Navigating LMS Platform Transitions: Faculty Perspectives on Professional Development during LMS Platform Transitions in Higher Education

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Abstract

The transition to online education began more than two decades ago but has accelerated with events like the COVID-19 pandemic, which further catalyzed the need for faculty preparation during Learning Management System updates and transitions. Because of the gap in the literature regarding professional development, this study investigated the challenges encountered by the faculty before, during, and after a major update or transition of the learning management system. Individual interviews were conducted with twelve faculty members from different institutions who had teaching experience before, during, and after a major LMS update or transition. Interviews were guided by a qualitative phenomenological approach. From this approach, three key themes emerged:

1. Participants cited the need for faculty involvement in the decision-making process.
2. Participants identified the institution should communicate clearly and effectively.
3. Institutional support was also singled out by participants as very significant in successful LMS platform transitions; examples are one-on-one faculty support and group training sessions, among other resources.

Overall, the results established that participants needed professional development that is well-crafted and tailored for future transitions or updates.

Dedication

I dedicate this dissertation to my family. To my wife, Anna, and our three amazing children, for your support over the past four years, this one is for you! Never stop learning!

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Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

Since the late 1990s and early 2000s, online education has grown with the use of Learning Management Systems (LMS). Projections show a 17% increase in LMS usage from 2023 to 2032, with a market value exceeding 232 billion dollars by 2032 (Wadhwani, 2023). The evolution of eLearning has surged in recent years, fueled by internet technology advancements (Cross, 2004). LMSs serve as essential platforms for content delivery, student engagement, and course administration (Barreto, D., Rottmann, A., & Rabidoux, S., 2020). The transition from traditional in-person education to online formats has accelerated since 2012, particularly driven by events like the COVID-19 pandemic (Hamilton, 2023). Preparing faculty for LMS platform transitions became imperative as institutions considered updating or changing their existing systems (Bove & Conklin, 2019; Gasaymeh, 2017; Ge, Lubin, & Zhang, n.d.). This study aimed to understand faculty needs before, during, and after significant LMS platform transitions, bridging gaps in understanding to enhance educational practices in the digital era.

Background

Since the late 1990s and early 2000s, online education has experienced exceptional growth through the use of LMS. The concept of eLearning, or learning through electronic means, dates back several decades (Cross, 2004). However, eLearning development has accelerated over the past few decades with the advent of the internet and digital technology. LMS is vital in delivering and administrating eLearning content. LMS platforms serve as a centralized platform and hub for course materials, student and

faculty interactions, course assessments, content interactions, and analytics (Barreto, D., Rottmann, A., & Rabidoux, S., 2020).

Preparing faculty for these significant transitions is essential as institutions adopt, update, upgrade, or change their existing LMS (Bove, L. A., & Conklin, S., 2019; Gasaymeh, A. M., 2017; Ge, X., Lubin, I. A., & Zhang, K., n.d.). Faculty members are responsible for delivering content and ensuring the effective use of technology in the teaching and learning process. Training and support of faculty during the system transitions encompasses a wide range of needs and considerations. Training should include technical training to understand the new or updated LMS and pedagogical training to design and deliver effective online courses, facilitate student engagement, and support the varied learning preferences of the students (Ching & Hursh, 2014).

Statement of the Problem

Successfully implementing or updating an eLearning system can be challenging in the online educational environment. Nearly 99% of institutions of higher education report using some form of LMS (Dahlstrom et al., 2014). According to Dahlstrom et al. (2014), on average, LMSs were in place for approximately eight years before a significant transition was undertaken, not including countless updates, bug fixes, and other routine maintenance activities; additionally, 15% of institutions in the United States were considering a major transition in LMS over the next three years. The U.S. Department of Education reported that in 2021, there were 5,916 higher education institutions in the United States, making, on average, 887 institutions, or 15%, that could consider a major LMS platform transition between 2021 and 2024.

The continual fluctuation of LMS platform transitions within higher education could lead to considerable stress and frustration for faculty (Mosleh et al., 2022). These transitions could include moving to a new version or implementing a new user experience. Considerations surrounding user interface, ease of access, technical functioning, and pedagogical uses should be considered before performing updates or transitioning to a new system.

While research is available on transitioning an LMS, including timelines for pilot programs (Lawler, 2011), a gap exists in what training and information are needed to support faculty during these processes. Additionally, administration and technology leaders need more knowledge of pedagogical best practices, the required time investment in transitioning or updating courses, and the overall workload of many faculty (Jones, 2015).

Purpose of the Study

Given the significant gap in the research literature, this study examined the need for professional development and support for faculty before, during, and after a major LMS update or transition. This qualitative approach utilized feedback and comments from post-secondary faculty to understand what professional development and support are needed. In-depth interviews were conducted with a subset of the faculty representing as many departments and disciplines as possible. By exploring the specific challenges faculty face, both technically and pedagogically, during LMS updates, this study aimed to contribute insights that extend beyond existing knowledge on common transition methods, processes, and support. Through in-depth interviews with faculty members across disciplines, the research would inform institutions, administrators, and technology

leaders about essential elements of professional development required to support faculty effectively. Ultimately, the goal is to enhance LMS administration practices, foster faculty adaptability to the evolving digital learning landscape, and address the current knowledge gap in faculty professional development during LMS platform transitions.

Significance of the Study

The current study findings hold considerable significance for modern higher education and the evolving landscape of digital learning. The important focus areas were enhancing faculty adaptation, focusing on teaching quality, and guiding LMS administrators and educational leaders on what professional development is needed before, during, and after significant LMS platform transitions.

The findings of this study will help provide guidance and support to LMS administrators and university staff about what professional development is needed before, during, and after a significant LMS update or transition. Since existing literature does not explicitly outline the necessary elements of faculty professional development around LMS platform transitions or updates, the findings of this study will add to the limited existing literature relating to LMS administration.

The findings of this research study will serve as a resource for LMS administrators, educational technology leaders, and university staff involved in managing and overseeing LMS updates and transitions. The study will enhance LMS administration practices focused on specific professional development needs of faculty to develop targeted support programs, ultimately improving their ability to adapt to evolving digital learning environments. Given the limited existing literature on the elements of faculty professional development in the context of LMS platform transitions, this study could

make a significant contribution by filling this knowledge gap and offering guidance for more effective educational practices.

Delimitations

Delimitations are the boundaries and parameters decided upon by the researcher pertaining to the research and participants (Creswell & Creswell, 2018). This study acknowledges four key delimitations. First, it narrows its focus to higher education institutions in the United States. Consequently, variations in educational systems, regulations, and cultural contexts in other geographical regions will not be fully represented in the findings. The second delimitation pertains to the chosen research approach. Employing a qualitative methodology, the study relies on in-depth interviews with a selected group of faculty members. While this approach may not yield quantifiable results or generalizability to a broader population, it aims to offer in-depth insights from the perspectives of the participating faculty. The third delimitation involves a restricted focus on faculty perspectives. Due to the qualitative nature of the study, its findings may only be broadly applicable to some stakeholders engaged in LMS administration, such as students or other support staff. Lastly, external factors, including technological transitions outside the LMS, shifts in educational policies, or global events, may impact the research context. The study may only comprehensively account for some external variables influencing the dynamics of LMS updates or transitions. The sampling did not look at the original or new LMS.

Assumptions

Assumptions are items in the research that are considered true regarding the research and participants (Lunenburg & Irby, 2008). The current phenomenological study

assumed that faculty members desire appropriate professional development and effective communication before, during, and after a significant LMS platform transition or update. Additionally, faculty members expect an adequate and manageable workload during and after an LMS platform transition. It was also assumed that interviewees possessed sufficient knowledge and experience regarding the LMS used within their educational institution, enabling them to provide informed insights into their professional development needs and experiences during LMS platform transitions. Furthermore, it was also assumed that respondents understood the questions posed to them during the interviews and were open and honest in their responses, reflecting their genuine opinions and experiences regarding faculty professional development and support in the context of LMS updates. Faculty members should have been employed before, during, and after the LMS platform transition. Finally, the interview assumed that participation was voluntary and that respondents participated willingly without any external pressure, ensuring the integrity and authenticity of the collected data.

Research Questions

Research questions are a significant component of the study and will serve as the baseline for exploration (Lunenburg & Irby, 2008). The following research questions were examined through in-depth interviews. Three research questions guided this process.

RQ1: What are faculty perceptions of the adequacy of preparation, support, and communication provided by the institution of higher education before, during, and after a Learning Management System (LMS) platform transition?

RQ2: What do faculty perceive would be the most effective strategies and practices for providing faculty with professional development and support before, during, and after LMS platform transitions?

RQ3: How do faculty perceive the types of professional development and support provided before, during, and after LMS platform transitions in mitigating the associated challenges?

Additionally, the research seeks to provide faculty perspectives regarding the types and amounts of communication, professional development, and additional support available to prepare them for a smoother transition.

Definition of Terms

To avoid confusion, this study will use the following common terms, definitions, and key concepts.

Institutions of Higher [Learning] Education.

> The term "institution of higher learning" means a college, university, or similar institution, including a technical or business school, offering postsecondary level academic instruction that leads to an associate or higher degree if the school is empowered by the appropriate State education authority under State law to grant an associate or higher degree (Definition: Institution of higher learning, nd).

Learning Management System (LMS).

> A Learning Management System, or LMS, serves as the software platform or medium for delivering educational context through various asynchronous methods such as email, discussion boards, audio or video presentations, and fostering positive interactions among classmates. Using an LMS allows flexibility in

content delivery, accommodating learners' other commitments and responsibilities (Bradley, 2020).

Professional Development.

Professional Development focuses on comprehensive strategies to enhance the effectiveness of teachers in improving student achievement. This often involves online or face-to-face workshops, conferences, peer coaching, observations, and curriculum development (Peter, 2009).

Organization of the Study

The study is structured into five chapters, each serving an individual purpose. Chapter 1 introduces background information, a statement of the problem, the purpose, and significance, including delimitations, assumptions, research questions, and terms and definitions essential for understanding the study. Chapter 2 is a comprehensive exploration of relevant literature crucial to the study. Chapter 3 reviews the methodology employed, explaining the research design, setting, sampling procedures, instruments, data collection processes, analysis, synthesis, measures ensuring reliability, and the role while acknowledging study limitations. Chapter 4 reveals the results, explaining emergent themes resulting from the methods outlined in Chapter 3. Finally, Chapter 5 consolidates the entire study, presenting a summary, discussing findings about the literature, drawing conclusions, and offering implications for action, recommendations for future research, and concluding remarks.

Chapter 2

Review of the Literature

Introduction

In this chapter, the theoretical foundations and key aspects related to the adoption and integration of Learning Management Systems (LMS) in educational environments are explored. The discussion focuses on the relevance of the Technology Acceptance Model (TAM) in understanding computer acceptance and usage, particularly within the context of LMS. Next, the role of LMS platforms as centralized hubs and challenges related to technology integration, user training, quality assurance, and pedagogical practices are addressed. Additionally, the evolution of eLearning and LMSs is addressed, highlighting their adaptive nature in response to changing educational needs. The role of faculty in online education and the importance of proper training and support during LMS platform transitions are also discussed.

Theoretical Framework

TAM is an adaptation of the Theory of Reasoned Action (TRA) tailored explicitly for modeling user acceptance of information systems (Davis et al., 1989). TAM focuses on explaining technology usage behavior and incorporates findings from over a decade of Information Systems (IS) research, making it well-suited for modeling technology acceptance (Davis et al., 1989). The TAM aims to apply factors driving computer acceptance, grounded in theory, across diverse technologies and user groups (Davis et al., 1989). Lastly, TAM uses TRA as a theoretical basis for specifying the causal linkages between two fundamental beliefs: perceived usefulness and perceived ease of use, and users' attitudes, intentions, and actual computer adoption behavior (Davis et al., 1989).

This framework aims to provide a basis for tracing the impact of external factors on internal beliefs, attitudes, and intentions (Davis et al., 1989).

The application of TAM became important in the education environment, particularly in researching and explaining educators' adoption of LMS. Zaineldeen et al. (2020) reviewed the application of TAM in studying LMS use and behavioral intention by faculty and pre-service teachers. Their review indicated that significant relationships existed among various factors affecting behavioral intentions. TAM was widely applied to test faculty comfort and LMS adoption within an educational environment.

The study by Bove & Conklin (2019) used TAM as a base framework to research faculty comfort with the LMS. Using TAM tenets, the authors prepared a survey instrument to assess the 'Usability' and perceived 'ease of use' characteristics of the LMS. The instrument was made available to all faculty members before they were trained to migrate to a new LMS. This instrument was a Likert-scale questionnaire designed to gauge faculty attitudes on the ease of use and usability of the learning management system based on TAM constructs.

This research showed that most faculty were comfortable with LMS and agreed that it was easy to use and useful. It achieved a notable 98% through factor analysis. The authors also studied other factors, such as years of teaching, job title, age, and employment type, but found no significant relation to ease of use or usefulness. However, the research indicated that faculty who were less comfortable with LMS also found it less useful and less easy to use.

