

ABSTRACT

WHITE, AUSTINA ULANDA. Stakeholder Perceptions on the Most Important Knowledge and Skills to Gain Through a Graduate Program in Training and Development: A q-study. (Under the direction of Dr. James Bartlett).

Public and private organizations throughout the world utilize training and development professionals to ensure that their staff have the skills and knowledge necessary to effectively carry out the tasks of their jobs. These professionals come from a variety of backgrounds and unfortunately, there is little existing research on how individuals are prepared for these roles. Graduate programs in training and development serve as one way for learning professionals to increase their skillset for these roles, along with various certification programs and training courses available through groups such as the Association of Talent Development. For these graduate programs to have curriculum that meet the expectations of the training and development professionals, and the future organizations that will be hiring them, it is essential to understand the needs of the programs' stakeholders.

In this study, with Stakeholder theory as its foundation, Q-methodology was utilized to gain insights on the perspectives of stakeholders of graduate programs in training and development. Specifically, the study aimed to understand what faculty members, current students enrolled in these programs, and learning leaders and managers view as the most important knowledge and skills to gain through a quality graduate program in training and development. The study also aimed to answer how the views of these different stakeholder groups may differ.

In Q-methodology participants are asked to rank a set of statements about a topic on a pre-determined scale such as disagree to agree or from least important to most important. For this study an online sort was created using Q-sorTouch. The sort, which included 42 statements, asked participants to rank the most important knowledge and skills to gain through a quality

graduate program in training and development on a scale of -5 (least important) to 5 (most important). After the sort, participants were asked to share feedback on why they selected their top and lowest ranked items, demographic information such as their age, gender, and current job title, and what items they thought should have not been included in the study.

With sorts submitted by sixteen participants, R statistical software was then used to conduct a factor analysis of the provided data. A four-factor solution was chosen as the best representation of the varying perspectives of the participants. The solution loaded fourteen of the sixteen participants into groups including Factor Group A, The Foundationalist, who see a quality graduate program as one that prepares someone with the foundational knowledge of adult learning and instructional design, Factor Group B, The Impactors, which view skills around aligning training to business goals and demonstrating values as most important to learn, Factor Group C, The Generalists, who had a mix of topics and skills that they felt were important to learn, and Group D, The Future Leaders, who placed a strong emphasis on technology and management related tasks being taught in graduate programs.

In addition to the results of the data analysis, the study includes implications for graduate program directors, students considering graduate programs in training and development, and learning leaders hiring training professionals, along with ideas for additional research on this topic area.

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Stakeholder Perceptions on the Most Important Knowledge and Skills to Gain Through a
Graduate Program in Training and Development: A Q-study

by
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DEDICATION

For my grandparents: Effie, Thelma, and Percy.

BIOGRAPHY

A native of North Carolina, Austina White attended East Carolina University (ECU) under the NC Teaching Fellows Scholarship, studying Business and Marketing Education. During her time at ECU, she was an active member of the campus, working for the college in the Office of Student Rights and Responsibilities and in the Office of Equity, Diversity, and Community Relations, and participating in various organizations including leading the campus' chapter of the North Carolina Association of Educators (NCAE) and serving as State President for the college division.

After completing her bachelor's degree, Austina moved to Raleigh to study in North Carolina State University's master's program in Instructional Technology. During this time, she worked in a variety of positions including serving as a teaching assistant for the department, as a graduate assistant for Duke University's Office of Assessment and Professional Development, an eLearning content developer, and as a Career and Technical Education middle school teacher.

In 2014 Austina transitioned to working in the training and development field full-time as a product trainer for a local software company. A believer in lifelong learning, Austina decided in 2016 to continue her education as a member of NC State's Charlotte Cohort for the Adult and Community College Education program. With a mixed background in K-12, higher education, and corporate training work experience, she aimed to deepen her understanding of how individuals could be prepared for the workforce through education.

Currently she serves as a Director of Technical Training at SolarWinds MSP, leading a global team focused on information development, training, quality assurance, and knowledge management.

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CHAPTER 1: INTRODUCTION

Introduction

Throughout the world, organizations both private and public invest in the ongoing development of their workforce. In 2014, over 80% of organizations reported offering opportunities for professional growth to their staff (Society of Human Resource Development [SHRD], 2014). These initiatives, often carried out by training and development professionals, can include traditional classroom training, interactive eLearning, mentoring and coaching programs (Bureau of Labor Statistics [BLS], 2019a), and now, with the advancement of technology, virtual and augmented reality experiences. While training is necessary to develop and maintain a skilled workforce, these investments in human capital come with a great cost. In 2012, it was estimated that over 160 billion was being spent by organizations on training and development activities (SHRD, 2014), including costs for training and development staff.

There are currently over 250,000 people working in the training and development field in the United States and it is projected that these types of roles would continue to grow faster than other careers over the coming years (BLS, 2019a). The success of these professionals in their roles is important for not only the organizations they serve, but also the larger global economy that they contribute to. Because of this, it is vital to have clarity of how these professionals are prepared for their roles, including the quality of the education they have received. Specifically, it is important to know if the educational programs they participate in equip them with the knowledge and skills they need to succeed.

Most training and development professionals enter the field with a bachelor's degree (BLS, 2019a) and some chose to continue their education by pursuing graduate degrees. For some roles in the field, such as the training manager role, having an advanced degree is sometimes

required (BLS, 2019b). However, even with this education, learning leaders are still reporting lack of skills as being one of the main challenges they face (Little, 2019). This concern around lack of skills brings to question the type and quality of education provided to training and development professionals as they enter to and continue in their careers. What are the skills and knowledge that are required for their roles and are current education programs providing these future professionals with what they need to succeed? In this study, stakeholders of graduate programs in training and development will be asked to share their perspectives on the most important learning objectives to meet through the curriculum of graduate programs in training and development. The aim in doing the study is to start a conversation on a topic which currently has little prior research, the alignment of skills and knowledge of training professionals with the needs of the organizations they serve.

Problem Statement

Each year, organizations invest money into the ongoing training and development of their employees with the hope of seeing improved performance and engagement. In 2006, it was reported that companies in the United States spent over 100 billion dollars towards these efforts (HR Magazine, 2008) and by 2012, reports estimate this number to be over 160 billion (SHRD, 2014). Learning efforts are typically led in organizations by training and development professionals who are tasked with the responsibility of aligning the learning of employees to the organizational objectives that need to be met (Meyer & Marsick, 2003). The success of the human capital in an organization impacts the overall success of the companies and public organizations they serve, so having qualified training professionals is imperative. Training impacts not only the skills of the employees but also their overall retention and job satisfaction. Prior research has shown that the lack of training offered by companies can be connected to the

rate of turnover (Berta, 2006) or, if done well, can increase job satisfaction if offered (SHRD, 2014).

Because of this, it is essential that training professionals meet the needs of their organizations. With one in four training teams reporting that they are unaware of how their teams are gaining ongoing professional development, lack of skills being reported as a key challenge for these teams, and only three out of ten reporting that they see improvements in productivity and engagements based on their work (Little, 2016), one can question if the people serving in these capacities have all the knowledge and skills they need to be successful.

Professionals often seek to gain the necessary knowledge and skills for their roles through educational programs at colleges and universities. Having alignment between the skills they will need in the profession and the skills they learn in these programs potentially impacts their career success. This alignment is also important for the higher education institutions offering these programs as the competition between graduate schools and the need to effectively prepare learning professionals for their roles represents two of the key challenges faced by universities offering graduate programs in training and development. Being able to meet these challenges is going to be essential for survival.

Significance of the Study

The success of organizations directly impacts the organization's stakeholders (Nadeem, Abbas, & Javed, 2015). Information gathered in the study will be beneficial for the various stakeholder groups of higher education institutions that offer graduate programs in training and development, including the programs' faculty and staff, students enrolled in those programs, and business leaders hiring the future graduates of these programs.

With the new information gathered in the study, institutions will be able to further assess if their current program offerings align to the expectations of program stakeholders, an approach recommended in prior higher education research (Eberle, Milan, and Dorion, 2015). With students as a key stakeholder (Nadeem et al, 2015), often called the customers of their programs (Pealu, 2015), being able to meet their expectations and the expectations of business partners is important to being able to maintain relevance and competitiveness. Like with other services, students have the option to evaluate and chose other institutions offering similar academic programs (Moogan, Baron, Harris, 1999), and with the growth of online graduate programs, student choice and competition will only continue to increase.

Aiming to invest in their professional growth, students spend both their money and time completing their graduate programs. As reflected in human capital theory, increasing knowledge can increase the ability to reach new economic levels (Becker, 1962) and students often expect that the completion of their programs will lead to increased job opportunities (Tan & Nakata, 2018). This study provides an opportunity for students in a graduate program to share their feedback on their expectations for the graduate programs that they have invested in and opens the conversation on how current programs may or may not be providing their graduates with the skills and knowledge they would need to later to be successful in the workforce.

Lastly, for the business sector, training and development has shown to affect productivity and business success (Bartel, 1999; Danvila del Valle, Castillo, Rodriguez-Duarte, 2008). Billions of dollars are invested each year in the training and development employees (SHRD, 2014), with the hopes of growing the knowledge and skills of staff members so they can meet the goals of the organization. As training and development roles in companies continue to expand (BLS, 2019a) and the financial investment in training continues to increase, it will become

increasingly important for business leaders to have training leaders that can successfully design and deliver training programs that impact performance. This study will allow industry stakeholders to share their perspectives on the most important knowledge for training professionals to gain through their graduate programs. With this information, and future potential research on the alignment of these perspectives with current graduate programs, higher education institutions and the business industry can work together to ensure that training and development professionals have the skills they need to be successful in their roles.

Theoretical Framework

For this research study, stakeholder theory will serve as the central theoretical framework. For each organization, there are entities that are directly affected by whether or not the organization succeeds. These individuals and groups are the stakeholders of the organization (Freeman, 2010). The idea of stakeholders was first introduced in the 1960s as part of a memo at the Stanford Research Institute (Freeman, 2010) and has gone on to be the topic of countless research studies and books, particularly in the business field. Through the introduction of the stakeholder model, corporations began shifting their focus, moving from viewing only shareholders as important to all groups that are impacted by the success of their organizations (Heinfeldt & Wolf, 1998), such as government agencies, community groups, and consumers.

Donaldson and Preston described four ways in which the idea of stakeholders has been used in the past including to bring understanding to what an organization does – for descriptive purposes, to bring clarity to how the success of the organization is tied to the ongoing focus on stakeholders – for instrumental purposes, to describe the purpose of the organization– for normative resources, and to bring awareness to stakeholder needs – for managerial purposes (1995). From stakeholder theory, the idea of ongoing management of stakeholder relationships,

or stakeholder management, was developed (Freeman, 2010). As part of stakeholder management, practices such as stakeholder audits have been developed to help organizations align their focus to the groups they impact. The audits include four steps: defining the mission of the organization, listing the stakeholders, evaluating how well the organization is currently meeting stakeholder needs, and adjusting as needed to meet those needs (Freeman, 2010).

In the private sector, having knowledge of the stakeholders and their needs are considered important because the increased availability of goods and services continues to make competition more prevalent (Freeman, 2010). It is also believed that companies can create value with their stakeholders (Plewa, Galan-Muros, & Davey, 2014). Similarly, for higher education institutions, as the availability of online programs increases, competition between the institutions will also continue to grow and stakeholder management strategies will continue to rise in importance.

Students, including potential students, current students, and former students, represent one of the key stakeholder groups for higher education institutions. Other stakeholders include businesses, government agencies, trustees, parents, faculty and staff, and various academic and social organizations (Chapleo & Simms, 2010). While stakeholders of higher education institutions have been identified in prior research, research on how to manage these relationships is not as prevalent as with the corporate sector (Stankeviciene & Viciukeviciute, 2016).

For this study, q-methodology will be used to gain insight on the views of the stakeholders of graduate programs in training and development including faculty and staff of the programs, students, and potential employers (learning and development leaders and managers within businesses). This is a subset of the full list of stakeholders for a training and development academic program. Additional stakeholders would include the program's graduate school administration and the overall institution, professional organizations, government agencies, etc.

Specifically, this study will aim to understand how each of these groups would prioritize the various possible learning objectives in training and development curriculum.

Prior research has looked at the involvement of stakeholders in curriculum decisions. The amount of involvement varies institution-to-institution. Bovil and Bulley describe the various levels of possible participation through a ladder of engagement with little student involvement at the bottom (2011). For students, traditional involvement has been through the completion of post-course surveys (Coates, 2005) and in some cases, students are involved throughout the curriculum design process (Casey, 2013).

Purpose Statement

The purpose of this study is to determine the viewpoints of stakeholders of graduate programs in training and development, specifically to determine what knowledge and skills they consider most important for students to gain through master's level programs in this area of study. The viewpoints will provide an understanding of their perspectives, including the distinguishing characteristics that separate the views of each stakeholder group. Additionally, the study will provide an understanding of the items that are viewed similarly across the viewpoints. This will be achieved by utilizing q-methodology to capture the perspectives of faculty, student, and employer stakeholders. Afterwards, a post sort-questionnaire will be facilitated, and a factor analysis will be conducted.

Research Question

- What are the perspectives of students, faculty members, and employers toward a quality master's program in training and development that prepares graduates for employment and why?

- How are the perspectives of students, faculty members, and employers similar or different toward a quality master's program in training and development that prepares graduates for employment?

Definition of Terms

Accreditation: The process by which colleges and university are reviewed by independent groups to ensure that high quality standards are being met (US Department of Education, 2019).

Advisory Board: A group of individuals, outside of the university, that collaborate with the members of the college's or university's faculty to share feedback on curriculum and to provide insight on trends in their respective industries (Tapis & Delany, 2017; Mello, 2019; Olsen, 2008; Hicks, Hancher-Rauch, Vansickle, & Statterblom).

Stakeholder(s): An individual or group that may be impacted or that is impacted by the level of success obtained by an organization (Nadeem, Abbas, & Javed, 2015).

Stakeholder Theory: Introduced by R. Edward Freeman, a theory based on the notion that an organization is best able to provide value by focusing on the needs of its stakeholders (Nadeem, Abbas, & Javed, 2015)

Training and Development: Activities such as classroom and online instruction, assessments, and experiences organized within an organization to improve performance through the upskilling of individuals (Swanson & Holton, 2001).

