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Online and Self-Directed Learning Readiness Among Hospitality and Tourism College Students and Industry Professionals

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Online and Self-Directed Learning Readiness Among Hospitality and Tourism College Students and Industry Professionals

by

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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy of Curriculum and Instruction with an Emphasis in Adult Education
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Dedication

This work is dedicated to my father, Ali Cavusoglu—the one who will always be loved and missed. . . .
Acknowledgments

First, I would like to thank my family for being supportive while I pursued my interests. Your love, support, and understanding have made all the difference. I love you very much!

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Abstract

The purpose of this quantitative study was to compare self-directed learning readiness and online learning readiness between hospitality and tourism college students and industry professionals. The Self-Directed Learning Readiness Scale (SDLRS) was used for measuring self-directed learning readiness. After examining the reliability and validity indices of the modified Online Learning Readiness Scale (OLRS), it was used in the context of hospitality and tourism for the measurement of online learning and training readiness. Two different study populations, hospitality and tourism college students and hospitality and tourism industry professionals, were identified for the purpose of this study. Data were obtained via online anonymous links which included the demographic and descriptive questions and the two instruments (the SDLRS and the OLRS) through Qualtrics. A total of 550 usable responses (298 from hospitality and tourism college students and 252 from hospitality and tourism industry professionals) were collected for statistical analysis. Using confirmatory factor analysis, the modified OLRS was confirmed as a valid and reliable instrument. The mean score differences on the SDLRS and the dimensions of the OLRS between hospitality and tourism college students and industry professionals were investigated using independent samples t tests. Although there was a significant difference in the SDLRS scores, there were no significant differences in the mean scores of the dimensions of the OLRS among hospitality and tourism college students and industry professionals. Finally, the relationship between the SDLRS score and the dimensions of the OLRS among hospitality and tourism college students and industry professionals were tested.
and reported a significant and positive correlation among these variables. This study contributes to the knowledge of self-directed learning readiness and online learning readiness among hospitality and tourism college students and industry professionals. This study can stimulate more research on the impact of self-directed learning readiness and online learning readiness in the educational and industrial practices in the hospitality and tourism field.
Chapter 1
Introduction

The hospitality and tourism industry is a dynamic industry (Kay & Moncarz, 2007; Ritchie & Goeldner, 1994), which is changing quickly and continuously (Dopson & Tas, 2004; Olsen & Connolly, 2000). Therefore, successful employment in the hospitality and tourism industry requires a quick adaptation process. According to Karmarkar (2004), to be able to maintain the pace of such a constantly self-reinventing industry yet stay competitive, it is necessary for each employee or professional to make proactive changes. Moreover, to be able to act proactively, or even just maintain daily workloads, it is important for the hospitality and tourism industry to work with professionals who have skills such as problem-solving, taking initiative, and adapting themselves rapidly to new protocols related to their jobs (Lema & Agrusa, 2009).

The hospitality industry has a record high employee turnover rate in the service industry (National Restaurant Association [NRA], 2017). In 2012, the annual turnover rate in the hospitality industry was 64.8% (Holtom & Burch, 2016), in 2015 it was 72.1% (Ruggless, 2016), and in 2016, it was 72.9% (NRA, 2017). Even though hospitality and tourism companies hire professionals who have the necessary skills, “with the traditionally high turnover rate in the hospitality industry, a property could quickly find itself with an untrained workforce” (Collins & Cobanoglu, 2008, p. 366). Therefore, to be able to maintain the daily workload, the hospitality and tourism industry should (a) train their employees or professionals according to their needs and/or (b) hire employees or professionals who have the necessary skills (Bonn & Forbringer, 1992).
When providing training to hospitality and tourism industry professionals, one important decision is to decide on the training method. Harris and Cannon (1995) mentioned three methods of traditional training: “lecture-to-group, on-the-job, and videotaped training programs that have been used widely by the hospitality industry for many years” (p. 79). However, Zainal (2005) suggested “since the hospitality industry has grown and become more global, both internally and externally, [the] traditional training approach has been found to be inefficient and lacking in effectiveness” (p. 3). Zainal (2005) supported Harris and Cannon (1995) and suggested traditional methods are not efficient as much as using innovative training technologies. It appears the hospitality and tourism industry may benefit from innovative training technologies more than traditional methods (Brathwaite, 1992; Harris, 1995; Hospitality Technology, 2017; Tatti, 2017; Training Industry, 2015).

There are numerous degree programs offered by colleges and universities designed to serve a specific industry. Students need to decide what industry they want to work in for rest of their careers and select the potential programs accordingly. For example, after graduating from a degree program, medical students will most likely be working at a hospital or clinic (Evans, 2014). Similarly, a degree program in hospitality and tourism colleges is designed to offer job opportunities in many places within the hospitality and tourism industry. Therefore, it is very important to create a collaboration between hospitality and tourism education and the needs of the hospitality and tourism industry to ensure the student employee transition works smoothly between these two stakeholders and prepare a successful intellectual workforce for the hospitality and tourism industry (Millar, Mao, & Moreo, 2010; Min, Swanger, & Gursoy, 2016; Zainal,
A major portion of the hospitality and tourism workforce is comprised of the hospitality and tourism school students and graduates. Technological improvements in education and training may help this collaboration to make the transition smoother (Millar et al., 2010). In the last two decades, online learning and training have been in use, replacing the traditional methods in hospitality and tourism education and industry (Sykes & Roy, 2017; Zakrzewski, Feinstein, & Sammons, 2005).

Lin and Hsieh (2001) found there is a correlation between self-directed learning and online learning in terms of learners making their decisions for learning to meet the individuals’ own goals at their own pace. Shapley (2000) claimed that to be able to succeed in an online course requires a high level of self-direction. Also, since one of the important characteristics of self-directed learning is that it may physically separate learners from the instructor and other learners (Long, 1998), the concept of self-directed learning plays an important role in online education. Two important and interrelated concepts, (a) self-directed learning and (b) online learning, have emerged in the education of hospitality and tourism college students and training of hospitality and tourism industry professionals (Collins, Cobanoglu, Bilgihan, & Berezina, 2017).

One of these phenomena, self-directed learning, has been regularly studied over time; study results have shown that self-directed learning is an important element for influencing students’ learning outcomes in both traditional and distance/online education (Long, 1991). Highly self-directed learners “perform better in jobs requiring a high degree of problem-solving ability, a high degree of creativity, and a high degree of change” (Guglielmino & Guglielmino, 2018, para. 3). Therefore, self-directed learning is not only beneficial for learning in classes which students are required to take, but
exposure to these methods of learning also helps them in their work experiences (Bary & Rees, 2006; Taylor, 1995). For example, self-directed learning begets mastery of ancillary skills such as problem-solving, taking initiative, and adapting themselves rapidly to any updates related to their jobs (Hsu, 1999). These skills are not only very important, but also a necessity for employees or professionals who are working for dynamic industries (Bastable, 2008; Levett-Jones, 2005) such as hospitality and tourism. Since self-directed learners have these skills, there are obvious advantages to hiring hospitality and tourism industry professionals who are self-directed learners.

Self-directed learning is not only important for traditional settings, but also in a distance learning environment (Long, 1991). Compared to self-directed learning, online learning is a fairly new concept which has only been studied in the last two decades (Jones, 2016). Also, online learning has become very popular (Wilkins, 2004). According to Allen and Seaman (2011), only 9.6% of students enrolled in a program in U.S. higher education taking at least one online course in Fall 2002. A recent study conducted by Seaman, Allen, and Seaman (2018) showed the percentage increased to over 31% in Fall 2016. Some studies have shown there is a significant relationship between self-directed learning behaviors and online learning outcomes. For example, Corbeil (2003) measured the self-directed learning readiness behaviors of 98 online learners with the Oddi Continuing Learning Inventory (OCLI) instrument. The study results showed there was a significant positive relationship between students’ self-directed learning behaviors and online course academic performance. Moreover, another study found self-directed learners benefit more from online learning environments (Shapely, 2000).
Online learning has gained popularity not only in U.S. higher education, but also in American workplaces (Bernard, 2018; Sambrook, 2006). In addition, there are numerous studies for online workplace training including pedagogical approaches (Macdonald, Bullen, & Kozak, 2007), learner support requirements (Macdonald, Bullen, & Kozak, 2010), learner satisfaction (Gunawardena, Linder-VanBerschot, LaPointe, & Rao, 2010; Jones, 2016), and motivation (Hardman & Robertson, 2012).