Evolution of eLearning and LMS

The evolution of eLearning and LMS can be traced back to the early days of online distance education. The research by Keengwe and Kidd (2010) outlines the various phases of this evolution from 1975 to the present day. The first phase, from 1975 to 1985, saw the emergence of programming, drill and practice, and computer-assisted learning (CAL). The learning approach during this period was behaviorist and emphasized local user-computer interaction. The focus was on imparting knowledge through systematic programming and structured learning experiences.

The second phase, from 1983 to 1990, marked the beginning of computer-based training, where the old computer-based training model continued alongside multimedia programming. This era saw a shift in incorporating constructivist influences into educational software design, emphasizing interactive and learner-centered approaches. The emergence of online education and training from 1990 to 1995 led to a major change in content delivery on the Internet. Active learning styles have grown in importance, reflecting a departure from passive teaching methods. Although the concept of building materials has become better, the interaction with end users is still relatively small.

The eLearning era from 1995 to 2005 was characterized by internet-based flexible courseware delivery. This phase marked increased interactivity and the incorporation of online multimedia courseware. Finally, the current era, from 2005 to the present, is characterized by a focus on mobile learning and social networking. Interactive distance courseware, distributed online through LMS, has become a hallmark of this era. Social networking components are seamlessly integrated, and learning is facilitated through wireless devices such as tablets, smartphones, or laptops.

The evolution of eLearning and LMS has shifted significantly, adapting to the changing needs and expectations of learners and educators. Lasmanawati et al. (2021), implementing e-learning systems in vocational education marked an important phase in this evolutionary process. The study highlighted the role of the LMS in facilitating online learning processes, enabling students to engage in flexible and accessible learning experiences. The study investigated the stages of creating an LMS, emphasizing the design, coding, and installation on hosting servers. These stages were crucial in shaping the structure and functionality of the LMS. It was noted that the early phases involved meticulous system design, encompassing template creation, database structuring, and algorithm formulation. The study also shed light on the positive response from students towards the LMS, despite variations in internet access quality and stability. Notably, some students could only access LMS at school, emphasizing the importance of training teachers and students to utilize the system effectively. This acknowledgment of varying access conditions emphasized the need for adaptability in the evolving landscape of eLearning. The overarching goals of LMS technology were also highlighted, aiming to encourage students' independence, creativity, and provide a platform for learning anytime and anywhere.

The multi-layered functionalities of LMS, including administration, content delivery, assessment, monitoring, and communication, played a crucial role in shaping a comprehensive learning environment. Integrating multimedia elements in LMS was identified as a catalyst for accelerating the mastery of science and technology. Additionally, the study emphasized the interdependent relationship between the LMS model and traditional classroom teaching. While LMS offered unprecedented flexibility,

it was emphasized that its presence did not replace traditional teaching and learning processes. Instead, it served as a complementary tool, breaking the limitations of space and time in education.

The categorization of LMS users into students, instructors, and system administrators provided insights into the diverse roles and functions of the system. Students utilized LMS for distance education, instructors employed it for teaching and evaluation, and system administrators played a vital role in supporting users and maintaining system operations. This classification presented the collaborative nature of LMS in the educational ecosystem (Lasmanawati et al., 2021).

Transition to Online Learning

Courtney and Wilhoite-Mathews (2015) discussed the development and transformation of education. The study described the significant transitions that occurred in the pedagogy of 21st-century teaching methods, including online learning approaches that were believed to make significant improvements on the old methodologies and general conventional responsive qualities. The study highlighted interactive pedagogy types to challenge students' thinking abilities by creating a constructivist approach to learning. Online platforms such as forums, chat rooms, and video conferencing systems facilitated discussions that developed critical and problem-solving skills and knowledge through giving feedback and exchanging ideas. Digitalized learning objects and resources such as online tutorials, learning modules, simulations, pseudocode quizzes, discussion environments, fun content libraries, and many more multimedia-based items, encouraged and supported learners' personalized learning styles and abilities. Students could control their learning environment to design personal outcomes based on their needs and learn at

their own pace. Collaborative environments were suitable for students and lecturers, where students freely constructed their knowledge through interacting with various group activities such as group projects, peer feedback, and discussions. This mainly inspired online environments connected by the internet beyond the limited classrooms and location schedules. With technological development, flexibility options for time and place facilitated the study and learning easily within one's time, location, and even preference.

Stone (2019) discussed the transformation of the educational landscape in their research, highlighting a significant shift in 21st-century teaching methods as traditional distance education evolved into a sophisticated online learning paradigm. This shift was enacted by technological progress and a growing demand for flexible and accessible educational alternatives. Improved internet connectivity and the integration of the internet became the foundation for the seamless distribution of educational content, fostering an environment where students and educators could interact effortlessly across geographical boundaries. LMS emerged as a cornerstone of online education, offering a centralized repository for course materials and administrative functions, leading to a more organized and structured approach to learning. Multimedia resources, such as videos, interactive simulations, virtual labs, and audio recordings, enriched the pedagogical experience, adding enthusiasm and entertainment to online courses and catering to varied learning styles. Concurrently, mobile technologies brought about unprecedented accessibility, enabling students to engage with course content anytime, anywhere, through smartphones or tablets.

Camacho & Legare (2021) actively addressed the transformative impact of the unprecedented global crisis, the COVID-19 pandemic, within education. The demand of the situation drove a swift and substantial shift from conventional in-person instruction to the widespread adoption of online learning platforms. Educational leaders, in response to this transition, immediately adjusted their strategies, struggled with the complexities, and navigated the challenges inherent in adapting traditional teaching methodologies to the virtual landscape. Redefining classroom management became imperative, involving the establishment of clear expectations for student attendance, conduct during virtual lessons, and the introduction of guidelines for independent learning, grading, and testing. Additionally, the traditional six-hour school day underwent a restructuring, with educational leaders adapting by condensing live instruction to two to three hours, accompanied by additional homework and independent study time. Critical to the success of this transition was the providing of training and support to educators, aiding them in the gaining of skills required for hosting effective online lessons. The shift from traditional paper-based materials to digital platforms like Google Classrooms, Blackboard, or the Canvas LMS marked an important adjustment in instructional practices.

Universities and K-12 schools contributed to the shift by implementing proven education best practices during this transformative period. Technological training and support were vital, with institutions offering tutorials on platforms such as Zoom, Google Classroom, and dedicated LMSs such as Canvas, Blackboard, or D2L. These initiatives aimed to enhance educators' proficiency in managing virtual classrooms and engaging students in meaningful online learning experiences. Additionally, a student-centered

approach, combined with establishing online communities and collaborative platforms, sought to recreate a sense of belonging and interaction in the virtual classroom.

Importance of LMS

Annamalai et al. (2021) suggest that LMS platforms are critical centralized hubs for various aspects of the teaching and learning process. These platforms are comprehensive solutions for managing and delivering e-learning content and facilitating interactions, assessments, and analytics. An LMS provides a structured environment for educators and learners to engage in various activities related to education and training. The significance of LMS stems from their ability to facilitate the administration, delivery, and assessment of educational programs (Annamalai et al., 2021).

Srimathi (2010) investigated the multi-layered role of LMS in designing comprehensive online education. The authors explained the key features of LMS, which provided authoring, sequencing, and aggregation tools for structuring educational content systematically. The report portrayed LMS as a unifying link or connection, facilitating meaningful interactions between learners and instructors. The interaction encompassed communication, collaboration, and the essential feedback loop. The authors emphasized the crucial position of LMS as a dynamic platform fostering engagement and dialogue within the online educational landscape.

The authors emphasized how LMS platforms equipped educators with advanced assessment tools, allowing them to evaluate and grade student performance effectively. They illustrated the important role of LMS in the evaluative process of education, showing how these platforms facilitated comprehensive student assessments through various methods such as quizzes, assignments, and interactive activities. By integrating

these tools, LMS platforms streamlined the grading process and provided educators with insights into student progress and understanding. This functionality contributed significantly to the well-rounded management of the learning experience, enabling educators to alter their instructional strategies to meet the diverse needs of their students. Additionally, the authors highlighted the dynamic feedback mechanisms within LMS, which promoted continuous communication between students and instructors, enhancing the overall educational process (Srimathi, 2010).

Additionally, Srimathi (2010) portrayed LMS as a sophisticated system that integrated diverse elements to strengthen the efficacy of online education. The author highlighted LMS as a dynamic entity adaptable to the varied needs of educators and learners alike. LMS platforms play a crucial role in data analytics, offering insights into learners' progress, engagement, and performance. This data can further aid in personalizing the learning experience and assessing the effectiveness of instructional materials (Annamalai et al., 2021).

LMSs have evolved to integrate online tools for modern learning approaches such as flipped and blended learning, making them crucial for meeting 21st-century learning needs (Annamalai et al., 2021; Watson & Watson, 2007). They enable instructors to provide learning content, monitor student progress, and assess student performance, thus streamlining and enhancing the teaching and learning process (Watson & Watson, 2007).

Watson and Watson (2007) investigated the LMS in educational settings, exploring their features, implementation, and effectiveness. The study began by surveying corporate LMSs to identify features actively utilized in these systems, which provided valuable insights into industry practices and trends surrounding LMS

functionalities. The authors then reviewed existing literature on learning management systems. This literature review formed the basis of their research, offering an understanding of the historical development, current state, and potential future directions of LMS in education. Watson and Watson crafted a conceptual framework for evaluating and comparing major features in K-12 LMSs, which provided a structured approach to categorizing the functionalities within LMS.

The authors went beyond existing sources, engaging in their research through independent investigations. Their analysis involved meticulously examining information from corporate literature, company reviews, and an in-depth assessment of LMS features. This hands-on approach allowed for triangulation of information from various sources, ensuring a more robust and comprehensive understanding of the LMS landscape. The research emphasized the need for continued research, advocating for clarity in defining system features and a deeper understanding of stakeholder perceptions. By doing so, they contributed to an ongoing conversation within the academic community, encouraging scholars and practitioners to refine and enhance LMS features to align them more closely with educational objectives.

Challenges for the LMS

The landscape surrounding the LMS is complex and involves technology, pedagogy, and organization. The research suggests that deploying LMS can be challenging due to various factors. For instance, technological constraints can arise during implementation, such as system integration and compatibility with other educational technologies (Mohamed & Muhammed, 2022).

Mohamed and Muhammed (2022) conducted a study to examine the landscape surrounding LMS. The study identified various challenges encountered during the implementation of LMS, with technological constraints emerging as a key issue. Educators faced challenges integrating effective pedagogical practices and instructional design within the LMS (Mohamed & Muhammed, 2022). Organizational variations became essential as educational institutions adopted LMS, necessitating adjustments to align with organizational culture, policies, and procedures. Lastly, evaluating the impact of LMS platform transitions on learning outcomes and student achievement presented challenges for educators and administrators.

The study also identified key factors influencing educators' adoption of the LMS. Educators perceived self-efficacy, job relevance, perceived usefulness, perceived ease of use, service quality, behavioral intention, and actual use were identified as crucial elements shaping their adoption and engagement with the LMS. The findings offered practical recommendations for enhancing the implementation of the LMS in educational settings. Management was advised to organize hands-on training sessions to boost educators' computer self-efficacy and familiarize them with the features and importance of the LMS. Educational institutions were encouraged to facilitate educators in implementing online distance learning through effective use of the LMS. Emphasizing high service quality and supporting educators using the LMS was highlighted as a positive influence on their attitudes and intentions towards adoption. Additionally, improving the ease of use of the LMS was suggested to enhance educators' willingness to engage with the system (Mohamed & Muhammed, 2022).

Emelyanova and Voronina (2014) emphasized the importance of quality assurance to align learning content within the LMS with educational goals. Educators faced a notable challenge in integrating pedagogical practices and instructional design within the LMS, especially in distance or blended learning scenarios. Watson and Watson (2007) shed light on the considerable challenge of fostering student engagement. Organizational distinctions took center stage, with the adoption of LMS requiring adjustments to align with the cultural, policy, and procedural details of educational institutions (Reigeluth et al., 2008). Additionally, evaluating the impact of LMS on learning outcomes and student achievement presented challenges for educators and administrators, as highlighted by Emelyanova and Voronina (2014). This study further identified various factors that influenced the adoption and perception of LMS by teachers and students. These factors included perceived enjoyment, computer literacy, technology experience, personal innovativeness, administrative support, perceptions of convenience and effectiveness, and the human factor. Their influence varied based on individual experiences, technological proficiency, and organizational support, thus shaping the landscape of LMS integration.

Emelyanova and Voronina (2014) stated interventions were proposed to address these challenges and differences. These interventions encompassed user training and support, customized user guides, feedback mechanisms, collaborative content creation, incentives for engagement, clear communication channels, regular system updates, and professional development opportunities. These strategies aimed to bridge the gap in perceptions, enhance user satisfaction, and optimize the LMS for effective teaching and learning.

