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ABSTRACT

Online courses are mainstream throughout higher education. This pattern has been accelerated, temporarily or permanently, due to the coronavirus pandemic (Allen & Seaman, 2016; Arum & Stevens, 2020; Garrison, 2011). Tenure-track and contingent faculty's willingness to teach online serves students, but little research critiques the forces that produce and constrain faculty's efforts. Even the most current discussions of faculty readiness lack a strong grounding in criticality. Without such a critical orientation, the power and equity issues involved in the higher education marketplace of online teaching cannot be adequately examined. This critical integrated literature review of 44 studies documents themes of the affective dimensions and identity disruption surrounding faculty's readiness to teach online and explores their professional vulnerability. Structural and cultural forces that produce and constrain faculty's experiences transitioning to online teaching emerged from the analysis. This conceptualization of faculty readiness provides a foundation upon which to theorize faculty's equitable experiences of online teaching.

Introduction

Online courses are mainstream throughout higher education, and this pattern has been accelerated, temporarily or permanently, due to the coronavirus pandemic (Allen & Seaman, 2016; Arum & Stevens, 2020; Garrison, 2011). Many traditional tenure-track faculty are new to online teaching and lack formal education in how to successfully teach online (Gülbahar & Adnan, 2020; He et al., 2014; Kyei-Blankson et al., 2019; Mohr, & Shelton, 2017), but they are being asked to transition, create, and implement online teaching (Allen & Seaman, 2016; Cutri & Whiting, 2018; Rennie & Morrison, 2013). Other types of faculty, such as adjuncts, those specifically hired for online positions, and those forced to move classes online due to university closures in response to the coronavirus disease pandemic face no choice but to teach online even if they do not feel properly prepared to do so (Elliott et al., 2015; Hechinger & Lorin, 2020; McMurtrie, 2020; Yates, 2017). Of course, there are some faculty who feel well prepared to teach online and enjoy it or come to enjoy it. However, attention must be given to those faculty who are asked or

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mandated to teach online, temporarily or permanently, and who may not feel ready or are not enthusiastic to do so.

Buckenmeyer et al. (2011) noted that faculty members believe that their willingness to participate in online transitions has enabled universities to gain a competitive advantage in today's higher education marketplace. Budget cuts and decreasing population of college-age students create enrollment and financial pressures for university administrators (Crawford, 2010; Friga, 2020). Even if only temporarily, the coronavirus pandemic has accelerated faculty's transition to online teaching, which has enabled higher education institutions to remain functioning (Quintana, 2020). Essentially, online teaching in academia in the digital age, compounded by an era of a pandemic, can be seen as a productive activity of a monetary economy.

Faculty members' willingness to teach online profits institutions of higher education. Certainly, this does not discount that such efforts also benefit students, but faculty experiences in this exchange need to be critically examined. Yet, even the most current discussions of faculty readiness lack a strong grounding in criticality capable of unpacking the structural and cultural differentials involved in faculty readiness to teach online (Martin et al., 2019; Phan & Dang, 2017; Stickney et al., 2019). Without such a critical orientation, the power and equity issues involved in the symbolic economy inherent in higher education online teaching cannot be adequately examined.

Stewards of online teaching need a nuanced conceptualization of faculty readiness that critically considers the forces that produce and constrain faculty's experiences teaching online. Such a critical construct of readiness could serve as the foundation upon which a theory about faculty readiness and equitable experiences with online teaching could be built. In order to identify elements of a nuanced conceptualization of faculty readiness, this integrated literature review pursued the research question "What are the variables and overarching themes that arise in research literature specifically focussed on non-expert faculty transitioning, developing, and teaching online courses?"

In this article, we first review traditional conceptualizations of faculty readiness for teaching online. Second, we present the theoretical framework employed in this integrated literature review. Third, we present the methods employed, and fourth we present the findings. Finally, we discuss conclusions and implications for future research.

