

Instructional Design in Higher Education: Identifying the Connection between Theory and Practice

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Table of Contents

| | |
|---|----|
| Chapter I: INTRODUCTION | 1 |
| Introduction..... | 1 |
| Statement of the Problem..... | 2 |
| Statement of the Purpose | 3 |
| Significance of the Problem..... | 3 |
| Conceptual Framework..... | 4 |
| Research Questions | 4 |
| Definitions of Terms | 5 |
| Summary | 5 |
| Chapter II: REVIEW OF LITERATURE..... | 7 |
| Introduction..... | 7 |
| Current Instructional Designer Preparations..... | 7 |
| Instructional Designer Traits..... | 8 |
| Instructional Designer Roles at Higher Education Institutions..... | 9 |
| Instructional Design Competencies | 10 |
| Summary | 10 |
| Chapter III: METHODS | 12 |
| Introduction..... | 12 |
| Participants..... | 12 |
| Instrumentation | 12 |
| Data Collection | 13 |
| Data Analysis | 14 |
| Summary | 15 |
| Figure 1 Visual Model of the Explanatory Sequential Mixed Methods Research Design ... | 16 |
| References..... | 17 |

Chapter I

INTRODUCTION

Introduction

Due to the growth of online learning and the advancements of technology, the dynamics of teaching and learning have altered tremendously at higher education institutions. With over 7.1 million students taking an online course in 2013 (Allen & Seaman, 2014), most institutions have discovered a critical need for knowledgeable instructional designers, who are pedagogically sound, proficient in online course development and delivery platforms, and possess strong technical, training, problem-solving, project management, and decision-making skills (Yusop and Correia, 2012; Salentiny, 2012). An instructional designer with these skill sets can develop quality courses that incorporate research theory and best practices using the appropriate technology (Yusop and Correia, 2012; Salentiny, 2012).

According to Rooij (2010), there are nearly 500 Doctorate, Masters, and certificate programs in instructional design in the United States. Most of these programs adhere to the competencies identified by The International Board of Standards for Training, Performance, and Instructions (Rooij, 2010). The curriculum for many of these programs emphasizes the importance of instructional design models, media production, and procedural tasks (Yusop & Correia, 2012). However, in real world practicality, instructional designers at higher education institutions are expected to thoroughly understand the aforementioned tasks and have a variety of skills including: communication, project management, software, technical, and graphics (Fyle, Moseley, & Hayes, 2012). Previous studies have shown there is a disconnect between what is taught in the classroom and what is applied on the job (Larson, 2005; Pan, 2012; Salentiny, 2012). In Larson's study, "over 25% of the participants felt that their program was not adequate

for preparing them for the cultural aspects of their career environment” (p.27). This is further supported in Salentiny’s (2012) article as she explored the relationship between theory and practice of instructional design in higher education. She concluded that real projects (i.e. internships) and the attainment of specific skills enhance the knowledge gained in the classroom (Salentiny, 2012).

According to a 2005 survey, 43.4% of the instructional designers reported working in higher education (Larson, 2005). This high number of individuals pursuing careers in this field poses a problem as the graduates are not essentially receiving the necessary knowledge and skills for a career in higher education. If the instructional designer does not gain the proper on-the-job training, the courses may lack quality, sound pedagogy, and student engagement. Therefore, this study will examine the experiences of instructional designers in higher education and will identify the knowledge and skills necessary for careers in this area.

Statement of the Problem

For a number of years, many faculty at higher education institutions have been developing their own online courses. This practice has raised many concerns since most faculty may lack knowledge about technology, the nuances of online course design, or how to develop quality or engaging courses (Brigance, 2011; Yang & Cornelious, 2005). As technology and online learning have continued to rapidly evolve, more institutions have recognized that distance education is another avenue to fulfilling their mission of teaching. Institutions have also realized that distance education delivery can extend their reach to students globally and allow them to be competitive with other institutions (Yang & Cornelious, 2005). In order to achieve these goals, there has been a push to employ knowledgeable and skilled instructional designers within higher education (Surry & Robinson, 2001). The institutions want instructional designers who can

promote effective use of technologies and assist faculty in developing quality online courses that are pedagogically sound (Pan & Thompson, 2009; You & Teclehaimanot, 2010).

As Reiser (2001) indicates, institutions cannot keep up with the demands of distance learning by simply creating online replicas of their face-to-face instructions. Instead, they must employ instructional designers who are knowledgeable about designing high-quality instructions (Reiser, 2001). Understanding the role of instructional designers in higher education is vital to the institutions, instructional design/technology programs, and more importantly to instructional designers who are seeking careers in higher education. Therefore, it is important to examine the experiences of instructional designers in higher education.