Faculty's Role in Online Education

Dhilla's (2017) examination of faculty roles in online learning highlights the essential responsibility instructors endure in delivering content and accurately integrating technology. The study underscores the central role of faculty in designing and presenting engaging course materials to promote effective learning outcomes. Faculty often expressed challenges related to course preparation, content development, and the need for additional support, contributing to a sense of anxiety and overwhelm, which Dhilla's work addressed. The study also expands into issues associated with interaction and engagement, highlighting the struggle with the virtual nature of communication and the perceived disconnect from students. Examining the impact of the growth of online education on the experiences of online faculty, the study documented increased demand for online courses, requiring faculty adaptation to new technologies and innovative teaching methods. In response to challenges faced by online faculty, university administrators are exploring strategies to provide support in the virtual learning environment. Dhilla's findings suggest that professional development programs are key in enhancing online teaching skills and keeping faculty abreast of technological trends. Additionally, mentoring programs, recognition initiatives, and community-building efforts have been proposed to foster a supportive and collaborative online teaching environment.

Roddy et al. (2017) and Dhilla (2017) emphasized the critical need for proper training and support during the transition or updating of LMS. As educational institutions transitioned or overhauled these technological platforms, faculty members assumed a key role in effectively integrating these systems into online teaching environments. Faculty,

as key stakeholders, required comprehensive training to proficiently navigate and utilize the features of the LMS, ensuring their skill in adapting teaching methodologies to the digital environment. The integrative review on best practices for online learning in intensive environments, building on the foundation laid by Roddy et al. (2017), emphasizes the role of faculty members in shaping the online learning landscape. Effective communication within the digital realm emerged as a fundamental practice, with asynchronous activities such as video posts and online discussion forums identified as potent tools for fostering a sense of community among online students. Further, the study highlights the faculty's responsibility in providing comprehensive support services, encompassing orientation, ongoing technical assistance, and well-being services to enhance the online learning experience and potential barriers to success.

Despite these best practices, faculty members encountered challenges inherent in the rigorous nature of online environments, as identified by Roddy et al. (2017). Time constraints, increased workload, limited access to support services, technological challenges, student isolation, barriers to engagement, student readiness, and monitoring student progress were challenging hurdles. Faculty members, however, with an awareness of these challenges, could strategically navigate and address them through proactive instructional approaches, ensuring the continued success of online education in intensive courses.

Faculty Training and Support

McQuiggan (2007) is an essential reference for faculty, emphasizing the critical need to prepare faculty with essential skills for the effective utilization of LMS in online course delivery. McQuiggan (2007) underscored the necessity for faculty to have

acquired technical proficiency in navigating the LMS, managing course materials, and leveraging features that enhance the online learning experience. This technical competence not only facilitated seamless online instruction but also empowered educators to troubleshoot technical issues and fully exploit the potential of the LMS. The study revealed primary themes surrounding changes in teaching assumptions and beliefs during faculty transitions to online teaching. These themes encompassed the shift from traditional classroom practices to the online environment, changes essential to online teaching, the framing of faculty development within adult education, and various faculty development models. The investigation highlighted the dynamics of instructional roles, attitudes, perceptions, experiences, beliefs, critical reflection, and perspective transformation that faculty underwent while transitioning to online teaching.

McQuiggan's (2007) faculty development model explained the significant impact of realistic online experiences, reflective activities, longitudinal studies, and support for cognitive conflict on learning in online teaching. Realistic online experiences enabled faculty to directly engage with the challenges and opportunities of online teaching, while reflective activities encouraged the questioning of prior beliefs. Higher education institutions were advised to align faculty development programs with adult learning principles, recognizing the individuality of faculty members. Encouraging reflective practices and conducting longitudinal studies expanded understanding and informed the design of effective faculty development models.

Hixon (2011) provided valuable insights into the ever-evolving landscape of online education, with a particular emphasis on the key role played by faculty members. The study, including 47 faculty participants, looked to assess the satisfaction,

effectiveness, and impact of the program on both individual participants and the broader university context. Faculty members, as essential components of the online learning paradigm, played a crucial role in the success and adaptability of distance education initiatives. Hixon's (2011) evaluation clarified the positive impact of the Distance Education Mentoring Program (DEMP) on faculty members' teaching improvement and their ability to apply acquired knowledge and skills. The findings revealed not only a high level of satisfaction among participants but also a tangible influence on teaching beliefs and strategies, extending beyond the confines of specific courses under development. The DEMP's mainstream impact, with 30.6% of the university's faculty participating and contributing to 44% of online courses, underscored the program's effectiveness in engaging a substantial portion of the faculty population. As the study investigated the evolution of the DEMP over its initial four years, it shed light on the adaptive measures taken to address the changing characteristics of faculty participants. The modifications, including a more structured course design, formalized assignments, and a shift towards hybrid course development, reflected an understanding of the evolving needs and concerns of faculty interested in online teaching. These adjustments were not only instrumental in maintaining program relevance but also in providing personalized support to faculty members, ensuring their successful navigation of the challenges associated with online course delivery.

The key characteristics identified in the DEMP, such as a focus on instructional design, qualities of the mentoring relationship, and a collaborative attitude, further emphasized the key role of faculty in the success of online education initiatives. The mentoring relationship, designed around support, timely guidance, and interpersonal

skills, highlighted the importance of mentorship in fostering faculty growth and adaptability.

The study by Martin, Wang, and Bolliger (2019) investigated the roles and competencies of online instructors in higher education, focusing on the experiences of eight faculty members. Exploring their practices provides valuable insights into the multifaceted nature of online teaching and the competencies required for success in the evolving landscape of online education. Online faculty members were identified as proficient in five key roles: Facilitator, Course Designer, Content Manager, Subject Matter Expert, and Mentor. These roles encompassed a range of responsibilities related to both course design and teaching. The course design tasks involved structuring and organizing online courses, selecting and managing content, developing assessments, and revising course offerings based on previous experiences. Teaching tasks included creating a welcoming environment, facilitating discussions, providing feedback, and actively engaging with students. The competencies identified for effective online teaching comprised technical skills, knowledge of how people learn, a willingness to learn, content expertise, and course design skills. The study highlighted the importance of continuous learning and adaptability in the rapidly evolving landscape of online education. Additionally, it emphasized the significance of professional development and support for online instructors to acquire and refine these competencies. Professional development opportunities within institutions, participation in professional organizations, and engagement in workshops and webinars were cited as crucial avenues for skill enhancement.

Bradley (2020) explored LMS within online instructional settings and exposed a critical component: the active role of faculty in shaping the dynamics of online learning environments. As faculty members navigate the landscape of online teaching, their engagement with LMS becomes key to organizing effective learning experiences. Faculty involvement is not merely confined to the technical utilization of the system but extends to strategic decisions that influence the overall quality of education in the digital realm. Faculty members play a central role in reinforcing the learning process through the proficient use of LMS. Their responsibilities incorporate communicating precise expectations, monitoring student progress, and delivering essential knowledge through the platform. Previously, instructors actively employed LMS features to structure online interactions, manage learning content, and foster a collaborative learning environment. This involvement required not only technical proficiency but also a pedagogical understanding of how to control LMS functionalities to enhance student engagement and achievement.

The adoption of LMS by faculty in online instruction presented a transformative shift, empowering instructors to facilitate both asynchronous and synchronous learning structures. The historical context reflects a transition where instructors adapted to the evolving landscape of educational technology, acknowledging the potential of LMS in creating interactive and autonomous learning environments. Bradley's research sheds light on the positive effects of faculty-driven LMS implementation on student engagement, academic achievement, and overall learning experiences. The faculty's ability to effectively integrate LMS resources, personalize learning environments, and navigate challenges influences the success of technology-based instruction. The research

emphasized that faculty members are not passive recipients of technological tools but active contributors, shaping online education through their choices, strategies, and engagement with LMS.

LMS Transition

Ge et al. (n.d.) studied the critical elements influencing the successful transition to a new LMS. The research emphasized the essential role of ongoing support provided at various levels and through diverse formats. Specifically, the study highlighted the crucial nature of continuous support mechanisms at individual, departmental, college, and university levels. This support, available in formats such as one-on-one sessions, group training, just-in-time assistance, and real-time support, was identified as instrumental in assisting faculty members during the transition process. The research stressed the varied demands on faculty during LMS platform transitions, emphasizing the necessity for pedagogical support and technological assistance. Recognizing the importance of aligning instructional practices with the capabilities of the new LMS, the study advocated for ongoing support to enhance faculty members' proficiency and efficacy in utilizing the learning systems. Additionally, Ge et al. (n.d.) noted the significance of customized support tailored to address discipline-specific challenges.

The research investigated the empowerment of faculty members in decision-making processes concerning community-wide technology innovations. The study advocated for collaborative approaches, involving faculty in these critical decisions to ensure a sense of ownership and engagement. By leveraging the expertise and perspectives of faculty members, institutions could facilitate a more successful transition to a new LMS.

In the context of online learning, the findings of Ge et al. (n.d.) contribute insights into the crucial role of faculty. As institutions increasingly embrace online education, understanding and addressing faculty needs in transitioning to new LMS becomes vital. The study's emphasis on ongoing systemic support, pedagogical assistance, customized support, and faculty empowerment provides an understanding of the factors influencing successful LMS implementation. Sanga (2016) investigates the specific technological issues faculty members encounter while transitioning to a new LMS. The findings point to the necessity of implementing a complete plan, including communication, faculty training at various levels, and multiple options for training to roll out a new LMS effectively. Additionally, it is recommended that faculty experiences with training and the new LMS be evaluated to modify ongoing training and workshops.

Gasaymeh (2017) conducted a study that investigated the issue of addressing faculty concerns within the integration of LMS within the context of higher education. The research emphasized the key role played by faculty members in the successful implementation of online learning platforms. The researcher highlights the necessity to carefully attend to the apprehensions expressed by faculty members regarding the incorporation of LMS into their educational practices. Gasaymeh (2017) advocates providing faculty members with tangible opportunities to witness firsthand the positive impacts of LMS on students' learning experiences. This recommendation aligns with the recognition of faculty as key stakeholders whose perspectives and experiences influence the overall effectiveness of online education. In addition, Gasaymeh proposes the establishment of collaborative learning communities as a means to address faculty concerns. Such communities serve not only as platforms for sharing best practices but

also as spaces for fostering communication, interaction, and collaboration among faculty members engaged in the adoption process. Gasaymeh's findings emphasize the critical nature of ongoing support in facilitating the transition to LMS or from one LMS to another. Comprehensive training programs are identified as essential components, reflecting the acknowledgment of faculty members as central figures whose preparedness significantly influences the success of LMS integration.

Gasaymeh (2017) also advocates addressing faculty concerns as an integral part of the adoption process. This recommendation recognizes the complex nature of faculty members' reservations and suggests that addressing concerns at different stages is crucial for a smooth and successful transition. The emphasis on collaborative learning communities, faculty collaboration, and addressing concerns aligns with the acknowledgment of faculty members as dynamic agents shaping the landscape of online education.

Summary

The purpose of this literature review was to explore the varied aspects of LMS and its impact on faculty, training, and implementation. Firstly, it explored the Technology Acceptance Model (TAM) to understand user acceptance of information systems, specifically within the realm of the LMS. The central role of LMS platforms as centralized hubs, along with challenges related to technology integration, user training, quality assurance, and pedagogical practices, was thoroughly examined. The historical evolution of eLearning and LMS was discussed, highlighting their adaptive nature in response to changing educational needs.

Next, the literature review explored the key role of faculty members in shaping the landscape of online learning. It focused on effective communication within digital spaces, utilizing tools like video posts and online discussion forums to foster and create a sense of community among online students. Challenges faced by faculty members in online environments, such as time constraints, increased workload, and technological hurdles, were also identified. Strategies to address these challenges through proactive instructional approaches were highlighted, ensuring the continued success of online education in intensive courses.

Lastly, the literature review highlighted the shift brought about by adopting LMS in online instruction, empowering instructors to create interactive and autonomous s learning environments. It discussed the positive effects of faculty-driven LMS implementation on student engagement, academic achievement, and overall learning experiences. The importance of ongoing support at various levels and through diverse formats during LMS platform transitions was discussed, recognizing the crucial role of continuous support mechanisms in assisting faculty members.

Chapter 3

Methods

This research explored challenges faced by faculty in higher education institutions before, during, and after LMS platform transitions. It examined the critical needs for professional development and support surrounding LMS platform transitions. Utilizing a qualitative approach, the researcher conducted in-depth interviews with post-secondary faculty from various departments, divisions, universities, and schools. The researcher employed a phenomenological research design as its framework, incorporating varied LMS. The study focused on faculty members in higher education institutions in the United States, employing focused sampling to ensure representation across departments, divisions, school types, and LMS.

The research was confined to higher education institutions in the United States, recognizing potential variations in educational systems beyond this region. Although emphasizing in-depth interviews limits generalizability, it aims to provide insights into participant perspectives. The scope was restricted to faculty views, acknowledging the potential differing viewpoints of other stakeholders. Assumptions guiding the research include the faculty's desire for appropriate professional development and effective communication during LMS platform transitions. Participants were assumed to possess sufficient LMS knowledge, ensuring informed insights.

Voluntary and willing participation of interviewees was assumed, ensuring the authenticity of collected data. Research questions focused on faculty perceptions of institutional preparation, support, and communication during LMS platform transitions,

effective professional development strategies, and types of support needed to address challenges associated with LMS platform transitions or upgrades.