Delimitations and Bias

Delimitations

Included Stakeholders: For this study, stakeholder participation will be limited to current students of graduate programs in training and development, potential employers of these students

(learning leaders and managers), and current faculty and staff members of these programs. Additional program stakeholders such as university leaders, educational organizations, and professional associations will not be included in the scope of this research due to time limitations.

Post-Sort Questionnaire: To gather additional information after the q-sort, participants will be asked to complete an online questionnaire. Unlike doing a post-sort interview, this may limit the amount of qualitative information that can be gathered due to the lack of interaction between the researcher and the participant during the feedback process.

Bias

Q-Set Development: The concourse that will be used for this study was developed through the review of online resources related to the skills and knowledge needed by training professionals. From these sources, a q-set was drafted through the reduction of repeated statements and removal of statements that did not appear from multiple sources. To reduce the potential risk of bias, professionals were asked to review these statements. The feedback collected was used to edit and finalize the Q-set before the sorting process began.

Summary

Professionals in the training and development field are focused on ensuring that the employees have the “knowledge, skills, and attitudes” they need to successfully do their jobs (Gordon, Petrini, & Campagna, 1996). Most professionals in the field enter it after earning a bachelor’s degree (BLS, 2019a), and some go on to pursue masters level degrees to better prepare for the roles. With the human capital of an organization serving as such a key element for its success, the work of training and development professionals becomes important for not only the corporations and non-profit institutions they serve, but also the larger global economy.

Because of this, it is important that there are quality higher education programs preparing individuals for these roles. This study will aim to understand how stakeholders view the curriculum of these programs. With this information, we can begin to look at if there is alignment between the offerings of these programs and the skills training professionals need to be successful in their future roles. This information can also be used to assess the quality of current programs and can help program leaders identify their global advantage.

CHAPTER 2: LITERATURE REVIEW

Introduction

To gain insight on prior studies that have been conducted on the topics addressed in the research questions, a review of the literature was conducted. Due to the limited amount of research specifically on graduate programs in training and development, information on related areas have been gathered and organized into two main sections – understanding the training and development field and understanding the landscape of graduate education in the United States, including the history of graduate education, how program quality has been measured in the past, designing program curriculum, and identifying current graduate programs offered in training and development.

History of Training and Development

There are many definitions of training and development but, it can be summarized as the effort to improve performance within an organization through upskilling the knowledge and skills of individuals (Swanson & Holton, 2001). Training and development professionals aim is to ensure that staff members within their organizations can successfully do the tasks their organizations assign (Gordon et al., 1996). Training includes activities that are organized to facilitate learning and development, including traditional in-person instruction along with any additional formal education, assessments, experiences that can help employees prepare for future roles (“Introduction to Employee Training and Development”). This type of support is offered to the employees of organizations as a way of ensuring that the workforce can effectively help the company reach its goals and is often seen by employees as a company benefit.

The idea of training dates back to the middle ages (Kopp, 2018) and has continued to evolve over time. One of the earliest forms of training was on-the-job training offered to teach

employees how to use the tools of the company (Spleight, 1993). Laws on apprenticeships have been discovered in the Hammurabi code, requiring craftsmen to share their knowledge with future workers. Later, in the 13th century, craft guilds were formed in Europe, also encouraging knowledge sharing from skilled workers to new craftsmen (Encyclopedia Britannica, Apprenticeships). One of benefits to this type of instruction was that it allowed knowledge to be transferred without requiring the employee to be able to write or read (Spleight, 1993).

Later, as education became more formalized, the idea of placing classroom into factories was introduced (Spleight, 1993; Kopp, 2018). Evidence of these schools date back to the 1870s (Kopp, 2018). These schools offered several benefits to employers including the ability to train workers without the distractions they may find on the production floor and the ability to train multiple employees at the same time (Spleight, 1993). In 1913, as company schools continued to become more popular, the National Association of Corporation Schools was formed. Today it is known as the American Management Association (American Management Association). The members of the organization included businesses such as Cadillac Motor Car Company, General Electric Company, Thomas A. Edison Inc, and Carnegie Steel Company. Together, they focused on the training and development of a diverse set of professionals from locomotive workers to salesmen. Emphasizing the connection between schooling and business, their goal was to help training units within corporations learn from each other, creating a forum for sharing experiences, and to improve the quality of instruction offered (Hendershott, 1913; Stewart, 1914). Some companies went on to build entire facilities dedicated to the training and development of employees (McDonald's Corporation; The development of education and training programs, 1984).

With the start of the world wars, there was an increased need for systematic training. During this time, several methods were created for effectively and consistently training individuals (Spleight, 1993). After the wars, with countless soldiers returning home, partnerships were developed to prepare them for new careers and the GI Bill, signed in 1944, was used to fund on-the-job training programs (Torraco, 2016). This led to a burst in the number of on-the-job training programs offered by companies and, as training and development teams become more prominent in organizations, the need for leadership of this function also increased (Swanson & Holton, 2001).

In the 1940s, the American Society for Training Directors was formed. Later, its name was changed to the American Society of Training and Development and most recently, the name was changed to the Association of Talent Development (ATD, 2018; ATD, “Our History”). Now, with over 30,000 members in over 100 countries, the association promotes the development of training and development professionals through conferences, research, and books (ATD, “Our History”; ATD, “About Us”). The association also employs a team of researchers to help track learning and development trends and to conduct research that can be applied by professionals in the field (ATD, 2018).

In the 1980s and 1990s training and development programs started to shift to focusing more on the development of the entire organization, instead of focusing on development at the individual level (Swanson & Holton, 2001). Tools and resources such as skills inventories, external training vendors, and just-in-time training started to be introduced. During this time, options for training and development also continued to expand as more people were able to access computers (Torraci, 2016). Computers began being used to facilitate learning through CD-ROMs, computer programs, and the internet (Kruse & Keil, 2000; Spleight, 1993).

Computer-based training, although more expensive to develop than traditional classroom training, opened the door for training teams to begin creating a more personalized learning experience (Kruse & Keil, 2000). In 1960 Donald Blizer of the University of Illinois at Urbana-Champaign, created the Programmed Logic for Automatic Teaching Operations, PLATO, one of the first forms of networked computer-based instruction (Jones). These technological advances are considered to be the building blocks of what we know of today as eLearning (Spleight, 1993).

Now, the use of traditional in-classroom training continues but, eLearning and online self-paced learning has continued to increase over the years (Association of Talent Development, 2018). With technology learners are able to gain new knowledge and skills from any location (Cantoni & Mangia, 2019). Recently, the idea of informal learning has started to become more popular (Swanson and Holton, 2001) as companies began to acknowledge that a large amount of information that is learned about jobs happens outside of a formal training setting. New focuses in training and development also include personalized learning, the use of augmented reality and VR in training and development, and content curation.

As the methodologies of training continue to evolve and opportunities for training expand, expectations for both employers and employees are changing as well. Training is becoming a key element of overall employee satisfaction. Prior research has shown that 70% of employees would be willing to stay with their current employer if opportunities for professional development were offered (Valentini & Woods, 2011). Companies are recognizing this and sometimes including these programs as part of their overall compensation packages. While these programs cost money and often require time away from day-to-day work, the benefits to the

organization have shown to be powerful, with some reports showing that organizations with training and development programs having better financial success (SHRD, 2014).

Roles in Training and Development

Training and development roles can be found in a diverse set of organizations including companies and nonprofits in the health care, government, and technical services fields (BLS, 2019a). Often associated with human resources, the placement of training and development professionals differs by organization, with some working as part of the human resources department, some as their own divisions, and some as part of organization development teams (Cunningham, 2008). Companies which have all training staff in the same department or organizational unit are considered to have centralized learning organizations (Training Industry, 2019a). Decentralized learning organizations have training professionals spread out amongst various departments or business units within the company (Training Industry, 2019b).

While there are several different roles within the training and development field, one key element that they all have in common is the focus around helping organizations to perform well. Depending on the primary responsibilities of the individual, those in the field can have titles such as training specialist, training coordinator, instructional designer, content developer, or various other titles (BLS, 2019a; National Center for O*Net Development, 2019). While these specialties do exist, there is becoming an increasing need for people in the profession to have knowledge in several areas (Introduction to Employee Training and Development), requiring them to serve more as a generalist than as a specialist. Training and development professionals are often tasked with determining the learning needs of the organization for which they work, and then developing training programs to meet those needs. These programs can be administered in person through traditional classroom training or online with the use of e-learning, videos, or

simulations (BLS, 2019a; National Center for O*Net Development, 2019). Once the training is complete, specialists are also typically required to evaluate the impact and effectiveness of instruction (BLS, 2019a). Other day-to-day activities of those working in training roles includes training coordination, budgeting, graphic design, data analysis, and for those serving in leadership roles: management (Gordon et al., 1996; National Center for O*Net Development, 2019). Leaders of training departments serve as the primary strategist for the company's learning and an overall partner for the business ("Introduction to Employee Training and Development").

As the roles of training and development professionals become more complex, the needed skill set is also evolving. Professionals in the field are now expected to have knowledge for a wide range of topics including adult learning, personalized learning, preparing learning for global audiences, technology skills, and creativity (Meyer & Marsick, 2003; Valentini & Woods, 2011). The Association of Talent and Development organizes the skills needed for the field into a ten-area competency model, with competencies including change management, performance improvement, knowledge management, instructional design, coaching, training delivery, integrated talent management, learning technology, managing learning programs, and evaluating learning impact (Association of Talent Development, 2014). In addition to these skills, having quality communication and presentation skills is also essential for those who are serving in facilitator capacities (Gordon et al., 1996; BLS, 2019) and with the increase of technology being used to facilitate learning in organizations, skills in eLearning tools such as Adobe Captivate and Articulate Storyline, graphic design software, and basic web development, are also becoming more important for training and development professionals (National Center for O*Net Development, 2019). The list of needed skills for those serving within a leadership role in the

field is even longer, including skills in business, critical thinking, decision making, collaboration (BLS, 2018b).

While other professions such as law and medicine require graduate level education to enter the field (Harde & Hackett, 2015), most people enter the training and development field with a bachelor's degree. However this degree is not a formal requirement for all roles in the field (BLS, 2019a; National Center for O*Net Development, 2019). Research has found that many individuals serving in training and development roles do not have any formal education in training or adult learning, often transitioning from other human resources or k-12 education roles (Gordon et al. 1997). Professional certifications are available as an alternative education option for those in the field, with certifications available from organizations such as the International Society for Performance Improvement and the Association of Talent Development (BLS, 2019). For those wishing to advance their knowledge of the field, several universities throughout the United States also offer graduate programs in training and development (Association of Talent Development, "L&D Degree"). For management roles in the field, this level of education is sometimes required for the position (BLS, 2018b).

About Graduate Education

Introduced in the United States in the late 1800s, after several failed attempts from other universities, graduate education has been available since John Hopkins started their first masters level program (Berelson, 1960). Graduate programs, often managed separately from undergraduate programs (CGS, 2015; Sanford, 1978), were introduced to address the need for "advanced, specialized training" (Berelson, 1960), and includes master's level degrees, certificates, and doctoral degrees (Council of Graduate Schools, 2014). Many students pursue masters level degrees and or certificates, with a smaller portion pursuing doctoral degrees. Prior

to the 1970s, the master's degree was primarily considered part of the journey to going towards the doctoral degree but over time there started to be more alignment with business needs (Glazer-Raymo, 2005). Now hundreds of thousands of master's degrees are conferred each year (National Center for Education Statistics).

Graduate programs can be divided into two categories: professional graduate degrees, (such as MBAs and Law Degrees), and research degrees. As part of professional graduate programs, students are often required to complete work in the field through activities such as internships (Grand Valley State University) as the goal of these programs is to prepare students to use their new specialized knowledge within the industry (Marano, Pedersen, Seshiyer, & Slimowitz, 2003; Northeastern University, 2019, US Department of Education, 2008).

Professional graduate programs can last between one to five years and are required to enter some professions such as law and medicine (Northeastern University, 2019). Research degrees however are designed to prepare students for doing research in their field of study and to potentially continue to a doctoral program (Grand Valley State University). Instead of curriculum centered around the application of information in an industry setting, research degree programs have a curriculum mixed with courses, seminars, comprehensive exams and research work such as a thesis (US Department of Education, 2008).

In 2013, it was reported that over 400,000 students were enrolled in graduate study (Council of Graduate Schools, 2014), an example of the explosive growth that has happened in this area of higher education. Enrollment increased by 199% between 1980 and 2010 (Stevenson, 2016), growing even as enrollment in bachelor's degree begins to flatten out (New England Board of Higher Education, 2014; Stevenson, 2016). The types of learners within this group is also starting to shift with more graduate students attending their programs part-time and some

completing their programs online (New England Board of Higher Education, 2014). A 2012 report from the National Center for Education Statistics found that 30% of students were taking an online course as part of their graduate program and over 20% of them were enrolled in programs that were offered completely online (2014).

Previous research on graduate school choice, often looked at human capital theory as the basis for reviewing why students decided to pursue further education (English & Umback, 2016). Human capital theory centers around the idea in investing in humans, increasing their value, as you would other resources (Cornacchione & Daugherty, 2013). For many individuals deciding on whether or not they should attend a masters or doctoral program, they are deciding if they want to invest in their personal growth, with the aim of being of higher value in the job market. But with the potential benefits of having a graduate degree, there is also a cost to pursuing additional education. Loans have shifted into one of the primary finance methods for this additional coursework (English & Umback, 2016) and in addition to the monetary costs associated with participating in a graduate program, learners also spend time (Harde & Hackett, 2013) away from family and friends to attend class sessions and complete assignments. With students investing both time and money, providing a quality education to students is key for them to be able to get a return on their invest through future career advancement.

Stakeholders of Graduate Programs

The stakeholders of an organization are considered to be those that are impacted or that may be impacted by the organization (Nadeem, Abbas, & Javed, 2015). For learning institutions, faculty members and students are often considered the primary stakeholders (Nadeem, Abbas, & Javed, 2015). Students are often, sometimes controversially, considered the customers of the institutions (Pelau, 2015). Introduced by R. Edward Freeman, Stakeholder Theory, centers

around the idea of being able to provide value by focusing on the needs of stakeholders (Naeem, Abbas, & Javed, 2015). With graduate programs having a diverse set of stakeholders, including students, faculty, staff, and business leaders, it has been encouraged in previous research to look at graduate program quality from each of their perspectives (Eberle, Milan, Dorion, 2015). Like other graduate programs, the stakeholders of graduate programs in training and development would include faculty, staff, students, and the business industry. Businesses invest large amounts of money and employee time each year on the training of their staff (SHRD, 2014), so the skills of professionals in the training and development field are of interest for this group, as they are hired to help the organization achieve its business objectives.