Statement of the Purpose

Several studies have concluded instructional designers lack sufficient skills for jobs at higher education institutions (Larson, 2005; Salentiny, 2012; Tracey & Boling, 2014). To better understand how the knowledge gained in the classroom is being implemented on-the-job, the purpose of this study is to examine the instructional designer's actual experiences at higher education institutions in the United States. This study will build upon Larson's (2005) study and the recommendation of Exter's (2012) dissertation and can be used to inform instructional design/technology programs on the practices of instructional designers in the field.

Significance of the Problem

In 2013, 66% of Chief Academic Officers at higher education institutions believed that online education was critical to the long-term strategy of the institution (Allen & Seaman, 2014). Therefore, many of these institutions are seeking to employ knowledgeable instructional designers who will enhance the quality of their distance education program. However, many instructional design/technology programs are facing challenges in adequately preparing

instructional designers for various workforces (e.g. higher education institutions, corporate, etc.) (Larson, 2005). This study will examine the instructional designer's experiences at higher education institutions and will identify the knowledge and skills they have found useful from their degree and what new concepts should be taught to current instructional design/technology students.

Conceptual Framework

The International Board of Standards for Training, Performance, and Instruction (IBSTPI) will be the framework used for this study. The IBSTPI competencies were developed over three decades ago and are often reviewed and revised by a Board of 15 experienced professionals in the field. According to Leigh and Tracey (2010), these standards provide a guide for professional practice for "someone who may or may not have had formal academic training in the field, but probably did have considerable training and exposure to the literature of the field" (p.34). The standards consist of five domains with the fifth domain being added in 2012. Several studies have used the standards as a conceptual framework, but very few studies, if any, have been conducted since the 2012 revisions (Leigh & Tracey, 2010).

Each of the five domains is supported by several competencies and performance statements with a level of expertise listed for each competency. The domains are professional foundations, planning and analysis, design and development, evaluation and implementation, and management (International Board, 2012).

Research Questions

For this study, the overarching research question is: What theoretical and practical experiences do instructional designers report have prepared them for their roles in higher

education institutions? The following sub-questions will be asked to further explore the central question:

1. What is the relationship between education (formal and on-the-job) and experiences of instructional designers working at higher education institutions?
2. What were the primary tasks completed by instructional designers on-the-job?
3. What recommendations of knowledge and concepts do instructional designers have for institutions offering instructional design/technology degree programs?

Definitions of Terms

Theoretical: The concepts and theories taught in the instructional design/technology Master's and Doctorate's programs at higher education institutions.

Practical: The actual experiences and tasks performed by instructional designers with careers in higher education institutions.

Summary

This study examines the instructional designer's experiences at higher education institutions and identifies the knowledge and skills they have found useful from their degree and what new concepts need to be taught to current instructional design/technology students. Using an explanatory sequential mixed methods approach, the researcher will use quantitative data to develop the qualitative questions. The questions will be used to conduct interviews with the instructional designers at higher education institutions. The instructional designer's narratives about their degree/training and experiences how it impacted their overall career will enrich the quantitative findings.

Chapter Two will be a review of the literature and will discuss what past research have found regarding instructional designers and their experiences in higher education institution. It

will also include research about the IBSTPI standards and how they have been used in previous studies.

The methodology will be discussed in Chapter Three and will begin by identifying the importance of a mixed methods study and how this type of research design will build the current literature. This chapter will also include the methodology this study will employ and how the participants were selected to participate. In Chapter Four, the results and findings will be discussed for each research question. In addition, the quantitative and qualitative data will be integrated to compare and contrast the findings followed by an interpretation of the results. Finally, Chapter Five will be the summary of the dissertation. Included in this chapter will be implications for instructional designers, higher education institutions, and instructional design/technology degree program, as well as future recommendations for study.

Chapter II

REVIEW OF LITERATURE

Introduction

This literature review will provide an examination of the research that has been conducted on instructional design curriculum and how it is being used to prepare students for careers in higher education. Much of the current research focuses on the disconnect between what is taught in the classroom and what is applied on the job. However, very little research has concentrated on the actual tasks performed and tools used by instructional designers in higher education. Therefore, this lack of research reinforces the need for an examination of current practices employed by instructional designers in higher education.

