARCS-V model. For example, rather than asking panelists to arrange items in order of importance for ‘volition’ they were asked to arrange the elements in order of importance for their ‘ability to follow through and commit to the completion of online instructional design processes.’ No other panelists expressed confusion or concerns with the summarized results, and there were no additional comments shared. The study was concluded at this point as 100% stability between phases had been achieved.

**Interpretation of Results**

A total of 30 initial themes were generated from the results of the panelist questionnaire. One additional theme will be added to the list as noted in the interpretation of results aligned to Primary Research Question 1 below. Eight of the 31 total themes align to the interpretation of results for the primary research question, 12 align to the

interpretation of results for sub-research question A, nine align to the interpretation of results for sub-research question B, and two align to the interpretation for sub-research question C.

***Primary Research Question***

**How are formal instructional design processes being implemented for the development of online courses at a traditional IHE in the U.S. in a post-pandemic onset setting?** Through the review of the 23 peer institutions to IHE 1, only six were found to outwardly advertise the use of formal instructional design processes. Though none of the six peer IHEs opted to participate, some details about the implementation of formal processes are identified. All six IHEs outwardly advertise the use of centralized resources through teaching and learning or instructional technology offices. About half also appeared to provide decentralized support to individual academic units. Panelists for this study are equally representative of five distinct units and offices at IHE 1, including two centralized academic units and three decentralized offices.

Overall, panelists reported positive experiences with current formal instructional design processes at IHE 1 relating to their ability to commit and follow through (volition). Panelists reported additional benefits of current post-pandemic processes including reasonable time commitments, satisfying amounts of autonomy, adequate technical support, increased productivity, and a sense of pride and accomplishment toward the creation of more meaningful learning experiences. Contrastingly, panelists reported the fewest elements of formal instructional design processes that relate to their understanding of what is required of them (attention).

***Sub-Research Question A***

**What factors of current instructional design processes present as potential motivational barriers for participating faculty course authors?** Though consensus was not achieved for the statement that course authors believe their work has been sufficiently rewarded and/or compensated, the number of panelists who did not select 'Strongly Agree' or 'Agree' yields a combined total of 72%. It is also clear that monetary stipends are a recurring theme presenting as a benefit for three conditions of Keller's (2010) ARCS-V model of motivation. For these reasons, Theme 31 will be added to subsequent findings in this report - **Theme 31:** Inadequate monetary stipends present as a barrier to motivation for panelists when participating in instructional design processes.

Rank-order questions provided panelists with the opportunity to identify which elements are the most helpful to their achievement of conditions for motivation. However, it is unclear whether an item that fell above the median in rankings was considered to be 'unhelpful' or whether panelists simply considered it to be 'less helpful' than the others. Items that achieved consensus for falling below the median are noted as having presented as 'potential' barriers to reflect this possible interpretation. Future studies will be needed to clarify panelist intentions in this area any further.

Overall, 12 items were identified by panelists as potential barriers to their motivation. The items identified as potential barriers to motivation include: live facilitated workshops, course design quality rubrics, curated lists of evidence-based resources highlighting the importance of online instructional design processes, mandates or requirements for participating in online instructional design processes, testimonials from other course authors who have engaged in the online instructional design processes,

access to media creation tools, access to multimedia design staff, access to live technical support, transparency about the expertise levels of all members of the design team, student partnerships/involvement in the instructional design process, access to a community of peers who are engaging in similar work, and access to recorded course design tutorials, reference guides, or resources. Of these, three achieved consensus as potential barriers for more than one condition of Keller's (2010) ARCS-V model of motivation. Specifically, panelists reported that course design quality rubrics, live facilitated workshops, and access to a community of peers are the least helpful of all presented elements for more than one condition of motivation.

An additional trend emerged between three of the elements that panelists identified as potential including: access to media creation tools, multimedia staff, and technical support. The shared theme among these three elements suggest that panelists are intimidated when access to resources for advanced technology are introduced. On the other hand, a combination of live support and technical resources listed together as one element might have been ranked more favorably. Future studies would also be needed to clarify panelist intentions on this topic.

***Sub-Research Question B***

**What factors of current instructional design processes present as motivational benefits for participating faculty course authors?** Nine total items achieved consensus as benefits to motivation for panelists. The items identified as benefits to motivation include: step-by-step guides, standardized templates for course design, one-on-one consultations with instructional design staff, monetary stipends, course design expectations or checklists, written documentation of expectations (i.e.

contract, scope of work, project outline, service agreement, etc.), clarity about individual course design milestones, course releases accommodating for the time commitment of engaging in online instructional design processes, evidence of impact that the online instructional design processes have on the student experience, and access to instructional design staff. Of these, five items achieved consensus for more than one condition of Keller's (2010) ARCS-V model of motivation. The items that achieved consensus in more than one area include: monetary stipends, standardized templates for course design, one-on-one consultations with instructional design staff, clarity about individual course design milestones, and course design expectations or checklists. It is clear that these items are beneficial to panelists across more than one context. This is particularly true for monetary stipends as it is the only item to achieve consensus as helpful for three individual conditions of motivation.

***Sub-Research Question C***

**In what ways are online course quality expectations incorporated into current formal online instructional design processes across contexts?** All panelists agreed that an emphasis on best practices for online course design is helpful. However, course design quality rubrics achieved consensus as a potential barrier to motivation for attention (ability to understand the required steps and tasks of an online instructional design process) and volition (ability to follow through and commit to the completion of online instructional design processes) (Keller, 2010). While panelists recognize the importance of practices that lead to high quality course designs, it is clear that they do not perceive rubric tools that govern or clarify those practices as helpful.

## Summary

The panelists in this study were questioned about their perceptions of current formal instructional design processes and the elements of those processes that present as benefits or potential barriers to their motivation with respect to the conditions of Keller's (2010) ARCS-V model of motivation. Results were analyzed through descriptive statistics and thematic analysis to distil principal concepts. The implications and findings of these results are presented in chapter five along with a model for improving online instructional design processes at IHE 1 titled 'Course Author Motivation Model.' This model was generated from the study findings to illustrate recommended strategies for practice and policy.

# Chapter Five: Discussion & Implications

## Overview

The purpose of this study was to identify the motivational elements of formal online instructional design processes that are currently being implemented at traditional institutions of higher education (IHEs) in the United States (U.S.) within the current post-pandemic onset context. Results of this study were analyzed to form 31 themes of consensus including agreement that current instructional design processes: support volition more than any other condition of Keller's (2010) ARCS-V model of motivation, provide the least support for the achievement of attention, require adequate and reasonable time commitments, are useful and/or productive, include adequate technical support, add to a sense of pride and accomplishment, contribute to the creation of meaningful and effective learning experiences, and include an adequate amount of autonomy. Panelists also agreed that an emphasis on best practices for online course design is helpful when participating as a course author. Each of the 31 themes provide insight aligning to the research questions. Panelists identified step-by-step guides, standardized templates for course design, one-on-one consultations with instructional design staff, monetary stipends, course design expectations, written documentation of expectations (i.e. contract, scope of work, project outline, service agreement, etc.), clarity about individual course design milestones, course releases accommodating for the time commitment of engaging in online instructional design processes, evidence of impact that the online instructional design processes have on the student experience, and access to

instructional design staff as benefits to their motivation when participating in online instructional design processes. Contrastingly, panelists identified live facilitated workshops, course design quality rubrics, curated lists of evidence-based resources highlighting the importance of online instructional design processes, mandates or requirements for participating in online instructional design processes, testimonials from other course authors who have engaged in the online instructional design processes, access to media creation tools, access to multimedia design staff, access to live technical support, transparency about the expertise levels of all members of the design team, student partnerships/involvement in the instructional design process, access to a community of peers who are engaging in similar work, facilitated course design workshops, and access to recorded course design tutorials, reference guides, or resources as potential barriers to their motivation when participating in online instructional design processes.

## Research Questions

### *Primary Research Question*

*How are formal instructional design processes being implemented for the development of online courses at a traditional IHEs in the U.S. in a post-pandemic onset context?*

Only six of the 23 peer institutions to IHE 1 were found to outwardly advertise the use of formal instructional design processes for the development of online courses. All six of these examples demonstrate the use of industry recognized processes that are either informed by the analyze, design, develop, implement, evaluate (ADDIE) model, or a variation of iterative spiral-design approaches. The remaining 17 peer IHEs may provide some type of support for online course design that is not publicized through their

public facing web-based presence. Additional details about peer institution practices could not be ascertained through this study as all peer IHEs declined to participate further. All Delphi panelists for this study participated in formal instructional design processes at IHE 1 for the development of an online course between the onset of the COVD-19 pandemic in the U.S. during spring of 2020 and the spring of 2023.

Panelists reported overall satisfaction with the time commitment required, the amount of technical support provided, and the level of autonomy permitted in the formal instructional design processes that they participated in prior to this study. Conversely, there is only 27% agreement that their work as course authors has been sufficiently rewarded and/or compensated. Current instructional design processes achieved the highest ratings for elements supporting volition – the ability to follow through and commit to the completion of instructional design processes as a course author. On the contrary, current processes achieved the lowest ratings for elements supporting attention – author ability to understand the required steps and tasks of instructional design processes. In general, panelists agreed that current formal instructional design processes are useful and productive toward the creation of more meaningful online learning experiences. All of these elements add to their sense of pride and accomplishment when participating as course authors.

In practice, these results indicate that current time requirements for instructional design processes at IHE 1 should remain the same. It is also evident that the amount of technical support currently offered is sufficient as well as the level of autonomy and flexibility provided. However, units and policy-makers at all levels with sufficient

resources should consider increasing monetary stipends and related incentives for course author participation.

***Sub-Research Question A***

*What factors of current instructional design processes present as potential motivational barriers for participating faculty course authors?*

Twelve themes relating to elements that present as potential barriers to motivation for participating course authors have been uncovered through the findings of this study. However, the structure of the questionnaire items used does not clearly indicate the elements achieving consensus are less helpful or are recognized as barriers. Instead, these elements are presented in the results as 'potential' barriers. The elements presenting as potential barriers to motivation for course authors at IHE 1 include: course design quality rubrics, access to a community of peers engaged in similar work, live facilitated workshops, curated lists of evidence-based resources highlighting the importance of instructional design processes, mandates or requirements for participation, testimonials from other course authors, transparency about expertise of design team members, student partnerships/involvement with the instructional design processes, facilitated course design trainings and workshops, access to recorded course design resources, insufficient monetary stipends, and access to advanced media tools, staff, and technical support. Policy and practice recommendations relating to these items are best aligned to the areas of motivation that each element achieved consensus throughout this study. Recommendations are provided at both levels in the 'Implications' sections to follow.

***Sub-Research Question B***

*What factors of current instructional design processes present as motivational benefits for participating faculty course authors?*

Ten themes relating to elements that present as benefits to motivation for participating course authors have been uncovered through the findings of this study. The elements presenting as benefits to motivation for course authors at IHE 1 include: sufficient monetary stipends, course releases accommodating for the time commitment, standardized templates for course design, one-on-one consultations with instructional design staff, clarity about individual milestones, course design expectations and checklists, written documentation of expectations, step-by-step guides, access to instructional design staff, and evidence of impact that instructional design processes have on students. Policy and practice recommendations relating to these items are also best aligned to the areas of motivation. Similarly to sub-research question A, recommendations are provided for this research question at both levels in the 'Implications' sections to follow.

***Sub-Research Question C***

*In what ways are online course quality expectations incorporated into current formal online instructional design processes across contexts?*

All six of the 23 IHE 1 peer institutions that outwardly advertise the use of formal instructional design processes also identified strategies for incorporating measures of course quality. However, not all of these strategies involved the use of an industry recognized rubric. When responding to questions about the use of measures of quality for online course designs, panelists at IHE 1 overwhelmingly reported rubrics for course

design as potential barriers to motivation. Nevertheless, panelists agreed that an emphasis on quality for online course designs is helpful. In practice, these findings suggest that while panelists appreciate best practices, they do not want to be forced to apply them in a specific way or formally evaluated on that application. Instructional design support staff should strive to find innovative ways to incorporate measures of quality that are not bound to checklists and rubrics. At the policy level, leadership at IHEs can support these efforts by dedicating committees that investigate such opportunities.

**Emergent Themes and Research Questions**

Table 5.1 provided on page 120 illustrates further grouping of the emergent themes as they align to the research questions for this study. Column one identifies the specific research question. Column two includes a collection of the specific themes that address each of the research questions respectively.