Graduate Program Quality

There are various ways to measure the quality of academic programs. The oldest recorded method for measuring the quality of graduate programs is through reputation ratings. Dating back to the 1920s, reputation was used as the primary way to assess the quality of graduate academic programs. These types of studies were later expanded to include other factors such as “multiple measures, scholarly publications, and correlations between reputation and publications” (DiBiasio, 1981). Later, an adaptation of the SERVQUAL method, HedPerf, was also created to assess the quality of services offered by higher education institutions including reputation, courses, and instructors (Eberle, Milan, Dorion, 2015). Some quality evaluations have also been done using the students within the programs. A previous study conducted with students divided up quality factors into four categories: teaching quality, resources, support and counseling, and skills learned for future employability (Nadeem, Abbas, & Javed, 2015). In addition to the previous macro-level studies that research the quality of graduate programs through the perceptions of students, there has also been research of student perceptions of their

individual online courses within their programs. Student satisfaction of these learning experiences have been evaluated by reviewing the quality of the support provided, learning design, instruction, and the technology used to facilitate the course (Lee, 2010).

Through the accreditation process, colleges and universities are also reviewed by outside parties to ensure that high levels of quality are being met. This accreditation can be awarded at either the program or institution level after the college or university is able to demonstrate that they are meeting the standards of the accrediting body. There are several accrediting bodies including the Middle States Commission on Higher Education, the New England Commission on Higher Education, the Northwest Commission on Colleges and Universities, the Southern Association of Colleges and Schools, and the WASC Senior Colleges and University Commission (US Department of Education, 2019; Southern Association of Colleges and Schools – Commission on Colleges [SACS-COC], “About”). While the U.S. government is not directly involved in this review, accrediting organizations are approved by the Department of Education and government funded financial aid can only be awarded to students attending accredited institutions (US Department of Education, 2019). As part of the review process, applying institutions will aim to demonstrate that they have an appropriate academic mission and that they can meet that mission through the programs and services they offer and the resources they have (SACS-COC, 2017). They will also try to demonstrate their commitment to ongoing improvement through the submission of a Quality Enhancement Plan. In this plan, identified issues are scoped and a plan of action is drafted through the cooperation of the institution's faculty and staff (SACS-COC, 2004).

Curriculum Development in Higher Education

The process for developing the curriculum of academic programs is different for each college and university but, key elements of this process includes determining the objectives that will be covered, the materials and teaching methods that will be used, and how learners will be assessed (Khan & Law, 2014; Cooper & Westlake, 1998). Changes to the curriculum can be triggered by things such as new faculty within the department and changes within the field of study (Bright & Richards, 2001). Cooper and Westlake describe two different approaches to curriculum planning: the content approach in which decisions are primarily made based on the expertise of these instructors and secondly, a process approach in which there is a high focus on the needs of students, including what they will need to know and do after graduation (1998). The level of involvement from students and other outside influences varies depending on the program and university.

For the curriculum development process, Cooper & Westlake describe using backwards design - starting by asking what students need to be able to know and do before graduating. Afterwards, decisions on course content and assessments are made with the goal of aligning them to the objectives (1998). The process of deciding on any curriculum additions and changes is often considered the responsibility of the university's faculty but, academic deans are responsible for the overall programs within their departments. While these decisions are made by those working for the university, curriculum is often influenced by outside forces such as the needs of industry, the funding that is available, and politics (Cooper & Westlake, 1998). Students, stakeholders of these programs, are recommended participants of this process. As new programs are created, and existing programs are modified, review processes are normally conducted.

Stakeholder Involvement in Curriculum Development

When and how much stakeholders are involved in the curriculum development process varies depending on the university, department, and program. For institutions that do not involve external stakeholders, it brings to question the alignment of the content with needs of the industry (Bennis & O'Toole, 2005). For universities that chose to engage students in the process, many follow the common practice of having students involved by collecting their feedback on individual courses upon completion (Coates, 2005), however there can be a higher level of student engagement during this process. In a case study written by Philip Casey, he highlights a university in which students were involved throughout the curriculum development process. One of the key items noted from the case study was that students needed an understanding of the terminology being used by those also be involved in the curriculum development process (2013), such as professors, to ensure mutual understanding and clarity.

The level and type of involvement varies for industry stakeholders, as well. In a study conducted by Khoon Koh, feedback from industry stakeholders for tourism management programs was collected through a Delphi study. The researcher considered this a “marketing approach” to designing the curriculum because it took into the account of stakeholders (1995). Feedback from industry stakeholders has also been collected through the use of surveys and by ranking courses within a curriculum list (Ellen & Pilling, 2002; Enz, Renaghan, Geller, 1993). Feedback and advice on curriculum from industry stakeholders can also come from advisory boards (Hicks, Hancher-Rauch, Vansickle, & Statterblom; Shaeffer & Rouse, 2014; Tapis & Delaney, 2017).

Advisory boards are a way to build the relationships between faculty members in the program and those currently working in the field (Tapis & Delaney, 2017). Members of the

board provide recommendations to the institution, but because they are not a part of the governing body controlling the college or university, they cannot force changes (Mello, 2019; Olsen, 2008). Their recommendations can be collected through exercises such as brainstorming sessions and surveys (Hammond & Moser, 2009; Tapis & Delaney, 2017). In addition to academic guidance, they can also provide information on trends in the industry (Hicks, Hancher-Rauch, Vansickle, & Statterblom).

Graduate Programs in Training and Development

As the interest in developing training competencies grew in the 1970s and 1980s, academic programs related to training and development began to emerge at colleges and universities (Gordon et al., 1996). Within business, education, and psychology departments, individual courses in training and development can often be found (“Introduction to Employee Training and Development”) and now there are full degree programs dedicated to the field (ATD, “L&D Degree”). Until the introduction of these formal programs, many entered the profession by either studying associated fields such as HR or K-12 education, or was introduced to the field through a rotation working in the department through their organization (Gordon et al., 1996). On their website, The Association of Talent Development lists graduate programs related to the learning and development field including masters level degrees in instructional design, training and development, human resources, organizational development, and instructional technology (ATD, “L&D Degree”). Graduate programs in Instructional Design has been noted as a way of taking a more ‘technical approach’ to entering the training and development field, as these programs focus on the development of training content (Gordon et al., 1997). Some programs in training and development, such as the one offered by Roosevelt University, have aligned their courses with the ATD competency model (Roosevelt University,

2017). While there has been strides to ensure that programs are aligned to the skills needed by training professionals, such as with Roosevelt University's program, authors of an article titled "HRD Degrees and Who Needs Them", found that interviewees often felt that graduate programs in their field were "too based on theory and not enough on practical development" (Kaeter, 1995), like previous feedback that has been gathered on graduate programs in business (Bennis & O'Toole, 2005).

In addition to learning about the training and development field, a study conducted by Larson found that learning professionals also expect to learn about the specific business environments they would be serving (2007). It has been recommended that graduate programs focused in training and development provide opportunities for learners to experience working in different types of business environments (Larson & Lockee, 2007). An example of this being done is the College of St. Frances which integrates business topics into their required coursework for students participating in their Masters program in Continuing Education and Training Management (Gordon et al., 1996).

Summary

While there is limited literature on the topic of preparing professionals for careers in training and development, it is evident that having the correct skills is essential for both the individual and the organization they serve. The success of the training programs facilitated by training and development staff have an impact on not only the skills of the people in their companies, but it also contributes to overall job satisfaction and retention (Valentini & Woods, 2011; SHRD, 2014). While not all training professionals enter the role with a training related graduate degree (BLS, 2019a), it is important to ensure that those who do enroll in these programs receive a high-quality education that will prepare them to succeed in the field.

CHAPTER 3: METHODOLOGY

Introduction

For this study, q-methodology was selected as the method to gather information from stakeholders of graduate programs in training and development. They were asked to share their perspectives on the most important knowledge and skills that students should gain through a quality graduate program in training and development.

Q-methodology, introduced by Williams Stephenson, is a multi-phase research method that includes both qualitative and quantitative components to assess participants' subjectivity on a topic (Ramlo, 2016; Newman & Ramlo, 2010; Simons, 2013). An overview of the steps involved in Q-methodology can be found in Figure 1.

The process begins with the development of a concourse, or collection of thoughts, around the selected topic (Simons, 2013). Afterwards, a representative subset of these statements are presented to participants to sort using a distribution chart (Watts & Stenner, 2014). For this study, over five-hundred statements were narrowed down to a set of forty-two for participants to rank on a scale of least important (-5) to most important (5).

With the data from the sorts, results from the participant rankings are then compiled and analyzed using factor analysis (Simons, 2013). Through factor analysis participants are placed into factor groups with other individuals who expressed similar viewpoints. These factor groups can then be compared against each other to determine what were the defining viewpoints of each group and how the groups' views may be similar.

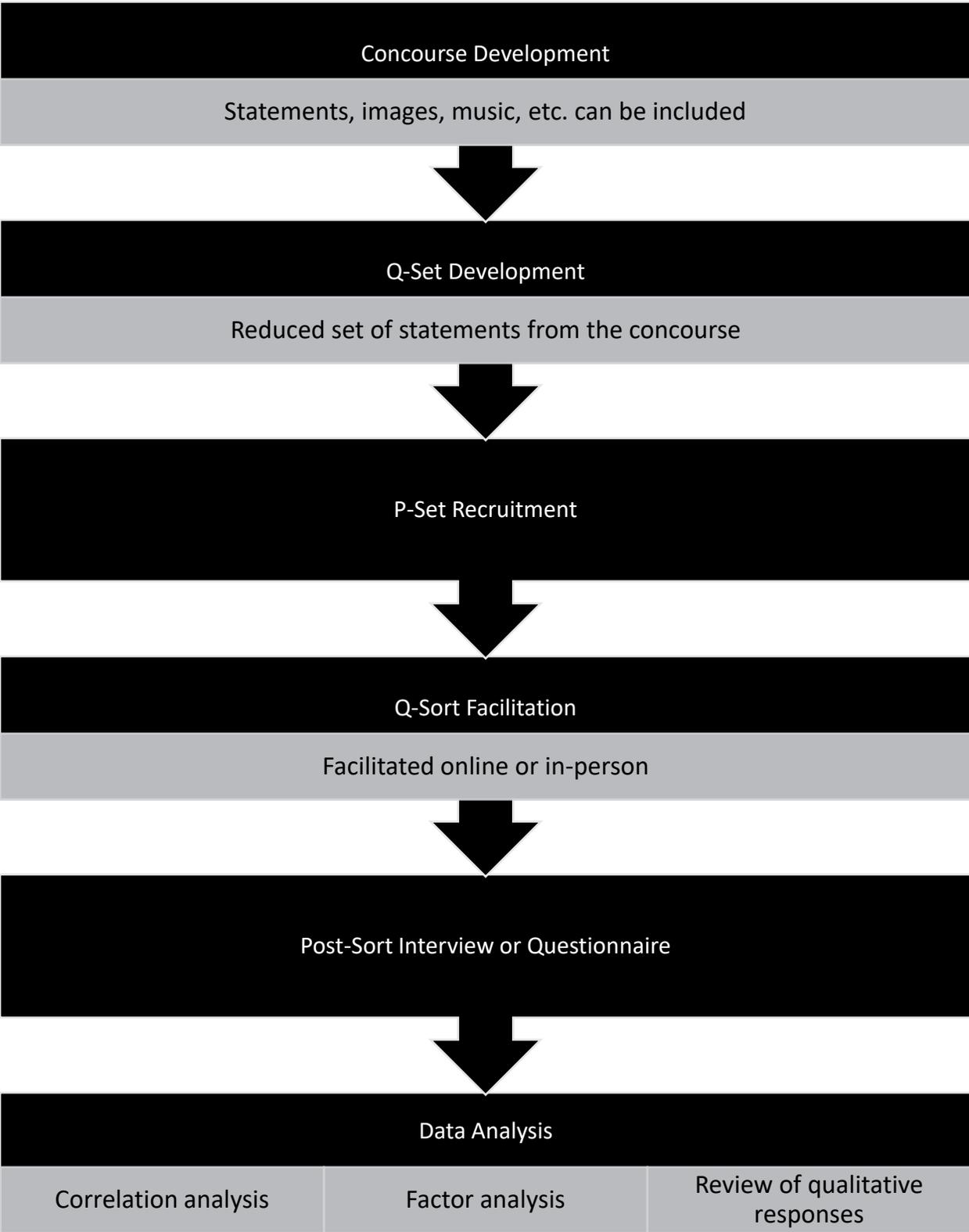


Figure 1: Steps of q-methodology research.

History of Q Methodology

William Stephenson, a psychologist, first introduced Q-methodology through a letter in a journal called *Nature* in 1935 (Ramlo, 2016; Brown, 1993; Simons, 2013) and later provided more information in a publication titled “Correlating Persons Instead of Tests (Brown, 1993). Considered to have evolved from factor analysis theory (Cross, 2005), Q-methodology allows for researchers to study the subjectivity of research participants (Brown, 1993). Through q-methodology, participants are able to share their perceptions on a topic by arranging statements on a scale provided by the researcher (Newman & Ramlo, 2010; Ramlo, 2016). It is believed that having the forced arrangement encourages participants to consider their decisions more carefully (Cross, 2015). It is also believed to discourage participants from defaulting to extreme views (Kampen & Tamas, 2013).

Since its introduction, there have been critiques of Q methodology including thoughts from researchers that the methodology lacks the validity and reliability found in more traditional research methods (Ramlo, 2016). In Q-methodology, it cannot be assumed that conducting the same study on the same participants will produce the same results and promoters of the methodology do not express an intent to have results show the same over time (Cross 2004; Watts & Stenner, 2005) There has also been concern expressed around how factor analysis is used in Q methodology (Simons, 2013). However, with these concerns, it continues to be used as a viable option for collecting information on participant perceptions. Q-methodology has been used in a variety of studies as views on its ability to measure subjectivity with a small group of participants become more positively viewed (Kampen & Tamas, 2013).