Traditional conceptions of readiness

The assessment of faculty readiness can be operationalized as a pre-assessment of faculty's preparedness (mental and physical) to develop and implement online teaching (Adnan, 2018; Hashim & Tasir, 2014; Hoppe, 2015). Historically, research on faculty integrating technology into their teaching has focussed on the adoption process of faculty's technology integration and its sustainability (Carbonell et al., 2013; Ertmer, 1999; Hew & Brush, 2007; Nicolle & Lou, 2008; Rogers, 1995). Garrison et al. (2003) described faculty's competencies needed in online teaching. They identified work that had a focus on organizational issues and work examining transactional issues. When reviewing literature 17 years after the work of Garrison et al. (2003), Gülbahar and Adnan (2020) largely identified similar issues as markers of competencies.

Goodyear et al. (2001) critiqued the competency-based approach to understanding online teaching competencies. They described this critique as a humanistic perspective

and asserted "that it objects to the reduction of human activity and ability to a list of descriptions of behaviors" (p. 67). However, they noted that not much work had been done identifying the limitations of competency checklists.

In their review of the literature, Baran et al. (2011) also harshly critiqued the almost exclusive use of competency-based teacher education models in online teacher education. They called for analysis of online teaching that acknowledges faculty's autonomy and their meaning-making of structures related to online teaching. We responded to calls in the literature for attention to the structural and cultural differentials inherent in faculty readiness to teach online.

Theoretical framework

Attending to structural and cultural issues in faculty readiness to teach online, rather than just seeking a checklist of competencies, requires applying a theoretical framework capable of examining the topic beyond merely assessing faculty's technological skills, attitudes toward technology, or access to technology. We employed the theory of professional vulnerability (Kelchtermans, 1996, 2009).

Kelchtermans (1996) explained professional vulnerability as "the basic structure in vulnerability is always one of feeling that one's professional identity and moral integrity, as part of being 'a proper teacher', are questioned and that valued workplace conditions are thereby threatened or lost" (p. 319). Attempting to develop, transition, and implement online teaching can threaten some faculty members' professional identities and valued workplace conditions and can result in feelings of vulnerability. Yet, Kelchtermans (2009) clarified that professional vulnerability is not merely about a feeling, but rather presents a critical analysis to structural issues:

> As a result, however, teaching is fundamentally characterised and constituted by vulnerability … Vulnerability in that sense is not so much to be understood as an emotional state or experience (although the experience of being vulnerable definitely triggers intense emotions), but as a structural characteristic of the profession. (p. 265)

The structure and culture of academia can exacerbate the professional vulnerability that faculty experience when transitioning to online teaching.

The distinctions between tenure-track faculty and contingent faculty exemplify academia's well-established structural procedures (Davis, 2017; Nica, 2018) and can be magnified in online teaching situations (Luna, 2018; Ortagus & Stedrak, 2013). However, tenure-track faculty are not immune to professional vulnerability as compounded by online teaching. Crawford (2010) described the position of tenure-track faculty teaching online as a "social and political transformation" in which expectations of faculty are significantly shifting and could potentially impact their rank advancement (p. 203). Considerations of the structural dimensions of faculty teaching online highlight their potential professional vulnerability.

The shift away from brick-and-mortar–based instruction also impacts the cultural milieu of both contingent and tenure-track faculty. House-Peters et al. (2017) described the labor force needed in online education models as "fungible and contingent" (p. 82). Considering and treating faculty as interchangeable and as subjects of a changing professional environment contrasts sharply with the cultural milieu of academia in which faculty

are traditionally considered specialized experts with predictable professional trajectories. Online teaching in this manner creates tension, and even professional vulnerability, as it introduces new conditions into existing institutions with well-established structural and cultural norms (Baran et al., 2011; Cutri et al., 2020; Mansbach & Austin, 2018).

Methods

An integrated literature review describes and synthesizes the knowledge about an emergent area of study in an effort to develop new conceptual models and research agendas (Torraco, 2005; Whittemore & Knafl, 2005). This approach is in contrast to systematic literature reviews, which generally aim for a complete compilation of the literature on a mature topic (Paré et al., 2015). The objective was to target representative (rather than comprehensive) channels of research, consisting of journals, book chapters, and dissertations, which, in our estimation, would have a high potential to examine aspects of faculty readiness to transition or develop online teaching.