**Table 5.1**

*Emergent Themes and Research Questions*

| **RQ1:** *How are formal instructional design processes being implemented for the development of online courses at a traditional IHE in the U.S. in a post-pandemic onset context?* | |
|---|---|
| **Themes that Address the Questions** | **Implications and Ponderings** |
| **Theme 1:** Current instructional design processes achieved the highest ratings for elements that support volition (author ability to follow through and commit to the completion of online instructional design processes as a course author) and the lowest ratings for elements that support attention (panelist understandings of the required steps and tasks of online instructional design processes) and relevance (panelist perceptions of the usefulness and relevance of engaging in online instructional design processes) | • Course authors feel personally motivated to participate in current online instructional design processes.<br>• Course authors are unclear about the required steps and tasks of online instructional design processes and find it difficult to see the usefulness or relevance of the processes themselves.<br>• The condition of volition requires the least support while *attention* and *relevance* require the most support. |
| **Theme 2:** Most panelists do not believe that they have been sufficiently compensated for their participation in online course design processes. | • Efforts to adequately compensate course authors should be *emphasized*. |
| **Theme 3:** Most panelists agree that online instructional design processes require adequate and reasonable time commitments. | • The time commitments for course development at IHE 1 do not need to be adjusted. |
| **Theme 4:** Most panelists agree that online instructional design processes are useful. | • Current efforts to assure authors of the usefulness of formal design processes are adequate. |
| **Theme 5:** Most panelists agree that they have access to adequate technical support when engaging in online instructional design processes. | • Current technical support meets the needs and expectations of course authors at IHE 1.<br>• |

| | |
|---|---|
| **Theme 6:** Most panelists agree that participating in online instructional design processes provides an added sense of pride and accomplishment. | • Course authors at IHE 1 are proud of the work associated with the development of online courses.<br>• Efforts to emphasize and celebrate this sense of pride and accomplishment are likely to be positively impactful. |
| **Theme 7:** All panelists agree that online instructional design processes contribute to the creation of meaningful and effective learning experiences. | • Course authors do not need to be convinced that online instructional design processes lead to meaningful and effective experiences. |
| **Theme 8:** Most panelists are satisfied with the amount of autonomy and flexibility provided when participating in online instructional design processes. | • Course authors do not need more autonomy or flexibility within these processes than what is currently being provided. |

**Sub-QA:** *What factors of current instructional design processes present as potential motivational barriers for participating faculty course authors?*

| Themes that Address the Questions | Implications and Ponderings |
|---|---|
| **Theme 20:** Course design quality rubrics present as a potential barrier to motivation for panelists when participating in instructional design processes. | • Quality rubrics measuring online course designs should be *avoided* when collaborating with course authors. |
| **Theme 21:** Access to a community of peers who are engaging in similar work present as a potential barrier to motivation for panelists when participating in instructional design processes. | • Efforts to create a community of peers should be *avoided*. |
| **Theme 22:** Live facilitated workshops present as a potential barrier to motivation for panelists when participating in instructional design processes. | • Live facilitated workshops should be *avoided*.<br>• In combination with Theme 21, Theme 22 indicates that course authors may be unmotivated by resources that they consider to be extraneous. |

**Sub-QA:** *What factors of current instructional design processes present as potential motivational barriers for participating faculty course authors?*

| Themes that Address the Questions | Implications and Ponderings |
|---|---|
| **Theme 23:** Curated lists of evidence-based resources highlighting the importance of online instructional design processes present as a potential barrier to motivation for panelists when participating in instructional design processes. | • In combination with Theme 4, Theme 23 indicates that course authors do not want or need additional evidence confirming the importance of online instructional design processes. |
| **Theme 24:** Mandates or requirements for participating in online instructional design processes present as a potential barrier to motivation for panelists when participating in instructional design processes. | • Course authors should not be required to participate in online instructional design processes. |
| **Theme 25:** Testimonials from other course authors who have engaged in the online instructional design processes present as a potential barrier to motivation for panelists when participating in instructional design processes. | • Testimonials from other course authors should be *avoided*.<br>• In combination with Themes 21 and 22, Theme 25 indicates that course authors are unmotivated by resources that they consider to be extraneous. |
| **Theme 26:** Access to media creation tools, multimedia staff, and live technical support present as potential barriers to motivation for panelists when participating in instructional design processes. | • Providing media creation tools, multimedia staff, or live technical support should be *avoided*.<br>• It is unclear whether these elements would be perceived as useful if provided simultaneously.<br>• Course authors may be unmotivated by access to advanced technologies. |

**Sub-QA:** *What factors of current instructional design processes present as potential motivational barriers for participating faculty course authors?*

| Themes that Address the Questions | Implications and Ponderings |
|---|---|
| **Theme 27:** Transparency about the expertise levels of all members of the design team presents as a potential barrier to motivation for panelists when participating in instructional design processes. | • Providing details about the expertise of team members should be *avoided*.<br>• In combination with Themes 21, 22, and 25, Theme 27 indicates that course authors are unmotivated by resources that they consider to be extraneous. |
| **Theme 28:** Student partnerships/involvement in the instructional design process present as a potential barrier to motivation for panelists when participating in instructional design processes. | • Involving students as partners in online instructional design processes should be *avoided*.<br>• In combination with Themes 21, 22, 25, and 27, Theme 28 indicates that course authors are unmotivated by resources that they consider to be extraneous. |
| **Theme 29:** Facilitated course design trainings and workshops present as a potential barrier to motivation for panelists when participating in instructional design processes. | • Facilitated course design trainings and workshops should be *avoided*.<br>• In combination with Theme 24, Theme 29 indicates that expectations for activities that do not directly contribute to the development of an online course are considered to be extraneous.<br>• In combination with Themes 21 and 22, 25, 27, and 28, Theme 29 indicates that course authors are unmotivated by extraneous resources. |

**Sub-QB:** *What factors of current instructional design processes present as motivational benefits for participating faculty course authors?*

| Themes that Address the Questions | Implications and Ponderings |
|---|---|
| **Theme 30:** Access to recorded course design tutorials, reference guides, or resources presents as a potential barrier to motivation for panelists when participating in instructional design processes. | • Recorded course design tutorials, reference guides, and resources should be *avoided*.<br>• In combination with Themes 24 and 29, Theme 30 indicates that expectations for activities that do not directly contribute to the development of an online course are considered to be extraneous.<br>• In combination with Themes 21, 22, 25, 27, 28, and 29, Theme 30 indicates that course authors are unmotivated by resources that they consider to be extraneous. |
| **Theme 31:** Inadequate monetary stipends present as a barrier to motivation for panelists when participating in instructional design processes. | • In combination with Theme 2, Theme 31 indicates that monetary stipends are important to course authors.<br>• Efforts to adequately compensate course authors should be *emphasized*. |
| **Theme 10:** Monetary stipends present as a benefit to motivation for panelists when participating in online instructional design processes. | • Efforts to provide monetary stipends for course authors should be *emphasized*.<br>• In combination with Themes 2 and 31, Theme 10 indicates that monetary rewards illustrate institutional value and purpose for course authors. |

**Sub-QB:** *What factors of current instructional design processes present as motivational benefits for participating faculty course authors?*

| Themes that Address the Questions | Implications and Ponderings |
|---|---|
| **Theme 11:** Standardized templates for course design present as a benefit to motivation for panelists when participating in online instructional design processes. | • The creation of standardized templates for course design should be *emphasized*.<br>• In combination with Theme 1, Theme 11 indicates that clarity about standard expectations is vital to satisfaction of attention and relevance. |
| **Theme 12:** One-on-one consultations with instructional design staff present as a benefit to motivation for panelists when participating in online instructional design processes. | • One-on-one consultations between authors and designers should be *emphasized*.<br>• In combination with Themes 21, 22, and 28, and 29, Theme 12 indicates that course authors prefer one-on-one support rather than group activities, trainings, or workshops. |
| **Theme 13:** Clarity about individual course design milestones presents as a benefit to motivation for panelists when participating in online instructional design processes. | • Individual course design milestones should be clearly articulated.<br>• In combination with Themes 1 and 11, Theme 13 indicates that clarity about expectations is vital to satisfaction of attention and relevance. |
| **Theme 14:** Course design expectations or checklists present as a benefit to motivation for panelists when participating in online instructional design processes. | • Course design checklists and clear expectations should be *emphasized*.<br>• In combination with Themes 1, 11, and 13, Theme 14 indicates that clarity about expectations is vital to satisfaction of attention and relevance. |

**Sub-QB:** *What factors of current instructional design processes present as motivational benefits for participating faculty course authors?*

| Themes that Address the Questions | Implications and Ponderings |
|---|---|
| **Theme 15:** Step-by-step guides present as a benefit to motivation for panelists when participating in online instructional design processes. | • Step-by-step guides for course design should be *emphasized.*<br>• In combination with Theme 11, Theme 15 indicates that standard templates and guides providing the ability to work independently are preferred.<br>• In combination with Themes 30 and 12, Theme 15 indicates that asynchronous resources like guides and templates should be provided in tandem with one-on-one consultations |
| **Theme 18:** Evidence of impact that the online instructional design processes have on the student experience presents as a benefit to motivation for panelists when participating in online instructional design processes. | • Efforts to illustrate the impact of online instructional design processes on the student experience should be *emphasized*.<br>• In combination with Themes 23 and 25, Theme 18 indicates that course authors find evidence of impact on students more relevant than any other perspective (i.e. faculty testimonials or measures of online quality). |
| **Theme 19:** Access to instructional design staff presents as a benefit to motivation for panelists when participating in online instructional design processes. | • Access to instructional design staff should be *emphasized*.<br>• In combination with Themes 21, 22, and 28, and 29, and 12, Theme 19 indicates that course authors prefer one-on-one support rather than group activities, trainings, or workshops.<br>• In combination with Themes 21, 22, 25, 27, 28, and 29, Theme 30 indicates that course authors are motivated by resources that they |

| | |
|---|---|
| | consider to be directly related to online course design – which specifically includes access to instructional designers. |

**Sub-QC:** *In what ways are online course quality expectations incorporated into current formal online instructional design processes across contexts?*

| Themes that Address the Questions | Implications and Ponderings |
|---|---|
| **Theme 9:** All panelists agree that an emphasis on best practices for online course design is helpful when participating as a course author in online instructional design processes. | • Best practices for online course design should be *emphasized*.<br>• In combination with Themes 11, 13, amd 15, Theme 9 indicates that course design expectations, checklists, step-by-step guides, and standardized design templates would be useful for emphasizing best practices.<br>• In combination with Themes 23, 25, and 18, Theme 9 indicates that prioritizing evidence of impact on students over faculty or design would be useful for emphasizing best practices. |
| **Theme 20:** Course design quality rubrics present as a potential barrier to motivation for panelists when participating in instructional design processes. | • Course design quality rubrics should be *avoided*.<br>• In combination with Theme 9, Theme 20 indicates that instead of relying on course design quality rubric for communicating best practices to course authors, leadership and support staff should focus on discovering more innovative strategies to emphasize best practices.<br>• In combination with Themes 9, 23, 25, and 18, Theme 20 indicates that potentially useful strategies for emphasizing best practices without the use of a quality rubric include: 1) evidence of impact that |

| | |
|---|---|
| | high quality design has on students, 2) course design expectations, 3) course design checklists, 4) standardized design templates, and 5) step-by-step guides for course design. |

**Narrative for Table 5.1**

The first eight themes provide insights to the primary research question. In determining how formal instructional design processes are currently being implemented for the development of online courses at a traditional IHE in the U.S. in a post-pandemic onset context, the results of this study indicate that: 1) current instructional design processes achieved the highest ratings for elements that support volition (author ability to follow through and commit to the completion of online instructional design processes as a course author) and current instructional design processes achieved the lowest ratings for elements that support attention (panelist understandings of the required steps and tasks of online instructional design processes) and relevance (panelist perceptions of the usefulness and relevance of engaging in online instructional design processes), 2) most panelists do not believe that they have been sufficiently compensated for their participation in online course design processes, 3) most panelists agree that online instructional design processes require adequate and reasonable time commitments, 4) most panelists agree that online instructional design process are useful and/or productive, 5) most panelists agree that they have access to adequate technical support when engaging in online instructional design processes, 6) most panelists agree that participating in online instructional design processes provides an added sense of pride and accomplishment, 7) all panelists agree that online instructional design processes

contribute to the creation of meaningful and effective learning experiences, and 8) most panelists are satisfied with the amount of autonomy and flexibility provided when participating in online instructional design processes.

Themes 20-31 provide insights to sub-research question A. When identifying which factors of current instructional design processes present as potential motivational *barriers* for participating faculty course authors, the results of this study indicate that: 20) course design quality rubrics present as a potential barrier to motivation for panelists when participating in instructional design processes, 21) access to a community of peers who are engaging in similar work present as a potential barrier to motivation for panelists when participating in instructional design processes, 22) live facilitated workshops present as a potential barrier to motivation for panelists when participating in instructional design processes, 23) curated lists of evidence-based resources highlighting the importance of online instructional design processes present as a potential barrier to motivation for panelists when participating in instructional design processes, 24) mandates or requirements for participating in online instructional design processes present as a potential barrier to motivation for panelists when participating in instructional design processes, 25) testimonials from other course authors who have engaged in the online instructional design processes present as a potential barrier to motivation for panelists when participating in instructional design processes, 26) access to media creation tools, multimedia staff, and live technical support present as potential barriers to motivation for panelists when participating in instructional design processes, 27) transparency about the expertise levels of all members of the design team presents as a potential barrier to motivation for panelists when participating in instructional design

processes, 28) student partnerships/involvement in the instructional design process present as a potential barrier to motivation for panelists when participating in instructional design processes, 29) facilitated course design trainings and workshops present as a potential barrier to motivation for panelists when participating in instructional design processes, 30) access to recorded course design tutorials, reference guides, or resources presents as a potential barrier to motivation for panelists when participating in instructional design processes, and 31) inadequate monetary stipends present as a barrier to motivation for panelists when participating in instructional design processes.