In 1985, the International Society for the Scientific Study of Subjectivity was launched (Ramlo, 2016), focusing on promoting research related to the area of subjectivity. One such

promotion strategy was the publication of *Operant Subjectivity: The International Journal of Q Methodology*. The launch of this organization came right before what some consider to be a mixed-method research movement (Ramlo, 2016). Introduced over 70 years ago, Q-studies have been conducted in the areas of political science, health science, education, behavioral science, and communication (Cross, 2004). And now, software tools such as Q-method, have also been developed to help facilitate Q-sorts electronically (Simons, 2013).

Q-Methodology Terms

Concourse: A group of statements, images, or other media collected by the researcher(s) to reflect the comprehensive views of the research study's topic (Cross, 2005; Simons, 2013).

Consensus Statement: Statement from the q-set in which participants had similar views (Krueger, 2001).

Contention Statement: Also known as a distinguishing a statement, an item ranked by a factor group that reflect the greatest difference in their rankings (perspective) (Krueger, 2001).

P-Set: In Q-methodology, the group of participants which complete the q-sort (Simons, 2013).

Q-Methodology: Introduced by William Stephenson, a research methodology used to study the perceptions of study participants by arranging (sorting) topical statements on a pre-determined scale and conducting a factor analysis to analyze the results of the participant rankings (Ramlo, 2016; Brown, 1993; Simons, 2013).

Q-Set: A reduced number of statements from the concourse, allowing the study participants to have a management set of statements to sort during the q-study (Brown, 1993).

Concourse Development

The first step in preparing the q-study was developing the concourse. The concourse is a collection of thoughts on the topic being researched (Simons, 2013) including statements, images, or other forms of media (Cross, 2005). There are various methods that can be used to develop the concourse of a q-study, but interviews have shown to be the most frequently used method (Brown, 1993; Simons, 2013). Other options include reviewing literature, pulling from personal experience, and gathering media (Cross, 2004). The researcher selects the appropriate method for collecting the items, based on the research questions being asked in the study (Cross, 2004).

For this study, the concourse was drafted through a review of online references on the topic of skills and knowledge needed by training and development professionals, the aim being to identify what students in graduate programs should ideally know as they transition to careers in the field. Reviewed materials included blog posts, competency models from professional certifications, articles from organizations focused on the field, and job postings seeking professionals in the field. From the over sixty references reviewed, five hundred and nine statements on the skills and knowledge needed by professionals in training and development were identified. These statements included a variety of requirements ranging from knowledge of adult learning, to data analysis and technology skills, to business acumen.

The Q-Set

After the concourse was developed, it was narrowed down to the q-set, a smaller number of statements representing the synthesized views from the concourse. The goal in creating this smaller group was to represent all of the views shared within the concourse but, through a manageable amount of statements for the participants to later sort (Brown, 1993). As noted by

Brown, the development of the q-set is “more of an art than a science” (Brown, 1980) but, Fisher’s Experimental Design Principles have been previously noted as a guiding method used in prior research to finalize the list of items (Brown, 1970). The number of items in a q-set often ranges between 40 to 50 statements (Ramlo, 2016), with some researchers suggesting a range between 40 to 60 statements. There have also been prior research studies that have used over 100 statements (Simons, 2013).

For this study, the original statements collected through my review of online research was narrowed down to a q-set of forty-two statements. These statements can be found in Appendix A. The final list of statements in the q-set were determined by first grouping duplicate statements and noting how often each statement appeared. Duplicate statements were then synthesized into single statements. Lastly, statements that did not in more than one reference was removed. To finalize the drafted q-set, the statements were reviewed with a few professionals in the training and development field prior to beginning the sorts with participants. The set was reviewed to ensure that there was clarity in the statements and to reduce any chance of bias.

The P-Set

The participants in a Q-study are known as the P-set (Simons, 2013). It has been recommended to have between 40 to 60 participants complete the Q-sort (Simons, 2013). Unlike other research methods, a large population size of research participants is not needed (Brown, 1980) but these participants should represent a mix of possible opinions on the topic being studied (Simons, 2013).

For this study, the P-set included participants that represent the stakeholders of graduate programs in training and development including:

- Faculty members of graduate programs in training and development

- Students currently enrolled in graduate programs in training and development
- Training and development leaders and managers, representing the potential employers of student graduating from the program

Faculty and student participants were recruited by directly emailing program directors and faculty members of graduate programs in training and development. A list of graduate programs in training and development was obtain through the degree listing on the Association of Talent Development website. It is important to note that only programs which specifically included training and/or development in the programs title was included in the recruitment list and only programs in the United States. Contacts, including program directors and faculty members, from eleven programs were reached out to via email. Representatives from two of the institutions responded noting that they would forward information on the study to faculty members and students within their graduate programs. A copy of the recruitment letter that was sent can be found in Appendix B.

Ninety-nine learning and development leaders and managers were identified through the online professional network, LinkedIn. Through messaging in training and development professional groups, and direct messages using LinkedIn's InMail feature, potential participants were sent information on the study. An example of the recruitment letter sent these potential participants can be found in Appendix C.

The recruitment goal was to have representatives from each of the three groups in the P-set. Recruitment occurred from August to October of 2019, resulting in sixteen people participating in the study including four faculty members, four students, and eight learning professionals. As approved in the IRB for the study, each participant was informed through the recruitment letter that participating in the study was providing informed consent. This was also

reiterated on the first screen of the online q-sort, reminding participants that by beginning the study they were providing consent to the researcher.

Q-sort Process and Instrumentation

With the Q-set finalized and participants recruited, the main component of the Q-methodology could be completed: the sort. In the sorting process, participants are asked to sort the statements within the q-set on a distribution chart provided by the researcher (Newman and Ramlo, 2010). As this is done, participants will often interpret the statements with their own meanings (Ramlo, 2016; Cross, 2005) In doing this, there is no right or wrong answer (Ramlo, S. 2016), the goal is to collect the opinion of the participant, so it can later be analyzed against other people who have completed the study.

Traditionally Q-sorts have most often been facilitated using an in-person, physical sorting of cards. However, for this study, the q-sort was facilitated through an online software program, Q-sorTouch created by Dr. Alessio Pruneddu (Pruneddu).

In the instructions for the sort, as shown in Figure 2, participants were first asked to divide up the statements into three groups based on the topic including:

- Objectives that are of least importance for a quality graduate program to include
- Objectives that are of neutral importance for a quality graduate program to include
- Objectives that are of most importance for a quality graduate program to include

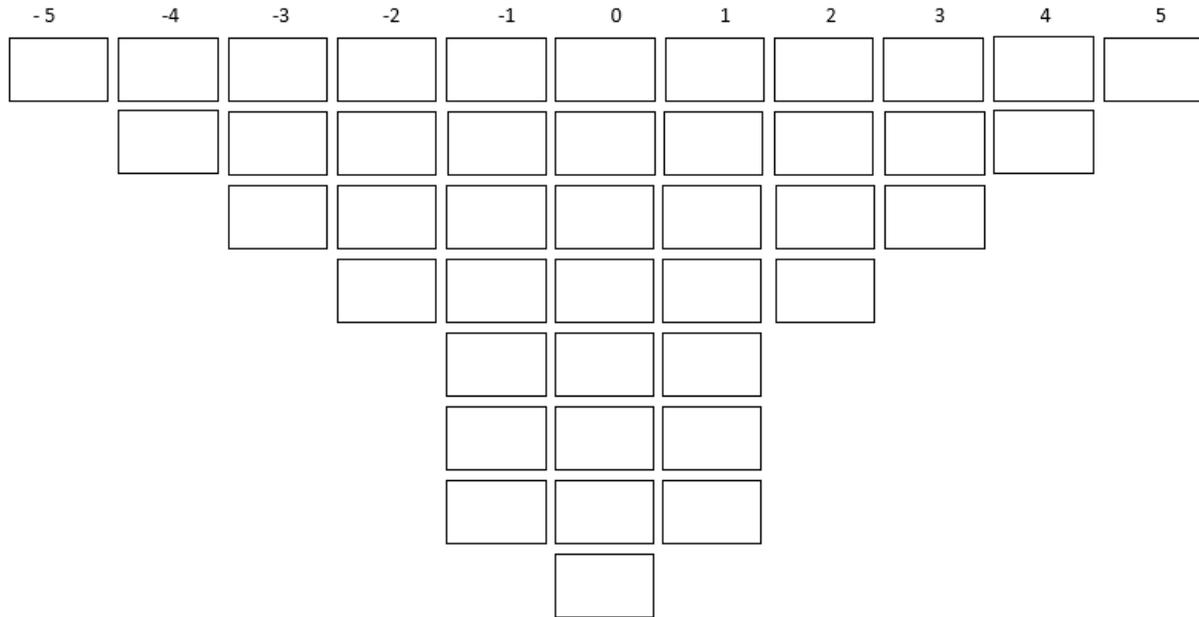


Figure 3: Example q-sort distribution chart.

As recommended by the literature on Q-methodology, participants were then asked follow-up questions to gain additional information on their perspectives. Specifically, the participants in this study were asked why they chose the statements they rated as the most important item and the statement chosen as the least important item. They were also asked demographic questions such as their gender, age range, and current job title. Lastly, they were asked if there were any cards they would have not included in the study and if they had any additional information they wanted to share. These questions were asked using the Q-sorTouch software as the third step in the study. A copy of the questions can be found in Appendix C.

Data Analysis

The views of the participants, provided through the sorts, were analyzed using factor and correlation analysis which together make up the quantitative phase of q-methodology research (Simons, 2013). The purpose of this analysis is to see if and how stakeholder views represent similar thought patterns (Simons, 2013). Once the factor groups are created and named,

consensus and contention items were identified. Consensus items represent the statements in which participants of the group tended to rate them the same. Contention items are statements where the participants in the various groups showed the greatest variation in their rankings. In addition to this analysis, representative sorts were also created for each of the groups by averaging their sorts (Krueger, 2001) and responses to post-sort questionnaire were reviewed. Post-sort questionnaires can help to bring understanding to how participants interpreted the statements, if they have any feedback on the clarity of statements, and what additional statements they may have added (Watts & Stenner, 2005)

CHAPTER 4: FINDINGS

Introduction

Using Q-methodology, the study aimed to gain insight on what stakeholders of graduate programs in training and development view as the key knowledge and skills to learn through these types of programs. Specifically, the study aimed to answer:

- What are the perspectives of students, faculty members, and employers toward a quality master's program in training and development that prepares graduates for employment and why?
- How are the perspectives of students, faculty members, and employers similar or different toward a quality master's program in training and development that prepares graduates for employment?

Invitations to participate in the study were sent to directors and faculty members of graduate programs in training and development and leaders in the training and development field. Students were recruited with the assistance of the graduate program directors, by forwarding the recruitment letter to those currently enrolled in the programs. Sixteen participants completed the q-sort, arranging forty-two statements of skills and knowledge on a scale of least important to most important. The sorting process, conducted online, was facilitated with Q-sorTouch. Post-sort questionnaires were also submitted through the site. The data from these sorts were then extracted and analyzed by conducting a factor analysis in R using the Qmethod package.

In this chapter, an overview of the data collection procedures, the demographics of the participants, and the results of the factor analysis conducted will be provided.

Data Collection

The Q-sort process was facilitated through Q-sorTouch, an online tool created to conduct q-methodology studies. Each participant was provided with a direct link to the study in the tool. Upon entering the site, each user was prompted with a consent agreement followed by the initial sort, the final sort, and the post-sort questionnaire.

In the initial sort participants were asked to place the provided statements into one of three groups: least important, neutral, or most important. Afterwards, the same statements were presented to the participant again for the final sort, in which they were asked to place the statements on a scale of -5 (least important) to 5 (most important). For the statements that were ranked as being of lowest importance and most important, they were asked to share why the statement was given the ranking. It is important to note that the sort enforced a specific distribution of the statements, only allowing a certain number of statements to be assigned to each ranking.

To gain additional insights on the background of the participants and why they chose their rankings of the statements, each person was also asked to complete eight demographic and qualitative questions after the sort. The questions can be found in Table 1 below. These questions were asked directly in the Q-sorTouch software.

Table 1: Post-sort questionnaire questions.

No.	Question
1	Age
2	Gender
3	Through which of the following categories do you qualify as a participant?
4	Are you currently employed in a training and development position?

Table 1 (continued).

5	If yes, what is your current title?
6	Have you previously graduated from a graduate program in training and development?
7	Are there any cards that you would have not included? Why?
8	Is there any additional information that you would like to share?

P-Set

Sixteen participants completed the sort between August 2019 and October 2019. An overview of the demographics of the participants can be found in Table 2. Most participants, 81.25%, were female. Age ranges were also collected from the participants. 37.5% of participants were between the ages of 40-49. 12.5% reported being in the 18-29 age range, 18.75% reported being in the 30-39 range, 18.25% were in the 50-59 age range, and 12.5% were in the 60-69 age range.

In the third post-sort question, participants were asked to self-identify which stakeholder group they belonged in. This stakeholder group was used to collect information on how their current role qualified them for the study. For this question participants were presented with three options:

- Current student in a graduate program in training and development
- Faculty member in a graduate program in training and development
- Learning and development leader/ manager

25% of participants reported that they are a student currently enrolled in a graduate program in training and development, 25% of participants identified as being faculty members in training

and development graduate program, and 50% of participants identified as being a learning and development leader/manager. In addition to those who reported being in the third category, several of the students and faculty members also noted they are currently working in the training and development field. Of the sixteen participants in the study overall, fourteen (87.5%), said they are currently working in the field. Their job titles included a mix of roles such as Associate Professor, Consultant, Senior Regional Training Director, Instructional Designer, Training Coordinator, Director of Organization and Executive Development, and Director of Technical Training.

Information was also collected on if the participant had previously completed a graduate program in training and development, as having prior experience as a student in a program could potentially influence the statement rankings. Eight people, 50% participants, have previously graduated from a graduate program related to the training and development field. These eight participants include all four of the faculty participants and four of the eight learning leader/manager participants.

In addition to these demographic questions, participants were also asked two open-ended questions: if they would have not included any of the statements provided in the q-sort and if there was any additional information they wanted to share. Both of these questions were optional, with five participants choosing to share statements(s) that they thought should have not been included and six participants who chose to include additional comments.

Table 2: P-set demographics.