This chapter detailed the methodology employed, emphasizing the phenomenological research design, setting, and sampling procedures. It also covered the instruments, data collection procedures, analysis, reliability and trustworthiness, the researcher's role, and limitations.

Research Design

Lunenberg and Irby (2008) recognized that qualitative research highlights people's "words, actions, and records," contrasting with a quantitative research approach. They further asserted that phenomenology established a fundamental research form, entailing the description of phenomena within our world. In applying the phenomenological research design outlined by Lunenberg and Irby (2008), the researcher aimed to clarify specific phenomena by exploring them through the participants' perspectives. The researcher collected thorough and detailed descriptions of the phenomenon or phenomena, utilizing inductive, qualitative methods such as interviews. Although phenomenological research shares connections with other qualitative approaches like ethnography, hermeneutics, and symbolic interactionism, its primary focus is on descriptive research, emphasizing the act of describing rather than providing explanations.

The research design utilized a qualitative phenomenological study design. In this study, the emphasis was on the experiences of faculty members in higher education before, during, and after an LMS update or transition. The qualitative methodology was selected to collect in-depth insights into the challenges, perceptions, and needs of faculty

members in the context of LMS platform transitions. Through conducting in-depth interviews, the study sought to capture the distinctive and enriching experiences of faculty members across various schools, LMS types, departments, and disciplines.

Setting

The study centered on higher education institutions situated in the United States. Choosing this geographical region was a deliberate decision to concentrate on the unique considerations relevant to higher education within this area. The United States exhibited a diverse offering of educational systems and institutional structures that could have impacted the experiences of faculty members during LMS platform transitions.

Sampling Procedures

The study employed an intentional sampling strategy for participant selection. The identification of study eligibility was based on specific characteristics of the sampled population, guiding purposeful sampling with established criteria (Lunenburg & Irby, 2008). Faculty members from various departments within higher education institutions in the United States were invited to participate. The aim was to include a diverse representation of faculty experiences to provide a comprehensive understanding of the phenomenon under investigation. Faculty were considered who were in their teaching role before, during, and after an LMS platform transition.

According to Creswell and Creswell (2018), participants were selected based on their experiences to participate in the study. The purposeful sampling procedure included the following:

- The faculty member was employed at a college or university in the United States.

- The faculty member was employed and teaching via an LMS at the same institution before, during, and after a major upgrade or transition.
- The participant provided written permission and consent to engage in the study.

Initial data was collected using a questionnaire from potential participants. The purpose of the questionnaire was to collect initial data on willing participants for the interview. The questionnaire included basic demographic information regarding the length of time in their current position, and if they were employed and teaching with an LMS before, during, and after a major upgrade or transition. The researcher targeted potential participants via social media and email distribution lists. The researcher asked potential participants to complete a quick Office 365 form as an initial screener. The form contained three questions and was expected to take less than five minutes. The following questionnaire was used as part of the initial sampling procedure.

Table 1

Initial Questionnaire

Questions		Purpose
1.	Did you work (and teach) at your college or university before, during, and after a major LMS upgrade or transition?	Ensured that the basic criteria for participation were met.
2.	Did you (do you) teach at a college or university in the United States before, during, or after a major LMS upgrade or transition?	Ensured that the basic criteria for participation were met.
3.	Would you be willing to participate in a recorded video interview with a doctoral student studying faculty perceptions on LMS platform transitions and the associated communication and professional development?	Ensured consent for participants to be interviewed.

The questionnaire narrowed participants based solely on study eligibility, determined by specific criteria applied to the purposefully sampled population. The sampled individuals included faculty who taught in the United States and were employed before, during, and after a major LMS upgrade or transition. Twelve participants were selected based on consent and the answers provided on the questionnaire and invited to participate in a video conference interview.

Instruments

In this study, the researcher utilized in-depth interviews as the primary instrument to gather insights into the challenges and needs of faculty members in higher education institutions before, during, and after an LMS update and transition. Lunenburg and Irby (2008) assert that interviews describe the meanings of a study's theme. Semi-structured interview questions were employed to help interviewees extend and expand upon their responses. The interview questions were designed to extract descriptive responses from participants, aligning with the three research questions. Emphasis was placed on exploring faculty perspectives on institutional preparation, support, and communication before, during, and after an LMS platform transition, effective professional development strategies, and the types of support needed to address challenges associated with LMS platform transitions or upgrades.

Table 2

Research Questions Aligned with Interview Questions

Research Questions	Interview Questions

RQ 1.	What are faculty perceptions of the adequacy of preparation, support, and communication provided by the institution of higher education before, during, and after a Learning Management System (LMS) transition?	Preparation/Before the Transition: 1. Can you describe your experience with the recent LMS platform transition at your institution? 2. How would you rate the level of preparation provided by the institution before the LMS platform transition occurred? During the Transition: 1. In what specific ways did the institution support faculty members during the transition? 2. Were there any challenges or obstacles you faced during the transition process, and if so, how were they addressed? 3. How well do you feel the institution listened to and addressed faculty concerns or feedback during the LMS platform transition process? After the Transition: 1. Do you believe that the communication regarding the LMS platform transition, both before and during the transition, was clear and effective? 2. Were there any particular resources or training sessions provided by the institution to assist faculty in adapting to the new/updated LMS? If so, how helpful were they? 3. Have you noticed any improvements or enhancements in teaching and learning outcomes since the transition of the LMS? 4. From your perspective, are there any areas where the institution could have better supported faculty members during the LMS platform transition? 5. What suggestions or recommendations do you have for improving the preparation, support, and communication for future transitions to the LMS or other institutional systems?

RQ 2.	What do faculty perceive would be the most effective strategies and practices for providing faculty with professional development and support before, during, and after LMS platform transitions?	Preparation/Before the Transition: 1. What types of initial training sessions or resources did you find most beneficial before the transition to a new/updated LMS platform, and why do you think these would be effective? During the Transition: 1. What do you consider to be the most crucial aspects of professional development and support for faculty during transitions to new LMS? 2. Can you share any effective strategies or practices for professional development and support that you've encountered during previous LMS platform transitions or similar changes? 3. From your perspective, what are some potential challenges or barriers that faculty members may face during LMS platform transitions, and how can these challenges be effectively addressed through professional development and support? After the Transition: 1. How important are ongoing training and resources for faculty members adapting to new/updated LMS platforms – can you explain? 2. Do you believe that peer support and collaboration among faculty members are valuable during LMS platform transitions, and if so, how can the institution facilitate and encourage this collaboration? 3. What recommendations or suggestions do you have for improving the effectiveness of professional development and support for faculty members during future LMS platform transitions?
RQ 3.	How do faculty perceive the types of professional development and support provided before, during, and after LMS platform transitions in mitigating the associated challenges?	Preparation/Before the Transition: 1. How do you believe professional development can assist faculty in overcoming the challenges associated with LMS platform transitions? During the Transition: 1. Can you provide examples of professional development initiatives or support mechanisms that you believe have been effective in addressing challenges during LMS platform transitions? 2. From your perspective, what specific types of support do you think would be most beneficial for faculty members during LMS platform transitions? After the Transition:

1. In your experience, what types of challenges have you encountered when transitioning (or updating) to new LMS platforms?
2. Have you participated in any professional development activities related to LMS platform transitions in the past? If so, how did they impact your ability to adapt to the transition?
3. Do you think there are any gaps in the current professional development offerings related to LMS platform transitions? If yes, what areas do you think need improvement?
4. What suggestions do you have for enhancing professional development and support to better mitigate the challenges associated with future LMS platform transitions?

Data Collection Procedures

Before the start of the study, official permissions were sought from the relevant institutional authorities, including Institutional Review Board (IRB) and academic departments. This process involved providing a detailed explanation of the study's objectives, procedures, and ethical considerations. Collaboration with institutional leaders and faculty associations facilitated access to potential participants and ensured a supportive environment for the research.

An IRB request to Baker University was submitted on July 29, 2024 (see Appendix E) and approved on August 19, 2024 (see Appendix F). Initial data was collected through an online questionnaire posted on LinkedIn and email targeting specific schools, universities, and departments. The initial online questionnaire was posted on August 19, 2024, and was live for eight days. The questionnaire consisted of three questions to narrow the population for interviews. After identifying 15 faculty from 10 schools and universities, interviews were scheduled at a time convenient for the faculty. Recorded video interviews began on August 20, 2024, and continued through August 28,

2024. All willing participants were provided a consent form (see Appendix A) before the interview started.

Recorded interviews were estimated to take between 25 and 35 minutes. Actual interviews lasted between 15 and 46 minutes. The data collection method in this study was facilitated by a video conferencing platform. Each interview was recorded for transcription thereafter. Faculty members engaged in interviews from private and quiet spaces, either on-campus or off-campus, ensuring confidentiality and minimizing disruptions.

Data Analysis and Synthesis

The following questions guided the study:

RQ1: What are faculty perceptions of the adequacy of preparation, support, and communication provided by the institution of higher education before, during, and after a Learning Management System (LMS) platform transition?

RQ2: What do faculty perceive would be the most effective strategies and practices for providing faculty with professional development and support before, during, and after LMS platform transitions?

RQ3: How do faculty perceive the types of professional development and support provided before, during, and after LMS platform transitions in mitigating the associated challenges?

Following the interviews, the researcher saved the transcription locally on an external hard drive and secured it in a locked cabinet. Utilizing Otter.ai, the interviews were transcribed and verified for accuracy. The researcher cross-checked the transcriptions with the audio recordings during the verification process. Any

discrepancies or errors identified during these sessions were promptly corrected in the transcripts. Once the transcription accuracy was validated, the researcher analyzed and reviewed the transcripts, a process that lasted from August 28, 2024, to September 2, 2024, to pull meaningful insights and draw conclusions based on the research objectives.

The collected data underwent thematic analysis. Thematic analysis involves identifying patterns, themes, and meanings within the data (Cresswell & Cresswell, 2018). The analysis process began with familiarization with the data, followed by generating initial codes. The generation of specific codes involved a systematic process conducted by the researcher. Initially, the researcher thoroughly examined the collected data to become familiar with its content. After, the researcher applied an inductive approach to identify initial codes, focusing on extracting meaningful segments from the data. These initial codes were then organized and categorized based on their similarities and relationships. Through iterative review and refinement, the researcher identified potential themes emerging from the coded data. The researcher reviewed and evaluated these themes to ensure they accurately captured the essence of the faculty experiences. Finally, the researcher finalized the codes and themes, creating a coherent and comprehensive analysis. The conclusions drawn from these analyses are presented in Chapters 4 and 5.

Reliability and Trustworthiness

Creswell and Cresswell (2018) stated reliability involves determining if scored items on an instrument exhibited internal consistency, remained stable over time, and showed consistency in test administration and scoring. In ensuring the study's validity, the researcher actively engaged in reflexivity, acknowledging and addressing any

personal biases or preconceptions that could have influenced the question. Additionally, the researcher addressed four general categories relevant to the trustworthiness of the qualitative research: credibility, transferability, confirmability, and dependability.

Credibility was established through rigorous methodology and triangulation of data sources, promoting confidence in the truthfulness and accuracy of the research findings. Transferability was demonstrated by providing descriptions of the research context and participants, enabling readers to assess the applicability of the findings to other contexts or populations. Confirmability was ensured by maintaining neutrality and transparency throughout the research process, minimizing the influence of researcher bias on data interpretation. Dependability was established by documenting the research procedures and methodology, allowing other researchers to replicate the study and ensure consistency in the findings.

Member checking was a pivotal aspect of ensuring the credibility and accuracy of the study's findings. This approach involved inviting participants to review the results and interpretations derived from their interviews. By engaging participants in this manner, the research not only validated the accuracy of the data but also empowered participants to contribute their perspectives to the analysis process. This feedback loop helped to refine and corroborate the themes and conclusions, thereby enhancing the overall reliability of the study.

The study prioritized transparency in its reporting of both the research process and the findings. Detailed methodology documentation, including the sampling procedures, data collection techniques, and analytical approach, was provided to understand the study's framework. By outlining each step of the research journey, from participant

selection to data analysis, the study aimed to facilitate potential replication by other researchers. This transparency not only increased the study's credibility but also contributed to a culture of openness and accountability within the research community, enabling others to build upon the findings and contribute to advancing knowledge in the field.

Researcher's Role

Aligned with phenomenological indications, the researcher investigated faculty experiences before, during, and after LMS platform transitions, capturing individual perspectives within the broader context of higher education institutions. The foundations of the investigation were linked to the researcher's personal and professional interests. The researcher incorporated philosophical assumptions and framing to enhance reliability, establishing a clear framework that guided result interpretation and ensured validity. The researcher provided a thorough and detailed script to maintain consistency in participant interviews. Open-ended questioning ensured individual voices among participants, enabling a comprehensive examination of faculty perceptions before, during, and after LMS platform transitions.