Themes 10-19 provide insights to sub-research question B. When identifying which factors of current instructional design processes present as motivational *benefits* for participating faculty course authors, the results of this study indicate that: 10) monetary stipends present as a benefit to motivation for panelists when participating in online instructional design processes, 11) standardized templates for course design present as a benefit to motivation for panelists when participating in online instructional design processes, 12) one-on-one consultations with instructional design staff present as a benefit to motivation for panelists when participating in online instructional design processes, 13) clarity about individual course design milestones presents as a benefit to motivation for panelists when participating in online instructional design processes, 14) course design expectations or checklists present as a benefit to motivation for panelists when participating in online instructional design processes, 15) step-by-step guides present as a benefit to motivation for panelists when participating in online instructional design processes, 16) written documentation of

expectations (i.e. contract, scope of work, project outline, service agreement, etc.) presents as a benefit to motivation for panelists when participating in online instructional design processes, 17) course releases accommodating for the time commitment of engaging in online instructional design processes present as a benefit to motivation for panelists when participating in online instructional design processes, 18) evidence of impact that the online instructional design processes have on the student experience presents as a benefit to motivation for panelists when participating in online instructional design processes, and 19) access to instructional design staff presents as a benefit to motivation for panelists when participating in online instructional design processes.

Themes nine and 20 provide insight for sub-research question C. When addressing the ways that online course quality expectations are incorporated into current formal instructional design processes across contexts, the results of this study indicate that: 9) all panelists agree that an emphasis on best practices for online course design is helpful when participating as a course author in online instructional design processes, and 20) course design quality rubrics present as a potential barrier to motivation for panelists when participating in instructional design processes. During the data analysis process, it was noted that 16 elements contribute to the satisfaction of Keller's (2010) ARCS-V model of motivation for course authors when participating in formal instructional design processes for the creation of online courses. In contrast, 15 elements presented as potential barriers to motivation for course authors.

**Implications for Practice**

The findings of this study indicate several areas for improved practices. This leads to several implications at the support unit level as well as for instructional designers

collaborating at an individual level with course authors. Implications for practice include: applying parameters, rewarding value, clarifying expectations, showing impact, and verifying expertise.

### *Apply Parameters*

When ranking statements and items for attention, panelists were asked to consider how each element in the provided list would support their understanding of required steps and tasks of an online instructional design process. This question was designed to illustrate connections between the elements of formal instructional design processes to the 'attention' condition of Keller's (2010) ARCS-V model for motivation which is characterized by a balance between boredom and anxiety. A majority of panelists reported that step-by-step guides, standardized templates for course design, and one-on-one consultations with instructional designers are the most helpful elements toward achieving this balance.

These findings suggest that course authors across contexts at IHE 1 are motivated by clear steps, templates and resources. Conversely, live facilitated workshops and course design quality rubrics were ranked the least helpful by panelists, which indicates that they are not as motivated by synchronous or mandated requirements. Instructional designers and support units should provide course authors with clear steps, checklists, and templates to ensure clarity of expectations. Live facilitated workshops should be offered sparingly without mandates for participation. And finally, the use of quality rubrics to enforce design standards should be avoided and/or replaced with an emphasis on best practices that lead to high quality designs instead.

### *Reward Value*

When ranking statements and items for relevance, panelists were asked to consider how each element in the provided list would relate to increasing their sense of the usefulness and relevance of engaging in online instructional design processes. This question was designed to illustrate connections between the elements of formal instructional design processes to the 'relevance' condition of Keller's (2010) ARCS-V model for motivation which is characterized by the extent to which educational experiences offer opportunities for personal connection and meaning making. A majority of panelists reported that monetary stipends and one-on-one consultations with instructional designers are the most helpful elements toward recognizing personal connection and to making the work meaningful.

These findings suggest that course authors across contexts at IHE 1 are motivated by financial backing to support what is being asked of them. On the other hand, curated lists of evidence-based resources highlighting the importance of instructional design, mandates or requirements for participation, and testimonials from other course authors were ranked the least helpful by panelists. The aforementioned elements indicate that course authors at IHE 1 are not as motivated by the logic or reasoning of other parties beyond the students themselves. When possible, instructional design support units should compensate course authors with stipends and course releases to reinforce the importance of their work. Any attempts to illustrate the impact of instructional design for online courses should primarily emphasize student experiences and faculty perspectives.

### *Clarify Expectations*

When ranking statements and items for confidence, panelists were asked to consider how each element in the provided list would relate to increasing internal confidence in their ability to achieve the expectations and requirements of course authors**.** This question was designed to illustrate connections between the elements of formal instructional design processes to the 'confidence' condition of Keller's (2010) ARCS-V model for motivation which is characterized by personal expectations for success. A majority of panelists reported that clear course design expectations and checklists, written documentation of expectations, and clear milestones and deliverables are the most helpful toward achieving balance between external and internal expectations for success.

These findings suggest that course authors across contexts at IHE 1 are motivated by detailed transparency about what they are being asked to accomplish. Therefore, instructional design support units and staff should take care to provide clear goals and milestones for course authors. On the contrary, access to media creation tools, access to multimedia design staff, and access to live technical support were ranked the least helpful by panelists, which indicates that they are not as motivated by access to advanced tools. It is important to note that there were no options on this list that combined 'access' with live support. While this could be considered an area for caution, it should not be assumed that media support is unhelpful for this group unless further studies indicate that options for both simultaneously are also considered potential barriers to confidence.

### *Show Impact*

When ranking statements and items for satisfaction, panelists were asked to consider how each element in the provided list would relate to enhancing their sense of

satisfaction or enjoyment when engaging in online instructional design processes. This question was designed to illustrate connections between the elements of formal instructional design processes to the 'satisfaction' condition of Keller's (2010) ARCS-V model for motivation which is characterized by strategies for providing rewarding contingencies that lead to personal enjoyment. A majority of panelists reported that monetary stipends, course releases, and evidence of impact on student experience are the most helpful elements toward achieving personal enjoyment with instructional design processes.

These findings suggest that course authors across contexts at IHE 1 are motivated by financial recognition of the workload that is required for online course development with specific consideration for the impact that this work has on their primary audience – students. Therefore, instructional design support units and staff should illustrate the positive impact that formal instructional design processes have on students when possible. Transparency about the expertise of team members, student partnerships/involvement with design processes, and access to a community of peers doing similar work were ranked the least helpful by panelists, which indicates that they are not as motivated by additional collaborators outside of the designer-to-author partnership. This could also be interpreted to suggest that the panelists find supplemental interactions unhelpful toward achieving the bottom line and therefore, unnecessary to the goal of creating effective online course experiences. Thus, instructional design support units and staff should avoid including multiple extraneous collaborators in the course design process.

### *Verify Experience*

When ranking statements and items for volition, panelists were asked to consider how each element in the provided list would relate to their ability to follow through and commit to the completion of online instructional design processes as a course author. This question was designed to illustrate connections between the elements of formal instructional design processes to the 'volition' condition of Keller's (2010) ARCS-V model for motivation which is characterized by the idea that follow-through is fueled by individual commitment and the ability to apply it through self-regulation. Most panelists reported that design expectations and checklists, monetary stipends, standardized templates for course design, clear milestones and deliverables, and access to instructional design staff are the most helpful. Specifically, they were helpful toward fueling individual commitment and self-regulation throughout their participation with formal instructional design processes.

These findings suggest that course authors across contexts at IHE 1 are motivated by transparency and demonstration of value via compensation for their work and access to relevant professional support. In light of these findings, instructional design support units and staff should advocate for fair compensation for course authors when possible. On the other hand, facilitated course design trainings or workshops, course design quality rubrics, access to a community of peers, and access to recorded design tutorials, references, and resources were ranked the least helpful by panelists, which indicates that they are not as motivated by resources that they find to be extraneous to the goal of creating an effective online learning experience for students. Therefore, instructional

design support units and staff should avoid requiring course authors to participate in trainings and workshops.

### *Apply Measures of Quality Sparingly*

The findings of this study suggest that course authors at IHE 1 appreciate best practices. However, it is also clear they do not want to be forced to apply them in a specific way or formally evaluated on that application. In practice, Instructional design support staff should strive to find innovative ways to incorporate measures of quality that are not bound to checklists and rubrics. Instructional design staff and units at IHEs in the U.S. as well as partners like the International Society for Technology in Education (ISTE) could consider applying the concepts of a rubric for course quality to the creation of resources that were ranked as helpful including templates and step-by-step instructions. This would allow for an emphasis on best practice without the negative association of a rubric.

## Implications for Policy

The findings of this study also indicate several areas for improved policies. This involves efforts and strategies that are incorporated at an institution-wide level. Implications for policy include: allowing autonomy, reducing noise, considering learning curves, simplifying requirements, and vetoing excess.

### *Allow Autonomy*

Course authors across contexts at IHE 1 are motivated by clear steps, templates and resources. On the other hand, live facilitated workshops and course design quality rubrics were ranked the least helpful by panelists, which indicates that they are not as motivated by synchronous or mandated requirements. At the policy level, IHEs should

consider lifting strict mandates for participating in formal instructional design processes while directing resources via funding and additional staff lines towards the development of guiding templates and resources for high quality online course design.

### *Reduce Noise*

Course authors across contexts at IHE 1 are motivated by financial backing to support what is being asked of them. On the other hand, curated lists of evidence-based resources highlighting the importance of instructional design, mandates or requirements for participation, and testimonials from other course authors were ranked the least helpful by panelists, which indicates that they are not as motivated by the logic or reasoning of other parties beyond the students themselves. At the policy level, campus leadership should consider highlighting the accomplishments of formal author and designer partnerships through the lens of student impact via celebratory events or announcements as is customary for the individual IHE.

### *Consider Learning Curves*

Course authors across contexts at IHE 1 are motivated by detailed transparency about what they are being asked to accomplish. On the other hand, access to media creation tools, access to multimedia design staff, and access to live technical support were ranked the least helpful by panelists, which indicates that they are not as motivated by access to advanced tools. At the policy level, these findings suggest that IHE leadership should consider directing resources toward the development of a comprehensive media support unit. It is also advisable that policies be put into place to encourage support units to use effective tools for transparency to communicate author expectations. One example would be the creation of a taskforce or cross-campus

committee assigned to the creation of a set of centralized expectations for online course designs that is consistent across academic units.

### *Simplify Requirements*

Course authors across contexts at IHE 1 are motivated by financial recognition of the workload that is required for online course development with specific consideration for the impact that this work has on their primary audience – students. On the other hand, transparency about the expertise of team members, student partnerships or involvement with design processes, and access to a community of peers doing similar work were ranked the least helpful by panelists, which indicates that they are not as motivated by additional collaborators outside of the designer-to-author partnership. At the policy level, additional emphasis is warranted for the monetary compensation of online course design efforts. IHE leadership should consider identifying a campus-wide author load model ensuring equal pay for equal work across academic units. An emphasis on research and publication illustrating evidence of impact on students would also be advisable given the results of this study.

### *Veto Excess*

Course authors across contexts at IHE 1 are motivated by transparency and demonstration of value via compensation for their work and access to relevant professional support. On the other hand, facilitated course design trainings or workshops, course design quality rubrics, access to a community of peers, and access to recorded design tutorials, references, and resources were ranked the least helpful by panelists, which indicates that they are not as motivated by resources that they find to be extraneous to the goal of creating an effective online learning experience for students. Given these

findings, it is clear that leadership at IHEs would benefit from continued inquiry of course authors to identify efforts that would positively impact a sense of accomplishment and value.

### *Support Innovative Efforts to Ensure Course Quality*

The findings that course authors at IHE 1 appreciate an emphasis on best practices, but do not find the use of rubrics for course quality helpful. Leadership at IHEs can support efforts to find new strategies for incorporating best practices by forming committees or working groups to investigate new opportunities. Innovative approaches should be celebrated and highlighted at a campus-wide level to encourage collaboration across units and continued improvement overall. Leadership at other IHEs in the U.S. as well as partners like ISTE could consider similar efforts supporting efforts to research emerging practices that better meet the needs of course authors.