Sampling and data collection

The sampling time frame determined was from 2002 to 2018. The search strategies for this review used the computerized databases ERIC, Scopus, Web of Science, Science Direct, and Social Sciences. Suitable sources were initially identified by using the search combination of terms "online course", "online programs", "mobile learning", "faculty readiness", " staff readiness", "instructor readiness" (in many international settings, the term staff is used for faculty or instructor), "e-readiness", followed by the Boolean operators AND, OR. The inclusion and exclusion criteria for determining the pertinence of a source were if the source focussed on the readiness of the faculty or instructor or staff perspective as opposed to the readiness of students and if the source focussed on transitioning or developing courses to online formats and/or implementing such courses.

This integrated literature review consisted of 44 sources. Quality was determined by journal articles being peer reviewed and the number of citations and views that each article received. During the literature search phase, various dissertations and book chapters were also considered. The quality of these sources was determined by the quality of the university or press by which they were published. Once an article, chapter, or dissertation was identified as pertinent, Google Scholar was used to see where the piece had been cited since its publication. The pieces citing the first source were then evaluated using the same conditions. Identifying the number of times that each piece had been cited helped determine which pieces were emerging as seminal works and how ideas have been taken up and developed or not in the research literature (Whittemore & Knafl, 2005).

Data reduction

The first step of data reduction was the creation of an Excel spreadsheet documenting each source. (Please see Appendix A for items included on the spreadsheet. Due to space constraints, only research topics and key concepts will be discussed in this article. Please see Appendix B for list of references for each source.)
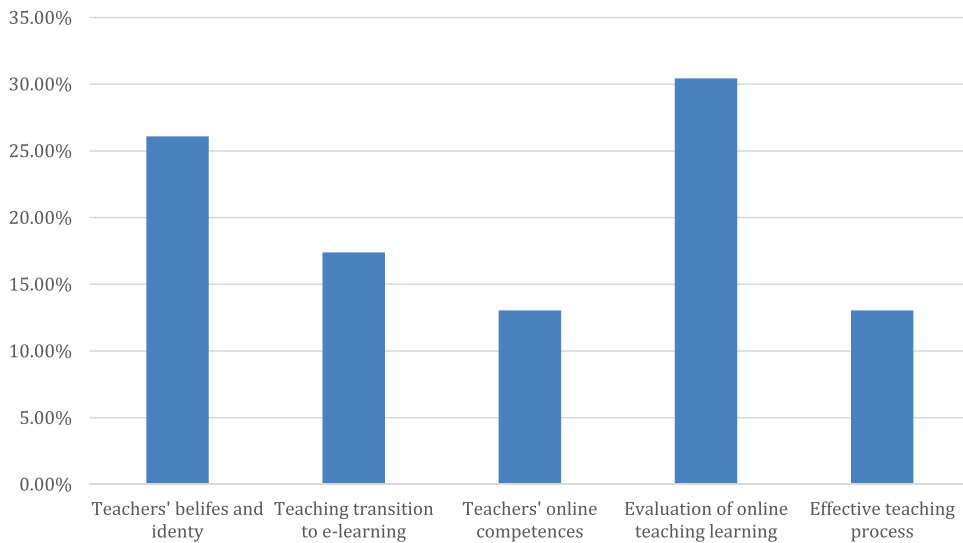
Figure 1. Research topics on online teaching readiness found in the publications (2002–2018).

An analysis of the stated research topics of the sources revealed five major categories (see Figure 1). The category of evaluation of online teaching learning (30.44%) was operationalized as pieces that sought to evaluate faculty members' teaching via examinations of students' learning. The category of teachers' beliefs and identity (26.09%) referred to pieces that highlighted the ways in which teachers' beliefs and identity were impacted by transitioning their course to online formats. The category of teaching transition to online (17.39%) focussed on sources that most explicitly studied the transition process itself. The category of teachers' online competences (13.04%) included pieces that examined aspects of faculty members' skills in online teaching formats. The category of effective teaching process (13.04%) referred to sources that inquired into the actual teaching process.

The second step of data reduction was the creation of a concept matrix for each source. A concept matrix synthesizes the key concepts for each source in a qualitative and descriptive format (Webster & Watson, 2002). We read each source while employing an open coding strategy to identify key concepts. We isolated key concepts by the unit of analysis that this integrated literature review addressed (Webster & Watson, 2002) and documented on the Excel spreadsheet. Please see Appendix C for a sample concept matrix, but note that, due to space constraints, the concept matrices for each source are not included in this article.