Current Instructional Designer Preparations

Larson (2005) conducted a study to examine if practitioners believed their education prepared them for their careers. In Larson's study, 43.4% of the participants worked in higher education with only 11.7% of the participants completing a program with emphasis on higher education. This study examined two types of programs: generalist (designed to accommodate all career environments) and specific-environment (designed for a specific career environment, e.g. K-12, higher education, business and industry, etc.). While some of the participants reported their generalist program prepared them for their careers, participants whose degree focused on a specific environment were better prepared than their counterparts. Some of the areas the participants were not prepared for include: freedom to challenge or criticize the decisions of supervisors, nature of internal workplace, availability of project resources, management styles, and workload (Larson 2005).

Another study that has identified a disconnection between theory and practice for instructional designers is Pan (2012). In this study, it was found that the instructional design process taught to students does not accurately reflect what is practiced on the job. In particular, all tasks performed by instructional designers at higher education institutions may not follow the instructional design process. In addition, there are other tasks completed by instructional designers that equate to them taking on a project management role. While the recommended solution is to integrate instructional systems design and project management, Pan's study does not take into account the overall skills and knowledge required for instructional designers at higher education institutions (Pan, 2012).

Instructional Designer Traits

In a study conducted by Pan and Thompson (2009), three themes emerged from instructional designers who have worked with faculty at a higher education institution. It was found that an effective instructional designer is a motivated individual who is considered amongst his/her peers and colleagues to be an expert in the field and who is an integral member of their team. With these traits, an instructional designer developed better relationships with their faculty members and reported increased job satisfaction and performance (Pan & Thompson, 2009).

In another study, Moskal (2012) identified five themes from the interviews conducted with participants who were employed as instructional designers at higher education institutions. The themes that emerged were flexibility, moral purpose, relationship building, time and project management, and ongoing professional development (Moskal, 2012). Many of these same skills were also identified as important for individuals working in software design, which is a field that is similar to instructional design (Exter, 2012). Even though the participants were software

designers, many of them worked previously as instructional designers and identified similar skills - good communication, project management, team building, continuing education, and self-learning - as necessary for an individual working in an area of design (Exter's 2012). These studies demonstrate the need for further research on the actual skills used by instructional designers and respond to the Exter's (2012) recommendation of replicating her study with instructional design.

Instructional Designer Roles at Higher Education Institutions

The role of instructional designer can vary tremendously at higher education institutions. In most cases, the instructional designer partner with a faculty member to ensure a quality course is developed. As demonstrated in You and Teclehaimanot's (2010) study, faculty members worked with instructional designers because of the pedagogical and technological support they provide, their expertise on learning management systems, and their ability to develop courses that are aesthetically pleasing and function efficiently. These participants also believed instructional designers were knowledgeable and best suited to implementing and applying best practices (You & Teclehaimanot, 2010).

These findings were also supported by another study conducted by Fyle, Moseley, and Hayes (2012). Their study demonstrated that experienced instructional designers brought a wealth of knowledge and skills that could be used to sufficiently improve current online courses. These instructional designers ensured courses complied with online learning standards and policies and maximized learning through the designer's ability to aid faculty in selecting the most appropriate technology to deliver content that engages the learner and meet the various types of learning styles (Fyle, Moseley, & Hayes 2012).

Moskal (2012) examined the responsibilities and qualifications of instructional designers at higher education institutions. The participants from this study reported their job consisted of preparing and training faculty to teach in unknown territory, researching new technologies through professional development opportunities, sharing best practices, and managing their time and projects to complete tasks effectively and promptly (Moskal, 2012).

Instructional Design Competencies

Many instructional designers employ unique skill sets which are used as a guide for course development. The competencies developed by the International Board of Standards for Training, Performance, and Instruction (IBSTPI) ensure instructional designers possess the knowledge and skills necessary to perform the job (Leigh & Tracey, 2010). For this study, the IBSTPI competencies will be used as a framework and will build upon the work of Leigh and Tracey (2010) and Moskal (2012). While there have been some studies conducted with the competencies set forth by IBSTPI, very few, if any, studies have been conducted with the fifth domain – management – which was added in 2012 (IBSTPI).

In Moskal's (2012) study, she found that some of the skills listed as advanced by IBSTPI competencies were entry level skills. For instance, IBSTPI classifies time and project management skills as advanced. However, in Moskal's (2012) study, these skills were deemed to be important entry level skills for instructional designers at higher education institutions (Moskal, 2012). This result further supports the need for additional research on the knowledge and skills of instructional designers in higher education institutions.