Table 5.2 provided on page 141 illustrates alignment between recommendations for satisfying specific conditions of Keller's (2010) ARCS-V model of motivation. Recommendations are included for practice by support units and staff at IHE 1. Recommendations are also provided for policy to be implemented at a campus-wide level by leadership at IHE 1.

The first column of table 5.2 identifies each of the five conditions of motivation as well as measures of online course quality. The second column includes recommendations for practice specific to units and offices that support course authors. The third column includes recommendations for policy at a campus-wide level. Although measures of online course quality are not a condition of Keller's (2010) ARCS-V model

of motivation, they are included as a category in this table as they are a major theme throughout the findings of this study that also align to Sub-Research Question C.

**Table 5.2**

*Recommendations for Satisfying Keller's (2010) Conditions of Motivation*

| Keller's (2010) Conditions of Motivation | Recommendations for Practice | Recommendations for Policy |
|---|---|---|
| **Attention:** Understanding of required steps and tasks of an online instructional design process that strikes a balance between boredom and anxiety. | Provide clear steps, templates, and resources.<br><br>Avoid synchronous or mandated requirements. | Lift strict mandates for participation in formal instructional design processes.<br><br>Direct resources via funding and additional staff lines towards the development of guiding templates and resources for high quality online course design. |
| **Relevance:** Increased sense of usefulness and relevance of engaging in online instructional design processes allowing for personal connection and meaning. | Compensate course authors with stipends and course releases to establish the importance placed on their work.<br><br>Avoid justification of the work that excludes student impact and/or faculty perspective. | Highlight the accomplishments of formal author and designer partnerships through the lens of student impact<br><br>Hold celebratory events or announcements to publicly highlight individual and unit-level accomplishments. |
| **Confidence:** Increased internal confidence in the ability to achieve expectations and requirements of course authors engaging in online instructional design processes to clarify personal expectations for success. | Provide transparency about all course author expectations within formal instructional design processes.<br><br>Avoid idealizing the use of advanced media tools and technologies. | Direct resources toward the development of a comprehensive media support unit.<br><br>Enact policies that encourage support units to use effective tools for transparency to communicate author expectations. |

| Keller's (2010) Conditions of Motivation | Recommendations for Practice | Recommendations for Policy |
|---|---|---|
| | | Designate task-forces or cross-campus committees assigned to the creation of a set of centralized expectations for online course designs that is constant across academic units. |
| **Satisfaction:** Enhancing a sense of satisfaction or enjoyment when engaging in online instructional design processes leading toward personal enjoyment for course authors. | Illustrate the positive impact that formal instructional design processes have on students.<br><br>Avoid involving extraneous or unnecessary collaborators in the process. | Emphasize monetary compensation of online course design efforts.<br><br>Identify a campus-wide author load model ensuring transparency of equal pay for equal work across academic units.<br><br>Emphasize research and publications illustrating evidence of impact on students. |
| **Volition:** Ability to follow through and commit to the completion of online instructional design processes as a course author. | Reinforce the value of this work through compensation and access to resources.<br><br>Avoid providing or requiring excessive trainings and workshops. | Continue inquiry of course authors to identify efforts that would positively impact a sense of accomplishment and value |
| **Measures of Online Course Quality** | Strive to find innovative ways to incorporate measures of quality that are not bound to checklists and rubrics. | Dedicate committees to investigate opportunities for innovative approaches to incorporating measures of quality. |

**Narrative for Table 5.2**

The conditions listed in column one of Table 5.2 include: Attention – understanding of required steps and tasks of an online instructional design process that strikes a balance between boredom and anxiety (Keller, 2010), Relevance – increased sense of usefulness and relevance of engaging in online instructional design processes allowing for personal connection and meaning (Keller, 2010), Confidence – increased internal confidence in the ability to achieve expectations and requirements of course authors engaging in online instructional design processes to clarify personal expectations for success (Keller, 2010), Satisfaction – Enhancing a sense of satisfaction or enjoyment when engaging in online instructional design processes leading toward personal enjoyment for course authors (Keller, 2010), and Volition – ability to follow through and commit to the completion of online instructional design processes as a course author (Keller, 2010).

The recommendations for practice listed in column two of table 5.2 include: 1) provide clear steps, templates, and resources, 2) avoid synchronous or mandated requirements, 3) compensate course authors with stipends and course releases to establish the importance placed on their work, 4) avoid justification of the work that excludes student impact and/or faculty perspective, 5) illustrate the positive impact that formal instructional design processes have on students, 6) avoid involving extraneous or unnecessary collaborators in the process, 7) reinforce the value of this work through compensation and access to resources, 8) avoid providing or requiring excessive trainings and workshops, and 9) strive to find innovative ways to incorporate measures of quality that are not bound to checklists and rubrics.

The recommendations for policy listed in column three of table 5.2 include: 1) lift strict mandates for participation in formal instructional design processes, 2) direct resources via funding and additional staff lines towards the development of guiding templates and resources for high quality online course design, 3) enact policies that encourage support units to use effective tools for transparency to communicate author expectations, 4) designate task-forces or cross-campus committees assigned to the creation of a set of centralized expectations for online course designs that is constant across academic units, 5) emphasize monetary compensation of online course design efforts, 6) identify a campus-wide author load model ensuring transparency of equal pay for equal work across academic units, 7) emphasize research and publications illustrating evidence of impact on students, 8) continue inquiry of course authors to identify efforts that would positively impact a sense of accomplishment and value, and 9) dedicate committees to investigate opportunities for innovative approaches to incorporating measures of quality.

**Course Author Motivation Model**

The results of this study support the idea that adjusting practices to reflect the elements that support panelist motivation should improve their engagement and satisfaction with formal instructional design processes moving forward. Several potential barriers to motivation were also uncovered, which should be avoided when attempting to increase motivation for participating course authors. Overall, these results expanded on current literature and led to the creation of the following IHE 1 Course Author Motivation Model illustrated in Figure 5.1 on page 146.

Given the fact that the findings of this study are specific to the panelists representing IHE 1, the resulting model should not be assumed to apply across all IHE contexts. The recommendations in the model illustrated in Figure 5.1 are specific to IHE 1. However, this model could be used as a reference when interpreting the responses of panelists at other IHEs. These IHEs would need to collect insights from panelists specific to their institution to determine similarities or differences in collective opinions. Recommendations for practice and policy should reflect the consensus found for experts specific to the IHE. The model generated through this study is aligned to the satisfaction of Keller's (2010) conditions for motivation. An additional template reflecting this structure is provided in figure 5.2 on page 148 for use at any IHE.

Figure 5.1 illustrates recommendations for better satisfying conditions of motivations for course authors at IHE 1 that were generated from the results of this study and described in full through table 5.2. Recommendations are provided at both a practice and a policy level. Strategies that achieved consensus as benefits to motivation are summarized in actionable form as things to 'Do' at the unit or office level. Strategies that achieved consensus as potential barriers to motivation are summarized in actionable form as things to 'Avoid' at the unit or office level. Recommendations for leadership and campus-wide initiatives are summarized in actionable form and provided at the policy level within this model. The Course Author Motivation Model is aligned to the five motivational conditions of Keller's (2010) ARCS-V model including attention, relevance, confidence, satisfaction, and volition.

**Figure 5.1**

*IHE 1 Course Author Motivation Model*


**Narrative for Figure 5.1**

Recommendations to *apply* in practice include: providing clear steps, templates, and resources, compensating with course releases and stipends, providing transparency about expectations, illustrating impact on students, and reinforcing value through compensation and access to resources. Recommendations to *avoid* in practice include: synchronous or mandated requirements, justification that excludes faculty and student perspectives, idealizing the use of advanced media tools, involving extraneous

collaborators, and providing excessive trainings and workshops. Recommendations for policy include: lifting strict mandates for participation in instructional design processes, directing resources toward the development of guiding templates and resources for high quality design, highlighting accomplishments of formal author-and-designer partnerships through celebratory events and announcements, directing resources toward comprehensive media support, establishing working groups or inter-departmental committees assigned with creating a centralized strategy for online course design standards, setting a campus-wide author load model ensuring equal work for equal pay, emphasizing research and publications that illustrate evidence of impact of instructional design processes on students, committing to continuous inquiry about evolving needs of course authors, and dedicating committees to investigate innovative approaches for incorporating measures of quality that are not bound to checklists or rubrics.

Figure 5.2 provided on page 148 illustrates a template for the Course Author Motivation Model that can be adapted for use at any IHE. The Template Course Author Motivation Model also includes definitions for each of the conditions of Keller's (2010) ARCS-V model of motivation to ensure accurate alignment of recommendations with specific motivational goals.

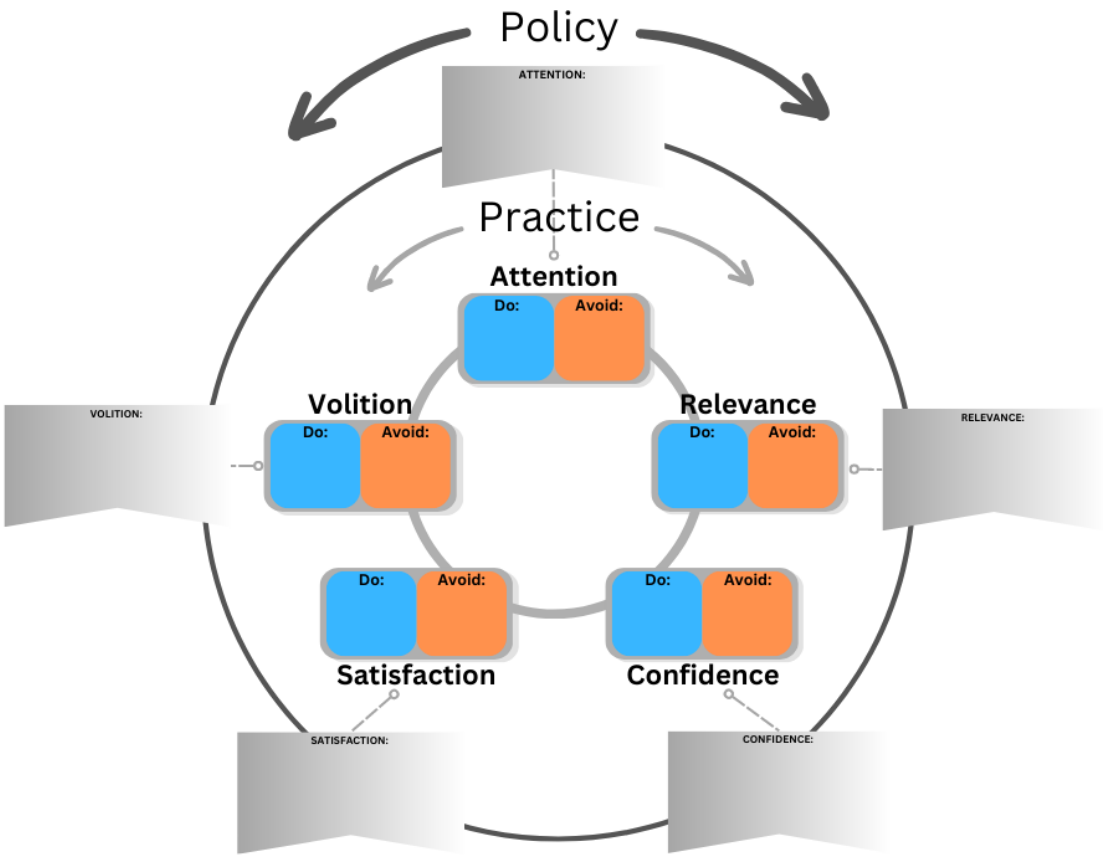
**Narrative for Figure 5.2**

As illustrated in figure 5.2, recommendations should be generated from IHE specific research and provided for both practice and policy. Strategies that achieve consensus as benefits to motivation should be summarized in actionable form as things to 'Do' at the unit or office level. Strategies that achieve consensus as potential barriers to motivation should be summarized in actionable form as things to 'Avoid' at the unit or

office level. Recommendations for leadership and campus-wide initiatives should be summarized in actionable form and provided at the policy level.

**Figure 5.2**

*Template Course Author Motivation Model*




**Attention:** Understanding of required steps and tasks of an online instructional design process that strikes a balance between boredom and anxiety (Keller, 2010)

**Relevance:** Increased sense of usefulness and relevance of engaging in online instructional design processes allowing for personal connection and meaning (Keller, 2010)

**Confidence:** increased internal confidence in the ability to achieve expectations and requirements of course authors engaging in online instructional design processes to clarify personal expectations for success (Keller, 2010)

**Satisfaction:** Enhancing a sense of satisfaction or enjoyment when engaging in online instructional design processes leading toward personal enjoyment for course authors (Keller, 2010)

**Volition:** ability to follow through and commit to the completion of online instructional design processes as a course author (Keller, 2010)

## Study Limitations

In addition to the limitations of the Delphi technique that are covered in chapter 3, there are several limitations that are specific to this study. These include the potential for unconscious bias or faulty logic, differences between the intended and achieved participant pools, and issues with reliability and validity of the questionnaire instrument used. All are addressed in the following section.