The three key concepts that emerged from the open coding analytic phase were affective considerations; pedagogical considerations; and organizational considerations. Affective considerations was operationalized as affective dispositions involved in creating online versions of existing courses, such as response to risk taking, response to change, identity disruption, and stress. Pedagogical considerations was operationalized as pedagogical approaches involved in creating online versions of existing courses, such as lack of sensory input, considerations about sharing power with students, apprehensions regarding conveying personality online, and avoiding monologues. Organizational considerations was operationalized as organizational orientations involved in creating online

version of existing courses, such as time management, flexibility, and a tension between planning ahead and spontaneity.

The key concept that emerged most often in the sources reviewed was affective considerations (41.82%), but it was closely followed by pedagogical considerations (40%). Organizational considerations came in third place (18.18%) (see Figure 2).
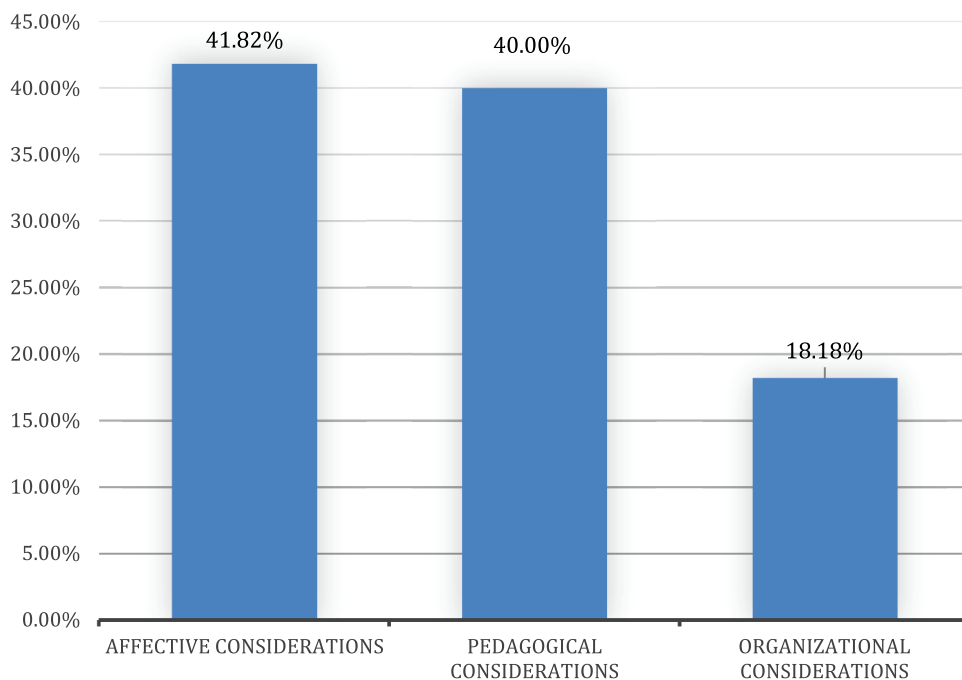

Figure 2. Key concepts of online teaching readiness.

Analytic method

After the data reduction steps described above, a constant comparison method was employed using the concept matrices for each source (Boeije, 2002; Charmaz, 2006; Whittemore & Knafl, 2005). The first author looked across all concept matrices to identify similarities. Then, the first author identified salient themes within the identified similarities that spanned all of the sources. The two overarching themes that emerged were affective characteristics and identity disruption.

At this stage, the second author read the selected sources and their corresponding concept matrices to confirm agreement, or note disagreement, with the key concepts identified. The second author then reviewed the themes identified across the sources to determine their salience. General agreement was established between the first author's and second author's analysis, thus contributing to the trustworthiness of both the key concepts and the overarching themes identified.

Torraco (2005) asserted that an integrative literature review must offer a new perspective on the topic and challenge and extend current understanding of the topic. To this

end, we critically examined the ways in which the key concepts and overarching themes mapped onto the research question. This examination was executed by considering and attending to structural and cultural differentials and employing the critical theoretical lens of professional vulnerability (Kelchtermans, 2009).

Findings

Findings are organized according to the two overarching themes of affective dimensions and identity disruption; examples from the sources illustrate the themes, and themes are examined through the theoretical lens of professional vulnerability (Kelchtermans, 2009).