Limitations

The study faced several limitations, which, according to Lunenburg and Irby (2008), may have affected the findings. This study offered valuable insights into faculty members' experiences before, during, and after an LMS platform transition. Firstly, it is important to note that LMS have diverse features and implementation challenges. Therefore, the study's findings may not universally apply to all LMSs. Secondly, the study's sample size might have limited the generalizability of the findings. Despite

attempts to create a diverse sample, the study may not have fully represented the entire spectrum of perspectives within an institution. Thirdly, the findings were based on the subjective experiences of participating faculty members' subject experiences and perceptions. While the study provided a comprehensive understanding of the experiences of those involved, it acknowledged the limitations of relying on subjective data. Individual perspectives could have varied based on personal experiences, perceptions, and levels of technological proficiency. Fourthly, the study's findings did not consider external factors that could have influenced faculty members' experiences with LMS platform transition. Factors like changes in educational policies, financial constraints, or global events might have played a significant role in shaping faculty perceptions and reactions to LMS platform transition. Finally, the study recognized that professional development needs may have varied across academic disciplines, different LMS, and within varied higher education institutions. Despite efforts to include faculty from various departments using multiple LMS, the findings may not have fully captured discipline-specific nuances.

Summary

Research procedures included disseminating a questionnaire on LinkedIn and via email for the widespread collection of potential participants. The research study did not discriminate based on location but sought participants who lived in the United States and who taught before, during, and after an LMS platform transition. The research investigated the experiences of higher education faculty members before, during, and after a major LMS platform transition, employing a qualitative phenomenological study design. The study focused on higher education institutions in the United States, which

were intentionally selected for relevance. In-depth interviews were conducted using video conferencing platforms, addressing research questions on preparation, support, and communication during LMS platform transitions. Thematic analysis identified patterns and meanings within the data, ensuring reliability and trustworthiness through reflexivity, member checking, and transparent reporting. Ethical principles were followed, with informed consent, confidentiality, and anonymity maintained. Acknowledging study limitations, such as potential sample size constraints, the subjective nature of data, and the exclusion of external factors, the research provided valuable insights into faculty experiences during LMS platform transitions.

Chapter 4

Results

The results in this section provide a detailed analysis of faculty perceptions about the support, training, and resources associated with LMS platform transitions in higher education. The study explored the challenges faculty face during LMS platform transitions in higher education, focusing on their perceptions of institutional preparation, communication, and support. Using a qualitative design, in-depth interviews were conducted with faculty across various departments and institutions. The study examined effective professional development and support strategies before, during, and after LMS platform transitions, employing intentional sampling to ensure diverse representation. Data collection involved questionnaires and video interviews, with thematic analysis used to identify patterns in faculty experiences. The research aimed to provide insights into improving professional development and support before, during, and after LMS platform transitions.

Participant Demographics

During the interview process, fifteen faculty were identified as good candidates for an interview. However, after further review, three declined as they did not want to participate or believed they did not qualify based on the study's criteria. Interviews occurred between August 20, 2024, and continued through August 28, 2024. Of the twelve interviewed respondents, eight identified as working at a traditional university, one identified as working at a community college, and three identified as working at a traditional college. Of the interviewed participants, three indicated they participated in a major LMS update, such as a new or enhanced version, while nine indicated they moved

from one LMS provider and platform to another. To ensure the anonymity of the participants, the interviewed faculty did not disclose their specific institution or geographical location other than to confirm that they are based in the United States.

Table 3

Participant Demographics – Type of School

Type of School	Number of Participants Reporting
Traditional University	8
Traditional College	3
Community College	1

Table 4

Participant Demographics - Type of LMS Change

Type of LMS Change	Number of Participants Reporting
LMS update (new or enhanced version)	3
LMS move (one platform to another)	9

The following research questions guided the study:

RQ1: What are faculty perceptions of the adequacy of preparation, support, and communication provided by the institution of higher education before, during, and after a LMS platform transition?

RQ2: What do faculty perceive would be the most effective strategies and practices for providing faculty with professional development and support during LMS platform transitions?

RQ3: How do faculty perceive the types of professional development and support provided before, during, and after LMS platform transitions in mitigating the associated challenges?

Themes from Research Question 1

RQ1 explored faculty perceptions of the adequacy of preparation, support, and communication provided by the institution of higher education before, during, and after an LMS platform transition. The first ten interview protocol questions allowed respondents to be open, honest, and candid regarding their experiences with the preparation, support, and communication before, during, and after the LMS platform transition. The interviews identified several major themes, including the importance of faculty involvement in such a critical transition, communication before the transition, and the need for positive institutional support.

Theme 1 (RQ1): Importance of Faculty Involvement in Decision Making

The need for faculty to be involved in the decision-making process was a frequently referenced theme during the interview process. Several participants referred to a "shared governance" method where faculty have an equal voice in making such a decision. Most participants responded favorably when asked how the institution listened to and communicated with the faculty. Participant P2 responded "that faculty buy-in is much higher when we have a voice at the table," Participant P3 remarked that:

> The best way to support people during a change is to ensure that those who are actually implementing it are genuinely listened to and that their concerns are addressed. One of my most positive experiences with change came when I felt truly valued because my voice was heard and my input mattered.

Participant P4 shared another positive remark when they commented that “the institution actually listened to our concerns, addressed these concerns to the best extent possible, and implemented some, not all, change based on this feedback.”

While most participants responded favorably, Participant P1 commented that “faculty were not given a choice, and we were told this was going to happen.” Participant P1 also noted that they believed that having a faculty voice would encourage buy-in and allow for a smoother transition. Participant P1 went on to comment about the need for some faculty involvement so as not to be blindsided. Participants P9 and P11 also remarked that they felt supported and listened to but wished they had more involvement in choosing which LMS the institution was moving to.

Theme 2 (RQ 1): Communication by the Institution before the Transition

The institution's communication efforts before transitioning or updating to a new LMS were critical in shaping faculty perceptions and experiences. Several participants commented on the ways their institutions communicated with faculty during the transition period, highlighting the strengths and areas for improvement in communication style. Through the perspectives of these participants, the discussion of the usefulness of these communication styles provided an overall understanding of the communication process during the transition or update.

Positive and Supportive. Participant P5 acknowledged their institution's consistent communication efforts, stating:

> The institution provided everyone helpful resources, including links, workshops both in-person and virtual, to prepare faculty for the transition to [another LMS].

> They provided us regular updates and the information was appreciated by most, which I believe contributed to a generally positive reception by the faculty.

Participant P4 reported clarity of communication made about the transition. On the other hand, P4 appreciated the communication channels coming from the institution, which were comprised of one-on-one meetings and training, plus technology support office visits for faculty to become prepared for the transition. The support attained through individualized modes of communication introduced further supportiveness that led to the faculty being more prepared for this transition.

Participant P7 emphasized clear and transparent communication as imperative before, during, and after an LMS platform transition. Participant P7 stated, "The more easily and quickly we are communicated with, will alleviate a number of faculty concerns, confusion and angst." In conclusion, their experience was very positive, and they went on to say that in retrospect, "hindsight is always 20-20," and communication can always be improved.

While communication is critical, managing the number and types of messages was important. Participant P9 recognized the extensive communication efforts made by their institution, particularly through emails and digital channels. Participant P9 commented that they generally found the communication clear and effective but noted that "the sheer volume of communication sometimes caused me to tune it out." Additionally, as an adjunct faculty member, Participant P9 stated, "I felt more isolated from in-person meetings and department-level discussions about the transition," indicating that communication efforts may not have reached all faculty members equally. Participant P12 also noted that "the institution made efforts to ensure the communication

about the transition was clear and effective." Participant P12 went on to say that communication was effective, but there could always be more.

Communication Challenges. Participant P6 expressed concerns about the communication strategy, stating that the institution often treated digital transitions and the LMS as afterthoughts. Participant P6 pointed out that while the Center for Teaching and Learning offered clear communication, a lack of resources and low faculty attendance at training sessions limited its impact. Participant P6 noted that "being a publically-funded institution, we don't have the resources for more."

Participant P1 concurred with this theme, noting that their institution needed to provide more notice or choice. Participant P1 stated:

> We were told this was going to happen, given very little notice and support and basically told, best of luck. I think having a top-down approach with little notice or support could be improved, many faculty, including myself were not happy but simply had to take it.

Theme 3 (RQ 1): Institutional Support

The participant comments highlighted both the positive areas of institutional support and the challenges faced by some faculty members. Some challenges included limited availability of support and inconsistencies in the preparation. Some participants described experiences ranging from "sink or swim" approaches to more phased, supported transitions and updates. This inconsistency in support led to varied experiences among faculty members, with some feeling well-prepared and others struggling.

Positive Experiences. Participant P4 rated the institution's preparation as a 10 out of 10, highlighting the high level of support offered. Participant P4 mentioned that the

institution provided professional development sessions, comparisons between the old and new systems, and one-on-one faculty support. Participant P5 also remarked:

> I want to praise the IT department and course designers for their exceptional support. Their responsiveness, even on weekends, was remarkable. The personalized one-on-one support and small group training sessions were very helpful. I believe that faculty who used these resources found the transition much more manageable.

Challenges with Institutional Support. While some participants had a positive experience, others believed the institution could have provided more support during the transition. Participant P6 expressed concerns about the limited availability of support, noting that "the institution has only one instructional designer who was stretched thin between several projects." The lack of support meant that not all faculty members could receive the necessary help. Participant P6 also noted that:

> A lot of the services that are offered are completely online, which is fantastic, for individuals like myself that know the online environment, but for many others, especially, some of my colleagues that are digital migrants, they just don't do online well.

This highlights a gap in the institution's support system, particularly for those requiring more hands-on assistance.

Themes from Research Question 2

The major themes for RQ2 highlighted the complexity of professional development during LMS platform transitions and updates. The major themes emerging from the interviews included the importance of hands-on, one-on-one training, and the

need for peer support. Participants stressed that engaging directly with the new or updated LMS interfaces through instructor-led simulations and sandbox environments enhanced their ability to navigate and understand these platforms. Interview protocol questions 11 to 17 illustrated how these strategies collectively facilitated a smoother and more effective transition for faculty.

Theme 1 (RQ2): Hands-On Training and Simulations

Three participants commented that a hands-on approach to training was the most beneficial method for transitioning or updating the LMS. Participant P1 recommended an "instructor upgrade class," where faculty could experience the new LMS interface from the student's perspective. They also noted that this approach allows instructors to "anticipate and understand potential challenges students might encounter." Participant P4 noted the effectiveness of providing a sandbox or pilot environment for faculty to explore and experiment with the new LMS before its full implementation, stating that:

> The college provided a sandbox course shell for faculty to play in. They [IT services] encouraged faculty to play around to become more comfortable with the system. We were then given a developmental shell to rebuild and transition our live courses to. This was extremely helpful in moving from one system to another.

Participant P6 remarked that:

> To be honest, face-to-face, hands-on training sessions were the most beneficial. The sessions, which focused on specific topics and provided walk throughs, were preferred over the earlier provided general information sessions. I found that these sessions useful and they addressed faculty needs.

All participants who responded favorably noted that targeted small group and one-on-one training sessions were the most effective and useful way to provide professional development regarding the new or updated LMS.

Theme 2 (RQ2): Peer Collaboration and Ongoing Training

Interviewed participants discussed the advantages of hands-on, one-on-one interactive training models over generic video or training modules. The interview responses show a need for encouraging peer support and providing continuous training post-implementation to create a supportive environment for faculty. Participant remarks gathered from interview protocol questions 11 to 17 illustrate how peer collaboration and sustained training strategies contributed to a smoother and more effective transition or update for faculty.

Participant P3 emphasized the importance of hands-on, peer-to-peer training models over generic video tutorials. Participant P3 stated, “Personalized support from content experts was beneficial, as it addressed specific questions and concerns in a more interactive and practical way.” Participant P4 echoed this response, stressing the importance of fostering collaboration among faculty members. Participant P4 suggested that institutions should “facilitate and promote collaborative learning opportunities for faculty.” Participant P7 reinforced the value of peer support and described a faculty mentor program as an effective strategy for updating an LMS. Participant P7 also noted, “Peer-to-peer collaboration and knowledge sharing is valuable, as both the mentor and mentee can learn from each other.”

Participant P12 discussed the effectiveness of peer mentoring and sharing best practices. Participant P12 stated, “Facilitating and encouraging peer collaboration, such

as through mentoring, can be an effective strategy in moving to a new LMS.” Similarly, Participant P5 recommended structured workshops or discussion-based sessions where faculty can share experiences and address challenges. Participant P5 also explained that “these sessions allow faculty to address day-to-day challenges and solutions from a peer perspective.”

Confidence. Many participants expressed anxiety or a lack of confidence during the shift to the new or updated LMS. Participant P9 expressed concerns about these feelings, noting, "we experienced a lack of confidence or anxiety about our ability to use the new LMS." Participant P9 shared that the institution provided reassurance, hands-on training, and peer support, which proved critical in easing these concerns. Lastly, Participant P9 stated that these types of efforts enabled faculty members to adjust to the new system and gain the confidence needed to engage fully with the new tools.

Themes from Research Question 3

The themes associated with RQ 3 allowed participants to discuss perceptions of the professional development and support provided before, during, and after the LMS platform transition or update and how these programs provided faculty support. Through interview questions 18 to 24, faculty members shared their experiences, noting key themes that emphasized the importance of training, peer collaboration, and ongoing resources. They focused on the need for individualized and continuous professional development to address challenges such as system familiarization, peer-to-peer support and collaboration, and the implementation of institutional monitoring processes, training, and support guidance mechanisms. The themes highlighted the important role of positive, responsive support strategies in helping faculty adapt to the new LMS.