### *Unconscious Bias and Faulty Logic*

Unconscious bias occurs when a researcher omits data that is unfavorable to their initial understandings about a topic or overemphasizes data that supports their beliefs (Best & Kahn, 2016). Faulty logic occurs when errors involving invalid assumptions or inappropriate analogies limit researchers from coming to accurate conclusions about the results of a study (Best & Kahn, 2016). Given the structure of the questionnaire used in this study, a low rank-order could indicate that a panelist didn't find a particular item as helpful as another item just as easily as it could indicate that the panelist found the item to be specifically unhelpful. Future research allowing panelists to rank-order the same list of items in terms of how they would detract or decrease their ability to satisfy conditions of motivation would be needed to confirm that the emergent themes from this study related to low rank-order are in fact perceived by panelists to be true barriers to motivation. For this reason, all results for low-rank ordered items are reported as 'potential barriers' to motivation or 'least helpful of presented options' rather than as official barriers.

### *Participant Demographics*

This study was originally designed toward consensus among course authors representing a variety of IHEs across the U.S. This structure could have provided information that was more representative of the field rather than a specific institutional or regional context. However, one limitation to a Delphi study is that the conclusions are typically not generalizable outside of the original panel. While a consensus among panelists from various IHEs in the U.S. would have been interesting, it would likely not have been as true to the group as the results of this study. In contrast, this study measured consensus about instructional design processes by course authors at one IHE. The nature of the processes that they participated in varied in some profound ways. The shared perspectives of this group of panelists should be helpful for all units and offices at this IHE when determining which practices to employ for faculty course authors moving forward.

### *Reliability and Validity*

Reliability is established when the consistency of an instrument or procedure is demonstrated while validity is measured by the ability for a given tool or instrument to accurately measure the intended topic (Best & Kahn, 2016). While it is important to establish both reliability and validity for any instrument used in research, it is not always precisely determined through these qualities (Best & Kahn, 2016), especially for qualitative questionnaires like the one developed for this study. Additionally, it is advisable to establish and improve the reliability and validity of a tool to the best extent possible. The questionnaire for this study has only been used with one group of panelists.

It would need to be administered for several additional groups across institutional contexts to further establish reliability and validity.

Analysis of the results for each rank-order question revealed the usefulness of comparing results for individual elements as they were ranked across the different conditions of motivation. Furthermore, only a handful of the elements were included as options on more than one rank-order question. The elements were also not all listed for all five conditions. Modifying the questionnaire by standardizing element lists across all conditions could provide more data to this effect. Nonetheless, this would only be helpful in a quantitative study where inferential statistics could be applied. A quantitative study would require a much larger sample group and would not permit the use of an iterative consensus-building approach like the Delphi technique. Conversely, the benefits of supplementing research with these additional findings would likely outweigh the drawbacks. A questionnaire administered to a large number of panelists across institutional contexts would be intended to generalize results rather than illuminating practices that present as barriers to course authors. This shift in emphasis away from individual contexts might also increase the likelihood for other IHEs to opt into the study.

**Areas for Future Research**

A full Delphi study typically begins with interviews to generate statements and themes about the topic from panelists themselves, followed by a questionnaire allowing them to identify levels of agreement with each thematic statement, and culminating with panelists rank-ordering the thematic statements that achieved consensus in order of personal importance (Hasson et al., 2000; van der Gracht, 2012). This study utilized a modified Delphi structure to meet the needs of the intended panelists – a group of

individuals currently struggling to meet the time and resource demands of the new processes central to the research questions. This study was also modified from its original structure to accommodate for lack of participation from external IHEs. The following topics provide areas for future research that would deepen and expand on the findings reported in this study including opportunities for a deepened analysis of findings and opportunities for expanding on the insights.

### *A Deepened Analysis*

Rather than beginning with panelist-generated questions, the first phase of this study utilized a literature-generated questionnaire. Panelists were asked to complete the questionnaire by identifying agreement with thematic statements while also rank-ordering lists of elements. Had there been an opportunity to engage the panelists further, a second iteration of the questionnaire including only the items that achieved consensus would have yielded additional insights contributing to the reliability of the results.

While the questionnaire required panelists to rank-order elements in terms of what they found to be the most helpful, there was not a prompt for panelists to rank-order elements in terms of what they found to be particularly unhelpful. Therefore, current results can only be interpreted to indicate 'potential' barriers to motivation for those that fell above the median. A second iteration of the questionnaire could include a set of rank-order questions to clarify validity of results of each element when ranked for helpfulness vs. unhelpfulness.

Many existing studies support the idea of using tailored rubrics to measure course quality (Baldwin et al., 2018; Conklin et al., 2020; Kathuria & Becker, 2021; Martin et al., 2021). However, there is no current evidence of research investigating alternative

methods for encouraging the use of quality design standards. The results of this study illustrate an interesting conflict within course author perspectives. It is clear that an emphasis on best practices is considered to be helpful. On the other hand, there is repeated consensus among panelists finding the use of rubrics for course quality to be a potential barrier to motivation. Future studies exploring methods for emphasizing best practices as they relate to measures of course quality that support course authors are recommended.

The sample size of a Delphi study is intentionally small to ensure effective generation of consensus among experts (Hasson et al., 2000; von der Gracht, 2012). However, this approach excludes the use of inferential analysis of data (Best & Kahn, 2006). Quantitative studies collecting insights from a larger participant pool that reflects a broader sample population would be helpful. Such studies could also investigate differences in perspective across demographic groups including professional role, age, gender identity, race and cultural identities, and more.

### *Expanding Insights*

Similar studies conducted at different IHEs would allow for the generation of common themes in a broader context rather than at a specific site. Researchers at other IHEs interested in the insights that course authors within their contexts have to offer could repeat this study and consider the results with those found here. Publication of such results would add to the combined awareness across the U.S. of practices that present as barriers or benefits to course authors. It is recommended that any future studies attempting to examine perspectives of courses authors cross-institutionally focus

primarily on uncovering benefits and barriers to motivation rather than gauging the success of current instructional design processes.

This study provides insights that can be applied to the creation of more effective instructional design processes meeting the emerging needs of course authors at IHEs in the U.S. However, it is unclear whether course authors perceive or experience those partnerships as they are intended to. Future research should investigate differences between the instructional design processes as defined by support units and the experiences of course authors participating in those processes.

### *Additional Musings*

This study is exploratory and was designed to begin uncovering consensus among course authors about the elements of formal online instructional design processes that present as benefits and barriers to motivation. The exploratory nature of this study allowed for a variety of additional musings and ponderings to begin to take shape through consideration of the high number of 31 emergent themes and implications. Each of these themes are discrete enough to warrant individual emphasis. On the other hand, consideration of many of the themes in combination with each other provided additional intriguing opportunities for future research.

While it is clear that course authors at IHE 1 do not currently feel that their work has been efficiently compensated, it is also clear that monetary compensation through stipends and course buyouts is highly motivating to them. The initial implication that compensation should be emphasized is useful but will need to be further substantiated in several important ways. Future research should investigate what course authors perceive

as ‘fair’ or ‘adequate’ levels of compensation with respect to the amount and type of work required of them when participating in online course design processes.

Differences across institutional contexts and history should also be examined to determine what factors might influence the perspectives of course authors when ranking items like monetary stipends as benefits to their motivation. Future studies that explore the power of perceived role within an institution by course authors and their peers are also warranted. For example, in what ways does the experience of a course author differ from their experience as a faculty member or adjunct instructor within the IHE, and how do these experiences influence course author perceptions of benefits and barriers to their motivation within that specific role?

Several of the emerging themes uncovered through this study indicate that course authors at IHE 1 find the transactional elements of a course design processes to be more useful and motivating than the interpersonal elements. For example, Themes 21, 22, 25, 27, 28, 29, and 30 indicate that course authors are motivated by resources that they consider to be directly related to online course design rather than those that they find to be extraneous. Elements that course authors identified as extraneous or unhelpful include: access to a community of peers, student involvement/partnerships in the process, live facilitated workshops, testimonials from other authors, and advanced media tools all indicating an aversion to interpersonal resources Contrastingly, elements they identified as useful include: monetary stipends, course buyouts, standard templates, design checklists, and step-by-step guides which indicate a preference for transactional supports. On the other hand, authors did identify transactional rubrics for measuring course quality as unhelpful and interpersonal resources like one-on-one consultations and access to

instructional design staff as helpful. Further research investigating the elements that contribute to these preferences would be insightful.

This study is shaped through the lens of motivation and relies on Keller's (2010) ARCS-V model of motivation to form a basis for understanding the lived experiences of course authors participating in formal online instructional design processes. Additional lenses would provide deeper understandings about the elements of these processes that lead to positive and negative perceptions of course authors. For example, a socio-emotional lens would allow researchers to uncover details about the influence of different roles and stations that course authors identify with. Similarly, a study utilizing learning frameworks like the community of inquiry or transformational learning might highlight elements of instructional design processes that lead to meaningful reflection and the co-creation of new strategies.

And finally, many of the suggestions provided in response to the findings and emergent themes require substantial change on the part of leadership at IHEs as well as at the department and unit level. Therefore, not all of the suggestions are feasible given resource availability. Institutions striving toward positive that do not currently possess the necessary resources to enact these changes will benefit from additional studies that prove the impact of these suggestions to their stakeholders.

**Conclusion**

Analysis of the results of this modified Delphi study yielded consensus among panelists for a set of elements that present as benefits to course author motivation at IHE 1 as well as a set of elements that present as potential barriers. The findings of this study illustrate specific implications for policy and practice that should increase course author

attention, relevance, confidence, satisfaction, and volition when participating on online instructional design processes in the current post-pandemic onset context. These findings will help units and leadership at IHE 1 to make more informed decisions about practices and policies to support course authors.

Many IHEs emerging from the recent COVID-19 pandemic have begun requiring faculty to participate in traditional instructional design processes for the creation of online courses (Abrahamsson & Lopez, 2021). These traditional processes typically involve several months of preparation and work on the part of the course author (Freeman, 2015; Halupa, 2019) and do not effectively meet the needs of full-time appointed faculty (Halupa, 2019; Hodges et al., 2020; June, 2020; Nworie, 2021). The results of this study provide guidance for support units, staff, and leadership at IHE 1 for improving the instructional design process for participating course authors moving forward. Similar studies should yield insights about the strategies that present as barriers or benefits to motivation for course authors at additional IHEs in the U.S. in this post-pandemic onset context. It is strongly recommended that research comparing results across IHE settings also be conducted to allow for a deeper understanding about the elements of online instructional design processes that are desirable for course authors in general.

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# APPENDICES

## Appendix A

IHE Outreach Email

Dear {insert name},

My name is Heather Tobin and I am a doctoral student from the Morgridge College of Education at the University of Denver. I am writing to invite you to participate in my research study about the factors of formal instructional design processes implemented at traditional institutions of higher education in the U.S. within the current pandemic context that present as motivational barriers and benefits to participating course authors. Your institution appears to be eligible to be in this study because your {insert name} office met the qualifications of my web review as an example of a unit that has utilized formal instructional design processes to support course authors with the development of online courses since the onset of the COVID-19 pandemic in the United States in spring of 2020. I obtained your contact information from {describe source}.

If you decide to participate you will be asked to complete a brief survey (https://qfreeaccountssjc1.az1.qualtrics.com/jfe/form/SV_3KmNRfj7Uk6itAW) to confirm the eligibility of your unit for this study. The unit eligibility survey will be conducted online and should take about five to ten minutes to complete. If your survey responses indicate that your unit has utilized formal instructional design processes to support course authors with the development of online courses during the appropriate timeframe, you will be asked to distribute a recruitment flyer to any course authors that have participated in those processes and would qualify as potential panelist participants.

The recruitment flyer will direct potential panelist participants to reach out directly to the researcher Heather Tobin if interested.

Remember, this is completely voluntary. You can choose to support this study or not. If you'd like to participate or have any questions about the study, please email or contact me at heather.tobin@du.edu. Thank you very much.

Sincerely,

*Heather L. D. Tobin, Doctoral Researcher | Senior Instructional Designer | Online Program Services | Morgridge College of Education | University of Denver*

*Norma Hafenstein, PhD. Doctoral Advisor | Daniel L. Ritchie Endowed Chair in Gifted Education | Clinical Professor, Teaching and Learning Sciences | Morgridge College of Education, University of Denver*

## Appendix B

IHE Unit Implied Consent for Online Surveys

You are invited to participate in a research study of "**Examination of Formal Instructional Design Processes at Traditional Institutions of Higher Education in the United States Post-Pandemic Onset**." The purpose of this study is to examine formal instructional design processes that are currently being implemented at traditional institutions of higher education in the U.S. within the current pandemic context. The study is intended to illustrate the factors of formal online instructional design processes that present as motivational barriers and benefits to course authors. You were selected as a possible participant in this study because an initial web review of your institution indicates the use of formal instructional design processes to support the development of online courses between the onset of the COVID-19 pandemic in the U.S. in spring of 2020 and the spring of 2023.