Summary

Much of the literature fails to precisely identify the knowledge and skills required of instructional designers at higher education institution. Furthermore, there is no clear indication

that the IBSTPI competencies accurately reflect the necessary knowledge, skills, and practices of instructional designers in higher education. Using the IBSTPI competencies as a framework, this study will identify the knowledge, skills, and attitude required by instructional designers aiming to be employed with higher education institutions.

Chapter III

METHODS

Introduction

This chapter will discuss the methodology for this research study. The purpose of this study is to examine the instructional designer's actual experiences at higher education institutions in the United States. This study will employ an explanatory sequential mixed methods research design. With this research design, the researcher collects and analyzes quantitative data first and then uses this data to develop specific qualitative questions that will enhance the quantitative data. This approach was chosen because of the value the qualitative data will add to the initial quantitative findings and the ability to form groups from the quantitative findings for the qualitative strand (Creswell & Plano Clark, 2011).

Participants

The participants for this study will be instructional designers employed at higher education institutions throughout the United States. Participants will be requested to participate through email via an established IT group in which many are members of. This group is an electronic forum which consists of individuals in the field of instructional technology at higher education institutions.

Instrumentation

Because this is an explanatory sequential study, the data collection will consist of two parts. Quantitative data will be collected first and analyzed. After analyzing this data, the researcher will develop qualitative questions that will further explain the quantitative data. This research design was chosen because of the researcher's ability to use qualitative data to explain the quantitative results (Creswell & Plano Clark, 2011).

An online survey created using Qualtrics will be used to collect quantitative data. The survey will contain structured and unstructured questions to collect quantitative data. Qualitative data will be gathered through interviews that will be conducted with some of the participants after the survey has been administered.

Data Collection

Following the guidelines of Creswell and Plano Clark (2011), quantitative data will be collected first and then analyzed followed by collecting qualitative data. The researcher will use the quantitative results to develop the follow-up qualitative questions. Then, the qualitative data will be collected from a sample of the participants from the quantitative strand. In determining what quantitative data to follow-up to for the qualitative questions, the researcher will examine the quantitative findings to see where additional explanations are necessary and where things are unclear. While these two methods will be conducted separately, they are not independent of each other and will be vital to the overall study (Creswell & Plano, 2011). The interviews will be conducted via Blackboard Collaborate or Skype and will be recorded so that the data can be transcribed.

For the data collection process to be effective, it will be important for the researcher to appropriately select the participants that will participate in both samples. The researcher will use the same individuals in both samples as the participants who provide the initial data are the best contributors for the qualitative strand. Because this is a voluntary participation, it is the researcher's hope that at least five of the participants volunteer and/or agree to the researcher's request to participate in the interviews. Undoubtedly, the better option would be for the researcher to select the participants based on their quantitative results. This will strengthen the results and better explain the phenomenon.

Using the survey, the researcher will collect basic demographic information and gather data on the degree or certification obtained, the institution and year it was obtained, the institution h/she is currently working for, job title, number of years working in the field, tasks h/she completes on the job (e.g. project management, course development, course design, pedagogy, developing and incorporating interactivity into course, support, etc.), and the amount of time spent designing courses. In addition, the survey will include open-ended questions centered around the IBSTPI standards that will garner additional information about experiences encountered on-the-job and tasks performed by the instructional designer. The information from these questions, mainly the open-ended questions, will be used to conduct interviews with certain participants.

Data Analysis

The researcher will begin the analysis of the quantitative data by checking for accuracy, errors, and completion and then assigning numeric values for each of the responses. Then the data will be inspected for trends and commonalities. After conducting a descriptive analysis of the data, the researcher will review the research questions to see what is being asked and apply the appropriate statistical test. SPSS 22 will be used to conduct the data analysis which will include linear regression. The findings will be written in the results section for each of the questions. Charts, graphs, and tables will be used to support the findings.