Affective dimensions of faculty readiness

The theme of affective dimensions of faculty readiness was operationalized as affective characteristics involved in faculty efforts to transition, develop, or implement online versions of courses. Kraglund-Gauthier et al. (2010) concluded that little research exists that focuses specifically on the process of faculty transitioning from face-to-face teaching to online teaching. They went on to assert that it is a process filled with a range of emotions. Mitchell et al. (2015) asserted that a "source of faculty resistance to online education is related to fears of the unknown, loss, and failure" (p. 358).

The research reviewed described faculty transitioning face-to-face courses to or developing online formats with phrases that indicate the strong presence of affective characteristics. For example, Sockman and Sharma (2008) referred to faculty's emotional resistance toward transitioning courses online. Salmon (2011) documented the need for faculty with characteristics such as empathy, creativity, confidence, and flexibility. Redmond (2015) asserted that faculty must be willing to "try new ways of thinking and acting" (pp. 107–108), which she concluded requires "intellectual courage" (p. 128). The assertion to try new ways of thinking and acting illustrates that teaching online is a departure from the traditional cultural norms of academia.

The emotional responses to teaching online documented characterize personal intense emotions commonly associated with vulnerability. The cultural milieu of academia, which usually privileges objective rationality over personal intense emotions, could certainly be challenged by such emotions. These findings prompt questions regarding how faculty are supported through such affective responses to the process of transitioning to and developing online teaching. Also, such findings suggest the need for better understanding how such intense emotions, and indeed vulnerability, impact faculty's experience of online teaching.

Recognizing faculty's potential intense emotional response to online teaching is not enough. Kelchtermans (1996) reminded us that vulnerability exceeds mere intense emotion. The structural nature of vulnerability must also be critically examined. Dyment et al. (2013) argued that the first step to increase levels of personal engagement with teaching online is to acknowledge faculty's fears and concerns and encourage those feelings to be expressed in a safe environment.

The competitive structure of tenure reviews and trends in hiring contingent faculty does not create safe environments for faculty to publicly acknowledge their fears and concerns. These findings urge us to interrogate how such structural vulnerability compounds experiences of online teaching for faculty. For example, might some faculty shy

away from online teaching because of rank and status concerns? What if faculty are mandated to do it? In addition to issues of accessibility for pre-tenure and pre-full professor status faculty, these findings highlight how being invited, or mandated, to do online teaching could disproportionately impact the retention of earlier career faculty and possible contingent faculty who might be required to solely teach online.

Identity disruption

The theme of identity disruption involved in faculty readiness was operationalized as the time traditional faculty roles and sense of identity were disrupted as faculty transitioned or developed and implemented online versions of courses. Johnson et al. (2014) argued that moving courses online disrupts faculty's identities.

Identity as experts disrupted

Golden (2016) emphasized that faculty transitioning to online teaching must be able to resolve stress related to no longer being within one's area of expertise. Golden and Brown (2016) emphasized the affective and behavioral aspects of the comprehensive experience of changing from a face-to-face teaching format to an online format. Johnson et al. (2014) asserted that faculty face recognizing potential discontinuities between who they are as face-to-face instructors and who and how they will be as online instructors. San Jose and Kelleher (2009) unpacked these discontinuities as centered in a state of not yet having established a comfortable way of working in the new e-learning environment and a strong desire to return to the known teaching format. Poor teaching evaluations due to the steep learning curve of transitioning courses to online formats could also compromise faculty members' identity as seasoned experts.

Such identity disruption contrasts with the traditional structural and cultural milieus of academia.

Another finding in this integrated literature review was shifting power dynamics involved in increased student autonomy in online learning formats. Researchers described the power shifts that can occur as faculty move away from teacher directed instruction in favor of constructivist approaches to e-learning (Redmond, 2015; Reid, 2012). Of course, it must be recognized that not all online teaching is learner centered. Sockman and Sharma (2008) described professors' emotional resistance to such pedagogical and implicit power shifts as being a result of faculty's distaste for feeling like novices again. They suggested that faculty assume a humble stance toward online teaching. Such humility can contrast with the competitive, peer review structure of academia. Additionally, a shift in power and authority could elicit from faculty affective responses related to professional vulnerability and could impact the type of support needed.