If you decide to participate, please understand your **participation is voluntary** and you have the **right to withdraw and discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled**. **The alternative is not to participate**. If you decide to participate, complete the following survey. Your completion of this survey indicates your consent to participate in this research study. The survey is designed to determine eligibility of online course authors your institution for this study. It will take about five to ten minutes to *complete this survey*. You will be asked to answer questions about *the nature of support that your office provides to online course authors, the timing of this support, and the individuals who primarily fill the role of course author at your institution.* No benefits accrue to you for answering the survey,

but your **responses will be anonymized** and used to *inform the findings of this study with the intention of providing guidance for collaborative instructional design practices at traditional institutions of higher education in the U.S. in a post-pandemic onset context*. Data will be collected using the Internet including emails sent to participants; no guarantees can be made regarding the interception of data sent via the Internet by any third party. Confidentiality will be maintained to the degree permitted by the technology used.

Your decision whether or not to participate will not affect your future relationships with the *University of Denver or the researcher Heather Tobin.* If you decide to participate, you are free to stop at any time; you may also skip questions if you don't want to answer them or you may choose not to return the survey.

Please feel free to ask questions regarding this study. You may contact me if you have additional questions at Heather Tobin, Online Program Services, University of Denver, heather.tobin@du.edu. You may also contact my Faculty Advisor Norma Hafenstein at Morgridge College of Education, University of Denver, norma.hafenstein@du.edu.

If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the University of Denver (DU) Institutional Review Board to speak to someone independent of the research team at (303) 871-2121, or email at IRBAdmin@du.edu.

De-identified data from this study may be shared with the research community at large to advance science and health. We will remove or code any personal information

that could identify you before files are shared with other researchers to ensure that, by current scientific standards and known methods, no one will be able to identify you from the information we share. Despite these measures, we cannot guarantee anonymity of your personal data.

Thank you for your time.

Sincerely,

*Heather L. D. Tobin, Doctoral Researcher | Senior Instructional Designer | Online Program Services | Morgridge College of Education | University of Denver*

*Norma Hafenstein, PhD. Doctoral Advisor | Daniel L. Ritchie Endowed Chair in Gifted Education | Clinical Professor, Teaching and Learning Sciences | Morgridge College of Education, University of Denver*

By clicking the link below, I confirm that I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement, and possible risks and inconveniences have been explained to my satisfaction. I understand that I can discontinue participation at any time. My consent also indicates that I am at least 18 years of age. [Please feel free to print a copy of this consent form.]

☐ I agree to participate (link to survey) ☐ I decline (link to close webpage)

## Appendix C

Recruitment Flyer

The University of Denver's Department of Education is conducting a research study on: Formal Instructional Design Processes at Traditional Institutions of Higher Education in the United States Post-Pandemic Onset. The study will take place virtually through online surveys. All responses will be de-identified to protect participant and institutional anonymity. This is a modified Delphi Study that will consist of two surveys with two weeks response time each.

If you have served as a course author in the creation of an online course for a qualifying institution of higher education between the onset of the COVID-19 Pandemic in the U.S. in spring of 2020 and the spring of 2023, you may qualify for a research study examining the factors of formal instructional design practices that present as motivational barriers and benefits to course authors.

Your valuable insights as an expert panelist will inform guidance to improve instructional design processes at institutions of higher education in the U.S. as we navigate a post-pandemic onset context with increased demand for online courses and programs.


Photo by Samantha Borges on Unsplash

For more information, please email heather.tobin@du.edu or call (269)598-9413.

**Principal Investigator:** Heather L. D. Tobin

**Faculty Sponsor:** Norma Hafenstein, PhD

## Appendix D

Course Author Implied Consent for Online Surveys

You are invited to participate in a research study of "**Examination of Formal Instructional Design Processes at Traditional Institutions of Higher Education in the United States Post-Pandemic Onset"** The purpose of this study is to examine formal instructional design processes that are currently being implemented at traditional institutions of higher education in the U.S. within the current pandemic context. The study is intended to illustrate the factors of formal online instructional design processes that present as motivational barriers and benefits to course authors. You were selected as a possible participant in this study because your institution has used formal instructional design processes to support the development of online courses between the onset of the COVID-19 pandemic in the U.S. in spring of 2020 and the spring of 2023.

If you decide to participate, please understand your **participation is voluntary** and you have the **right to withdraw and discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled**. **The alternative is not to participate**. If you decide to participate, complete the following survey. Your completion of this survey indicates your consent to participate in this research study. The survey is designed to determine your eligibility as an online course author for this study. It will take about five to ten minutes to complete this survey. You will be asked to answer questions about *your experience with online and face to face course design, your role at the institution, and your availability to participate throughout the study.* No benefits accrue to you for answering the survey, but **your responses will be anonymized** and

used to *inform the findings of this study with the intention of providing guidance for collaborative instructional design practices at traditional institutions of higher education in the U.S. in a post-pandemic onset context*. Data will be collected using the Internet including emails sent to participants; no guarantees can be made regarding the interception of data sent via the Internet by any third party. Confidentiality will be maintained to the degree permitted by the technology used.

Your decision whether or not to participate will not affect your future relationships with the *University of Denver, or the researcher Heather Tobin.* If you decide to participate, you are free to stop at any time; you may also skip questions if you don't want to answer them or you may choose not to return the survey.

Please feel free to ask questions regarding this study. You may contact me if you have additional questions at Heather Tobin, Online Program Services, University of Denver, heather.tobin@du.edu. You may also contact my Faculty Advisor Norma Hafenstein at Morgridge College of Education, University of Denver, norma.hafenstein@du.edu.

If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the University of Denver (DU) Institutional Review Board to speak to someone independent of the research team at (303) 871-2121, or email at IRBAdmin@du.edu.

De-identified data from this study may be shared with the research community at large to advance science and health. We will remove or code any personal information that could identify you before files are shared with other researchers to ensure that, by

current scientific standards and known methods, no one will be able to identify you from the information we share. Despite these measures, we cannot guarantee anonymity of your personal data.

Thank you for your time.

Sincerely,

*Heather L. D. Tobin, Doctoral Researcher| Morgridge College of Education | University of Denver*

*Norma Hafenstein, PhD. Doctoral Advisor | Daniel L. Ritchie Endowed Chair in Gifted Education | Clinical Professor, Teaching and Learning Sciences | Morgridge College of Education, University of Denver*

By clicking the link to continue, I confirm that I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement, and possible risks and inconveniences have been explained to my satisfaction. I understand that I can discontinue participation at any time. My consent also indicates that I am between the ages of 18 and 65.

☐ I agree to participate (link to survey) ☐ I decline (link to close webpage)

## Appendix E

Likert-Scale Response Data

**Table E1**

| | Attention 1 | Attention 2 | Relevance 3 |
|---|---|---|---|
| | I find the online instructional design processes in which I have participated in as a course author to be clear and/or easy to understand. | The online instructional design processes in which I participated in as a course author have required adequate and reasonable time commitments. | I find the online instructional design processes in which I have participated in as a course author to be useful and/or productive. |
| **Participant** | | | |
| 1 | 5 - Strongly Agree | 4 - Agree | 4 - Agree |
| 2 | 4 - Agree | 4 - Agree | 4 - Agree |
| 3 | 4 - Agree | 4 - Agree | 5 - Strongly Agree |
| 4 | 2 - Disagree | 4 - Agree | 3 - Neither |
| 5 | 1 - Strongly Disagree | 3 - Neither | 1 - Strongly Disagree |
| 6 | 2 - Disagree | 3 - Neither | 4 - Agree |
| 7 | 3 - Neither | 1 - Strongly Disagree | 3 - Neither |
| 8 | 4 - Agree | 2 - Disagree | 4 - Agree |
| 9 | 3 - Neither | 4 - Agree | 4 - Agree |
| 10 | 5 - Strongly Agree | 4 - Agree | 3 - Neither |
| 11 | 5 - Strongly Agree | 4 - Agree | 5 - Strongly Agree |
| **Statistics** | | | |
| Mean | 3.45 | 3.36 | 3.64 |
| Mode | 4 and 5 | 4 | 4 |
| % A and SA | 6 of 11 = 54% | 7 of 11 = 64% | 7 of 11 = 64% |
| % D and SD Disagree | 3 of 11 = 27% | 2 of 11 = 18% | 1 of 11 = 9% |
| % Neither | 1 of 11 = 9% | 2 of 11 = 18% | 3 of 11 = 27% |

*Note*. Table E1 includes all participant responses for the first three Likert-scale questions on the panelist questionnaire.

**Table E2**

| | Relevance 4 | Confidence 5 | Confidence 6 |
|---|---|---|---|
| | I believe that engaging in online instructional design processes as a course author reduces the workload when teaching an online course. | I am confident in my ability to effectively achieve each of the requirements or steps of the online instructional design processes in which I have participate in as a course author. | I have access to all of the technical support that I need when engaging in online instructional design processes as a course author. |
| **Participant** | | | |
| 1 | 1 - Strongly Disagree | 3 - Neither | 4 - Agree |
| 2 | 5 - Strongly Agree | 4 - Agree | 4 - Agree |
| 3 | 3 - Neither | 5 - Strongly Agree | 5 - Strongly Agree |
| 4 | 5 - Strongly Agree | 2 - Disagree | 2 - Disagree |
| 5 | 1 - Strongly Disagree | 1 - Strongly Disagree | 1 - Strongly Disagree |
| 6 | 5 - Strongly Agree | 4 - Agree | 3 - Neither |
| 7 | 4 - Agree | 3 - Neither | 5 - Strongly Agree |
| 8 | 3 - Neither | 2 - Disagree | 4 - Agree |
| 9 | 4 - Agree | 4 - Agree | 4 - Agree |
| 10 | 4 - Agree | 4 - Agree | 4 - Agree |
| 11 | 5 - Strongly Agree | 5 - Strongly Agree | N/A |
| **Statistics** | | | |
| Mean | 3.64 | 3.36 | 3.6 |
| Mode | 5 | 4 | 4 |
| % A and SA | 7 of 11 = 64% | 6 of 11 = 54% | 7 of 11 = 64% |
| % D and SD | 2 of 11 = 18% | 3 of 11 = 27% | 2 of 11 = 18% |
| % Neither | 2 of 11 = 18% | 2 of 11 = 18% | 2 of 11 = 18% |

*Note*. Table E2 includes all participant responses for the fourth, fifth, and sixth Likert-scale questions on the panelist questionnaire.

**Table E3**

| | Satisfaction 7 | Satisfaction 8 | Volition 9 |
|---|---|---|---|
| | I feel that my work as course author has been sufficiently rewarded and/or compensated. | Participating in online instructional design processes as a course author provides me with an added sense of pride and accomplishment. | The online instructional design processes that I have participated in as a course author have contributed to my creation of meaningful and effective learning experiences. |
| **Participant** | | | |
| 1 | 3 - Neither | 4 - Agree | 4 - Agree |
| 2 | 2 - Disagree | 5 - Strongly Agree | 4 - Agree |
| 3 | 5 - Strongly Agree | 5 - Strongly Agree | 5 - Strongly Agree |
| 4 | 1 - Strongly Disagree | 4 - Agree | 4 - Agree |
| 5 | 1 - Strongly Disagree | 3 - Neither | 4 - Agree |
| 6 | 3 - Neither | 4 - Agree | 5 - Strongly Agree |
| 7 | 1 - Strongly Disagree | 3 - Neither | 4 - Agree |
| 8 | 4 - Agree | 4 - Agree | 4 - Agree |
| 9 | 1 - Strongly Disagree | 4 - Agree | 4 - Agree |
| 10 | 2 - Disagree | 5 - Strongly Agree | 5 - Strongly Agree |
| 11 | 4 - Agree | 4 - Agree | 4 - Agree |
| **Statistics** | | | |
| Mean | 2.45 | 4.09 | 4.27 |
| Mode | 1 | 4 | 4 |
| % A and SA | 3 of 11 = 27% | 9 of 11 = 82% | 11 of 11 = 100% |
| % D and SD | 6 of 11 = 55% | 0 of 11 = 0% | 0 of 11 = 0% |
| % Neither | 2 of 11 = 18% | 2 of 11 = 18% | 0 of 11 = 0% |

*Note*. Table E3 includes all participant responses for the seventh, eighth, and ninth Likert-scale questions on the panelist questionnaire.