		Overall N=16
Gender		
Female	13	81.25%
Male	3	18.75%
Age		
18 – 29	2	12.5%
30 – 39	3	18.75%
40 – 49	6	37.5%
50 – 59	3	18.75%
60 – 69	2	12.5%
70 – 79	0	
80 – 89	0	
Role		
Current Student Enrolled in Program	4	25%
Faculty Member	4	25%
Training and Development Leader	8	50%
Currently Working in the Training Field?		
Yes	14	87.5%
No	2	12.5%
Have You Previously Graduated from a Graduate Program in Training and Development?		
Yes	8	50%
No	8	50%

Data Analysis Overview

To analyze the sort data collected from participants, factor analysis is the statistical method used in Q-methodology (McKeown and Thomas, 2013). In doing this, the researcher aims to determine what, if any, patterns exist in the viewpoints of the participants (Simons, 2013). Analysis of the sorts collected in this study was conducted using R and the qmethod package. The package utilized the Pearson Correlation Coefficient and varimax rotation, the most commonly used rotation in Q-methodology (McKeown & Thomas, 2013), to identify factor

groupings of the participants. Several possible factor solutions were reviewed to determine which would be best to comprehensively reflect the views of the participants. With the software a 2-factor, 3-factor, 4-factor, and 5-factor rotation was identified. A comparison of the factor solutions can be found in Table 3.

When deciding on a factor solution, it is recommended for the researcher to review the eigenvalues, the percentage of variance explained, scree tests, and any potential suggestions on the number of factors from prior research or theory (Hair et al., 2014). As described by Watts and Stenner, the basis of factor analysis is to be able to explain as much of the variance in the groupings as possible (2005). Based on the results of the factor rotation, the four-factor solution was chosen as the best option for this study. The four-factor solution resulted in 14 of the 16 sorts loading into a single factor. Participants one and ten, both learning and development professionals, did not significantly load into a single factor and are therefore not represented in any further analysis of the data. Of the remaining participants, five individuals load into factor one, four participants load into factor two, two participants into factor three, and three participants into factor four. Characteristics of the solution including the average reliability coefficient, the number of sorts loaded, eigenvalues, variance explained can be found in Table 4. All groups have eigenvalues above 1.0 and the combined explained variance is 60%. Hair et. al note that unlike natural sciences which typically expect a much higher explained variance, it is reasonable to use a solution with 60% explained variance, and sometimes lower, in social sciences (2014).

Table 3: Comparison of factor solutions.

Factors Rotated	Explained Variance	Participants Loaded	Decision
2	44%	16	Declined: All participants are loaded to a factor, but only 44% of variance is explained.
3	54%	16	Declined: All participants are loaded to a factor, but solution only explains 54% of the variance.
4	60%	14	Accepted: Two of the participants are not included but the solution explains a high % of the variance with at least two people in each factor.
5	67%	14	Declined: Solution removed two of the sixteen participants and one of the factors has only one participant included.

Table 4: Factor characteristics eigenvalues for 4-factor Solution.

	Average Reliability Coefficient	Number of Q Sorts Loaded	Eigenvalues	Explained Variance	Reliability	Standard Error of Factor Scores
Factor One	0.8	5	3.6	22	0.95	0.22
Factor Two	0.8	4	2.5	15	0.94	0.24
Factor Three	0.8	2	2.1	13	0.89	0.33
Factor Four	0.8	3	1.7	10	0.92	0.28

Factor Correlation Matrix

For the four-factor solution, a factor correlation matrix was also produced to compare the groups to each other. As shown in Table 5, Factor Group Two and Factor Group Three have the strongest correlation with a value of .43.

Table 5: Correlation matrix.

	Factor One	Factor Two	Factor Three	Factor Four
Factor One	1.00	0.35	0.38	0.03
Factor Two	0.35	1.00	0.43	-0.06
Factor Three	0.38	0.43	1.00	-0.01
Factor Four	0.03	-0.06	-0.01	1.00

Factor Loadings

The results of the initial factor loading for the participants can be found in Table 6. Flagged factor loadings, highlighting the group each participant was placed in, can be found in Table 7. In factor one, the strongest loading was for participant 11 at .83, for factor two the strongest was participant 9 at .80, for factor three participant 14 had the strongest loading at .74, and for factor four was participant eight at .76. Table 8 displays the loadings in a table organized by factor group.

Table 6: Factor loadings for all possible participants.

	Factor One	Factor Two	Factor Three	Factor Four
P01	0.49	.15	-0.48	0.24
P02	0.19	0.20	0.36	-0.73
P03	0.20	0.50	0.38	0.04
P04	0.79	0.19	0.24	-0.01
P05	0.73	0.10	0.29	-0.01
P06	0.24	0.79	0.72	0.04
P07	0.33	0.08	0.12	0.44
P08	0.05	0.06	0.60	0.76
P09	-0.04	0.80	0.01	-0.08
P10	0.00	0.32	0.31	-0.27

Table 6 (continued).

P11	0.83	-0.15	-0.04	0.03
P12	0.76	0.40	-0.08	0.09
P13	0.73	0.19	0.14	0.08
P14	0.14	0.24	0.74	-0.14
P15	0.25	0.16	0.72	0.42
P16	0.23	0.64	0.38	0.16

Table 7: Flagged factor loadings.

	Factor One	Factor Two	Factor Three	Factor Four
P01	FALSE	FALSE	FALSE	FALSE
P02	FALSE	FALSE	FALSE	TRUE
P03	FALSE	TRUE	FALSE	FALSE
P04	TRUE	FALSE	FALSE	FALSE
P05	TRUE	FALSE	FALSE	FALSE
P06	FALSE	TRUE	FALSE	FALSE
P07	FALSE	FALSE	FALSE	TRUE
P08	FALSE	FALSE	FALSE	TRUE
P09	FALSE	TRUE	FALSE	FALSE
P10	FALSE	FALSE	FALSE	FALSE
P11	TRUE	FALSE	FALSE	FALSE
P12	TRUE	FALSE	FALSE	FALSE
P13	TRUE	FALSE	FALSE	FALSE
P14	FALSE	FALSE	TRUE	FALSE
P15	FALSE	FALSE	TRUE	FALSE
P16	FALSE	TRUE	FALSE	FALSE

Table 8: Factor loadings displayed by factor group.

	Factor One	Factor Two	Factor Three	Factor Four
P11	0.83			
P4	0.79			
P12	0.76			
P5	0.73			
P13	0.73			
P9		0.80		
P16		0.64		
P6		0.79		
P3		0.50		
P14			0.74	
P15			0.72	
P8				0.76
P2				-0.73
P7				0.44

Z-Scores

Using the qmethod package in R, Z-scores were determined for each factor group. Z-scores are calculated as a way for the researcher to more easily compare the rankings of each of the factor groups, as the raw weighted scores cannot be used due to the varying number of sorts accounted for each factor group (Watts & Stenner, 2005). Table 9 outlines the z-scores of each of the factors in this study.

Table 9: Z-scores

	Group 1	Group 2	Group 3	Group 4
Statement 01	2.510	0.452	-2.243	-0.807
Statement 02	1.550	0.696	2.041	-1.530
Statement 03	0.434	1.323	1.256	0.503
Statement 04	1.283	0.828	2.691	-0.120
Statement 05	1.193	0.594	-1.460	1.674
Statement 06	-0.821	-1.057	-1.256	-0.806
Statement 07	-0.427	-0.729	-1.256	-0.0599
Statement 08	-0.386	-0.183	-1.278	0.537
Statement 09	1.286	0.573	1.054	0.969
Statement 10	-0.868	-1.826	-1.816	0.737
Statement 11	0.510	1.249	-7.849	-1.557
Statement 12	1.471	0.365	-7.625	-1.019
Statement 13	-0.006	-0.936	-5.158	0.490
Statement 14	1.056	0.220	4.710	0.399
Statement 15	-2.278	-1.106	-1.772	-1.742
Statement 16	0.058	-0.481	-1.054	0.924
Statement 17	0.144	-0.472	-1.009	-0.958
Statement 18	0.304	0.947	-1.054	-0.687
Statement 19	0.776	2.166	1.323	-1.255
Statement 20	0.195	0.107	2.239	-0.489

Table 9 (continued).

Statement 21	-1.003	0.253	-1.570	1.185
Statement 22	0.133	1.038	2.691	2.190
Statement 23	-0.263	0.488	4.933	2.025
Statement 24	0.136	-2.114	-2.691	-0.690
Statement 25	0.020	-0.623	8.073	0.628
Statement 26	0.278	-0.713	4.933	-0.924
Statement 27	0.497	-1.956	4.933	1.978
Statement 28	-0.030	-0.304	-1.345	1.393
Statement 29	0.721	-0.107	2.467	-0.387
Statement 30	0.516	1.232	1.009	-0.200
Statement 31	0.457	-0.175	1.323	-0.152
Statement 32	-0.604	-1.339	-1.460	-0.165
Statement 33	0.545	0.297	1.032	0.104
Statement 34	-0.495	0.928	5.158	0.256
Statement 35	-1.410	0.212	-5.382	0.771
Statement 36	-1.967	0.052	-4.934	-0.116
Statement 37	-1.410	-0.928	-5.606	-0.234
Statement 38	-1.175	-0.448	2.915	-0.317
Statement 39	-1.701	0.107	2.915	-1.371
Statement 40	-0.062	1.346	1.278	0.061
Statement 41	-0.568	1.492	1.592	-0.598

Table 9 (continued).

Statement 42	-0.599	-1.469	9.868	-0.104
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Factor Array

To further assist with the analysis of the q-sorts, factor arrays are typically created for each factor group. Factor arrays are a single q-sort created to represent the views of those in the factor group using the group's Z-scores (Watts & Stenner). Table 10 shows the factor array for all groups in this study. Items with higher Z-scores were placed closer to the most important ranking (5) and items with lower z-scores were placed closer to the least important ranking (-5). Some statements such as statement six (design and implement social learning programs), statement fifteen (select and manage vendors) were rated as being of lower importance to all groups.

Table 10: Factor array.

		F1	F2	F3	F4
1	Understand and Apply Adult Learning Theories and Principles	5	1	0	-2
2	Understand and Apply Instructional Design Principles	4	1	5	-4
3	Conduct Learning Needs Analysis	1	3	3	1
4	Design and Develop Training Programs	3	2	0	0
5	Design and Create Training Materials	3	1	0	3
6	Design and Implement Social Learning Programs	-2	-2	-3	-2
7	Design and Develop New Hire Onboarding Programs	-1	-2	-3	-1

Table 10 (continued).

8	Design and Develop Leadership Development Programs	-1	-1	-3	1
9	Effective Written and Oral Communication	3	1	2	2
10	Effective Marketing of Learning Programs	-2	-4	-5	2
11	Define An Organization's Learning Strategy	1	3	-1	-4
12	Create and Optimize Training Processes	4	1	-1	-3
13	Manage Training Budgets	0	-2	-1	1
14	Project Management	2	0	1	1
15	Select and Manage Vendors	-5	-3	-4	-5
16	Manage and Develop Training Professionals	0	-1	-2	2
17	Training Administration and Coordination	0	-1	-2	-2
18	Leading the Learning Function	1	2	-2	-1
19	Aligning Training Programs to Business Goals	2	5	3	-3
20	Implementing and Managing Training Tools and Systems	0	0	0	-1
21	Virtual Instruction Facilitation	-2	0	-4	3
22	Designing and Developing eLearning	0	2	0	5
23	Using Technology in Instruction	-1	1	1	4
24	Learning Management System (LMS) Administration	0	-5	-1	-1
25	Curating Content for Learning	0	-1	1	1

Table 10 (continued).

26	Understanding and Applying Design Thinking Principles	1	-1	1	-2
27	Organization Skills	1	-4	1	4
28	In-person Training Facilitation	0	-1	-3	3
29	Understanding of Various Training Methodologies	2	0	0	-1
30	Evaluation of Training Impact	1	3	2	0
31	Data Analysis	1	0	3	0
32	Creating Effective Reports and Dashboards	-2	-3	0	0
33	Collecting and Tracking Learning Data	2	1	2	1
34	Evaluating Performance	-1	2	1	1
35	Mentoring and Coaching for Performance Improvement	-3	0	-1	2
36	Performance Consulting	-4	0	-1	0
37	Talent Management	-3	-2	-1	0
38	Change Management	-3	-1	0	-1
39	Business Consulting (Identifying, Diagnosing, and Proposing Solutions for Business Problems)	-4	0	0	-3
40	Effective Collaboration with Subject Matter Experts	-1	4	3	0
41	Designing Learning Experiences	-1	4	4	-1
42	Research Skills	-1	-3	2	0

Consensus Statements

Consensus statements are the items in which the factor groups tend to rank the statement in a similar fashion (Krueger, 2001). In this study, two consensus statements were identified through the factor analysis: statement six and statement twenty. Statement six references the design and implementation of social learning programs and statement twenty references implementing and managing training tools and systems. All groups tend to place social learning programs lower in priority with three of the factors placing it as -2, and one group placing it as -3. Implementing and managing training tools and systems lands in a neutral position for all four factors, with three groups placing it in 0, and one group placing it in -1.

Table 11: Factor consensus statements.

	Statement	Factor 1 Rank	Factor 2 Rank	Factor 3 Rank	Factor 4 Rank
6	Design and Implement Social Learning Programs	-2	-2	-3	-2
20	Implementing and Managing Training Tools and Systems	0	0	0	-1

Distinguishing Statements

Several statements were found to distinguish the factors between each other.

Distinguishing statements, also known as contention statements, are the items which reflect the greatest variance between the factor groups (Krueger, 2001). A list of the distinguishing statements for this study can be found in Table 12.

Table 12: Factor distinguishing statements.

		Factor 1	Factor 2	Factor 3	Factor 4
1	Understand and Apply Adult Learning Theories and Principles (F1)	5	1	0	-2
2	Understand and Apply Instructional Design Principles (F2 & F4)	4	1	5	-4

Table 12 (continued).