These findings of disrupted identity as expert can be considered cultural artifacts of traditional faculty roles that are being challenged in the digital age of higher education and as a source of professional vulnerability. Addressing such cultural discontinuities should be included in professional development efforts to support faculty.

Identity as researchers disrupted

Considerations for rank and status toward tenure and full professor in academia rarely privilege teaching innovations such as pursuing the development of online teaching (Tagg,

2012). Rather, conducting and publishing research holds higher status. Indeed, Tagg (2012) argued that faculty are de-incentivized to engage with online teaching not only due to fear but also because institutions of academia only offer what he termed "anti-change endowments" (p. 14). Thus, Tagg concluded that faculty are rewarded for maintaining the status quo. Research has found that transitioning courses online also takes large amounts of time, which is most often time away from research and writing (Bussmann et al., 2017; Hopewell, 2012; Raffo et al., 2015). These structural characteristics of academia could impact faculty teaching online and represent a form of professional vulnerability.

Permanent and contingent faculty are often asked, or mandated, to teach online. Turning down such opportunities could present professional vulnerability for faculty in terms of evaluations of citizenship. Faculty could potentially be caught in a double bind between their responsibilities for citizenship and scholarship and their online teaching efforts. Overall, these types of structural vulnerability could negatively impact faculty's experiences of online teaching.

Conclusions and implications for future research

Through the theoretical lens of professional vulnerability (Kelchtermans, 1996, 2009), this integrated literature review documents themes of affective dimensions and identity disruption associated with faculty readiness to teach online. Structural and cultural forces that produce and constrain faculty's experiences teaching online emerged from the analysis.

Identification of such structural and cultural forces responds to various concerns raised in the literature. One concern raised is the contribution to universities' financial profits that permanent and contingent faculty make through their willingness to teach online (Buckenmeyer et al., 2011; Crawford, 2010; Friga, 2020; House-Peters et al., 2017). Select structural forces identified promote a critique of how faculty's experiences transitioning to online teaching can be potentially constrained. For example, traditional rank and advancement in academia are based on scholarship rather than teaching innovations (Tagg, 2012), and transitioning to online teaching is time intensive, and permanent and contingent faculty can find this time comes at the expense of other responsibilities such as citizenship and scholarship (Bussmann et al., 2017; Hopewell, 2012; Raffo et al. 2015). Cultural forces that constrain faculty's experiences transitioning to online teaching were also identified, for example, the clash between the traditional cultural milieu of academia and the intense emotional responses that faculty can experience in this process (Mitchell et al., 2015; Redman, 2015; Salmon, 2011). Critical consideration of these structural and cultural forces contributes to a more nuanced understanding of faculty's experiences transitioning to online teaching.

The limitations of this integrated literature review involve the objective to target representative, rather than comprehensive, examples from the literature. However, this targeted approach is appropriate given that the intent was to develop a new conceptual model of faculty readiness (Torraco, 2005; Whittemore & Knafl, 2005). Additionally, the time frame determined for the review (2002–2018) could have excluded other important work produced after 2018.

Online learning in the digital age of higher education is expected to become mainstream worldwide by 2025 (Lederman, 2018; Palvia et al., 2018), and the coronavirus pandemic has the potential to accelerate this timeline (Lau et al., 2020). The pivot to online teaching has reached the point at which faculty, most likely, cannot just opt out of

it. Yet, recent research has still found that full professors (who are less professionally vulnerable than more junior faculty) rate online course design and technical competency for online teaching less important than do their more junior (and professionally vulnerable) colleagues (Martin et al., 2019). Perhaps, not all faculty will be asked to develop permanent online versions of their courses, but these structural issues, combined with the cultural issues previously covered, need to be further understood as forces that produce and constrain faculty's experiences and readiness to teach online.

Future research must respond to calls in the literature to move beyond competency-based assessments (Baran et al., 2011; Goodyear, et al., 2001). A scale capable of measuring the affective and identity disruption variables involved in faculty readiness to teach online is needed. Such an instrument should not be used as an evaluative tool to weed out or shame faculty members regarding their readiness. Rather, such an instrument could greatly inform faculty development efforts and actually help faculty members negotiate the possibility of professional vulnerability.

Declaration of interest statement

Data availability statement

The authors confirm that the data supporting the findings of this study are available within the article (please see Appendix A).