Theme 1 (RQ3): Comprehensive Training

The need for comprehensive training and familiarization with the new LMS platform was a key theme that emerged from the data. Participants expressed a strong desire for more than just initial training sessions. As Participant P1 described, “we need an instructor upgrade class, of sorts where we [the faculty] could experience the LMS interface as students would to see both sides of the UI [user interface].” Participant P1 suggested that “involving instructors in the evaluation and selection of new LMS platforms” would ensure that their needs and preferences are considered, ultimately leading to a smoother transition. Additionally, Participant P1 highlighted the importance of “How-to Guides” and checklists as quick reference tools to assist faculty with everyday tasks, comparing these resources to “job aids and checklists used by airline pilots.”

The level and amount of training also arose as a theme. Participant P9 remarked that:

> The asynchronous, on-demand resources provided by the institution were the most beneficial during the transition to the new LMS. Being able to access information and support materials at my own pace was invaluable, especially as an adjunct faculty member with limited time. This flexibility allowed me to fully engage with the content and apply it in a way that fit my schedule, making the transition process much smoother.

Participant P9 described these smaller trainings as micro-learning and noted that they wished the institution had provided more in this area. Participant P8 described the need for comprehensive training as:

> I believe that professional development should be structured or in another way, targeted training, based on the varying skill levels and experience. I think this approach allows more advanced users to access relevant training, without being overwhelmed or underwhelmed by introductory content.

Theme 2 (RQ3): Peer Support and Collaboration

Another critical theme identified by the participants was the value of and need for peer support and collaboration. Four participants noted that working with colleagues during the transition or update eased the process and promoted a sense of community where ideas around the transition or update could be shared. Participant P2 emphasized the need for institutions to "facilitate and encourage peer-to-peer collaboration," while Participant P7 noted that peer support and collaboration seemed to "be best practice." Other participants suggested that structured or focused workshops and discussion sessions would help overcome many of the challenges they faced.

When asked about peer support, Participant P6 remarked that "Faculty-to-faculty mentorship and collaboration were invaluable to us during the LMS platform transition. By sharing knowledge and learning from each other's experiences, we were able to effectively navigate the challenges we experienced during the transition process."

The Learning Curve. Participant P4 noted the significant role of peer support in addressing the learning curve and their unfamiliarity with the new LMS. Participant P4 stated:

> Despite the institution's assurances that the new system is "idiot-proof" or "genius-proof," adapting to it was challenging due to my familiarity with [the old LMS]. Peer support was crucial in navigating this transition, I could simply walk

> down the hall and ask for support. Interacting and engaging with colleagues who had faced similar issues provided me with insights and confidence, helping me better understand and use [the new platform].

Theme 3 (RQ3): Monitoring, Guidance, Ongoing Training and Resources

This theme reflects the need for sustained support and oversight to help faculty overcome challenges and fully integrate the new LMS into their teaching practices. Participant P8 emphasized the need for ongoing training, stating:

> Ongoing training sessions, tutorials, and resources are perceived as valuable for faculty to continue learning and adapting to the new LMS system. These should be available in various formats, both in-person and online, to cater to different learning preferences and schedules.

Participant P8 further highlighted the importance of tailored professional development, adding,

> It's important that professional development be structured in a way that is tiered or in a targeted manner, based on the skill levels and experience of the faculty, allowing more advanced users to access relevant training without being overwhelmed by annoying or basic content.

Continuous Feedback. Finally, the interview data highlighted the importance of monitoring, guidance, and continuous feedback in supporting faculty during the LMS platform transition or update. Participants suggested having staff members in course shells to monitor usage and provide guidance. Participant P1 recommended this approach, noting that it would "ensure that faculty are using the LMS effectively and provide timely assistance when needed." Additionally, Participant P12 emphasized the

need for continuous feedback loops and follow-through, stating that “maintaining open communication and addressing ongoing needs are important steps for a successful long-term transition.”

Continuous Improvement. The transition or update to a new LMS can be daunting for faculty, particularly those who have grown familiar with the old system. Participant P4 highlighted that while the institution reassured faculty that the new system was “idiot-proof” or “genius-proof,” learning a new platform still presented challenges. While many participants reported being resistant to the change, Participant P4 stated, “Some faculty may be resistant to the change and require more encouragement to embrace the new LMS.” Participant P12 commented, “the institution’s approach of simplifying the update and providing ongoing resources played a crucial role in addressing many of the challenges.”

The results of the interviews offered an analysis of faculty perceptions regarding the preparation, support, and resources associated with LMS platform transitions and major updates in higher education. The interview data revealed several key themes, including the perceived adequacy of institutional preparation, the effectiveness of ongoing support, and the role of communication throughout the transition process. Participants identified multiple challenges, such as resistance to change, familiarity with the older system, and the need for more personalized, hands-on training.

Summary

The study involved interviews with twelve faculty members, selected after consideration of their eligibility. There was initial interest from fifteen candidates; however, three declined to participate. The interviews took place between August 20 and

August 28, 2024, and included participants from universities, community colleges, and traditional colleges across the United States. The faculty experiences varied; some participated in major LMS updates while others transitioned from one LMS provider to another.

Several key themes emerged, including the perceived adequacy of institutional preparation before the transition, the effectiveness of ongoing training and support during implementation, and the communication strategies used throughout the process. Faculty reported various challenges, such as resistance to change, varying levels of technological proficiency, and a need for more personalized, hands-on training. Additionally, the results emphasized the importance of peer support and collaboration among faculty, with many highlighting the value of shared experiences and mentorship in navigating the transition smoothly. The role of faculty champions, or peer support, and ongoing professional development is critical in addressing faculty concerns and enhancing their confidence in using the new or updated LMS.

Theme 1: Importance of Faculty Involvement in Decision Making

Faculty involvement in the decision-making process emerged as a central theme. Many participants expressed a desire for shared governance, where faculty had a voice in the decision-making process regarding LMS platform transitions and updates. Participants highlighted that when faculty were involved and their concerns were addressed, their buy-in was higher, leading to a smoother transition. For example, Participant P2 emphasized that faculty buy-in was more significant when they had a say in the decision-making process. However, not all participants felt included; Participant P1, for example, expressed frustration over a top-down approach where decisions were

made without faculty input, leading to feelings of being blindsided and unsupported. Faculty felt that a top down approach did not yield positive results and created frustration for the faculty.

Theme 2: Communication by the Institution before the Transition

The institution's communication strategies before the LMS platform transition were key in shaping faculty experiences. Positive examples included consistent and clear communication, as noted by Participant P5, who appreciated the institution's efforts to provide helpful resources and regular updates. However, some participants experienced communication challenges. For example, Participant P9 found the volume of communication overwhelming, leading to disengagement, while Participant P6 criticized the institution for treating digital transitions as afterthoughts, highlighting the need for more effective and resource-backed communication efforts.

Theme 3: Institutional Support

Institutional support during the LMS platform transition varied among participants. Positive experiences included high levels of support, noting confidence in professional development and one-on-one faculty support. In contrast, other participants noted challenges due to limited support resources, particularly the inadequate number of instructional designers, which left some faculty feeling underprepared and unsupported.

Chapter 5

Interpretation and Recommendations

This chapter begins with a summary of the study and expands on the findings reported in Chapter 4. The findings discussed are linked to the literature review presented in Chapter 2. The discussion addressed emerging themes related to the research questions, other themes tied to the research, and recommendations for future research.

Study Summary

The study examined the rapid growth of online education facilitated by LMSs since the late 1990s and early 2000s, with projections indicating continued expansion. This growth has been driven by advancements in internet technology, which have made LMS platforms essential for content delivery, student engagement, and course administration. The shift from traditional to online education, accelerated by events like the COVID-19 pandemic, has highlighted the need for faculty to adapt to new or updated LMS platforms. The study focused on understanding faculty needs before, during, and after these transitions, addressing the gap in research on the types of professional development and support required for successful LMS adoption. Through qualitative research involving faculty interviews, the study aimed to provide insights to help institutions and technology leaders enhance educational practices in the digital era.

Overview of the Problem. Transitioning or updating an LMS or eLearning system within the online educational environment presents significant challenges. Nearly all institutions of higher education, with approximately 99% utilizing some form of an LMS (Dahlstrom et al., 2014), face potential stress and frustration among faculty due to these changes (Mosleh et al., 2022). On average, LMSs are in place for around eight

years before undergoing significant transitions, not accounting for the frequent minor updates, bug fixes, and maintenance required; about 15% of U.S. institutions considered a major LMS platform transition within three years (Dahlstrom et al., 2014). Given that in 2021, there were 5,916 higher education institutions in the United States, roughly 887 institutions might have contemplated a major LMS platform transition or update between 2021 and 2024. These transitions often involve considerations around the user interface, technical functioning, and pedagogical implications, which must be addressed carefully to ensure effective updates or system changes. Despite available research on LMS platform transitions, including pilot program timelines (Lawler, 2011), there is a notable gap in understanding the necessary training and support required for faculty during these processes, as well as a need for administrators and technology leaders to comprehend the pedagogical best practices, time investment, and workload demands faced by faculty during such transitions (Jones, 2015).

Purpose Statement and Research Questions. The purpose of this dissertation was to explore the need for professional development and support for faculty before, during, and after a major LMS update or transition. Three research questions guided the study's purpose:

RQ1: What are faculty perceptions of the adequacy of preparation, support, and communication provided by the institution of higher education before, during, and after a Learning Management System (LMS) platform transition?

RQ2: What do faculty perceive would be the most effective strategies and practices for providing faculty with professional development and support before, during, and after LMS platform transitions?

RQ3: How do faculty perceive the types of professional development and support provided before, during, and after LMS platform transitions in mitigating the associated challenges?

Review of the Methodology: The study employed a qualitative phenomenological research design to investigate the challenges, needs, and preferences of higher education faculty before, during, and after LMS platform transitions or major updates. The researcher conducted in-depth interviews with faculty members across various departments in U.S. institutions, focusing on their experiences and perceptions regarding institutional support and professional development during these transitions. The methodology included intentional sampling, thematic analysis of interview data, and adherence to reliability and trustworthiness principles, ensuring a rigorous approach to understanding faculty needs in LMS platform transitions.

Major Findings: For RQ1, participants highlighted the importance of faculty involvement in decision-making, the helpfulness of institutional communication, and the variability of institutional support before, during, and after LMS updates or transitions. Faculty involvement was identified as crucial, with many participants emphasizing that their buy-in was higher when they were engaged in the decision-making process. Communication efforts by the institution were usually well-received, particularly when they were clear, transparent, and ongoing, though some challenges were noted, such as information overload and unequal access for adjunct faculty. Institutional support varied significantly among participants, with some praising the availability of resources and personalized assistance, while others pointed out gaps in support, particularly for those less comfortable with digital tools.

For RQ2, participants revealed the critical role of hands-on training, simulations, and peer support in facilitating a smooth LMS platform transition for faculty. Many participants noted that direct engagement with the new LMS through instructor-led simulations and sandbox environments significantly enhanced their ability to navigate and understand the platform. Participants also noted that having more one-on-one and peer mentoring support helped ease anxiety when implementing the new LMS.

The findings for RQ3 demonstrate the critical need for comprehensive and continuous professional development, peer collaboration, and sustained institutional support before, during, and after LMS platform transitions. Participants noted several times the importance of tailored training programs, including on-demand resources and "How-to Guides," to help them navigate the new platform at their own pace. Peer support and collaboration were also crucial, as workshops and mentorship helped ease the learning curve and fostered a sense of community.

Findings Related to the Literature

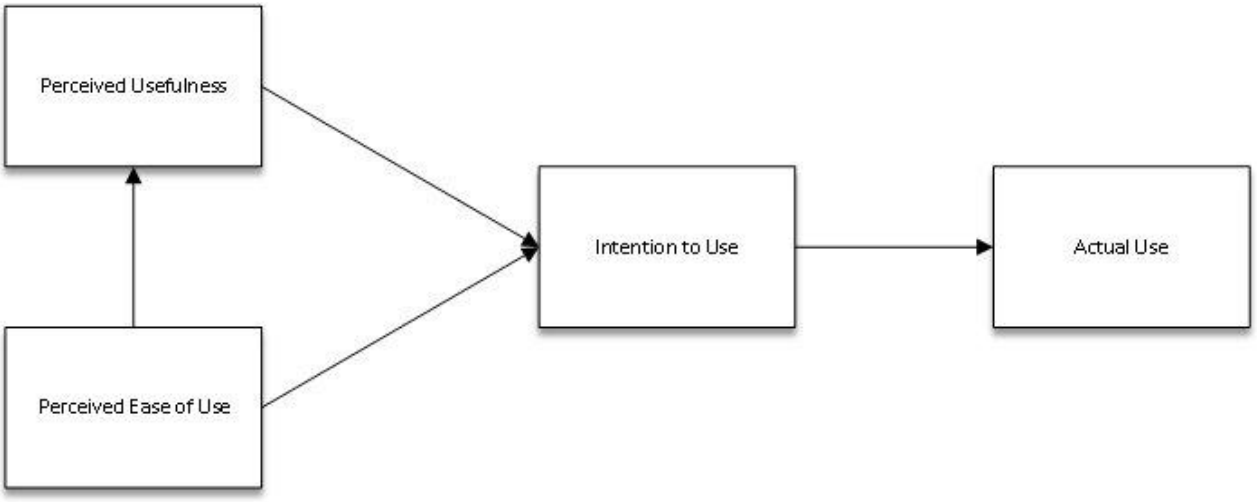
A literature review examined the theoretical framework, the evolution of eLearning and LMS, the transition to online learning, the importance of LMS, challenges around the LMS, the faculty's role in online learning, faculty training and support, and LMS platform transitions. Identifying these relationships and connections can help institutions understand the basic needs of faculty around professional development and support before, during, and after an LMS platform transition or update.