8	Design and Develop Leadership Development Programs (F3)	-1	-1	-3	1
10	Effective Marketing of Learning Programs (F1 & F4)	-2	-4	-5	2
11	Define An Organization's Learning Strategy (F1 & F2)	1	3	-1	-4
12	Create and Optimize Training Processes (F1 & F2)	4	1	-1	-3
16	Manage and Develop Training Professionals (F4)	0	-1	-2	2
18	Leading the Learning Function (F1 & F2)	1	2	-2	-1
19	Aligning Training Programs to Business Goals (F2 & F4)	2	5	3	-3
21	Virtual Instruction Facilitation (F2 & F4)	-2	0	-4	3
22	Designing and Developing eLearning (F4)	0	2	0	5
23	Using Technology in Instruction (F4)	-1	1	1	4
24	Learning Management System Administration (F2)	0	-5	-1	-1
25	Curating Content for Learning (F2)	0	-1	1	1
27	Organization Skills (F2 & F4)	1	-4	1	4
28	In-Person Training Facilitation (F3 & F4)	0	-1	-3	3
30	Evaluation of Training Impact (F4)	1	3	2	0
31	Data Analysis (F3)	1	0	3	0
32	Creating Effective Reports and Dashboards (F2)	-2	-3	0	0

Table 12 (continued).

34	Evaluating Performance (F1 Only)	-1	2	1	1
35	Mentoring and Coaching for Performance Improvement (F1)	-3	0	-1	2
36	Performance Consulting (F1 Only)	-4	0	-1	0
38	Change Management (F1 Only)	-3	-1	0	-1
42	Research Skills (F2 & F3)	-1	-3	2	0

Factor Groups

In the following section, descriptions of each of the factor groups will be provided including the demographic makeup of each group, the group's factor array, the naming of the group provided by the researcher and the reasoning behind the name.

In reviewing the factor arrays for each group, the researcher decided to name each of the groups based on what appears to be the type of training and development professional the group is expecting the student to become after finishing a graduate program in training and development. The four groups include:

- The Foundationalists
- The Impactors
- The Generalists
- The Future Leaders

Factor One: The Foundationalists

The largest group, Factor One, contains five participants from the study. An overview of the demographics for this group can be found in Table 13. The group includes a wide range of

ages going from the 18-29 category to the 60-69 category. The group also includes a mix of stakeholder types, with two participants reporting that they are currently students enrolled in a graduate program in training and development, one participant currently working as a faculty member in a graduate program in training and development, and two participants who categorized themselves as learning leaders. Of the three males that completed the study, two of them are included in this group. Two of the participants, including the faculty member and one of the learning leaders, reported that they previously completed a graduate program related to training and development.

Table 13: Group One Demographics.

Participant	Age	Gender	Study Qualification	Currently Working In Field?	Title	Graduated from T&D Program
4	18-29	Male	Student	No	Not Reported	No
5	40-49	Female	Faculty	Yes	Not Reported	Yes
11	40-49	Female	Learning Leader	Yes	T&D Manager	Yes
12	60-69	Female	Learning Leader	Yes	Director	No
13	30-39	Male	Student	Yes	Training Coordinator	No

The statements rated the highest and lowest by this group are a good reflection of how their opinions differ from the other factors. These can be found in Table 14. The item the group rated as the most important knowledge or skill to learn through a graduate program in training and development was the ability to understand and apply adult learning theories and principles (statement 1). Other top items included statement two, understand and apply instructional design principles, and statement twelve, create and optimize training processes. Their rankings of

statements one and twelve were distinguishing statements for the group. One of the participants in the factor described instructional design principles as the “actual meat of training and development,” noting that they felt that this sound be the foundation of any training and development program.

The lowest ranking for the factor is statement fifteen, select and manage vendors. This is not a distinguishing statement for the group, as many people including those in other factors have this as their lowest rated statement. Other statements ranked low by Factor One include statement 36, performance consulting, and statement 39, business consulting. Several of the group’s lowest and highest ranked statements are also distinguishing statements. These have been highlighted with an asterisk in Table 14. A full list of distinguishing statements for each factor can be found in Table 12.

Table 14: Group One Highest and Lowest Items.

Rankings	Card No.	Corresponding Statement
Highest		
5	1	Understand and Apply Adult Learning Theories and Principles (*)
4	2	Understand and Apply Instructional Design Principles
4	12	Create and Optimize Training Processes (*)
Lowest		
-4	36	Performance Consulting (*)
-4	39	Business Consulting (Identifying, Diagnosing, and Proposing Solutions for Business Problems)
-5	15	Select and Manage Vendors

(*) Distinguishing Statement for the Group

When reviewing the factor array for the group one of the things that sticks out about the group is that they place what many would consider to be the foundational training and development skills higher in the ranking. These foundational skills such as understanding adult learning theories and principles, instructional design, designing and developing training programs, written and oral communication are placed higher compared some of the auxiliary skills such as performance and business consulting, talent management, change management, and performance improvement. One of the participants notes directly in their responses that instructional design principles “should be the foundation of any T & D program.” Another participant noted that they ranked adult learning theory, statement one, as most important because they felt that the learner must first have a good understanding of their population. Two of the participants stated that they felt that adult learning theory and principles was the “foundational piece” of the field and the “core content for the profession.” Because of this, the group has been named The Foundationtionalists.

Factor one sees the quality graduate program in training and development as one that provides the learner with the foundational knowledge, they will need to be successful in the role. As shown in the group’s factor array, they place higher importance on skills such as adult learning theory, designing and developing training programs, designing and creating training materials and they place items related to newer trends in the field such as virtual training facilitation, design thinking, eLearning development, and using technology in instruction lower in the rankings.

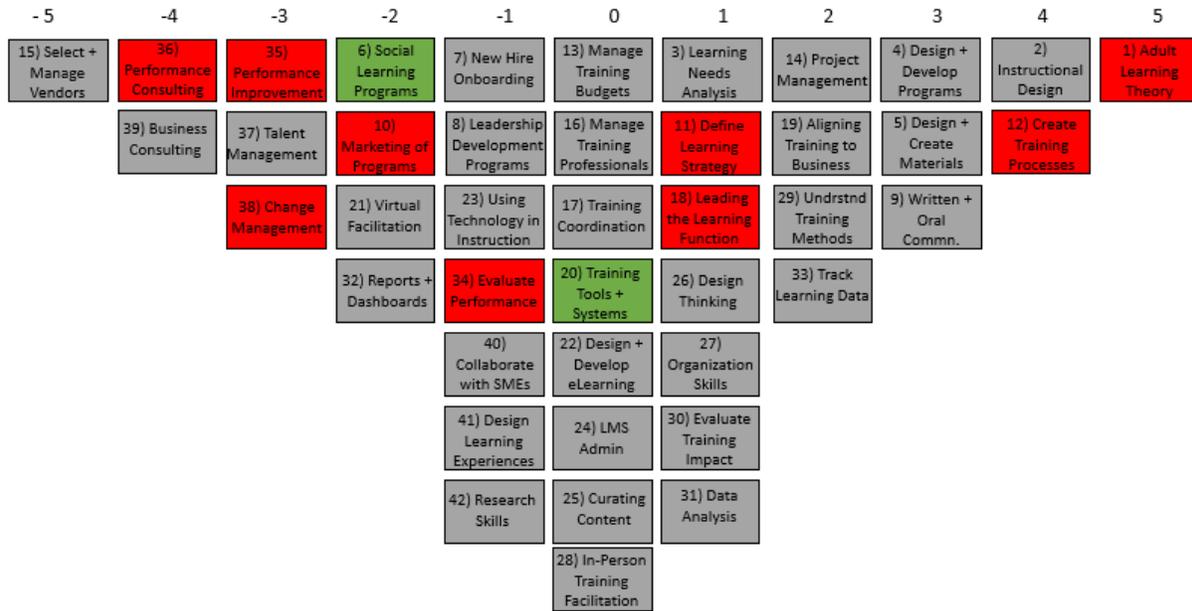


Figure 4: Factor Array for Factor One.

Factor Group Two: The Impactors

Four of the participants load into Factor Group Two. One of the unique components of this group is that all of the participants are currently connected to a graduate program in training and development. Two of the group members are students enrolled in a program and the other two participants are currently serving as faculty members for a program. 75% of the group reported that they are currently working in the field with roles including instructional designer, L&D consultant, and associate professor. The group includes three females and one male, with age ranges including 18 to 29, 30 to 39, and 40 to 49. Both of the faculty members in the group reported that they have previously completed a graduate program related to training and development.

Table 15: Group Two Demographics.

Participant	Age	Gender	Study Qualification	Currently Working in Field?	Title	Graduated from T&D Program
3	30 – 39	Female	Student	Yes	Instructional Designer	No
6	40 – 49	Female	Faculty	No		Yes
9	18 – 29	Female	Student	Yes	L&D Consultant	No
16	40 – 49	Male	Faculty	Yes	Associate Professor	Yes

Group two’s highest and lowest statement rankings are both distinguishing factors for the group. The item most important in the group’s factor array in statement nineteen, aligning training programs to business goals. Other highly rated statements include statement forty, effective collaboration with subject matter experts, and statement forty-one, designing learning experiences. One of the group members rated card nineteen, aligning training to programs to business goals, as the most important statement in their sort. They describe the importance of having this alliance by saying that it is “critical to have a seat at the table” and that if this alignment is not in place it will be “hard to show the value of the training.” The lowest rated statement for the group was statement twenty-four, learning management system administration. Statement ten, effective marketing of learning programs and statement twenty-seven, organization skills were also rated as being of low importance to the group. Table 16 lists the group’s highest and lowest scored statements.

Table 16: Group Two Highest and Lowest Items.

Rankings	Card No.	Corresponding Statement
Highest		
5	19	Aligning Training Programs to Business Goals (*)
4	40	Effective Collaboration with Subject Matter Experts
4	41	Designing Learning Experiences
Lowest		
-4	10	Effective Marketing of Learning Programs
-4	27	Organization Skills (*)
-5	24	Learning Management System (LMS) Administration (*)

(*) Distinguishing Statement for the Group

Because of the group’s factor array, they have been named The Impactors. Several of the higher rated items for the group relate to the program being able to prepare students to align training to the needed results of the business and to demonstrate the impact that training has had. The highest rated statement for the group is statement nineteen, aligning training to the business. Other highly rated statements include learning needs analysis, defining learning strategy, evaluating training impact, and evaluating performance. For one of the participants who ranked defining learning strategy, statement twenty-four, as their highest item, they shared that they felt that “without strategy. there will be a lack of alignment and the success of training will not be visible or measurable.” These statements are ranked higher than many of the statements related to training content development and facilitation. Adult learning theory, instructional design, and creating materials for example are all ranked as a 1 on the -5 to 5 scale. This is a low ranking in comparison to group one which rated these items as some of their top items.

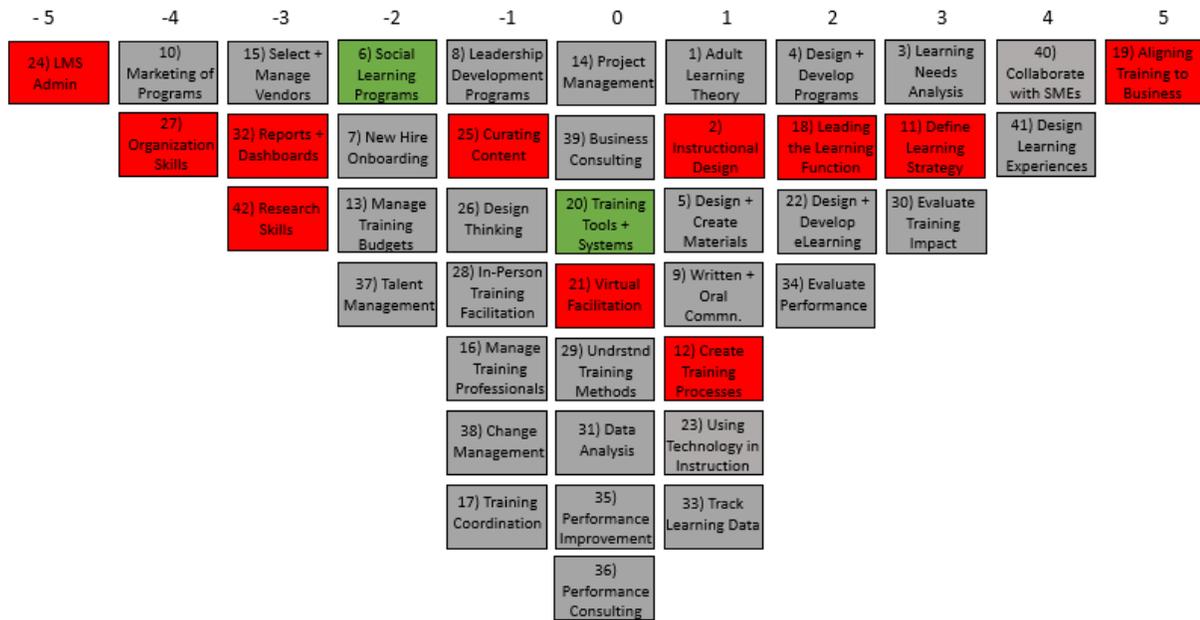


Figure 5: Factor Array for Factor Two.

Factor Group Three: The Generalists

Group three includes two participants, both females, identifying as currently working in the training and development field and both having previously completing a graduate program related to training and development. Participant fourteen is a learning leader, currently working as a Director of Technical Training. Participant fifteen currently works a faculty member in a graduate program in training and development and a consultant. Demographics for this group can be found in Table 17.

Table 17: Group Three Demographics.

Participant	Age	Gender	Study Qualification	Currently Working in Field?	Title	Graduated from T&D Program
14	30 – 39	Female	Learning Leader	Yes	Director of Technical Training	Yes
15	40 – 49	Female	Faculty	Yes	Faculty/ Consultant	Yes

Unlike the other factors, the group’s factor array does not maintain the original shape of the Q-sort distribution provided to participants. The group’s array notes understanding and applying instructional design principles as the most important item, followed by designing and developing training programs. While the other factor arrays have two statements in the ‘4’ rank on the -5 to 5 scale, this group only includes one statement in this spot as shown in the factor array. The statement in the array with the lowest importance is effective marketing of learning programs, item ten. Selecting and managing vendors and virtual instruction facilitation also rank low. The group’s highest and lowest statement can be found in Table 18 and a copy of their factor array can be found in Figure 6.

Table 18: Group Three: Highest and Lowest Items.