Notes on contributors

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Appendix A: Spreadsheet of sources in the integrated literature review (*N* = 43)

Study	Country	Region	Topic	KC#1	KC#2	KC#3	Participants	Method	Analysis
			Descriptive information	**Key Concepts (KC)**			**Methodology**		
Adnan et al. (2017)	Turkey	2, 5	Information about a multinational faculty development program for teaching online, elaborating on results of expectancy and satisfaction surveys		X		1, 2	1	2
Asiri & Aly (2018)	Saudi Arabia	5	Identify the reality of e-learning systems and tools use (Blackboard) by faculty members and students in teaching and learning courses			X	2, 3	1	2
Baran et al. (2011)	Canada	1	Roles and competences in online teachers	X			2	3	1
Barret (2010)	USA	1	Virtual learning strategies		X		1	3	1
Buckenmeyer et al. (2011)	USA	1	Assisting teaching online courses with a program		X		2	1	2
Chester (2012)	USA	1	Effective training for successful transition to online teaching		X		2	2	4
Cochran (2015)	USA	1	Transitioning to an online environment		X		2	2	5
Downing & Dyment (2013)	Australia	3	Pedagogical skills online and e-confidence	X	X		1	1	2
Dyment et al. (2013)	Australia	3	Use of Pittaway's (2012) engagement framework for online teaching	X			1	1	1
Edwige (2012)	USA	1	Impact of online teaching on higher education faculty's professional identity	X			2	4	2, 6, 1
Fletcher & Bullock (2015)	Canada	1	Observation and critical understanding of the effectiveness of teaching students in an online digital environment and their possible solutions		X		1	2	4
Gay (2016)	Barbados	1	Levels of e-readiness of Fac. Teachers	X	X		2	1	2, 3
Georgina & Hosford (2008)	USA	1	Impact of faculty technology literacy and technology training in the integration of technology into their pedagogy		X		2	1	2, 3
Gimba et al. (2018)	Nigeria	4	Teachers and students' perceptions of the problems of effective teaching and learning of Science and Technology in junior secondary schools.	X			1, 3	1	2
Golden (2016)	USA	1	Faculty perceived an identity disruption when shifting their teaching practice online	X			2	1	3
Golden & Brown (2016)	USA	1	Web-based faculty teaching (Holistic PD model: 6 stages)	X			2	1	2
Hammouri & Abu-Shanab (2018)	Jordan	5	Factors influencing the adoption of e-learning.	X			3	1	3
Hung et al. (2010)	China	5	Multidimensional instrument for college students' readiness for online learning		X		3	1	3
Inei-Ekici (2018)	Turkey	2, 5	Advantages and disadvantages of the online context from the perspectives of teachers who completed an online disability awareness program	X	X		3	1	3
James-Springer & Cennamo (2017)	USA	1	Practice of instructional technology including instruction and training issues of the teachers	X	X	X	2	3	1

(Continued)

(Continued).

Study	Descriptive information			Key Concepts (KC)			Methodology		
	Country	Region	Topic	KC#1	KC#2	KC#3	Participants	Method	Analysis
Johnson et al. (2014)	USA	1	Online teacher identity	X		X	1	2	4
Kim & Bonk (2006)	USA	1	Beliefs about online teaching		X	X	2	1	2
Kirwan & Roumell (2015)	USA	1	Online educator's dispositions and presence by reviewing and distilling scholarship on effective online instructional practice into a conceptual framework		X		2	3	1
Kraglund-Gauthier et al. (2010)	Australia & Canada	3,1	Evolution of online education in education	2	X		3	2	4
Koehler et al. (2004)	USA	1	Develop a model of online teaching that integrates content, pedagogy and technology			X	1, 2, 3	3	1
Laksitowening et al. (2016)	Indonesia	5	Description of the level of preparation of the university to include the E-learning			X	2	3	2, 3
McLawhon & Cutrigh (2011)	USA	1	Establishment of the relationship between the instructor's learning style/preference and the online job satisfaction of the faculty	X			2	1	3
McQuiggan (2007)	USA	1	Degree of development and adaptation of teachers and adult education to changes in online teaching	X			2	3	1
Mishra & Panda (2007)	India	5	Development a distance education policy makers and researchers a psychometrically sound and powerful method of assessing faculty attitudes towards e-learning	X	X		2	1	3
Mosa et al. (2016)	Malaysia	5	Evaluation of the necessary competences to include e-learning in an effective manner in higher education (students, lectures, technology and environment		X		2	3	1
Outlaw (2014)	USA	1	Learning management system transition from eLearning Vista to Blackboard Learn			X	2	1	3
Ozturk et al. (2018)	Turkey	2,5	Determination of the prospective teachers' readiness and satisfaction levels	X	X	X	3	1	3
Raffo et al. (2015)	USA	1	Need to learn multiple roles for teaching in a changing job	X		X	1	3	1
Ramdass & Nemavhola (2018)	South Africa	4	Critical analysis of the concepts of development, enhancement and assurance in relation to the quality of teaching and learning in higher education			X	2, 3	2	5