**Statement of the Problem**

According to Zainal (2005), “hospitality organizations are under pressure to improve both training and development to produce effective results and reduce turnover by enhancing the overall workplace experience” (p. 1). Moreover, the hospitality and tourism industry demands that students graduating from hospitality and tourism college programs possess some necessary skills and competencies to be able to maintain the fast-paced and constant changes in the hospitality and tourism industry (Agrusa, Tanner, & Coats, 2004). However, since the hospitality and tourism industry is continuously changing, “course subjects [knowledge] identified as important by hospitality professionals in the past may not be considered as important today” (Min et al., 2016, p. 12). Therefore, it is necessary for hospitality and tourism educators and students to monitor the changes in the hospitality and tourism industry and adopt these new practices or subjects themselves to be able to keep up the constantly changing industry standards (Gursoy, Rahman, & Swanger, 2012; Millar et al., 2010; Min et al., 2016; Miranda; 1999).

Professionals in the hospitality and tourism industry and/or students studying at hospitality and tourism college programs who are highly self-directed learners with
supported online learning characteristics may help the hospitality and tourism industry to maintain the constantly changing industry standards. There are numerous studies on self-directed learning readiness among professionals working in other areas such as electronics development and manufacturing professionals (Durr, 1992), healthcare managers (Muller, 2007), and directors of a national non-profit organization (Zsiga, 2007), and as well as among college students such as medical students (Hendry & Ginns, 2009), nursing students (Daniels, 2011), and engineering students (Litzinger, Wise, & Lee, 2005). However, there are few self-directed learning readiness studies in hospitality and tourism education and hospitality and tourism industry. There are several studies focused on self-directed learning readiness of hospitality and tourism students and industry professionals (Lema, 2006; 2009; Lema & Agrusa, 2007; 2009). In these four studies, the researchers used the Oddi Continuing Learning Inventory (OCLI), which is according to Pachnowski and Jurczyk (2000), Svedberg (2010), and Zhoc and Chen (2016), one of the leading instruments measuring self-directed learning readiness. In the initial study, Lema (2006) mentioned the OCLI is “more closely aligned with an occupational environment in which participants have diverse level of education” (p. 64). However, there has been no empirical evidence to guide researchers in the selection of this instrument. Since there are two leading instruments, which include the Self-Directed Learning Readiness Scale (SDLRS) and the OCLI (Pachnowski & Jurczyk, 2000; Svedberg, 2010; Zhoc & Chen, 2016), more information was needed to select an instrument to measure self-directed learning readiness of the hospitality and tourism industry professionals and potential future professionals, who are currently hospitality and tourism college students.
Unlike self-directed learning readiness, online learning readiness studies have been only limited to student populations. Although many aspects of online training such as satisfaction with online training (Artino, 2008), motivation (Pauschenwein & Sfiri, 2010; Simmering, Posey, & Piccoli, 2009), computer self-efficacy (Simmering et al., 2009), and gaming (De Freitas & Griffiths, 2007) have been researched, there is a gap in the research for the readiness of employees or professionals for the online training. Moreover, while some studies indicate that companies might save up to 75% on training costs by switching from face-to-face training to online training (Cole-Gomolski, 1999), it is still uncertain whether hospitality and tourism industry professionals are ready for online training. Besides the lack of studies focusing on online learning/training readiness in the industry professional population, there is also a lack related to how self-directed and online learning readiness of hospitality and tourism industry professionals compares to what is known about hospitality and tourism college students learning.

To sum up, there has been a lack of research (a) to fill the gap in the data in terms of self-directed learning readiness and online learning readiness of hospitality and tourism college students and industry professionals, and (b) to compare differences and similarities of hospitality and tourism college students and industry professionals. Although the Online Learning Readiness Scale (OLRS) was developed (Hung, Chou, Chen, & Own, 2010) and validated (Hung et al., 2010; Yurdugul & Alsancak-Sarikaya, 2013) for the student population, there has been no scale to measure online learning or training readiness of hospitality and tourism industry professionals.
**Purpose of the Study**

The purpose of this study was to compare self-directed learning readiness and online learning readiness between hospitality and tourism college students and industry professionals. The Self-Directed Learning Readiness Scale (SDLRS) was used for measuring self-directed learning readiness. After examining the reliability and validity indices of the Online Learning Readiness Scale (OLRS), it was used in the context of hospitality and tourism for the measurement of online learning and training readiness.

**Research Questions**

The following research questions were investigated in this study:

1. What are the reliability and validity indices of the modified OLRS for hospitality and tourism college students and industry professionals?
2. To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the SDLRS?
3. To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the OLRS dimensions?
4. What is the relationship between the SDLRS score and the dimensions of the OLRS:
   a. for the hospitality and tourism college students?
   b. for the hospitality and tourism industry professionals?
   c. for the combined sample from hospitality and tourism college students and industry professionals?

**Conceptual and Theoretical Framework**

The literature of self-directed learning provides a framework for this study.
Beginning with the work of Houle (1961) and later by his student Tough (1967; 1971), as well as Knowles (1975), the concept of self-directed learning has been extensively discussed in the adult learning literature. Initially, Houle (1961) identified three types of learners who were goal-oriented learners, activity-oriented learners, and learning oriented learners in his study, *The Inquiring Mind*. Later, Tough (1971) investigated learning-oriented learners who sought knowledge for its own sake, in his study, *The Adult’s Learning Projects*. The main contribution of this study was that self-directed learning or self-planned learning was found (Merriam & Caffarella, 1999). Moreover, in 1975, Knowles published *Self-Directed Learning: A Guide for Learners and Teachers* in which he introduced and defined self-directed learning. Knowles (1975) defined self-directed learning

as a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. (p. 18)

As a result, the concept of self-directed learning was introduced to the literature based on respective works of Houle (1961), Tough (1971), and Knowles (1975).

Fundamentals of self-directed learning depend on the theory of andragogy (Turner, 2007), also known as adult learning theory. Andragogy was defined as “the art and science of helping adults learn” (Knowles, 1980, p. 43). While Bolton (1985) was reviewing a Knowles’s book, titled *Andragogy in Action: Applying Modern Principles of Adult Learning*, he asserted that Knowles was known as the father of the theory of andragogy. He also summarized the assumptions of the andragogical model as:

(a) adult learners are self-directing, (b) adults’ life experiences are a fundamental educational resource, (c) adults’ readiness to learn is predicated on perceived needs, (d) adult education must be oriented around current tasks and problems, and (e) adults’ motivation to learn is predominantly intrinsic, e.g., self-esteem,
meaningful life. (p. 404)

With these assumptions, which are self-direction, readiness to learn, and motivation to learn, the andragogical model itself provides a theoretical framework to this study. For example, according to Merriam (2001), the first assumption, “the adult learner as someone who has an independent self-concept and who can direct his or her own learning” (p. 5), underlying andragogy is associated with self-directed learning.

Both the SDLRS and the OLRS are two scales to measure readiness. The SDLRS measures readiness for self-directed learning (Guglielmino, 1977) and the OLRS measures readiness for online learning (Hung et al., 2010). Also, first two dimensions of the OLRS are “self-directed learning” and “motivation for learning” (Hung et al., 2010, pp. 1081-1082), which are included among the assumptions of andragogy.

Beside the SDLRS and the OLRS benefit from the theory of andragogy, Berger and Farber (1986) examined the adult learning theory, andragogy, in the hospitality industry training context. They argued that andragogy is the most applicable learning theory for adult learners and the needs of adult learners should be taken into consideration while preparing a hospitality training program (Berger & Farber, 1986). They concluded that concepts of adult learning theory would be helpful while training hospitality industry professionals.