**Table E4**

| | Volition 10 | Measures of Quality |
|---|---|---|
| | I am satisfied with the amount of autonomy and flexibility I have had as a course author when participating in online instructional design processes. | I find an emphasis on best practices for online course design helpful when participating as a course author in online instructional design processes. |
| **Participant** | | |
| 1 | 5 - Strongly Agree | 4 - Agree |
| 2 | 4 - Agree | 4 - Agree |
| 3 | 5 - Strongly Agree | 5 - Strongly Agree |
| 4 | 4 - Agree | 4 - Agree |
| 5 | 3 - Neither | 5 - Strongly Agree |
| 6 | 4 - Agree | 5 - Strongly Agree |
| 7 | 4 - Agree | 1 - Strongly Disagree |
| 8 | 4 - Agree | 4 - Agree |
| 9 | 4 - Agree | 4 - Agree |
| 10 | 4 - Agree | 4 - Agree |
| 11 | 5 - Strongly Agree | 5 - Strongly Agree |
| **Statistics** | | |
| Mean | 4.18 | 4.09 |
| Mode | 4 | 4 |
| % A and SA | 10 of 11 = 91% | 10 of 11 = 91% |
| % D and SD | 0 of 11 = 0% | 1 of 11 = 9% |
| % Neither | 1 of 11 = 9% | 0 of 11 = 0% |

*Note*. Table E4 includes all participant responses for the tenth and eleventh Likert-scale questions on the panelist questionnaire.

## Appendix F

Rank-Order Response Data: Attention

**Table F1**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to your understanding of the required steps and tasks of an online instructional design process. | | | |
|---|---|---|---|
| | **One-on-one consultations with instructional design staff** | **Self-paced workshops** | **Live, facilitated workshops** |
| **Participant** | | | |
| 1 | 1 | 5 | 6 |
| 2 | 1 | 7 | 8 |
| 3 | 8 | 3 | 5 |
| 4 | 2 | 3 | 5 |
| 5 | 3 | 6 | 7 |
| 6 | 1 | 3 | 7 |
| 7 | 7 | 2 | 8 |
| 8 | 1 | 8 | 7 |
| 9 | 1 | 6 | 5 |
| 10 | 4 | 1 | 5 |
| 11 | 6 | 5 | 1 |
| **Statistics** | | | |
| Mean | 2.85 | 4.08 | 5.46 |
| Mode | 1 | 3 | 5 |
| % agreement | 8 of 11 = 73% | 5 of 11 = 45% | 1 of 11 = 9% |
| % disagreement | 3 of 11 = 27% | 6 of 11 = 55% | 10 of 11 = 91% |

*Note*. Table F1 includes all participant responses for the first three rank-order items for Attention on the panelist questionnaire.

**Table F2**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to your understanding of the required steps and tasks of an online instructional design process. | | | |
|---|---|---|---|
| | **Drop-in office hours with instructional designers** | **Step-by-step guides** | **Course design expectations or checklists** |
| **Participant** | | | |
| 1 | 2 | 4 | 7 |
| 2 | 2 | 5 | 6 |
| 3 | 6 | 4 | 1 |
| 4 | 4 | 6 | 7 |
| 5 | 8 | 4 | 2 |
| 6 | 4 | 2 | 5 |
| 7 | 5 | 4 | 3 |
| 8 | 4 | 2 | 5 |
| 9 | 2 | 3 | 4 |
| 10 | 7 | 2 | 6 |
| 11 | 7 | 4 | 2 |
| **Statistics** | | | |
| Mean | 4.46 | 3.85 | 4.62 |
| Mode | 2 | 4 | N/A |
| % agreement | 6 of 11 = 55% | 9 of 11 = 82% | 5 of 11 = 45% |
| % disagreement | 5 of 11 = 45% | 2 o 11 = 18% | 6 of 11 = 55% |

*Note*. Table F2 includes all participant responses for the fourth, fifth, and sixth rank-order items for Attention on the panelist questionnaire.

**Table F3**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to your understanding of the required steps and tasks of an online instructional design process. | | | |
|---|---|---|---|
| | **Course design quality rubrics** | **Standardized templates for course design** | **Other (please explain)** |
| **Participant** | | | |
| 1 | 8 | 3 | 9 |
| 2 | 4 | 3 | 9 |
| 3 | 2 | 7 | 9 |
| 4 | 8 | 1 | 9 |
| 5 | 5 | 1 | 9 |
| 6 | 8 | 6 | 9 |
| 7 | 6 | 1 | 9 |
| 8 | 6 | 3 | 9 |
| 9 | 8 | 7 | 9 |
| 10 | 8 | 3 | 9 |
| 11 | 8 | 3 | 9 |
| **Statistics** | | | |
| Mean | 6.54 | 4.15 | 0 |
| Mode | 8 | 3 | 9 |
| % agreement | 2 of 11 = 18% | 8 of 11 = 73% | 0 of 11 = 0% |
| % disagreement | 9 of 11 = 82% | 3 of 11 = 27% | 11 of 11 = 100% |

*Note*. Table F3 includes all participant responses for the seventh, eighth, and ninth rank-order items for Attention on the panelist questionnaire.

## Appendix G

Rank-Order Response Data: Relevance

**Table G1**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing your sense of the usefulness and relevance of engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **One-on-one consultations with instructional design staff** | **Tenure or promotion related acknowledgements** | **Monetary stipends** |
| **Participant** | | | |
| 1 | 5 | 3 | 1 |
| 2 | 4 | 5 | 1 |
| 3 | 3 | 10 | 2 |
| 4 | 5 | 6 | 7 |
| 5 | 7 | 1 | 2 |
| 6 | 1 | 9 | 6 |
| 7 | 7 | 3 | 2 |
| 8 | 5 | 6 | 3 |
| 9 | 4 | 6 | 5 |
| 10 | 6 | 3 | 1 |
| 11 | 5 | 4 | 3 |
| **Statistics** | | | |
| Mean | 4.42 | 4.83 | 3 |
| Mode | 5 | N/A | 1 |
| % agreement | 8 of 11 = 73% | 6 of 11 = 55% | 9 of 11 = 82% |
| % disagreement | 3 of 11 = 27% | 5 of 11 = 45% | 2 o 11 = 18% |

*Note*. Table G1 includes all participant responses for the first three rank-order items for Relevance on the panelist questionnaire.

**Table G2**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing your sense of the usefulness and relevance of engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Course releases** | **Recognition from supervisors or campus leadership** | **Mandates or requirements for participating in online instructional design processes** |
| **Participant** | | | |
| 1 | 2 | 4 | 6 |
| 2 | 2 | 3 | 9 |
| 3 | 8 | 5 | 4 |
| 4 | 8 | 9 | 10 |
| 5 | 8 | 3 | 9 |
| 6 | 5 | 7 | 10 |
| 7 | 1 | 4 | 8 |
| 8 | 2 | 7 | 4 |
| 9 | 10 | 7 | 8 |
| 10 | 2 | 4 | 10 |
| 11 | 9 | 8 | 7 |
| **Statistics** | | | |
| Mean | 5.08 | 5.5 | 7.58 |
| Mode | 2 | N/A | 10 |
| % agreement | 6 of 11 = 55% | 6 of 11 = 55% | 2 of 11 = 18% |
| % disagreement | 5 of 11 = 45% | 5 of 11 = 45% | 9 of 11 = 82% |

*Note*. Table G2 includes all participant responses for the fourth, fifth, and sixth rank-order items for Relevance on the panelist questionnaire.

**Table G3**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing your sense of the usefulness and relevance of engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Testimonials from other course authors who have engaged in the online instructional design processes** | **Evidence of impact that the online instructional design processes have on the student experience** | **Evidence of impact that the online instructional design processes have on the faculty experience** |
| **Participant** | | | |
| 1 | 7 | 8 | 9 |
| 2 | 10 | 7 | 6 |
| 3 | 9 | 1 | 6 |
| 4 | 2 | 1 | 3 |
| 5 | 10 | 4 | 5 |
| 6 | 2 | 4 | 3 |
| 7 | 9 | 5 | 10 |
| 8 | 8 | 9 | 10 |
| 9 | 3 | 1 | 2 |
| 10 | 8 | 9 | 5 |
| 11 | 6 | 1 | 2 |
| **Statistics** | | | |
| Mean | 6.75 | 4.83 | 5.83 |
| Mode | N/A | 1 | N/A |
| % agreement | 3 of 11 = 27% | 7 of 11 = 64% | 6 of 11 = 55% |
| % disagreement | 8 of 11 = 73% | 4 of 11 = 36% | 5 of 11 = 45% |

*Note*. Table G3 includes all participant responses for the seventh, eight, and ninth rank-order items for Relevance on the panelist questionnaire.

**Table G4**

Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing your sense of the usefulness and relevance of engaging in online instructional design processes.

| | **Curated lists of evidence-based resources highlighting the importance of online instructional design processes** | **Other (please explain)** |
|---|---|---|
| **Participant** | | |
| 1 | 10 | 11 |
| 2 | 8 | 11 |
| 3 | 7 | 11 |
| 4 | 4 | 11 |
| 5 | 6 | 11 |
| 6 | 8 | 11 |
| 7 | 6 | 11 |
| 8 | 11 | 1 |
| 9 | 9 | 11 |
| 10 | 7 | 11 |
| 11 | 10 | 11 |
| **Statistics** | | |
| Mean | 8 | 10.17 |
| Mode | N/A | 11 |
| % agreement | 1 of 11 = 9% | 1 of 11 = 9% |
| % disagreement | 10 of 11 = 91% | 10 of 11 = 91% |

*Note*. Table G4 includes all participant responses for the tenth and eleventh rank-order items for Relevance on the panelist questionnaire.

## Appendix H

Rank-Order Response Data: Confidence

**Table H1**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing internal confidence in your ability to achieve the expectations and requirements of course authors engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Clearly defined minimum expectations for online course designs** | **Course design expectations or checklists** | **Course design quality rubrics** |
| **Participant** | | | |
| 1 | N/A | N/A | N/A |
| 2 | 8 | 3 | 7 |
| 3 | 1 | 2 | 5 |
| 4 | 3 | 11 | 13 |
| 5 | 2 | 3 | 7 |
| 6 | 14 | 4 | 5 |
| 7 | 14 | 5 | 9 |
| 8 | 7 | 4 | 5 |
| 9 | 8 | 7 | 10 |
| 10 | 1 | 2 | 8 |
| 11 | 7 | 5 | 12 |
| **Statistics** | | | |
| Mean | 6 | 4.36 | 7.73 |
| Mode | N/A | N/A | 5 |
| % agreement | 6 of 10 = 60% | 9 of 10 = 90% | 5 of 10 = 50% |
| % disagreement | 4 of 10 = 40% | 1 o 10 = 10% | 5 of 10 = 50% |

*Note*. Table H1 includes all participant responses for the first three rank-order items for Confidence on the panelist questionnaire.

**Table H2**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing internal confidence in your ability to achieve the expectations and requirements of course authors engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Standardized templates for course design** | **Written documentation of expectations (i.e. contract, scope of work, project outline, service agreement, etc.)** | **Clarity about individual course design milestones and deliverables** |
| **Participant** | | | |
| 1 | N/A | N/A | N/A |
| 2 | 6 | 5 | 4 |
| 3 | 9 | 3 | 4 |
| 4 | 10 | 5 | 4 |
| 5 | 1 | 6 | 4 |
| 6 | 6 | 9 | 3 |
| 7 | 2 | 12 | 4 |
| 8 | 3 | 6 | 8 |
| 9 | 11 | 4 | 9 |
| 10 | 10 | 5 | 3 |
| 11 | 3 | 1 | 2 |
| **Statistics** | | | |
| Mean | 6 | 5.36 | 4.64 |
| Mode | N/A | 5 | 4 |
| % agreement | 6 of 10 = 60% | 8 of 10 = 80% | 8 of 10 = 80% |
| % disagreement | 4 of 10 = 40% | 2 of 10 = 20% | 2 of 10 = 20% |

*Note*. Table H2 includes all participant responses for the fourth, fifth, and sixth rank-order items for Confidence on the panelist questionnaire.

**Table H3**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing internal confidence in your ability to achieve the expectations and requirements of course authors engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Access to peer mentors (other successful course authors)** | **Access to instructional design staff** | **Access to multimedia design staff** |
| **Participant** | | | |
| 1 | N/A | N/A | N/A |
| 2 | 9 | 1 | 10 |
| 3 | 11 | 7 | 13 |
| 4 | 2 | 6 | 7 |
| 5 | 9 | 10 | 5 |
| 6 | 10 | 1 | 2 |
| 7 | 7 | 8 | 10 |
| 8 | 9 | 2 | 10 |
| 9 | 1 | 2 | 12 |
| 10 | 11 | 9 | 12 |
| 11 | 8 | 6 | 11 |
| **Statistics** | | | |
| Mean | 7.64 | 5.45 | 9.18 |
| Mode | 9 | N/A | 10 |
| % agreement | 3 of 10 = 30% | 7 of 10 = 70% | 3 of 10 = 30% |
| % disagreement | 7 of 10 = 70% | 3 of 10 = 30% | 7 of 10 = 70% |

*Note*. Table H3 includes all participant responses for the seventh, eighth, and ninth rank-order items for Confidence on the panelist questionnaire.