(Continued)

(Continued).

Study	Country	Region	Descriptive information Topic	Key Concepts (KC) KC#1	KC#2	KC#3	Methodology Participants	Method	Analysis
Redmond (2015)	Australia	3	Description the journey of two academies as they journey along the pedagogical continuum from teaching fully face-to-face to blended, and then, on fully online environments	X			2	2	4
San Jose & Kelleher (2009)	USA	1	Online educator's dispositions (cognitive, pedagogical and social)	X	X		1	3	1
Sugar et al. (2007)	USA	1	Transition from face-to-face teaching strategies to an online environment	X			1	2	4
Suter (2002)	USA	1	Faculty transition from onsite to online teaching	X		X	2	2	4
Uzunboylu & Ozdamli (2011)	Turkey	2, 5	Developed a scale to determine the perception of e-learning of teachers				1	1	2, 3
Valencia-Vallejo et al. (2019)	Spain	2	Effects of motivational scaffolding that favor self-efficacy and improve learning achievement in students with different cognitive styles	X			3	1	3
Wang & Lin (2018)	China	5	Design an affective tutoring system (ATS) for curriculum teaching	X			3	2	3
Welch et al. (2014)	Emirates & USA	5	Teaching dispositions towards online instruction (Virtual Dispositions Teaching scale): virtual, pedagogical, social	X	X		2	1	2
Whitaker (2015)	USA	1	Transition of faculty to online teaching		X		2	1	3

Notes: Region: 1 = North America; 2 = Europe; 3 = Australia and New Zealand; 4 = Africa; 5 = Asia and Middle East. Key concepts (KC): KC#1 = Affective considerations; KC#2 = Pedagogical considerations; KC#3 = Organizational considerations. Type of participants: 1 = Teacher educators; 2 = Faculty members (e.g., instructors, instructional designers, college professors); 3 = University students. Method: 1 = Questioning; Survey research; 2 = Observation: Study cases; 3 = Documents: Content analysis (theoretical review). Type of analysis: From lower to higher level of scrutiny: 1 = Critical literature review; 2 = Descriptive statistics; 3 = Correlational analysis; 4 = Study cases.

Appendix B: References for sources in the integrated literature review (*N* = 43)

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Appendix C: Sample concept matrix

Redmond P. (2015). A pedagogical continuum: The journey from face-to-face to online teaching. In P. Redmond, J. Lock, & P. A. Danaher (Eds.), Educational innovations and contemporary technologies (pp. 107–132). Palgrave Macmillan.

Affective considerations	Pedagogical considerations	Organizational considerations
• faculty need to be flexible • faculty need to be open to learn from others including students • faculty need to be prepared to share control of the course • faculty need to be willing to collaborate	• faculty often try to simply replicate their face-to-face course in an online format • faculty need to shift from a teacher directed model of teaching to a constructivist approach • faculty need to adjust their role from content provider to learning facilitator	• no major ones mentioned

Notes: So many of these considerations that are identified in the Redmond piece relate to faculty dispositions and orientations, even the pedagogical considerations. Both the affective and pedagogical considerations require that the faculty member tolerate a lot of risk, ambiguity, and real shifts in their normal way of doing things—changes in their identity as a professor. Transitioning one's course into an online format (entirely online, blended, etc.) involves so much more than just technological skills and access to technology or even attitude toward technology integration. The conceptualization of faculty e-readiness needs to evolve to capture these dispositional elements that exceed the focus of previous conceptualizations of faculty e-readiness.