**Significance of the Study**

The hospitality and tourism industry is a dynamic (Kay & Moncarz, 2007) and fast-paced changing industry (Agrusa et al., 2004). Also, the employee turnover rate is very high in this industry (NRA, 2017). Therefore, employee training is an ever-changing necessity of this industry (Collins & Cobanoglu, 2008). Since the hospitality and tourism industry is one of the most labor-intense industries, one of the major costs
in this industry is training costs (Collins & Cobanoglu, 2008). Therefore, based on the literature review, the hospitality and tourism industry can directly benefit from high self-directed learners (Sambrook & Stewart, 2000; Zainal, 2005). There are some obvious benefits such as maintaining the changes in the industry quickly, decreasing the employee turnover, and decreasing the cost of training for the hospitality and tourism industry to hire highly self-directed learners (Lema & Agrusa, 2009). Since the main purpose of hospitality and tourism in colleges is to provide highly qualified professionals for the hospitality and tourism industry (Millar et al., 2010), it is important to examine the self-directed learning profile of hospitality and tourism college students and industry professionals. The literature lacks information about investigating differences and overlaps among these two groups. Therefore, describing the differences and overlaps between these two groups will not only benefit hospitality and tourism education, but also the hospitality and tourism industry. Also, since this study provided self-directed learning profiles of hospitality and tourism college students and industry professionals, hospitality and tourism colleges and hospitality and tourism entities might reorganize their teaching curriculum or training program based on the study findings. Moreover, this study contributed not only to hospitality and tourism industry practice, but also to the online learning readiness knowledge. Since the literature lacks an online learning or training readiness scale for the hospitality and tourism industry professionals, this study aimed to validate the OLRS to measure online training readiness of the hospitality and tourism industry professionals.
Limitations and Assumptions

One of the main limitations of this study was the sampling method, which was a non-probability sampling. Homogenous convenience sampling method was utilized to reach a larger sample in both hospitality and tourism college students and industry professionals. Second, sample size was not large enough to detect a small effect size (e.g., lower power than .80) for comparisons of mean scores of the SDLRS and the OLRS dimensions between hospitality and tourism college students and industry professionals. Third, since respondents were needed to complete two scales along with some demographic questions, the length of the survey may have caused some fatigue. However, it was assumed that the survey was completed objectively due to voluntary participation. The fourth limitation of the study might be that some respondents might have been exposed to or might have preferred more online learning or training experiences and/or aware of self-directed learning practices. The fifth limitation related to the exclusion of numerous responses in both samples due to failure to mark the validity check question. The final limitation may be the diverse cultural and linguistic backgrounds of the hospitality and tourism industry professionals and international students in hospitality and tourism college programs. However, it was assumed college student and industry professional respondents who lived in Florida had adequate language proficiency to complete the survey.

Delimitations

The study included students who were enrolled in a hospitality and tourism college program in Florida during Spring and/or Summer 2018 semesters and professionals who were employed at a company under the hospitality and tourism
industry in Florida during the data collection process. Therefore, the results of this study might not be generalized beyond the represented colleges and companies located in the state of Florida.

Definition of Terms

Definitions of the key terms in the study are provided and explained in relation to this study.

*Hospitality and tourism college students*: Students who were studying at a four-year hospitality and tourism college program.

*Hospitality and tourism industry professionals*: Professionals or employees who were working in the hospitality and tourism industry.

*Online learning*: Courses or learning content offered via the Internet or intranet (a private network within the schools or companies) as part of student college education.

*Online training*: Training or learning content offered via the Internet or intranet as part of employee or professional job training.

*Online Learning Readiness Scale (OLRS)*: It is a multidimensional instrument developed by Hung et al. (2010) to measure online learning readiness of college students.

*Learning readiness*: “The degree to which an individual is ‘ready’ to learn specific content” (Scott-Little, Kagan, & Frelow, 2006, p. 154) and ready to participate in behavior change.

*Self-directed learning*: “Process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing
appropriate learning strategies and evaluating learning outcomes” (Knowles, 1975, p. 18).

**Self-directed learning readiness:** Likely to engage in self-directed learning activities.

**Self-Directed Learning Readiness Scale (SDLRS):** A test “designed [by Guglielmino in 1977] to assess individual attitudes, values, skills, and personality characteristics indicative of self-direction in learning” (Guglielmino & Hillard, 2007, p. 21).

**Organization of the Study**

This study is organized into five chapters. Chapter 1 of this study includes an introduction to the topics, statement of the problem, the purpose of the study, research questions, conceptual and theoretical framework, significance of the study, limitations and assumptions, delimitations, definition of terms, and the organization of the study.

The Review of the Literature, Chapter 2, includes information about the concept of learning styles; self-directed learning; online learning and training environments; online learning and training readiness; relationship between self-directed learning, online learning, online training, and the hospitality and tourism industry; measurements of self-directed learning; measurements of online learning readiness; the hospitality and tourism education and industry; and a summary of the chapter.

The following chapter, Chapter 3, Methods, includes research design, research questions, pilot study, population and sample, instrumentation, collection of data, data analysis, and a summary of the chapter.
Chapter 4 includes the findings of the study. The parts of Chapter 4 include characteristics of the respondents, self-directed and online learning behaviors of the respondents, findings based on the research questions, and a summary of the chapter.

The last chapter, Chapter 5, includes a summary of the study, conclusions, implications, and recommendations for further research.
Chapter 2
Review of Literature

The purpose of this study was to compare self-directed learning readiness and online learning readiness between hospitality and tourism college students and industry professionals. The Self-Directed Learning Readiness Scale (SDLRS) was used for measuring self-directed learning readiness. After examining the reliability and validity indices of the Online Learning Readiness Scale (OLRS), it was used in the context of hospitality and tourism for the measurement of online learning and training readiness.

The parts of this chapter include the concept of learning styles; self-directed learning; online learning and training environments; online learning and training readiness; relationship between self-directed learning, online learning, online training, and the hospitality and tourism industry; measurements of self-directed learning, measurements of online learning readiness; the hospitality and tourism education and industry; and a summary of the chapter.

The Concept of Learning Styles

“Educators always are looking for ways to make their educational initiatives more effective” (Hsu, 1999, p. 17). With the advanced technology, educators have a chance to evaluate their traditional teaching styles and pay attention to learning preferences of students while implementing their course content and delivering lectures (Romanelli, Bird, & Ryan, 2009). There are many definitions of learning style and the literature is still uncertain about the using the terminology either learning style or cognitive style (Cassidy, 2004; James & Blank, 1993). According to Keefe (1987), “learning style, in
fact, is the broader term and includes cognitive along with affective and physiological styles" (p. 47). James and Blank (1993) defined the learning style as “the complex manner in which learners most effectively and efficiently perceive, process, store, and recall what they are attempting to learn” (pp. 47-48).

Learning style is not about the learners’ learning, but it is more about learners’ preferences. This can explain why there is no commonly accepted learning style method in the literature (James & Maher, 2004; Romanelli et al., 2009). However, when learners are conscious about their learning preferences, they can enhance their overall learning and have higher achievement (Dunn, Beaudry, & Klavas, 1989; Kolb, 1984; Romanelli et al., 2009).

Some studies stressed that academic and professional preferences of people are in line with their learning preferences or styles (Canfield, 1988; Kolb, 1976; Myers & McCaulley, 1985). For example, previous studies using Kolb’s instrument indicated convergers (those who have abstract conceptualization and active experimentation as dominant learning abilities) have the ability to problem solve, and deal with technical issues (Kolb & Kolb, 2005). Converger is one of the orientations of learning styles in Kolb’s theory of learning (El-Gilany & Abusaad, 2013). The study by Linares (1999) indicated convergers were much more self-directed than the other three orientations of learning styles defined in Kolb’s theory of learning.