Emerging themes from RQ1: The primary focus of RQ1 was on how faculty engagement and support were crucial in the successful transition or updates of the LMS system. The participants highlighted the significance of being part of decision-making

processes and receiving efficient communication. These key points resonated with the TAM, which stresses the importance of perceived usefulness and ease of use when embracing technologies. The varied encounters shared by participants during LMS platform transitions highlighted the necessity for an approach to institutional support. The TAM framework is valuable as it concentrates on the ease of use and usefulness aspects to assist organizations in developing training and support systems successfully.

Figure 1

Technology Acceptance Model



Note. This figure is the original iteration of TAM. Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, *35*(8), 982–1003. https://doi.org/10.1287/mnsc.35.8.982

According to a study conducted by Bove and Conlkin in 2019, the comfort level and ease with which faculty members could access the LMS played a role in their acceptance of new technologies. This relates to the need for training initiatives that cater

to faculty apprehensions while offering hands-on assistance to ensure the smooth integration of a new platform.

This integration of insights from participants with TAM provided a comprehensive understanding of factors likely to influence LMS adoption. The key aspects that emerged included faculty engagement, clear communication, and sufficient support aligned with TAM's underlying principles. The comparison emphasizes the importance for higher education institutions to consider these factors when planning and implementing LMS platform transitions.

Emerging themes from RQ2: The initial focus of RQ2 highlighted a range of faculty experiences and perceptions regarding professional development and support before, during, and after transitioning or updating to a new LMS. Findings from this study highlighted how personalized, hands-on training stands out as a premium on faculty development to accept and participate in the adoption of new learning technologies. McQuiggan (2007) suggested that the faculty should develop technical skills and adapt their teaching methodologies according to the digital environment. In this process, hands-on use of LMS via simulation and sandboxes became particularly important. This approach not only built up confidence but also ensured the faculty were indeed better prepared for the challenges and effectively supported student learning online.

The existing literature on faculty roles within online education outlined the importance of peer collaboration and continued support across transitions within LMSs. The research by Dhilla (2017) and Roddy et al. (2017) showed that creating a collaborative environment where faculty members could share experiences and strategies was crucial in overcoming the transition obstacles with digital platforms. The research

suggested such peer interactions furthered faculty engagement with the LMS and also helped create a supportive learning community of peers, which often leads to more effective and sustainable adoption of new technologies.

The need for continual feedback mechanisms and customized professional support highlighted through the reflections by participants is representative of the general organizational difficulty brought to the forefront by the studies of Reigeluth et al. (2008) and McQuiggan (2007).

Emerging themes from RQ3. The focus of RQ3 revolved around the different levels of support and types of professional development for faculty before, during, and after a major LMS update or transition. The study by Mohammed and Muhammed (2022) identified that with a change in LMS, faculty should be involved with technological, pedagogical, and organizational professional development to ease concerns around adoption. The research by Panda and Mishra (2007) demonstrated that the availability of support and opportunities for professional development can support faculty and reduce these barriers, citing concerns about access and lack of training as primary responses. These studies indicate the need for thorough and continued support structures that would alleviate some of the impacts of technological limitations, enhance the experience of the faculty, and better incorporate pedagogical practices within the LMS. The variation in support among participants reflects the greater issue of aligning institutional resources with specific faculty needs described in the research.

Research around LMS adoption supports the need for comprehensive training and peer collaboration. Emelyanova and Voronina (2014) claimed that due to the challenges experienced by educators in embedding their pedagogical practices into LMS

environments where no such structures were provided at the time, more focused and skill-level-appropriate training and peer consultation should be offered. The focus on structured professional development and continuous feedback mechanisms reflects the suggested strategies recommended to help break down barriers to effective use of the LMS, namely, customized training, clear lines of communication, and available professional development.

The research on faculty being critical in online education, as highlighted by Dhilla (2017), confirmed the experiences shared by participants, who outlined the need for monitoring, guidance, and resources about transitioning to a new LMS. This focus on faculty adaptation to new technologies and professional development programs drew on the participants' call for sustained, individualized support in working out the LMS learning curve.

Conclusions

This study utilized a phenomenological research design to explore the need for professional development and support for faculty before, during, and after a major LMS update or transition. The study's findings addressed gaps in the literature regarding research on professional development associated with updating or transitioning to a new LMS. The following section addresses the gaps in the research to prompt action for future research.

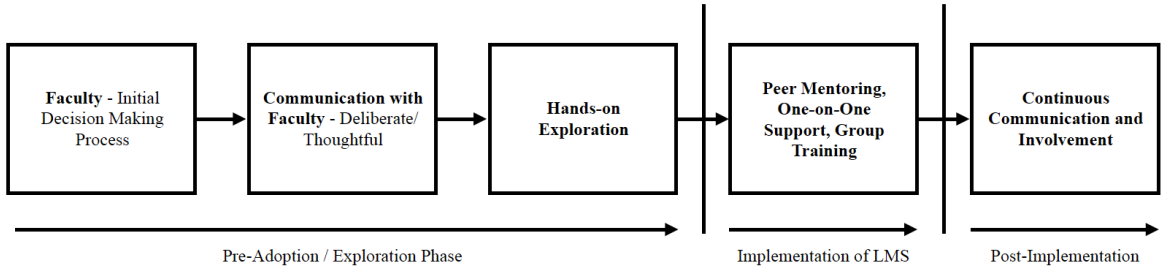
Implications for Action. The study explored the varied perspectives and perceptions on professional development and support before, during, and after a major LMS update or transition. The results of this study offered several practical steps institutions of higher education can take to better support faculty before, during, and after

a major LMS update or transition. The data from the current study suggest that the following key principles should be included in all LMS change considerations:

1. Include all faculty in the decision making process. Involving faculty (or a sub-set of faculty such as a “Faculty Council or Faculty Senate”) would foster a sense of ownership and shared decision-making among faculty.
2. Institutions of higher education should communicate in a deliberate and thoughtful manner to provide appropriate and needed information without overwhelming faculty members.
3. Provide faculty the opportunity for hands-on exploration with support documentation of the product before and during the transition. These include sandbox environments with detailed help-guides or job-aids to support faculty understanding.
4. Provide faculty with the opportunity for peer mentoring, one-on-one support, and group training sessions before, during, and after the transition to support understanding and buy-in.
5. After the transition or update, the institution should continue open and clear communication about changes and updates, involve faculty in understanding the necessity of these changes and updates, and provide ongoing support to ensure proper adoption and use of the LMS in perpetuity.

Figure 2

LMS Transition Best Practices and Action Steps



Note. This model shows the phases during the LMS platform transition process and the key elements the faculty reported as being most important.

Recommendations for Future Research. The results of this study present several opportunities for future and subsequent research in the areas of LMS updates, transitions, and professional development. First, the study included 12 participants from various institutions such as community colleges, traditional colleges, and universities. Future research could include more significant numbers of participants or explicitly looking at one institution type, such as community college faculty. Second, the specific product (LMS) that participants discussed was not captured. Further research is needed to explore faculty members' experiences across specific LMS platforms. Third, no unique distinction was explored to consider the institutional difference or faculty experience between a significant update, one version to another, versus moving from one platform and product to another. Future research could explore these differences in greater detail.

Lastly, the findings highlight the need for further research to address the broader applicability of the results, the impact of LMS changes across different disciplines, the

role of individual factors in shaping faculty experiences, and the long-term effects of LMS changes on faculty members' teaching and learning practices.

Concluding Remarks. LMS and eLearning products have been around for more than 25 years, and with the potential for 500+ updates or transitions a year, faculty deserve to have a plan to navigate these changes effectively. Institutions have a responsibility to include faculty, support them along the way, and follow best practices around communication and professional development. The researcher acknowledges that this study contained only 12 participants from varied platforms and experience levels of technological familiarity and are not necessarily applicable or reminiscent of all faculty at all institutions. This study contributed to the literature on best practices and provided a high-level framework institutions can follow to accomplish this goal.

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Appendix A. Informed Consent

Navigating Change: Faculty Perspectives on Professional Development during LMS Transitions in Higher Education

Informed Consent Form

Thank you for considering participation in this survey. Please read the following consent information, and if you agree, click yes to advance to the survey questions.

Purpose: This study focuses on faculty experiences transitioning to a new or updated Learning Management System (LMS) at their institution.

Participant Selection: Higher Education Faculty employed at a higher education institution in the United States before, during, and after an LMS transition.

Explanation of Procedures: If you decide to participate, you will answer 24 pre-determined questions. It is expected the interview will take you 30-45 minutes to complete.

Risks: There are no anticipated risks associated with participating in this study. However, if you feel uncomfortable with a question, you may skip it and you may stop the interview at any time.

Compensation: No compensation will be provided.

Confidentiality: Any feedback you provide during the interview will be kept confidential. Your data will remain anonymous, which means your name will not be linked to the data you provide.

Voluntary Participation/Right to Withdraw: Participation in this study is completely voluntary. Refusal to participate will involve no penalty. You can decide not to answer any question you feel is too personal or sensitive. You have the right to withdraw from the study at any point without penalty or notice to the researcher. You are under no obligation to participate in this study.

Voluntary Consent: I have read the above statements and understand what is being asked of me. I also understand that my participation is completely voluntary and that I can withdraw my consent at any time, for any reason, without penalty. On these terms, I certify that I am willing to participate in this research project.

For questions about this study or if you would like to know the results of the study, please contact:

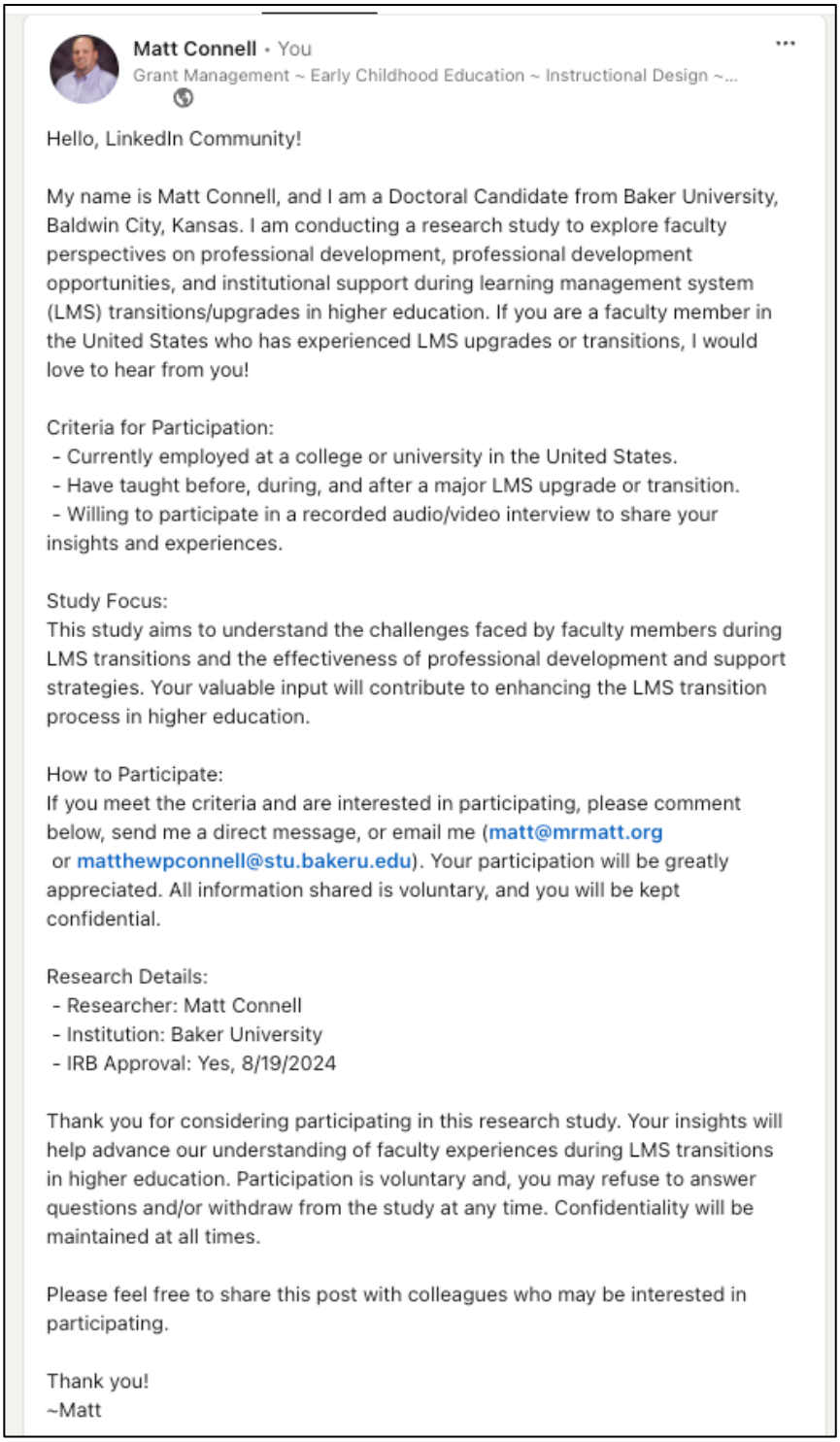
Principal Investigator:
Matt Connell
matthewpconnell@stu.bakeru.edu

Faculty sponsor/advisor:
Dr. Regena Aye
regena.aye@bakeru.edu

*I have read the above statement and consent to participate in this survey

___ Yes
___ No

Appendix B. Social Media Post for Participant Recruitment (LinkedIn)



Matt Connell • You
Grant Management ~ Early Childhood Education ~ Instructional Design ~...