Rankings	Card No.	Corresponding Statement
Highest		
5	2	Understand and Apply Instructional Design Principles
4	4	Design and Develop Training Programs
Lowest		
-4	15	Select and Manage Vendors
-4	21	Virtual Instruction Facilitation
-5	10	Effective Marketing of Learning Programs

(*) Distinguishing Statement for the Group



Figure 6: Factor Array for Factor Three.

Named The Generalists, Factor Group Three has the lowest number of distinguishing statements.

The highest ranked items include a mix of things related to designing and developing training, working with training data, evaluating training impact and aligning training to the business and basic skills such as written and oral communication and organization skills. The group was given

the name The Generalists because unlike the other factors, they did not put a particular subject area or type of work as being most important for a quality graduate program in training and development. As an example, foundational training topics such as instructional design and adult learning theory are weaved throughout their rankings, and technology related topics such as using technology in instruction, designing and developing eLearning, and virtual facilitation is as well. It appears that this group is looking for a quality program in training and development to provide learners with knowledge and skills in a wide range of topics, versus depth in a particular area.

Factor Group Four: The Future Leaders

Factor Group Four includes three of the fourteen participants that factored into a group. One of the unique aspects of this factor compared to the other factors is that the group includes only participants that identified as being learning leaders and all participants noted that they currently work in the training and development field. Unlike the other factors, no faculty or student participants are included in the group. The group also only includes female participants, as noted in Table 19, with age ranges between 40-69.

Table 19: Group Four Demographics.

Participant	Age	Gender	Study Qualification	Currently Working In Field?	Title	Graduated from T&D Program
2	50 – 59	Female	Learning Leader	Yes	Senior Regional Training Director	Yes
7	60 – 69	Female	Learning Leader	Yes	Instructional Designer	No

Table 19 (continued).

8	40 – 49	Female	Learning Leader	Yes	Training Coordinator	No
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In the group’s factor array, designing and developing eLearning is the highest ranked statement. Other items ranked with high importance include using technology in instruction, statement twenty-three, and organization skills, statement 27. These statements are all distinguishing factors for the group. When noting why she selected designing and developing eLearning as the most important knowledge or skill that learners should gain through a quality graduate program in training and development, a participant shared that she felt that “most training right now is built and delivered as eLearning products. It has taken the place of many instructor-led courses.”

The lowest ranked items for the group include statement fifteen, selecting and managing vendors. This statement was ranked by many participants as the least important item to cover in a graduate program. As shown in Table 20, defining an organization’s learning strategy and understanding and applying instructional design principles was also ranked low by the group.

Table 20: Group Four: Highest and Lowest Items.

Rankings	Card No.	Corresponding Statement
Highest		
5	22	Designing and Developing eLearning (*)
4	23	Using Technology in Instruction (*)
4	27	Organization Skills (*)
Lowest		
-4	2	Understand and Apply Instructional Design Principles (*)
-4	11	Define An Organization's Learning Strategy

Table 20 (continued).

-5	15	Select and Manage Vendors
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(*) Distinguishing Statement for the Group

Factor Four was given their group name, The Future Leaders, because of their high rankings of statements related to technology and of statements related to training leadership. Their highest ranked statement in the factor array is statement twenty-two, designing and developing e-learning. They also have virtual training facilitation and integrating technology into training as highly ranked items. In the area of training leadership, they have ranked several duties that would typically be carried out by training managers and directors as important including managing other training professions, marketing training, and managing training budgets.

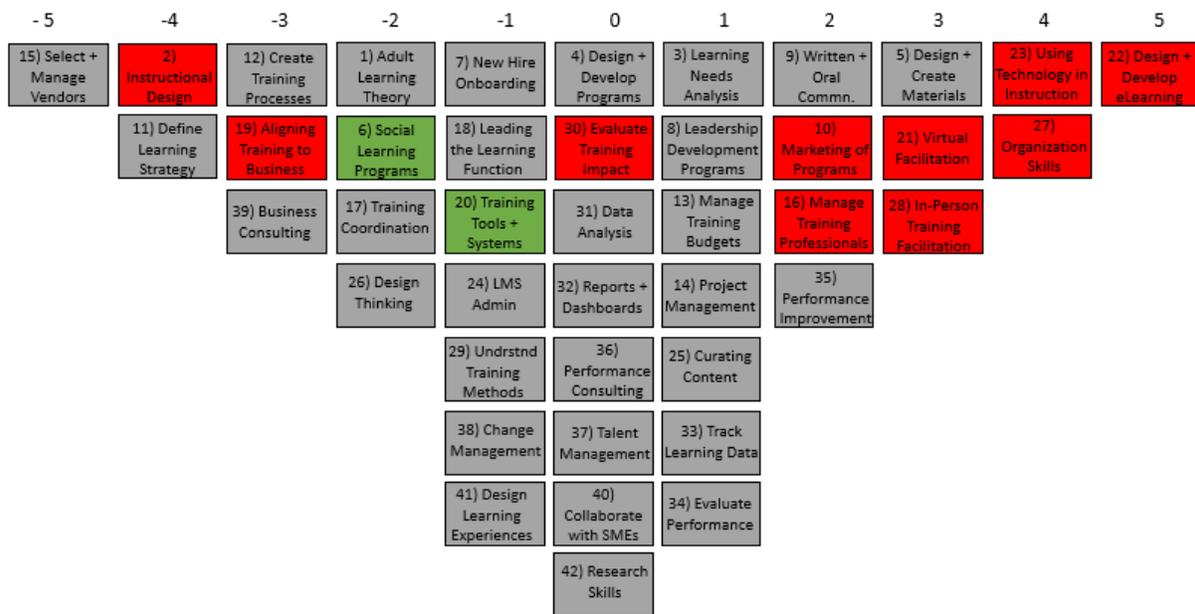


Figure 7: Factor Array for Factor Four

Common Themes and Post-Sort Feedback

One of the common themes that emerged from the sorts of participants was that being able to effectively select and work with vendors was not of high importance to cover in a

graduate program in training and development. One of the participants noted that they felt that this topic related more to business management instead of training and development and two of the participants shared that they thought this was a skill that could be learned easily by someone on the job if needed. Statement twenty was also a consensus item for the groups, with many groups placing it in a neutral position.

In addition to the sorting activity, participants in the study were also asked to answer a few open-ended questions. One of the questions asked the participants to share if there were any statements in the q-set that they would have not included. One participant noted being “surprised to see training coordination in the sort” and two of the participants noted that they would have not excluded any of the statements.

For the last question in the post-sort questionnaire, participants were asked if they had any additional thoughts they wanted to share. The additional statements covered a mix of topics including feedback on the sorting process, ideas for additional topics to include in the q-set, and feedback on the current graduate program a student was enrolled in. The feedback from this question can be found below.

- Two of the participants provided feedback on the sorting process: one saying they would have preferred to provide feedback on a Likert scale survey and another participant stated that they wished they could have placed more cards in a column.
- For ideas on additional statements to include in the q-set, one of the learning leaders suggested adding Neuroscience into the curriculum for graduate programs in training and development.
- For one of the students currently completing a graduate program in training and development, they shared that they wished that their program had “been more

structured towards (their) needs and that they felt that several of the courses covered the same content.

- One of the learning leaders recommended aligning the curriculum of graduate programs in training and development to the competencies prioritized by the Association of Talent Development.
- And lastly, one of the faculty members shared that they rated the creation of specific training programs (such as onboarding and leadership development programs) lower on the scale because they felt that “if we teach someone how to develop training, the content is not as critical.”

Summary

The aim of the study was to gain insight on what stakeholders of graduate programs in training and development view as the most important knowledge and skills to cover in the curriculum. With the q-sort and post-sort questionnaire of sixteen study participants, a factor analysis was conducted using R and the qmethod package. After reviewing several possible factor solutions, a four-factor solution was chosen as the best representative of the participant views.

For factor one, The Foundationalists, their factor array shows an interest in graduate program giving students the foundational knowledge they would need to be successful in a training and development role such as knowledge in adult learning theory and instructional design skills. Factor two, The Impactors, emphasis the importance being able to demonstrate the value of training and how training aligns to the goals of the business. For factor three, The Generalists, they place of variety of knowledge and skills higher in the ranking. Unlike the other factors, their factor array does not appear to focus as much on making one subject area higher

than another. For the last factor group, the Future Leaders, there is an importance place on the technology and training management/leadership related duties that a student in a graduate program in the field should be able to complete.

While the views of the participants are diverse, there are some common threads in their opinions. While many companies work with vendors for their training related needs, most participants feel that learning how to select and manage vendor relationships is not an important topic to cover in a graduate program in training and development. Six of the original sixteen participants ranked this as their lowest item. For the factor groups, there also appeared to be agreement around the importance of being able to design and implement social learning programs and implementing and managing training tools and systems. For social learning programs, the factor arrays place this as being of lower importance with it in the -2 or -3 spot for each factor. Implementing and managing training tools and systems comes in at neutral importance for each of the groups.

The data collected in the study provides insight on what stakeholders of graduate programs in training and development view as the most important knowledge and skills to teach. Feedback from program stakeholders on curriculum have come from a variety of methods in the past including advisory Delphi studies, surveys, and advisory boards (Koh, 1995; Ellen & Pilling, 2002; Enz, Renaghan, & Geller, 1993; Tapis & Delaney, 2017). Q-methodology is an additional method that can be used to gather and interpret the perspectives of stakeholders. Through stakeholder theory, it is believed that understanding and addressing the needs of stakeholders is key to providing value to these groups (Naeem, Abbas, & Javed, 2015).

CHAPTER 5: IMPLICATIONS AND DISCUSSIONS

Introduction

With little prior research available on how training and development professionals are prepared to enter their roles, the researcher sought to gain insights on one of the common methods for learning about the field: graduate programs in training and development. As listed on the Association of Talent Development's website, there are several universities around the United States offering masters level degrees in training and development, and related fields (ATD, "L&D Degree"). These programs feature a mix of topics in their curriculum and through this study, the goal was to understand what stakeholders of graduate programs in training and development view as the most important knowledge and skills to gain in these types of academic programs.

According to Stakeholder Theory, the theoretical framework for this study, value can be achieved by aligning to the needs of the stakeholders, those who are impacted by the success of the organization (Freeman, 2010). For colleges and universities, there are a variety of stakeholder groups (Nadeem, Abbas, & Javed, 2015).

For the stakeholders of graduate programs in training and development, including current program leaders and faculty, students, and employers, implications are provided are provided in this section of the study. An overview of the research process and results of the data analysis are also provided along with ideas for future q-studies and research around this topic.

Overview of the Research Process

The study utilized q-methodology to collect and analyze the perceptions of various graduate program stakeholders including current faculty members, students enrolled in graduate programs in training and development, and learning leaders and managers to represent the

employer perspective. The first step in conducting the study was identifying the knowledge and skills that a stakeholder may potentially expect for a graduate program to provide instruction on. To do collect this information, previous research, online articles, and job postings were reviewed. Combined the statements from these resources resulted in five hundred and nine statements in the concourse. These were later paired down to a q-set of 42 statements, with the goal of providing the participant a list of statements that represented the comprehensive views of the concourse while keeping the sorting process manageable. The statements in the q-sort, along with eight post-sort questions, were then entered into the online software Q-sorTouch, creating an electronic way for participants to complete the study.

To recruit potential participants, the researcher emailed a letter of invitation to program leaders and faculty members of graduate programs in training and development. Invitations to participate were also sent to learning and development leaders through the online social platform LinkedIn. The recruitment process was carried out for three months with sixteen participants completing the study. Each study participant, after agreement to participate in the study, was provided with a link to the online sort and post-sort questionnaire. Data from Q-sorTouch was then exported to be used for analysis.

Overview of Findings

Using R, four possible factor solutions were created. After reviewing each option, the four-factor solution was selected based on the eigenvalues of the factors, the number of the participants retained, and the total percentage of variance explained. In reviewing the factor arrays of each group, it was determined that the grouping of the participants was not strictly explained by their stakeholder role (student vs. faculty vs. employer/industry representative), and

instead their rankings appeared to be best labeled based on the type of training and development professional that students would serve in upon completing the program.

The results of the factor analysis help to answer research question one of the study: what are the perspectives of students, faculty members, and employers toward a quality master's program in training and development that prepares graduates for employment and why? For Factor Group One their highest ranked items were centered around a graduate having the skills needed to effectively work with adult learners and to develop quality instruction. For Factor Group Two, several of their highest ranked items centered around being able to align training to business needs and to demonstrate the value that the training has brought to the business. The factor array for Group Three reflected a mix of skills and subject areas as being of high importance, aiming for breadth in knowledge instead of depth around a particular topic. Factor Group Four placed high importance on technology related knowledge and skills. They also placed a higher importance on tasks that would typically be carried out by someone in a training manager or leadership role.

Research question two aimed to answer how the perspectives of students, faculty members, and employers are similar or different toward a quality master's program in training and development that prepares graduates for employment? The results of the sorts and the grouping of the factors demonstrated that while some people in the same stakeholder groups (student, faculty, and learning leader) may have similar opinions on what a quality graduate program would include, their views are not easily justified based solely on stakeholder group for which they were flagged. The four faculty members that completed the study were flagged in three different factor groups, the learning leaders and managers were placed in three different groups, and the current students appeared in two different factors.

Conclusions

In reviewing the data collected through the q-study, two questions become of clear importance for those deciding on the curriculum for graduate programs in training and development: what knowledge, skills or experience should a potential student have before entering the program and what role(s) should graduates of the program be prepared to enter upon graduation? While some items such as instructional design and adult learning theory typically ranked high amongst participants, and administrative tasks and vendor management typically ranked low, there is a diverse set of opinions on what the overall curriculum of a program should include. For graduate program leaders, who hope to have their students see value and gain the knowledge they need to progress professionally in their two-year programs, there is not enough time to cover all of the topic areas presented in q-set, so having clarity on what is most important is essential.

Limitations

While Q-methodology does not require as large of a population size as other research methods (Brown, 1980), the number of participants in the study is relatively small. Between August and October of 2019, the researcher was able to recruit sixteen participants including a mix of students, faculty members, and learning leaders/ managers. The data collected in this study, like most q-studies, cannot be generalized to the overall population.

Implications for Program Leaders

With limited research on the preparation of individuals for training and development careers, the hope of the researcher is that this study will shed light on the importance of understanding the needs and expectations of the various stakeholders of graduate programs in training and development. While the perspective of the study participants did not clearly divide

by the stakeholder type (student, faculty, or learning leader/manager), there are indeed various perspectives on what knowledge a potential student should have before entering a graduate program in training and development and what type of role they should be prepared for after completing a graduate program in training and development. By understanding these expectations, program directors and faculty can better tailor program curriculum, entrance requirements, and how the program should be marketed to potential students.