Convergers are more common among hospitality professors (Berger, 1983) and restaurant managers (Hsu, Smith, & Finley, 1991). In another study, Hsu (1999) questioned “does the hospitality management major attract students of a particular learning style or does the major change students’ learning styles?” (p. 21). Hsu (1999)
found the proportion of the convergers increased from 39.1% to 55.2% among the incoming hospitality students to graduating hospitality students. Hsu (1999) concluded “the hospitality major seemed to attract more convergers than other learning styles and ‘converted’ many students into convergers” (p .24).

In Kolb’s theory, learning is defined “as active, interactive and self-directed, implying that all learners are self-directed” (El-Gilany & Abusaad, 2013, p. 2). As such, self-directed learning has been encouraged in higher education (Demirel & Coskun, 2010; Grow, 1991; Nordin, Halim, & Malik, 2016; Wilcox, 1996; Zhoc & Chen, 2016).

**Self-Directed Learning (SDL)**

According to Knowles (1975), “self-directed learning is the best way to learn . . . every act of teaching should have built into it some provision for helping the learning become more self-directing” (p. 10). Therefore, after the studies of Knowles, self-directed learning has become one of the attractive research topics among the scholars. A series of studies focused on self-directed learning published in the 14 top journals in adult education between the years 1980 and 1998 (Brockett et al., 2000). It is still an attractive research topic, being researched by a variety of individuals (e.g., Khodary, 2017; Lau, 2017; Scott et al., 2017; Sykes & Roy, 2017).

**Self-directed learning in education.** Self-directed learning has been encouraged in higher education and researched especially in the field of adult education (Nordin et al., 2016). Self-directed learning studies have been conducted on a variety of students in different disciplines of education such as nursing (Yang & Jiang, 2014), language learning (Lai, 2015), physics (Aziz, Zain, Samsudin, & Saleh, 2014), engineering (Ismail, Nordin, Yunus, Norma, & Rahim, 2017), economics (Siminica &
Self-directed learning has been researched not only nationally, but also internationally (Zhoc & Chen, 2016). Moreover, a variety of educational aspects of self-directed learning has been researched throughout the self-directed learning history including “academic performance, future aspiration, creativity, curiosity, life satisfaction” (Edmondson, Boyer, & Artis, 2012, p. 41), motivation (Gabrielle, 2003), emotional intelligence (Muller, 2007), experiential learning (Amey, 2008), learning structure (Dynan, Cate, & Rhee, 2008), online learning (Fitzgerald, 2003), and resilience (Robinson, 2003).

**Self-directed learning in the workplace.** Self-directed learning is not only researched in the context of educational constructs, but also workplace-related constructs such as “locus of control, motivation, [job] performance, self-efficacy, and support” (Boyer, Edmondson, Artis, & Fleming, 2014, p. 20), cultural adaptability of expatriates (Chuprina & Durr, 2006), strategic thinking and leader effectiveness (Zsiga, 2007), and environmental perceptions (Bernard, 2018). According to Dieffenderfer (2014), one of the major expenses for most organizations is education and training; therefore, one of the efficient and effective training and development alternatives for organizations can be self-directed learning activities. Self-directed learning techniques can provide learning opportunities which are more focused on the particular needs of the individual and offer more scheduling flexibility, which make updating skills and knowledge easier and make for a more reasonable distribution of training dollars to a larger variety of employees or professionals, and as a result can reduce the training costs to organizations (Guglielmino & Murdick, 1997; Merriam, 1993).
In the contemporary business world, companies look for well-educated and responsible employees or professionals who can manage their own life-long learning (Dieffenderfer, 2014). Lema and Agrusa (2009) state “training and development practices should provide greater opportunities for employees to participate in personal learning goals and objectives” (p. 24). Dejoy and Dejoy (1987) proposed this condition as the key to successful workplace training. Professionals or employees can practice making decisions and enhance their critical thinking skills via self-directed learning projects (Lema & Agrusa, 2009).

**Online Learning and Training Environments**

Advances in information technology have affected education and training in many ways (Rohayani, Kurniabudi, & Sharipuddin, 2015; Yakin & Gencel, 2013; Yukselturk & Bulut, 2007). In particular, technologies used in the classroom have brought advantages for educators to teach their students (Baran, 2013; Ertmer, Paul, Molly, Eva, & Denise, 1999; Li, 2007; Mumtaz, 2000). Visual and auditory features of classroom technology enhance the quality of teaching in the classroom. However, advanced online communication tools have brought a different perspective to the education system. Qui (2018) called this perspective a 4As learning model: anyone, anytime, any device, and anywhere. According to Yukselturk and Bulut (2007), “these technologies create an anywhere-and-anytime learning environment that allows educators to deliver a course asynchronously, synchronously, or through a combination of the two” (p. 71). However, these features of the technology caused researchers and professionals to label this type of learning environment differently (Lowenthal & Wilson, 2010).
Yoon (2003) mentioned a series of terms such as “online learning, virtual learning, web-based learning, technology-based learning, e-learning, network-based learning, and computer-based learning” (p. 20), which have been used in the context of learning or teaching via online. No common terminology and its definition are shared by scholars while describing this type of learning environment (Volery & Lord, 2000). Moore, Dickson-Deane, and Galyen (2011) suggest “the lack of consistency in terminology inevitably affects not only the researchers who would like to build upon the findings, but also impacts designers who are creating similar types of environments” (p. 134). Therefore, it is important to choose the right terminology, define it, and use it for the sake of this study. Although Triacca, Bolchini, Botturi, and Inversini (2004) described e-learning as a type of online learning, and Benson (2002) described online learning as an updated version of distance learning, some other researchers used them interchangeably or synonymously (Asaari, & Karia, 2005; Bernard, Brauer, Abrami, & Surkes, 2004; Cigdem & Ozturk, 2016; Holsapple & Lee-Post, 2006; Ilgaz & Gulbahar, 2015; Moore, & Kearsley, 2011; Tubaishat & Lansari, 2011; Watkins, Leigh, & Triner, 2004; Yu & Richardson, 2015; Yukselturk & Bulut, 2007).

Another controversial issue is defining and distinguishing the terms learning and training in an online context at the workplace. Hogg (2016) claimed “‘Training’ and ‘learning’ are inextricably linked, but they’re different aspects of the educational process and both yield different outcomes” (para. 2). While some of the researchers (Kamiloglu, Ozturan, & Kutlu, 2017; Park & Wentling, 2007; Rabak & Cleveland-Innes, 2006) used the term e-learning for the workplace training in an online context, some others (Reed, 2002) asserted “training needs to be replaced by continuous learning . . . .” (p. 25).
Moreover, Miles (2003) argued there is a tendency to shift from trainer-centric to learner-centric approach so Miles (2003) preferred to use the learning and training interchangeably. However, in a later study, Wordsworth, Malinen, and Sloman (2012) argued the trainer-centric approach is outdated and the “new business environment requires learning that is rapid, integrated with strategic priorities, learner-centered and focused on developing long-term capability and adaptability” (p. 14). Therefore, it is important to develop training experiences of industry professionals to provide them learner-centric experiences for the workplace learning (Lee, 2017).

As a result, since “Internet-based distance education is the most prevalent e-learning technology and that the Internet has brought dramatic changes to education in general and distance learning in particular” (Holsapple & Lee-Post, 2006, p. 68) and to be able to use a consistent terminology, online learning was selected in the college education context and online training was selected in the workplace training context. For this study, online learning is defined as courses or learning content offered via the Internet or intranet as part of student college education. Online training is defined as training or learning content offered via the Internet or intranet as part of employee or professional job training. Moreover, both terms include e-learning, web-based learning, web-based training, or all modes of learning or training provided through the Internet or intranet.

**Online learning in education.** Online learning has become a very popular phenomenon among students in recent years (Clinefelter & Aslanian, 2016; Harrington & Loffredo, 2010; Means, Toyama, Murphy, Bakia, & Jones, 2009). Over 31% of the students (over 6.3 million) who enrolled in higher education in U.S. also took at least
one online course in fall 2016 (Seaman et al, 2018). Online learning was adapted to education to provide diverse, flexible, and convenient learning opportunities to make education easily accessible for students (Liu, Shih, & Yeh, 2010). Moreover, online learning opportunities are not only provided at universities, but also at community colleges (Aragon & Johnson, 2008), at high schools (Valtonen, Kukkonen, Dillon, & Vaisanen, 2009), and as massive open online courses (MOOCs), which are a new option for online learning (Liyanagunawardena, Adams, & Williams, 2013) to be able to access a diverse learner population.