**Table H4**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing internal confidence in your ability to achieve the expectations and requirements of course authors engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Access to media creation tools (i.e. recording equipment, editing software, etc.)** | **Access to live technical support** | **Facilitated course design trainings or workshops** |
| **Participant** | | | |
| 1 | N/A | N/A | N/A |
| 2 | 11 | 2 | 12 |
| 3 | 6 | 14 | 12 |
| 4 | 8 | 9 | 1 |
| 5 | 11 | 8 | 12 |
| 6 | 11 | 13 | 12 |
| 7 | 6 | 13 | 11 |
| 8 | 11 | 12 | 13 |
| 9 | 13 | 3 | 6 |
| 10 | 13 | 14 | 7 |
| 11 | 9 | 10 | 13 |
| **Statistics** | | | |
| Mean | 9.91 | 9.91 | 10.09 |
| Mode | 11 | N/A | 12 |
| % agreement | 2 of 10 = 20% | 2 of 10 = 20% | 3 of 10 = 30% |
| % disagreement | 8 of 10 = 80% | 8 of 10 = 80% | 7 of 10 = 70% |

*Note*. Table H4 includes all participant responses for the tenth, eleventh, and twelfth rank-order items for Confidence on the panelist questionnaire.

**Table H5**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to increasing internal confidence in your ability to achieve the expectations and requirements of course authors engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Access to recorded course design tutorials, reference guides, or resources** | **Course releases accommodating for the time commitment of engaging in online instructional design processes** | **Other (please explain)** |
| **Participant** | | | |
| 1 | N/A | N/A | N/A |
| 2 | 13 | 14 | 15 |
| 3 | 8 | 10 | 15 |
| 4 | 12 | 14 | 15 |
| 5 | 13 | 14 | 15 |
| 6 | 7 | 8 | 15 |
| 7 | 3 | 1 | 15 |
| 8 | 14 | 1 | 15 |
| 9 | 5 | 14 | 15 |
| 10 | 4 | 6 | 15 |
| 11 | 14 | 4 | 15 |
| **Statistics** | | | |
| Mean | 9.64 | 9.09 | 15 |
| Mode | N/A | 14 | 15 |
| % agreement | 4 of 10 = 40% | 4 of 10 = 40% | N/A |
| % disagreement | 6 of 10 = 60% | 6 of 10 = 60% | N/A |

*Note*. Table H5 includes all participant responses for the thirteenth, fourteenth, and fifteenth rank-order items for Confidence on the panelist questionnaire.

## Appendix I

Rank-Order Response Data: Satisfaction

**Table I1**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to enhancing your sense of satisfaction or enjoyment when engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Course releases accommodating for the time commitment of engaging in online instructional design processes** | **Tenure or promotion related acknowledgements** | **Monetary stipends** |
| **Participant** | | | |
| 1 | 3 | 2 | 1 |
| 2 | 2 | 4 | 1 |
| 3 | 4 | 9 | 2 |
| 4 | 5 | 8 | 6 |
| 5 | 6 | 1 | 3 |
| 6 | 1 | 8 | 2 |
| 7 | 2 | 3 | 1 |
| 8 | 1 | 6 | 3 |
| 9 | 3 | 7 | 4 |
| 10 | 4 | 3 | 1 |
| 11 | 7 | 4 | 2 |
| **Statistics** | | | |
| Mean | 3.45 | 5 | 2.36 |
| Mode | 1.88 | 4 | 1 |
| % agreement | 8 of 11 = 73% | 6 of 11 = 55% | 10 of 11 = 91% |
| % disagreement | 3 of 11 = 27% | 5 of 11 = 45% | 1 of 11 = 9% |

*Note*. Table I1 includes all participant responses for the first three rank-order items for Satisfaction on the panelist questionnaire.

**Table I2**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to enhancing your sense of satisfaction or enjoyment when engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Recognition from supervisors or campus leadership** | **Evidence of impact that the online instructional design processes have on the student experience** | **Evidence of impact that the online instructional design processes have on the faculty experience** |
| **Participant** | | | |
| 1 | 4 | 5 | 6 |
| 2 | 3 | 5 | 6 |
| 3 | 3 | 1 | 5 |
| 4 | 7 | 1 | 2 |
| 5 | 2 | 4 | 5 |
| 6 | 6 | 4 | 3 |
| 7 | 6 | 4 | 7 |
| 8 | 7 | 2 | 8 |
| 9 | 8 | 1 | 2 |
| 10 | 2 | 7 | 5 |
| 11 | 5 | 1 | 3 |
| **Statistics** | | | |
| Mean | 4.82 | 3.18 | 4.73 |
| Mode | N/A | 1 | 5 |
| % agreement | 5 of 11 45% | 8 of 11 = 73% | 4 of 11 = 36% |
| % disagreement | 6 of 11 = 55% | 3 of 11 = 27% | 7 of 11 = 63% |

*Note*. Table I2 includes all participant responses for the fourth, fifth, and sixth rank-order items for Satisfaction on the panelist questionnaire.

**Table I3**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to enhancing your sense of satisfaction or enjoyment when engaging in online instructional design processes. | | | |
|---|---|---|---|
| | **Access to a community of peers who are engaging in similar work as course authors** | **Student partnerships/involvement in the instructional design process** | **Transparency about the expertise levels of all members of the design team** |
| **Participant** | | | |
| 1 | 7 | 8 | 9 |
| 2 | 7 | 8 | 9 |
| 3 | 7 | 6 | 8 |
| 4 | 3 | 4 | 9 |
| 5 | 7 | 8 | 9 |
| 6 | 9 | 5 | 7 |
| 7 | 8 | 5 | 9 |
| 8 | 4 | 5 | 9 |
| 9 | 6 | 5 | 9 |
| 10 | 8 | 9 | 6 |
| 11 | 6 | 8 | 9 |
| **Statistics** | | | |
| Mean | 6.55 | 6.45 | 8.45 |
| Mode | 7 | N/A | 9 |
| % agreement | 2 of 11 = 18% | 1 of 11 = 9% | 0 of 11 = 0% |
| % disagreement | 9 of 11 = 82% | 10 of 11 = 91% | 11 of 11 = 100% |

*Note*. Table I3 includes all participant responses for the seventh, eighth, and ninth rank-order items for Satisfaction on the panelist questionnaire.

**Table I4**

Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to enhancing your sense of satisfaction or enjoyment when engaging in online instructional design processes.

| | **Other (please explain)** |
|---|---|
| **Participant** | |
| 1 | 10 |
| 2 | 10 |
| 3 | 10 |
| 4 | 10 |
| 5 | 10 |
| 6 | 10 |
| 7 | 10 |
| 8 | 10 |
| 9 | 10 |
| 10 | 10 |
| 11 | 10 |
| | |
| **Statistics** | |
| Mean | 10 |
| Mode | 10 |
| % agreement | N/A |
| % disagreement | N/A |

*Note*. Table I4 includes all participant responses for the tenth rank-order item for Satisfaction on the panelist questionnaire.

## Appendix J

Rank-Order Response Data: Volition

**Table J1**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to your ability to follow through and commit to the completion of online instructional design processes as a course author. | | | |
|---|---|---|---|
| | **Course releases accommodating for the time commitment of engaging in online instructional design processes** | **Monetary stipends** | **Tenure or promotion related acknowledgements** |
| **Participant** | | | |
| 1 | 2 | 1 | 3 |
| 2 | 3 | 1 | 9 |
| 3 | 7 | 2 | 12 |
| 4 | 8 | 9 | 10 |
| 5 | 8 | 3 | 1 |
| 6 | 3 | 9 | 12 |
| 7 | 2 | 1 | 12 |
| 8 | 1 | 3 | 8 |
| 9 | 8 | 4 | 5 |
| 10 | 1 | 3 | 4 |
| 11 | 5 | 7 | 8 |
| **Statistics** | | | |
| Mean | 4.36 | 3.91 | 7.64 |
| Mode | 8 | N/A | 12 |
| % agreement | 7 of 11 = 64% | 8 of 11 = 73% | 4 of 11 = 36% |
| % disagreement | 4 of 11 = 36% | 3 of 11 = 27% | 7 of 11 = 64% |

*Note*. Table J1 includes all participant responses for the first three rank-order items for Volition on the panelist questionnaire.

**Table J2**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to your ability to follow through and commit to the completion of online instructional design processes as a course author. | | | |
|---|---|---|---|
| | **Access to a community of peers who are engaging in similar work as course authors** | **Access to instructional design staff** | **Facilitated course design trainings or workshops** |
| **Participant** | | | |
| 1 | 6 | 4 | 7 |
| 2 | 10 | 2 | 11 |
| 3 | 11 | 3 | 9 |
| 4 | 6 | 4 | 5 |
| 5 | 9 | 7 | 10 |
| 6 | 10 | 1 | 11 |
| 7 | 10 | 7 | 9 |
| 8 | 9 | 2 | 10 |
| 9 | 7 | 6 | 9 |
| 10 | 5 | 8 | 9 |
| 11 | 9 | 6 | 10 |
| **Statistics** | | | |
| Mean | 8.36 | 4.55 | 9.09 |
| Mode | 10 | N/A | 9 |
| % agreement | 3 of 11 = 27% | 8 of 11 = 73% | 1 of 11 = 9% |
| % disagreement | 8 of 11 = 73% | 3 of 11 = 27% | 10 of 11 = 91% |

*Note*. Table J2 includes all participant responses for the fourth, fifth, and sixth rank-order items for Volition on the panelist questionnaire.

**Table J3**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to your ability to follow through and commit to the completion of online instructional design processes as a course author. | | | |
|---|---|---|---|
| | **Access to recorded course design tutorials, reference guides, or resources** | **Course design expectations or checklists** | **Course design quality rubrics** |
| **Participant** | | | |
| 1 | 5 | 8 | 9 |
| 2 | 12 | 6 | 5 |
| 3 | 8 | 4 | 5 |
| 4 | 7 | 2 | 11 |
| 5 | 11 | 5 | 6 |
| 6 | 6 | 4 | 7 |
| 7 | 4 | 5 | 11 |
| 8 | 11 | 5 | 12 |
| 9 | 10 | 3 | 11 |
| 10 | 10 | 7 | 11 |
| 11 | 11 | 1 | 12 |
| **Statistics** | | | |
| Mean | 8.64 | 4.55 | 11 |
| Mode | 11 | 5 | 11 |
| % agreement | 3 of 11 = 27% | 9 of 11 = 82% | 3 of 11 = 27% |
| % disagreement | 8 of 11 = 73% | 2 o 11 = 18% | 8 of 11 = 73% |

*Note*. Table J3 includes all participant responses for the seventh, eighth, and ninth rank-order items for Volition on the panelist questionnaire.

**Table J4**

| Prompt: Please re-arrange the following items in order of your personal priority (highest priority first, lowest priority last) as they relate to your ability to follow through and commit to the completion of online instructional design processes as a course author. | | | |
|---|---|---|---|
| | **Standardized templates for course design** | **Flexible timelines** | **Clarity about individual course design milestones and deliverables** |
| **Participant** | | | |
| 1 | 10 | 11 | 12 |
| 2 | 4 | 8 | 7 |
| 3 | 6 | 10 | 1 |
| 4 | 3 | 12 | 1 |
| 5 | 2 | 12 | 4 |
| 6 | 5 | 8 | 2 |
| 7 | 3 | 8 | 6 |
| 8 | 7 | 6 | 4 |
| 9 | 12 | 1 | 2 |
| 10 | 6 | 2 | 12 |
| 11 | 3 | 4 | 2 |
| **Statistics** | | | |
| Mean | 5.55 | 7.45 | 4.82 |
| Mode | 3 | 8 | 2 |
| % agreement | 8 of 11 = 73% | 4 of 11 = 36% | 8 of 11 = 73% |
| % disagreement | 3 of 11 = 27% | 7 of 11 = 63% | 3 of 11 = 27% |

*Note*. Table J4 includes all participant responses for the tenth, eleventh, and twelfth rank-order items for Volition on the panelist questionnaire.

**Table J5**

Prompt: lowest priority last) as they relate to your ability to follow through and commit Please re-arrange the following items in order of your personal priority (highest priority first, to the completion of online instructional design processes as a course author.

| | **Other (please explain)** |
|---|---|
| **Participant** | |
| 1 | 13 |
| 2 | 13 |
| 3 | 13 |
| 4 | 13 |
| 5 | 13 |
| 6 | 13 |
| 7 | 13 |
| 8 | 13 |
| 9 | 13 |
| 10 | 13 |
| 11 | 13 |
| | |
| **Statistics** | |
| Mean | 13 |
| Mode | 13 |
| % agreement | N/A |
| % disagreement | N/A |

*Note*. Table J5 includes all participant responses for the thirteenth rank-order item for Volition on the panelist questionnaire.