Once the quantitative data has been collected and analyze, the researcher will develop the qualitative questions for the interviews. The questions will build upon the quantitative data and the IBSTPI standards will be the foundation for each of the questions. After the interviews have been completed, the researcher will transcribe them and develop codes. NVivo 10 will be used for the coding of the data. Coding will help the researcher identify the themes within the data. It

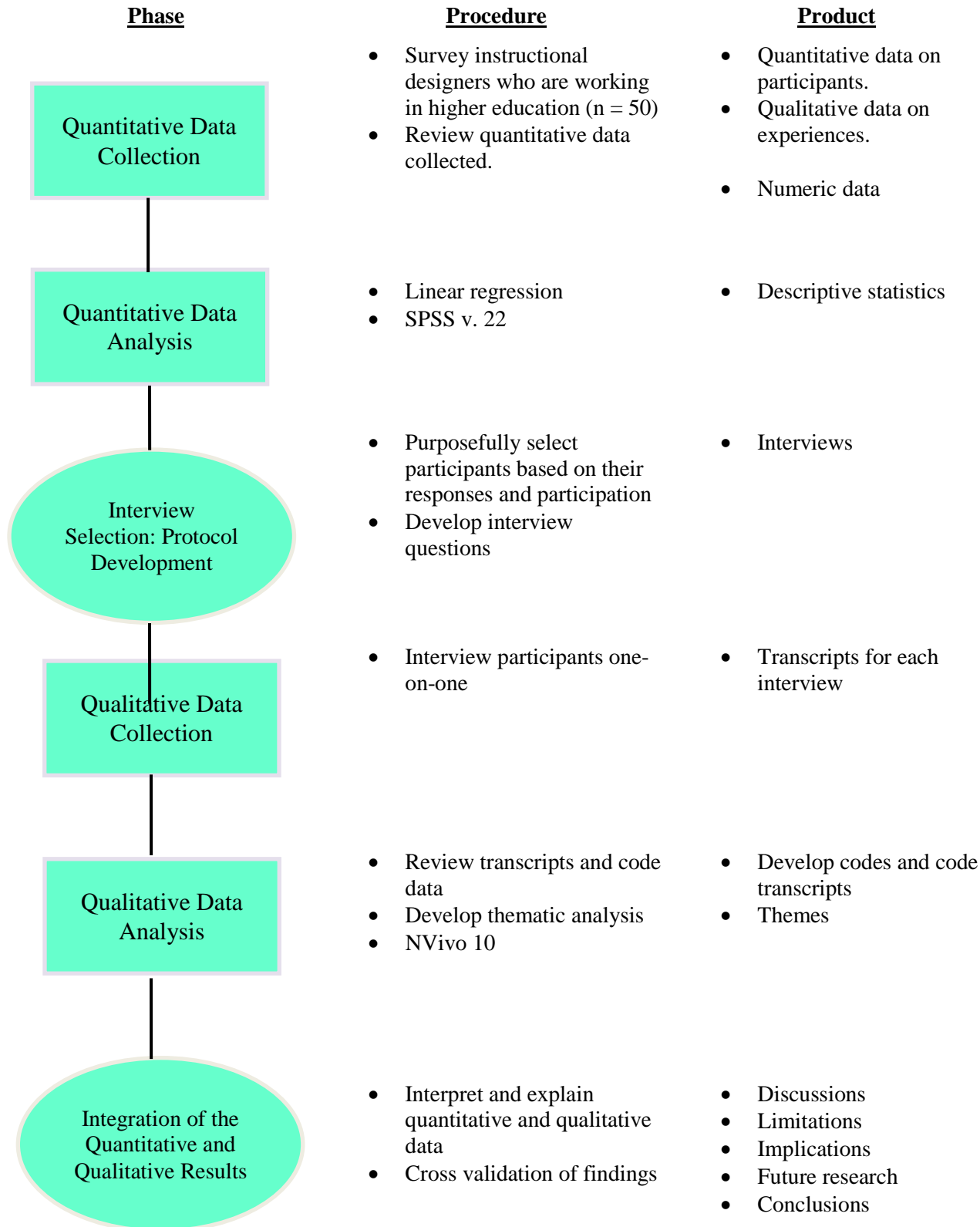
is the hope of the researcher that the themes from this research align with the five domains identified by the IBSTPI standards. The findings will be written in the results with tables and charts to support the results.

The integration of data will take place in the discussion section with the qualitative data supporting the quantitative data. The researcher will discuss how the findings were validated, compare the findings with previous research, and discuss how these findings support or disprove the current literature. After which, the researcher will conclude with the limitations and with some areas of future research. (See Figure 1 for a diagram of the design used in this study.)

Summary

This chapter discusses the instrumentation that will be used to gather data and how the researcher will collect and analyze data for this study. The quantitative data is enhanced by the narratives provided by the participants. The opportunity to use this mixed method approach will strengthen the study and add to the current body of research.

Figure 1 Visual Model of the Explanatory Sequential Mixed Methods Research Design



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