Online learning has become popular due to technology bringing freedom to learners about where, when, what, and how to learn (Means et al., 2009). Even though there are some concerns among educators for the learning outcomes of students enrolled in online courses (LaRose & Whitten, 2000; Merisotis & Phipps, 1999), some studies suggest there is either no difference (Ashby, Sadera, & McNary, 2011; Atchley, Wingenbach, & Akers, 2013; Driscoll, Jicha, Hunt, Tichavsky, & Thompson, 2012) or better performance between the students who are taking fully online courses and students in traditional classrooms with the support of technology (Boulet & Boudreault, 1998; Dutton, Dutton, & Perry, 2001; Dutton, Dutton, & Perry, 2002). Beside the learning outcomes, various aspects including cost benefits (Smith, 2001), comparison of online and face-to-face learners (Dutton et al., 2002), learning styles (Byrne, 2002), expectations (Ilgaz & Gulbahar, 2015), and learner satisfaction (Yu & Richardson, 2015) of online learning have been researched.

**Online training in the workplace.** Not only educational institutions, but also corporations have tended to provide courses or train their employees or professionals
Moreover, e-learning has been rapidly growing in the workplace in recent years (Cheng et al., 2014; Jones, 2016).

Like many other industries, hospitality organizations also shift training programs to web-based or online training. Hu, Nelson, Braunlich, and Hsiehaf (2004) found hospitality organizations can strategically benefit from web-based training in both convenience and expense. However, in general, three types of training (on-the-job training, computer-based training, and web-based training or online learning) are commonly used in the hospitality and tourism industry for skills training purposes (Collins & Cobanoglu, 2008). Further explanation of these three methods follows:

**On-the-job training.** “Training happens on-the-job where information handed down from one employee generation to another in an unstructured, ad hoc manner” (Collins & Cobanoglu, 2008, p. 367).

**Computer-based training (CBT).** “CBT allows the viewer to interact with the computer, reducing the need for personalized instruction and allowing each trainee to go at his or her own pace in a non-threatening work environment” (Collins & Cobanoglu, 2008, p. 367).

**Web-based training (WBT) or online learning.** “This is a type of CBT or multimedia training that is delivered over the Internet or over an intranet” (Collins & Cobanoglu, 2008, p. 367).

As mentioned above, Harris and Cannon (1995) and Zainal (2005) suggested traditional training approaches have not been welcomed in the hospitality and tourism industry. WBT decreases the training cost (Dodson, Kitburi, & Berge, 2015; Driscoll,
improves the return on investment, delivers just-in-time training (Driscoll, 2002); and reduces time and resources required for delivery and the updating of online materials (Collins & Cobanoglu, 2008). Therefore, WBT has proven more effective than traditional training and enables considerable savings on manpower. As a result of these advantages, companies widely use web-based training (Tseng & Kuo, 2013). For some companies, the savings on the training budget increases to 75% by switching from classroom to WBT (Cole-Gomolski, 1999). Moreover, according to McCue (2014), the online training market share ($107 billion) was more than one-third of the overall global market for training expenditures ($306.9 billion) in 2013 (Bayer, 2016). Also, it is expected the global e-learning market will grow and exceed $241 billion by 2022 (Global Industry Analysts, 2016).

“Most WBT programs are little more than self-paced learning, success in these programs hinges on the learner's ability to engage in self-directed learning and to develop metacognitive skills for the Web” (Driscoll, 1999, p. 24). Additionally, web-based training applications allow flexible learning opportunities and unique formats for employee or professional training (Lema & Agrusa, 2009). Moreover, along with a variety of other learning programs, self-directed learning is available to meet the training and development needs of many hospitality industry organizations (Hu et al., 2004). The content of WBT can be designed in different formats to be able to improve employees’ or professionals’ self-learning performance and increase the degree of interactivity and feedback (Tseng & Kuo, 2013). Also, the content of WBT can be modified and updated at any time, as it is designed to be self-directed and self-paced
learning (Hall, 2001).

Online training received the attention of many researchers, which has been researched in many studies. Therefore, Cheng et al. (2014) conducted a bibliometric analysis of the workplace learning literature between 2000-2012 based on the keywords which are “formulated by including ‘workplace’; ‘learning’; ‘training’; ‘web’; ‘online’; and ‘e-learning’ as the entry terms” (p. 59). By analyzing 324 articles published in the Elsevier Scopus database, Cheng et al. (2014) found six workplace e-learning themes which included: “(1) e-learning for continuing education; (2) computer-assisted training for professional development; (3) computer-assisted occupational health and safety education; (4) computer-assisted healthcare and nursing education; (5) social media for informal learning; and (6) knowledge management in workplace e-learning” (p. 69).

Despite researchers conducting many studies on these six themes for online training, they leave a gap in the literature for the readiness of employees or professionals for the online training. Therefore, there is still a question to some whether employees or professionals are ready for online training (Efendioglu & Murray, 2007).

**Online Learning and Training Readiness**

Despite online learning and training popularity, little is known about learning readiness, which can be defined as “the degree to which an individual is ‘ready’ to learn specific content” (Scott-Little et al., 2006, p. 154) and ready to participate in behavior change, of the students for online learning (Darab & Montazer, 2011; Keramati, Afshari-Mofrad, & Kamrani, 2011) and training readiness of employees or professionals for online training (Efendioglu & Murray, 2007). Moreover, not only is student readiness one of the major issues while sustaining online learning in higher education (Oliver,
2001), but it is also one of the major issues needing to be considered carefully while training employees or professionals in the online platform (Montazer & Mousavi, 2013). Holsapple and Lee-Post (2006) suggest educators should pay attention to the readiness of students for online learning. Demir-Kaymak and Horzum (2013) found a significant relationship between online learning readiness and perceived interaction in higher education.

Efendioglu and Murray (2007) asserted that companies trying to adapt e-training have major challenges derived from e-training readiness. They also defined e-training in the workplace as “the degree to which the trainee has initiative, can accept independence, and has persistence” (Efendioglu & Murray, 2007, p. 11). In addition, they mentioned e-training participants should have some specific characteristics such as capable of self-directed learning, willingness to change, desire to learn, taking initiative for their learning, managing time, and some learning skills.

**Relationship Between Self-Directed Learning, Online Learning, Online Training, and the Hospitality and Tourism Industry**

Moore et al. (2011) suggested that “when the term self-directed is used, it is often in reference to all types of distance learning” (p. 131). Although some researchers did not find a significant relationship between self-directed learning scores and completion of an online course (Aragon & Johnson, 2008), there is a consensus among most of the researchers that self-directed learning plays a significant role in online learning readiness (Demir-Kaymak & Horzum, 2013; Hsu & Shiue, 2005; Rashid & Asghar, 2016; Schuemmer 1993). In more detail, Khatib-Zanjani, Ajam, and Badnava (2017) found there was significant relationship between online learning and self-directed learning (SDL) and academic success. In another study, Chu and Tsai (2009) revealed
the “better the readiness for SDL, the higher the need for them to construct their own ideas, solve problems and come up with creative ways to do activities over the Internet, which is consistent with the central concepts of SDL” (p. 498). Lai and Wang (2012) examined the relationship between self-directed learning readiness and e-learning attitudes in a workplace training context and found a positive relationship between these two variables. They also concluded self-directed learning environment is a necessity while preparing and delivering online training.

Beside the studies of Lema and his colleagues (Lema, 2006, 2009; Lema & Agrusa, 2007, 2009), there is little known about self-directed learning readiness in hospitality and tourism higher education and the hospitality and tourism industry. Initially, in his dissertation, Lema (2006) investigated the relationship between “the variables of self-efficacy, personal characteristics, and the self-directed learning readiness of employees in the hospitality industry” (p. 1). In a later study conducted among the hospitality students, Lema and Agrusa (2007) found self-efficacy significantly predicts self-directed learning readiness. In another study, Lema and Agrusa (2009) determined the relationship between Internet usage and self-directed learning readiness among the casino employees. The study results revealed there was a relationship between the hours spent online and self-directed learning readiness score.