Hello, LinkedIn Community!

My name is Matt Connell, and I am a Doctoral Candidate from Baker University, Baldwin City, Kansas. I am conducting a research study to explore faculty perspectives on professional development, professional development opportunities, and institutional support during learning management system (LMS) transitions/upgrades in higher education. If you are a faculty member in the United States who has experienced LMS upgrades or transitions, I would love to hear from you!

Criteria for Participation:
- Currently employed at a college or university in the United States.
- Have taught before, during, and after a major LMS upgrade or transition.
- Willing to participate in a recorded audio/video interview to share your insights and experiences.

Study Focus:
This study aims to understand the challenges faced by faculty members during LMS transitions and the effectiveness of professional development and support strategies. Your valuable input will contribute to enhancing the LMS transition process in higher education.

How to Participate:
If you meet the criteria and are interested in participating, please comment below, send me a direct message, or email me (matt@mrmatt.org or matthewpconnell@stu.bakeru.edu). Your participation will be greatly appreciated. All information shared is voluntary, and you will be kept confidential.

Research Details:
- Researcher: Matt Connell
- Institution: Baker University
- IRB Approval: Yes, 8/19/2024

Thank you for considering participating in this research study. Your insights will help advance our understanding of faculty experiences during LMS transitions in higher education. Participation is voluntary and, you may refuse to answer questions and/or withdraw from the study at any time. Confidentiality will be maintained at all times.

Please feel free to share this post with colleagues who may be interested in participating.

Thank you!
~Matt

Appendix C. Email/Interview Invitation

Hello,

I hope this email finds you well. My name is Matt Connell, and I am a Doctoral Candidate at Baker University in Baldwin City, Kansas. I am reaching out to invite you to participate in a research study I am conducting, which aims to explore faculty perspectives on professional development, professional development opportunities, and institutional support during learning management system (LMS) transitions or upgrades in higher education.

Participation Criteria:

- Currently employed at a college or university in the United States.
- Have taught before, during, and after a major LMS upgrade or transition.
- Willing to participate in a recorded audio/video interview to share your insights and experiences.

Study Focus: The study seeks to understand the challenges faculty members face during LMS transitions and evaluate the effectiveness of professional development and support strategies provided by institutions. Your valuable input will play a crucial role in enhancing the LMS transition process in higher education.

How to Participate: If you meet the criteria and are interested in contributing to this study, please respond to this email or contact me directly at either of the following email addresses: matt@mrmatt.org or matthewpconnell@stu.bakeru.edu. Your participation will be greatly appreciated, and all information shared will be kept confidential.

Research Details:

- Researcher: Matt Connell
- Institution: Baker University
- IRB Approval: Yes, 8/19/2024

Thank you for considering this opportunity to contribute to research that aims to improve faculty experiences during LMS transitions. Your insights are invaluable, and your participation is entirely voluntary. You may choose to withdraw from the study at any time, and confidentiality will be maintained throughout the process.

Please feel free to share this invitation with colleagues who may also be interested in participating.

Thank you for your time and consideration.

Best regards,

Matt Connell
Doctoral Candidate
Baker University
matt@mrmatt.org
matthewpconnell@stu.bakeru.edu

Appendix D. Interview Protocol

Interview Protocol

Verbal Script for Interview

Introduction

"Hello, my name is Matt Connell. I am a doctoral candidate from Baker University, Baldwin City, Kansas. Thank you for agreeing to participate in this interview. Today, we will be discussing your experiences with transitioning to a new, or updated, Learning Management System (LMS) at your institution. Your participation is voluntary, and all information shared will be kept confidential. You may refuse to answer any question and/or withdraw from participation at any time.

To ensure accuracy, I will be recording this interview. Before we begin recording, I would like to confirm that you consent to participating in this interview and to being recorded. Do you agree to proceed?"

RQ1: What are faculty perceptions of the adequacy of preparation, support, and communication provided by the institution of higher education before, during, and after a Learning Management System (LMS) transition?

Preparation/Before the Transition:

1. Can you describe your experience with the recent LMS transition at your institution?
2. How would you rate the level of preparation provided by the institution before the LMS transition occurred?

During the Transition:

3. In what specific ways did the institution support faculty members during the transition?
4. Were there any challenges or obstacles you faced during the transition process, and if so, how were they addressed?
5. How well do you feel the institution listened to and addressed faculty concerns or feedback during the LMS transition process?

After the Transition:

6. Do you believe that the communication regarding the LMS transition, both before and during the transition, was clear and effective?
7. Were there any particular resources or training sessions provided by the institution to assist faculty in adapting to the new/updated LMS? If so, how helpful were they?
8. Have you noticed any improvements or enhancements in teaching and learning outcomes since the Transition of the LMS?
9. From your perspective, are there any areas where the institution could have better supported faculty members during the LMS transition?
10. What suggestions or recommendations do you have for improving the preparation, support, and communication for future transitions to the LMS or other institutional systems?

RQ2: What do faculty perceive would be the most effective strategies and practices for providing faculty with professional development and support during LMS platform transitions?

Preparation/Before the Transition:

11. What types of initial training sessions or resources did you find most beneficial before the transition to a new/updated LMS platform, and why do you think these would be effective?

During the Transition:

12. What do you consider to be the most crucial aspects of professional development and support for faculty during transitions to new LMS?
13. Can you share any effective strategies or practices for professional development and support that you've encountered during previous LMS transitions or similar changes?
14. From your perspective, what are some potential challenges or barriers that faculty members may face during LMS transitions, and how can these challenges be effectively addressed through professional development and support?

After the Transition:

15. How important are ongoing training and resources for faculty members adapting to new/updated LMS platforms – can you explain?
16. Do you believe that peer support and collaboration among faculty members are valuable during LMS transitions, and if so, how can the institution facilitate and encourage this collaboration?
17. What recommendations or suggestions do you have for improving the effectiveness of professional development and support for faculty members during future LMS platform transitions?

RQ3: How do faculty perceive the types of professional development and support in mitigating the challenges associated with LMS platform transitions?

Preparation/Before the Transition:

18. How do you believe professional development can assist faculty in overcoming the challenges associated with LMS platform transitions?

During the Transition:

19. Can you provide examples of professional development initiatives or support mechanisms that you believe have been effective in addressing challenges during LMS transitions?
20. From your perspective, what specific types of support do you think would be most beneficial for faculty members during LMS platform transitions?

After the Transition:

21. In your experience, what types of challenges have you encountered when transitioning (or updating) to new LMS platforms?
22. Have you participated in any professional development activities related to LMS transitions in the past? If so, how did they impact your ability to adapt to the transition?
23. Do you think there are any gaps in the current professional development offerings related to LMS platform transitions? If yes, what areas do you think need improvement?

24. What suggestions do you have for enhancing professional development and support to better mitigate the challenges associated with future LMS platform transitions?

Closing

Thank you for sharing your valuable insights and experiences during this interview. Rest assured that all information provided will remain confidential, and I appreciate your contribution to this research. Lastly, if you have any questions or additional comments, please feel free to share them.

Appendix E. IRB Submission/Request

BAKER UNIVERSITY

IRB Request

Date 7/20/2024

IRB Protocol Number _____ (IRB use only)

I. Research Investigator(s) (students must list faculty sponsor)

Department(s) IDPT - 20A

	Name	Signature	
1.	Matt Connell	Matthew P. Connell	Principal Investigator
2.	Dr. Regena Aye	Regena M. Aye	☑ Check if faculty sponsor
3.	_Dr. Kyunghwa Cho___	kyunghwa cho	☐ Check if faculty sponsor
4.	_____	_____	☐ Check if faculty sponsor

Principal investigator contact information
Phone [redacted]
Email _____
Address [redacted]

Faculty sponsor contact information
Phone [redacted]
Email _____

Expected Category of Review: ☐ Exempt ☑ Expedited ☐ Full ☐ Renewal

II. Protocol Title

Navigating Change: Faculty Perspectives on Professional Development during LMS Transitions in Higher Education

III. Summary:

The following questions must be answered. Be specific about exactly what participants will experience and about the protections that have been included to safeguard participants from harm.

A. In a sentence or two, please describe the background and purpose of the research.

The research is based on the expansion and transformation of online education since the late 1990s, particularly using Learning Management Systems (LMS). Projections suggest a 17% increase in LMS usage from 2023 to 2032, with the market value expected to exceed 232 billion dollars by 2032 (Wadhwani, 2023). This growth has been accelerated by technological advancements and events like the COVID-19 pandemic, which pushed

B. Briefly describe each condition, manipulation, or archival data set to be included within the study.

The research involves a qualitative design utilizing in-depth interviews with faculty members who have experienced a major Learning Management System (LMS) transition/update at their institution. These interviews will explore faculty's experiences, perceptions, and needs regarding professional development and support before, during, and after LMS transitions. The study aims to understand the adequacy of preparation.

IV. Protocol Details

A. What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.

A semi-structured interview protocol (attached) was developed to guide the interviews. The 24 pre-determined questions were developed by reflecting upon the available research literature surrounding professional development for faculty before, during, and after LMS updates/changes. The study will focus on gathering information about participants' experiences with LMS transitions, including the level of preparation provided.

B. Will the subjects encounter the risk of psychological, social, physical, or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.

The subjects will not encounter any stress.

C. Will any stress to subjects be involved? If so, please describe.

No significant stress to subjects is expected.

D. Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

The subjects will not be deceived or misled in any way.

E. Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.

Interviewees will be asked to provide basic information, including their length of experience in the classroom and their role in higher education. Participants will be informed before the interview that they can refuse to answer any questions, that confidentiality will be maintained, and that they can withdraw from the study at any time if they become uncomfortable.

F. Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.

The subjects will not be presented with materials considered offensive, threatening, or degrading.

G. Approximately how much time will be demanded of each subject?

The interview process will require approximately 30-45 minutes for each subject.

H. Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

The participants will be higher education faculty who currently work at an institution of higher education in the United States and meet the criteria for participation. Potential participants who meet the criteria will be solicited via a recruitment post on LinkedIn (attached). The post will be public and available to any member of the researcher's network to attract additional qualified participants. The first participants who respond to

I. What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

The initial recruitment post will explain that participating in the study is voluntary. Additionally, a verbal reminder that participation is voluntary will be read to each participant at the beginning of the interviews as part of the interview protocol. No compensation or inducements will be provided to participants.

process.

J. How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

An informed consent form (attached) will be provided to each potential participant when scheduling the semi-structured interview. Participants must sign and return the completed consent form before their scheduled interview. Verbal consent to record the interview will be obtained by the interviewer from each participant before the recording is started.

K. Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No data will be made a part of any permanent record that can be identified with the participants.

L. Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher, or employer? If so, explain.

No permanent records will be kept for any participant regarding their choice to participate or not participate in the study.

M. What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with the data after the study is completed?

The results of the study will not include information that will personally identify participants. Transcripts will be deidentified and saved as a participant number based on the order in which they were interviewed. The interview recordings and the participant coding matrix will be stored in a password-protected location and permanently deleted two years after the study's conclusion.

N. If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

There are no risks involved in the study. Benefits of participation include the opportunity for participants to provide additional feedback and guidance towards meeting their needs related to professional development. The information the participants provide could eventually help improve the professional development initiatives in which they participate and could potentially influence professional development design around LMS.

O. Will any data from files or archival data be used? If so, please describe.

No data from files or archival data will be used.

Appendix F. IRB Approval

Baker University Institutional Review Board

August 19, 2024

Dear Matthew Connell and Regena Aye,

The Baker University IRB has reviewed your project application and approved this project under Expedited Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.
6. If this project is not completed within a year, you must renew IRB approval.

If you have any questions, please contact me at skimball@bakeru.edu or 785.594.4563.

Sincerely,

Scott Kimball, PhD
Chair, Baker University IRB

Baker University IRB Committee
Tim Buzzell, PhD
Steve Massey, EdD
Jiji Osiobe, PhD
Susan Rogers, PhD