Implications for Potential Program Students

For individuals considering enrolling in a graduate program in training and development, the results highlight the importance of having a clear desired career path in the field and ensuring that the graduate programs they are evaluating has curriculum that aligns with that role. It is also important for the potential student to consider what knowledge and skills they already have and if the programs' curriculum makes any inaccurate assumptions about this for incoming students. For example, if someone with little knowledge on adult learning theory and instructional design entered a program based on the views of Factor Group Two, they may find when entering the field that they do not have the knowledge to be successful in common training roles such as instructional designer, however they may be better prepared for that requires demonstrating the value of training and aligning the training strategy to business goals such as a training manager.

Implications for Learning Leaders

For learning leaders reviewing potential training and development candidates for hire, the results of the study show the importance of asking for information on any academic programs the candidate has completed in the field. While the leader may have their own perspective, or assumption, on what was covered in a graduate program in training and development, there is the

chance that the program may have to different focus areas depending on the viewpoints of those that shaped the curriculum.

Recommendations for Future Research

One of the insights gained by the researcher during this study was the lack of information around the preparation of individuals for roles in training and development. While it is common for both private and public organizations to utilize professionals in these roles, there is little research on how success in the role should be defined, the path people typically take to enter the field, and the best way to prepare people with the skills and knowledge they will need to be successful. Additional research could be conducted on the educational backgrounds of people in the field and if those backgrounds provide any ability to predict success in the field, why training and development professionals chose to pursue graduate degrees in the field and why some do not, and research on how well current graduate programs in the field align to expectations of program stakeholders. Additionally, this study focused on the knowledge and skills that should be gained through a graduate program and development, but it does not address the level of knowledge that someone should have before entering a graduate level program. The expected knowledge that someone should have before entering a program helps shape what is taught in the curriculum and having insights on what faculty members view of this pre-requisite knowledge can also help to better understand what should be taught in these programs.

Recommendations for Future Studies Utilizing Q-Methodology

While the findings of the study are helpful for gaining insight into the key knowledge and skills that graduate programs in training and development should focus on, there are improvements that could be made in the future to produce potentially more data. Participant recruitment became the biggest challenge of the study as there was a narrow scope of individuals

who would have qualified to participate and finding information on graduate school program leaders was challenging. Having more participants, from the various stakeholder groups, may change how the participants were placed into factor groups. Also, while the user interface of the Q-sorTouch software was much more advanced than the other sorting tools reviewed by the solution, two users did report having technical issues with completing the study. Both participants chose to decline completion of the study after facing these issues. This problem could potentially be mitigated by recommending that participants complete the study from a desktop computer instead of their mobile device, and by potentially providing an instructional video explaining how the q-sort should be completed. This may be particularly helpful for those who are not familiar with Q-sorTouch and/or Q-methodology.

Summary

For graduate programs there are several groups of stakeholders including faculty and staff, students, and the future employers of the graduates (Nadeem, Abbas & Javed, 2015; Eberle, Milan, Dorian, 2015). In stakeholder theory, it is believed that the best way to bring value is to understand and meet the needs of an organization's stakeholders (Nadeem, Abbas, & Vaved, 2015). This idea holds true for colleges and universities offering academic programs. In this study, the aim was to get an understanding of the expectations of stakeholders of graduate programs in training and development. With little prior research available on how training professionals are prepared for their careers, the study was a first step in understanding what skills are needed for this career field and if academic programs are preparing individuals with the skills needed.

The study utilized Q-methodology as the research method for gathering the perspectives of sixteen stakeholders including current faculty members and students of graduate programs in

training and development, and several people currently working in the training and development field. Each participant completed an online sort of 42 statements on knowledge and skills, ranking them on a scale of least important to most important to gain. With these results a factor analysis was conducted in R and the post-sort questionnaire of the participants was reviewed. It was determined that a four-factor solution best represented the diverse views of the participants. The four factor groups were then labelled based on the results of their factor arrays including Group A: The Foundationalists, Group B: The Impactors, Group C: The Generalists, and Group D: The Future Leaders.

In this chapter, a summary of this data collection and analysis was provided as an introduction to the implications that would be shared. Implications for leaders of graduate programs in training and development was included along with potential implications for future students considering pursuing a graduate degree in the field. For learning and development leaders who may potentially hire graduates of these programs, implications were provided as well. Many of the implications for these groups centered around the importance of understanding the type of role(s) in the field that is desired by the student, and if the graduate program also aligns the role(s). As can be seen by the results of the Q-study, there are varying perspectives on what a person should know before entering a graduate program in training and development, and what should be known upon completing this type of program.

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APPENDICES

Appendix A: Q-Set Statements

#	Q Statement	Source
1	Understand and Apply Adult Learning Principles/ Theories	Knauf Insulation North America, 2019; WW, 2019; Steris Corporation, 2019; Carolina Handling, 2019; Colorado Corporate Computer Centers
2	Understand Instructional Design Principles	Association of Talent Development, 2014; Knauf Insulation North America, 2019; Steris Corporation, 2019; Verisign, 2019;
3	Conduct Learning/Training Needs Analysis	Administrate, 2014; ING, 2019; Ketkin, I. 2016
4	Design and Development Training Programs	Conduent, 2019; Irish Institute of Training and Development, 2017. Stanley Black and Decker, 2019.
5	Design and Create Training Materials	Bureau of Labor Statistics, 2018a. IAT Insurance Group, 2019; Mondo DB, 2019; Synovos, 2019.
6	Design and Implement Social Learning Programs	CIPD, 2018; Cushard, B., 2019; McCracken, 2016; SPEEXX, 2018;
7	Create and Implement New Hire Onboarding Programs	Stanford University, 2019; Steris Corporation, 2019;

- | | | |
|----|--|--|
| 8 | Create and Implement Leader and Manager Development Programs | Amazon, 2019; CIPD, 2018; Ketkin, 2019; LendingClub, 2019 |
| 9 | Communicate Effectively Through Written and Oral Communication | Administrate, 2014; Amazon, 2019; Collibra, 2019; Colorado Public Computer Centers; Education Dynamics, 2019; Guardian Life, 2019; Kaiden, 2016; Knauf Insulation, 2019; Laskaris, 2008; Marathon Petroleum Corporation, 2019; Marketo, 2019; McCracken, 2016; Navigant, 2019; PwC, 2019; Raytheon, 2019; Shark Ninja, 2019; Spotify, 2019; Steris Corporation, 2019; Synovos, 2019; Training Industry, 2018 |
| 10 | Market Learning Programs and Materials | Blake, 2018; Danzl, 2017; Guardian Life, 2019; Finish, 2019; LPI, 2018; Pradhan, A., 2017; SPEEXX, 2018 |
| 11 | Define An Organization's Learning Strategy | Blake, 2018; Guardian Life, 2019; Learning and Performance Institute, 2018; Headspace, 2019; Mongo DB, 2019; SPEEXX, 2018; |
| 12 | Create and Optimize Training Processes | Learning and Performance Institute, 2018; Training Industry, 2018; |
| 13 | Manage Training Budgets | Association of Talent Development, 2014; Blake, 2018; Headspace, 2019; Irish Institute of |

	Training and Development, 2017; Laskaris, 2008; Marathon Petroleum Corporation, 2019;
14 Project Management	Blake, 2018; Collibra, 2019; Ford, 2015; Learning and Performance Institute, 2018; Mongo DB, 2019; Navigant, 2019; Shark Ninja, 2019; Stanford University; Sheperd, 2017; SPEEX, 2018; Steris Corporation, 2019; Verisign, 2019
15 Select and Manger Vendors/ External Resources	ING, 2019; Ketkin, 2016; Marathon, 2019; Training Industry, 2018; Verisign, 2019;
16 Manage and Develop Training Professionals	Association of Talent Development, 2014; Headspace, 2019;
17 Coordinate and Administer Training Programs	Bureau of Labor Statistics, 2018a; IAT Insurance Group, 2019; Sanford, 2019;
18 Lead the Learning Function	CIPD, 2018; Irish Institute of Training and Development, 2017;
19 Align Training Programs to Business Goals	Ketkin, 2016; Marathon Petroleum Corporation, 2019; Training Industry, 2018
20 Implement and Manage New Technological Tools and Systems	Guardian Life, 2019; Learning and Performance Institute, 2018; Training Manager, 2018
21 Effectively Facilitate Virtual Instruction	Finch, 2019; PwC, 2019; SPEEXX, 2018;

- 22 Design and Develop eLearning Headspace, 2019; Knauf Insulation North America, 2019; Marathon Petroleum Corporation, 2019; Verisign, 2019
- 23 Use Technology in Instruction Association of Talent Development, 2014; Kaiden, S. 2016.
- 24 Learning Management System Administration IAT Insurance Group, 2019; Marketo, 2019; Shark Ninja, 2019; Verisign, 2019
- 25 Curate Content for Learning Danzl, 2017; Finch, 2019; National Life Group, 2019; O'Donnell, 2018;
- 26 Understand and Apply Design Thinking Principles Blake, 2018; Pradhan, 2017; Pradhan, 2018
- 27 Organization Skills Laskaris, 2008; Mongo DB, 2019; Raytheon, 2019; Synovos, 2019
- 28 In-Person Training Facilitation Education Dynamics, 2019; Steris Corporation, 2019;
- 29 Understanding of Various Training Methods Knauf Insulation, 2019; Stanley Black and Decker, 2019
- 30 Evaluation of Training Impact Bureau of Labor Statistics, 2019; Guardian Life, 2019; Learning and Performance Institute, 2018; Stanley Black and Decker, 2019
- 31 Data Analysis Danzl, 2017; Finch, 2019; Hogle, 2019; Learning and Performance Institute, 2018;

	Pradan, 2018; McCracken, 2016; Sarchet, 2018; SPEEXX, 2018
32 Create Effective Reports and Dashboards	ING, 2019; National Life Group, 2019; Verisign, 2019
33 Collecting and Tracking Learning Data	Blake, 2018; LendingClub, 2019
34 Evaluating Performance	LendingClub, 2019; Sanford, 2019
35 Mentoring and Coaching for Performance Improvement	CIPD, 2018; Global Skill Development Council, 2018; McCracken, 2016; Navigant, 2019; SPEEXX, 2018
36 Performance Consulting	Ketkin, 2016; McCracken, 2016; SPEEXX, 2018; Steris Corporation, 2019
37 Talent Management	Amazon, 2019; CIPD, 2018; Ketkin, 2016; Stanford, 2019
38 Change Management	Association of Training and Development, 2014; Learning and Performance Institute, 2018; Lending Club, 2019; Verisign, 2019
39 Identify, Diagnose, and Propose Solutions for Business Problems (Business Consulting)	Blake, 2018; Ketkin, 2016
40 Effectively Collaborate with Subject Matter Experts	Guardian Life, 2019; Little, 2017; National Life Group, 2019;
41 Design Learning Experiences	Blake; 2018. Hogle, 2019.

Appendix B: Letter to Program Directors

Greetings,

My name is Austina White and I am a doctoral student at North Carolina State University. For my dissertation I am researching stakeholder perspectives on quality master's programs in training and development. Specifically, the aim of this research is to gain information from program stakeholders on what they view as the most important topics to include in the curriculum for a quality master's program in training and development that will prepare graduates for employment.

This study is open to:

- Students currently enrolled in training and development graduate programs
- Faculty members of training and development graduate programs
- Training and development leaders who are responsible for managing training personnel

Participants in the study will be asked to complete an online q-sort asking them to prioritize what they think the most important topics are to include in a quality master's program in training and development. Afterwards, they will be asked to complete a post-sort questionnaire.

Throughout this study, the identification of participants will remain confidential. Personally Identifiable Information such as names and email addresses will not be collected, and any data exports will be stored on a secured device.

I would like to invite the faculty members of your graduate program, and your current students, to participate in the study. Their participation would be greatly appreciated.

If you agree to having their participation, please respond to the email and I will forward along an email that can send to the potential participants.

For questions, I can be reached at auwhite@ncsu.edu or 919.885.9394. Dr. James Bartlett, who will be supervising this research, can be contacted at [James Bartlett@ncsu.edu](mailto:James_Bartlett@ncsu.edu).

Best regards,

Austina White

EdD Candidate, North Carolina State University

Appendix C: Letter to Potential Participants

Greetings,

You are invited to participate in a research study on graduate programs in training and development. The aim of this research is to gain information from program stakeholders on what they view as the most important topics to include in the curriculum for a quality master's program in training and development, specifically, a quality program that will prepare graduates for employment.

This study is open to:

- Students currently enrolled in training and development graduate programs
- Faculty members of training and development graduate programs
- Training and development leaders who are responsible for managing training personnel

Participants in the study will be asked to complete an online q-sort asking them to prioritize what they think the most important topics are to include in a quality master's program in training and development. Afterwards, they will be asked to complete a post-sort questionnaire.

Throughout this study, the identification of participants will remain confidential and any information collected, will be securely stored. Personally Identifiable Information such as names and email addresses will not be collected and any data exports will be stored on a secured device.

Your participation in this study would be greatly appreciated.

To join the study, click [here](#). It is recommended that you complete the study in a private browsing mode to ensure confidentiality throughout the study. By beginning the study, you are providing consent.

For questions, contact Austina White at auwhite@ncsu.edu or 919.885.9394. Dr. James Bartlett can be reached at James_Bartlett@ncsu.edu.

Best regards,

Austina White

EdD Candidate, North Carolina State University

Appendix D: Post-Sort Questionnaire

The following questions will be asked after the Q-sort is completed to gain additional demographic and contextual information from the participants, with the hope of getting additional insight on their responses.

1. Age
2. Gender
3. Through which of the following categories do you qualify as a research participant?
 - a. Current Student
 - b. Current Faculty or Staff Member
 - c. Learning and Development Leader
2. Do you currently employed in a training and development role?
3. For the card that you selected as most important, why did you place it there?
4. For the card that you selected as least important, why did you place it there?
5. Have you participated in a graduate program in training and development, if so, which topics did your program include? Which topics did your program not include?
6. Are there any cards that you would have not included? If so, why?
7. Is there any additional information that you would like to share?