In his last study on self-directed learning in the hospitality and tourism industry, Lema (2009) mentioned advancements in technology are continuing to change the hospitality and tourism business environments. With the advances in technology, the level of self-service experience has increased in daily human lives. Also, the newest self-service technology has influenced the hospitality industry by providing new
opportunities and challenges both for customers and employees (Lema & Agrusa, 2007). Although self-service has brought greater control to users over their experiences (Bulik & Romero, 2000), it has also highlighted an issue regarding self-directed learning readiness (Lema & Agrusa, 2007). Though many self-service technologies are new, the issue of self-directed learning itself is not. In fact, Mezirow (1985) asserted self-directed learning has been a hotly debated issue in the business and education field for some time. Guglielmino and Murdick (1997) suggested employees or professionals who developed self-directed learning skills are more self-confident and more apt to solve problems on their own. Moreover, these skills may bring advantages such as improving service delivery, adapting changes faster, and increasing the learning opportunities to screen the self-directed learning scores of employees or professionals, while hiring them in the hospitality and tourism industry (Lema, 2009; Lema & Agrusa, 2009).

Anyone can improve their self-directed learning skills (Cazan & Schiopca, 2014; Guglielmino & Guglielmino, 2018). However, there are some factors such as self-esteem, intelligence level, motivation for personal learning, previous experience, and initiative steps to become a self-directed learner (Cazan & Schiopca, 2014). Ramli, Muljono, and Afendi (2018) conducted a study on the factors (external and internal), which impact the level of self-directed learning. According to Ramli et al. (2018), “external factors consisting of family environment and academic environment have a significant positive effect on internal factors (in the form of achievement motivation, interest to learning and academic self-concept) and self-directed learning” (p. 41), which was measured by desire to learn, self-control, and self-management. They also concluded internal factors play a significant role on self-directed learning readiness.
(Ramli et al., 2018). Since these factors have a significant effect on the self-directed learning readiness, they may also play a key role in online learning and/or training.

Although there are many studies testing the relationship between the self-directed learning and online learning, most of these studies mainly focus on self-directedness of the students (Carpenter, 2011). However, beside the self-directed learning, online learning readiness requires some other dimensions, which are computer and Internet self-efficacy, learner control, motivation for learning, and online communication self-efficacy (Demir & Yurdugul, 2015; Hung et al., 2010; Moftakhari; 2013).

**Measurements of Self-Directed Learning Readiness**

There are several self-directed learning instruments in the literature, but only a few measure self-directed learning abilities at the international level (Cadorin, Cheng, & Palese, 2016). These instruments are listed below based on their publication year:

- **Self-Directed Learning Readiness Scale (SDLRS) by Guglielmino in 1977 but subsequently revised by Guglielmino and Guglielmino in 1991;**
- **Oddi Continuing Learning Inventory (OCLI) by Oddi in 1984;**
- **The Self-Rating Scale of Self-Directed Learning (SRSSDL) by Williamson in 2007; and**
- **The Self-Directed Learning Instrument (SDLI) by Cheng, Kuo, Lin, and Lee-Hsieh in 2010.**

Among these instruments, two of them (developed by Guglielmino in 1977– revised by Guglielmino and by Guglielmino in 1991–and Oddi in 1984) are the leading instruments in the literature (Pachnowski & Jurczyk, 2000; Svedberg, 2010;
Zhoc & Chen, 2016). This finding was supported by two studies conducted by Stockdale and Brockett (2000) and Boyer et al. (2014). In the former study, Stockdale and Brockett (2000) examined 20 years of literature on self-directed learning and they found that 74% of the studies utilized either the SDLRS or the OCLI. In the later study, Boyer et al. (2014) conducted a meta-analysis study on self-directed learning in the workplace context. They included 34 articles published over 30 years and conducted in five countries. They found more than 85% of the articles used either the SDLRS or the OCLI (Boyer et al., 2014). More detailed information for both the SDLRS and the OCLI are provided in the next section.

**Self-Directed Learning Readiness Scale (SDLRS).** The SDLRS was developed by Guglielmino in 1977. The SDLRS, also known as the Learning Preference Assessment (LPA) (Guglielmino & Guglielmino, 1991), is the most widely used assessment in the field of self-directed learning (Merriam, Caffarella, & Baumgartner, 2007). This instrument has been taken by over 120,000 adults and has been translated into more than 20 languages (Guglielmino & Guglielmino, 2018). The SDLRS has been utilized both in the education and workplace contexts and has shown correlations with academic achievement and work performance. Some of the correlation examples with academic achievement are Nowocien (2005), O’Neill et al. (2015), and Slaughter (2009), Stewart (2007) and some other studies such as Durr (1992), Guglielmino and Klatt (1994), Guglielmino and Hillard (2007), and Liddell (2008) showed the correlation between the SDLRS score and workplace performance. In addition, Carpenter (2011) measured the correlation between the SDLRS score and course grade in an online course and found a positive correlation between these two
variables. The same results were supported in another study conducted by Chou in 2012.

**Development of the instrument.** In order to measure the complexity of attitudes, skills, and characteristics which comprise an individual’s current level of readiness to manage his or her own learning, Guglielmino (1977) developed the SDLRS. The Delphi survey technique was used to determine the content of the SDLRS. A three-round Delphi survey of authorities on self-direction was conducted among 14 experts in the field of self-directed learning (Guglielmino, 1977). The SDLRS was revised by Guglielmino and Guglielmino in 1991 and named as the LPA which is a new, self-scoring format of the SDLRS. Three forms of the SDLRS/LPA are available: (1) SDLRS-A is for the general adult population; (2) SDLRS-ABE for adults with low reading levels or non-native English speakers and (3) SDLRS-E for children (Guglielmino & Guglielmino, 2018). The SDLRS-A is a self-report questionnaire with 58 items (41 positively and 17 negatively phrased items), each on a 5-point scale ranging from *Almost never true of me; I hardly ever feel this way* (1) to *Almost always true of me; there are very few times when I don’t feel this way* (5). Although the initial instrument was consisted of eight factors (Zhoc & Chen, 2016), the current online version (SDLRS-A/LPA) of the instrument provides a single interpretable SDLRS score. The single interpretable score was also suggested by researchers for the SDLRS (West & Bentley, 1990). The SDLRS scores range from 58 as the lowest score to 290 as the highest score. The categories include low (58-176), below average (177-201), average (202-226), above average (227-251), and high (252-290) scores (Guglielmino &
The average score for all adults is 214 with a standard deviation of 25.59 completing the SDLRS-A questionnaire. (Guglielmino & Guglielmino, 2018).

**Reliability and validity.** In a 20-year span, the SDLRS was used in a variety of studies and revealed a very high reliability, ranging from .72 to .92 (Guglielmino & Hillard, 2007). Additionally, in many different studies, the SDLRS showed acceptable validity (Guglielmino, 1977; Guglielmino & Hillard, 2007). Test-retest reliability coefficients scores were reported by Finestone (1984) as .82 and Wiley (1981) as .79. While Field (1989) criticized the validity of the SDLRS, Straka and Hinz (1996) criticized the SDLRS by arguing the original factor structure was not revalidated. West and Bentley (1990) asserted that “an orthogonal solution to the SDLRS measurement model is clearly inadequate” (p. 17). Even though some researchers criticized the SDLRS, the reliability and validity of the instrument were supported by a majority of the studies such as Delahaye and Choy (2000), Delahaye and Smith (1995), Durr (1992), Posner (1989), and Russell (1988). In addition, in a recent study, Nadi and Sajjadi (2012) examined the reliability and validity of the SDLRS. They found Cronbach’s alpha scores of .94. Moreover, their confirmatory factor analysis revealed “a good fit of model (RMR = 0-0.08, RMSEA = 0.063, \( p = 0.000-0.003 \), \( df = 0-35 \), \( x^2 = 0-86.81 \))” (Nadi & Sajjadi, 2012, p. 479).

**Oddi Continuing Learning Inventory (OCLI).** The OCLI was developed by Oddi in 1984. This is another well-known instrument which measures self-directed learning behaviors of adult learners. This scale was also used in a study which focused on self-directed learning in the hospitality industry (Lema, 2006). According to Lema (2006), the OCLI is “more closely aligned with an occupational environment in which
participants have diverse levels of education” (p. 64). Moreover, the OCLI was also used in an education context and the study results indicated there was a statistically significant correlation between the OCLI score and academic performance (Corbeil, 2003). The same study found a strong relationship between online learning performance and self-directed learning as measured by the OCLI.

**Development of the instrument.** The OCLI was developed based on the personality characteristics of self-directed learning (Harvey, Rothman, & Frecker, 2006). A panel of experts reviewed the content validity of the OCLI (Cadorin et al., 2016). The OCLI consists of 19 positively phrased and five negatively phrased items and a total of 24 items measuring the level of self-directed learning readiness of adults. Each item was on a 7-point scale ranging *Strongly disagree, you would almost never agree* (1) to *Strongly agree, you would agree most of the time* (7). Scores of the OCLI range from 24 as being least characteristic to 168 as being most characteristic of self-directed continuing learners (Oddi, 1986).

**Reliability and validity.** Oddi (1986) reported test-retest reliability coefficients of .88 and .89, respectively. The three-factor model, identified by Oddi (1986) with an oblique rotation, accounted for 45.7% of total variance. Although Six (1989) found a very similar factor structure with Oddi’s initial factor analysis with an obliquely rotation, due to smaller inter-factor correlations, he questioned whether an orthogonal rotation might be a better fit. Straka (1996) utilized a German language translated version of the OCLI to collect data. Straka’s data analysis showed a different factor structure than Oddi’s factor structure. In a recent study, although Harvey et al. (2006) found results of exploratory factor analysis were in line with Oddi’s initial studies (1984, 1986), based on
the factor analysis, they “suggest a four-factor, obliquely rotated solution as the simplest and most interpretable . . .” (p. 197).

**Comparison between the SDLRS and the OCLI.** Both of the SDLRS and the OCLI were developed based on the personality perspective of self-directed learning (Harvey et al., 2006). A total self-directed learning score was suggested to use for statistical analysis in the literature for both measurements (Brockett & Hiemstra, 1991; Oddi, 1984). Although the OCLI and the SDLRS are the leading instruments used to measure self-directed learning readiness (Pachnowski & Jurczyk, 2000; Svedberg, 2010; Zhoc & Chen, 2016), both scales have been criticized in terms of reliability and validity. However, more studies have been found to support reliability and validity evidence of the SDLRS, whereas more inconsistent study results have been found among the research which utilized the OCLI. For example, Landers (1989) examined the relationship between the SDLRS and the OCLI and found a correlation coefficient as .606. Also, based on factor to total score correlation, while eight of eight factors were found to be correlated to the total score of the SDLRS, only two of three factors were found to be correlated to the total score of the OCLI (Landers, 1989). Based on these findings, Landers (1989) concluded the SDLRS would be a better instrument measuring self-direction in learning.

**Measurements of Online Learning Readiness**

Similar to self-directed learning readiness measurements, there are many instruments which have been used to measure online learning. Farid (2014) conducted a broad systematic review on the online learning readiness scales. Based on electronic literature searches on nine electronic databases selected with the help of a librarian
specialist, Internet searches on Google Scholar, and hand searches on related journals with a broad of synonymously or interchangeable terms used in the context of online learning in English as well as French, Farid (2014) found 5107 articles, which included keyword(s) related to online readiness assessment between the years 1990-2010. After exclusion criteria, which included: “(1) did not fit with the inclusion criteria, (2) not related to the question under review, (3) non-empirical studies (conceptual work, qualitative studies, etc.)” were applied, 10 unique studies remained (Farid, 2014, p. 376). To be able to assess the methodological quality, Farid (2014) determined five criteria, which are “(1) type of research [exploratory or confirmatory], (2) content validity, (3) pre-test and/or pilot test, (4) construct validity, and (5) reliability” (p. 377), based on validation guidelines of Straub, Boudreau, and Gefen (2004). However, Farid (2014) concluded most of the existing assessment tools are “old and less robust” and “diverse in terms of the type and number of dimensions” (p. 380).

In a more recent study, Demir and Yurdugul (2015, p. 184) searched the keywords, “readiness for e-learning”, “readiness for online learning”, “e-learning readiness”, “online learning readiness”, “preparedness for e-learning”, and “e-learning preparedness” and “Turkish counterparts of these search keywords” in the databases of Google Scholar and Science Direct. They found 25 unique online learning readiness models published between 1998 and 2013 and examined them one by one. They grouped these models into three categories of online learning readiness stakeholders (students, teachers, and institutions) as well as multi-layer models. They have found 9 models regarding students, 3 models regarding teachers, 10 models regarding institutional online learning readiness, and 3 multi-layered models (Demir & Yurdugul,
Based on the study findings, Demir and Yurdugul (2015) did not suggest a specific model among the examined models which fit best to measure students’ online learning readiness. Instead, they suggested a new reference model includes six factors which are “competency of technology usage, self-directed learning, access to technology, confidence in prerequisite skills and yourself, motivation, and finally time management” (Demir & Yurdugul, 2015, p. 189). However, they did not test the suggested reference model in the study, so it does not have any validity or reliability evidence or psychometric indices.

Among the readiness scales measuring students’ online learning, only one model, which is the Online Learning Readiness Scale (OLRS) developed and validated by Hung et al. (2010), was adapted to another language and tested at international level (Demir & Yurdugul, 2015). Further investigation on this instrument showed the OLRS was adapted to Turkish by Yurdugul and Alsancak-Sarikaya in 2013. Their study concluded the Turkish version of the OLRS was a valid and reliable instrument measuring online learning readiness. Since the OLRS measured online learning readiness at the international level like the SDLRS and the OCLI, it was considered for this study.

**Online Learning Readiness Scale (OLRS).** Hung et al. (2010) claimed the “scales and measures of assessing learners’ readiness do not comprehensively cover other dimensions that are critical to online learning and that include technical skills and learner control” (p. 1080). Therefore, they reexamined online learning readiness and developed the Online Learning Readiness Scale (OLRS) to measure online learning readiness more comprehensively. The OLRS consists of five dimensions, which are
computer/Internet self-efficacy, self-directed learning (in an online context), learner control (in an online context), motivation for learning (in an online context), and online communication self-efficacy (Hung et al., 2010). The OLRS consists of 18 items with a 5-point Likert-type scale, ranging from Strongly disagree (1) to Strongly agree (5). Beside the English version, a validated Turkish version is available (Yurdugul & Alsancak-Sarikaya, 2013). The OLRS has been utilized in a variety of online learning concepts such as student satisfaction and academic achievement (Kirmizi, 2015); structure and interaction of students in online courses (Demir-Kaymak & Horzum, 2013); emotional intelligence (Buzdar, Ali, & Tariq, 2016); student characteristics (Cidgem & Yildirim, 2014); academic motivation and perceived learning (Horzum, Demir-Kaymak, & Gungoren, 2015); and changes in student readiness for online learning over time and willingness to enroll in another future online courses (Hung, 2016).

**Development of the instrument.** To be able to create each construct, Hung et al. (2010) both adapted or selected items from related studies and wrote items, which fit each construct. After creating a pool of items, they conducted the *OLRS-themed interviews* to make sure that they had covered every aspect of online learning readiness. The interviews were conducted with two college professors and two students who had prior experiences in online learning environment (Hung et al., 2010). Based on the interviewees’ recommendations, some items were added, some other items were re-worded, and 26 items were selected to collect data. After collecting 1051 usable surveys from the undergraduate students from different majors in three different universities in Taiwan, they run a confirmatory factor analysis. In the initial analysis,
Hung et al. (2010) found eight problematic items due to large standardized residuals. After removing these items, they developed the 18-item OLRS.

**Reliability and validity.** Initial study results showed the composite reliability of each construct was greater than .7, which was within an acceptable range of composite reliability value scores. Discriminant validity of the OLRS was also acceptable (square root of the average variance extracted [AVE] of each dimension > the correlation among dimensions) (Hung et al., 2010). In the study by Yurdugul and Alsancak-Sarikaya (2013), both results were confirmed. Moreover, convergent validity was tested by using AVE. Although two constructs have an AVE value below .50, which is suggested as a cut-off point for AVE (Peterson, 2000), in the initial work of Hung et al. (2010); in the later study (Yurdugul & Alsancak-Sarikaya, 2013), all constructs had an AVE value higher than .50.

**Hospitality and Tourism Education and Industry**

In this section, hospitality and tourism education in the U.S., hospitality and tourism industry in the U.S., and self-directedness and online learning in hospitality and tourism education and industry are discussed.

**Hospitality and tourism education in the U.S.** The first hospitality and tourism program was founded by Cornell University in 1922 to prepare students for their careers, especially for managerial preparation in the hospitality and tourism industry (Barrows, 1999; Formica, 1996). Since then, there has been a tendency to provide education under hospitality and tourism programs (Riegel & Dallas, 2006). In higher education, hospitality and tourism education was provided as a two-year associate degree program in community colleges and vocational schools and as a four-year
degree program in colleges at universities. In community colleges and vocational schools, the associate degree program is a two-year program which “aims to provide graduates for lower and middle management level positions in tourism and hospitality organizations” (Okumus & Yagci, 2005, p. 95), whereas degree programs at universities are 4-year programs in the hospitality education system, which aim to provide a labor force for the middle and senior management level positions in the hospitality and tourism industry (Okumus & Yagci, 2005). There are five commonly accepted major programs, which include service, lodging management, recreation, travel-related management, and convention and meetings management in hospitality and tourism education (Riegel & Dallas, 2006).

The U.S. hospitality and tourism education system focuses on “personal professional development” and “managerial problem-solving” in general (Formica, 1996, p. 319,). However, in the hospitality and tourism industry, “technology, the workforce, hospitality and tourism products, and customers are constantly changing” (Millar et al., 2010, p. 38). Also, hospitality and tourism curriculum has been often asserted to be not in line with the needs of industry (Bilgihan, Berezina, Cobanoglu, & Okumus, 2014; Kang, Wu, & Gould, 2005). Therefore, to prepare hospitality and tourism college students successfully to the hospitality and tourism industry, it is very important to create a collaboration between hospitality and tourism education and industry needs (Millar et al., 2010). This collaboration can be found by encouraging self-directed learning and online learning in the hospitality and tourism education.

**Hospitality and tourism industry in the U.S.** The hospitality and tourism industry is the largest industry in the world (Maier, 2009; Walker, 2017). According to
Walker (2017), the scope of the hospitality and tourism industry comprises a range of businesses, which provide services such as “travel (air, cruise ships, rail, coach, automobile, ecotourism), lodging (hotels, motels, resorts), assembly and event management (meetings, conventions, expositions), restaurants and managed services, and recreation (attractions, gaming parks)” (p. 15).

According to the latest report from Travel, Tourism & Hospitality Spotlight (n.d.), the economic impact of travel and tourism was $1.5 trillion in 2016. Also, based on the same report, the travel, tourism, and hospitality industry is the largest services export in the U.S. and it accounted for 11% of all U.S. exports. In addition, this economic impact supported over 16.2 million U.S. jobs in 2018 (Bureau of Labor Statistics, 2018).

Despite economic fluctuations, the hospitality and tourism industry has shown an economic growth (Gursoy et al., 2012). Therefore, there is a high demand for hospitality and tourism industry professionals. According to Gursoy et al. (2012), “a growing demand for hospitality employees [professionals] can be translated into a growing demand for hospitality programs to adequately prepare that workforce” (p. 32). Furthermore, hospitality and tourism education and the hospitality and tourism industry are integrated with each other. For example, “many students on [sic] hospitality and tourism courses have already had some experiences of the sector, either as employees or as customers” (Altinay, Paraskevas, & Jang, 2016, p. 7).

Since the hospitality and tourism industry has a dynamic and ever-changing environment (Kay & Moncarz, 2007), it is important to continuously and closely follow the trends and updates in this industry and meet the expectations, which change over the time (Gursoy et al., 2012; Jeou-Shyan, Hsuan, Chih-Hsing, Lin, & Chang-Yen, 2011,
Millar et al., 2010). Moreover, the hospitality industry has a record high turnover rate in the service industry. It reached 72.9% in 2017 (NRA, 2017). This rate means every three of four employees hired last year are not working within the same organization the next year. Therefore, this high turnover rate often creates untrained professionals (Collins & Cobanoglu, 2008). Since hospitality organizations are spread all around the world, it is very difficult to train hospitality and tourism industry professionals with traditional training methods (Collins, 2004). According to Collins,

> There is a growing need for innovative training solutions in the hospitality industry. The current training techniques are ineffective in accommodating an industry with a diverse and global workforce and high turnover rate. Technology holds many answers to the improvement of human capital in the hospitality industry. (p. 71)

Moreover, training through the Internet can provide ease of access training programs and resources (Collins, 2004) and exchange of information between professionals (Zakrzewski et al., 2005).

The ever-changing environment of hospitality and tourism industry also encourages self-directed learning in the workplace training (Sambrook & Stewart, 2000; Zainal, 2005). Online training supported with self-directed learning enhances the efficiency and effectiveness of the learning process and enables trainers to choose what to learn at their own pace (Zakrzewski et al., 2005), increases the learning performance, provides high degree of interactivity (Tseng, & Kuo, 2013), and provides feedback (Tseng & Kuo, 2013; Zakrzewski et al., 2005). As a result, both Berger and Farber (1986) and Lee (2017) concluded self-directed learning improves training and becomes an element in the hospitality and tourism industry training.

**Self-directedness and online learning in the hospitality and tourism education and industry.** Since self-directed learning has been encouraged in higher
education (Nordin et al., 2016), highly self-directed learners “perform better in jobs requiring a high degree of problem-solving ability, a high degree of creativity, and a high degree of change” (Guglielmino & Guglielmino, 2018, para. 3). These self-directed learning skills are necessary in the hospitality and tourism industry (Lema & Agrusa, 2009). Lately, online learning has gained popularity not only in U.S. higher education, but also in American workplaces (Bernard, 2018; Sambrook, 2006). Some studies suggest there is either no difference (Ashby et al., 2011; Atchley et al., 2013; Driscoll et al., 2012) or better performance between the students who are taking fully online courses and students in traditional classrooms with the support of technology (Boulet & Boudreault, 1998; Dutton et al., 2001, 2002). Professionals in the hospitality and tourism industry and/or students learning in hospitality and tourism college programs, who are highly self-directed learners with supported online learning characteristics, may help the hospitality and tourism industry to maintain constantly changing industry standards.

**Summary of the Chapter**

In this chapter, literature was reviewed, and related studies were discussed. Hospitality and tourism is an important and dynamic industry. However, it has a serious employee turnover issue. Due to this issue and its fast-pace changing characteristic, training is an inevitable need of this industry. Also, based on the literature review, the hospitality and tourism industry can directly benefit from the characteristics of self-directed learners.

Professionals in the hospitality and tourism industry and/or students studying in hospitality and tourism college programs who are highly self-directed learners with
supported online learning characteristics may help the hospitality and tourism industry to maintain constantly changing industry standards. While some studies indicate companies might save training costs by switching from face-to-face training to online training (Cole-Gomolski, 1999), it is still uncertain whether hospitality and tourism industry professionals are ready for online training. Besides the lack of studies focusing on online learning or training readiness in the professional population, there is also a lack related to how self-directed and online learning readiness of hospitality and tourism industry professionals compare to what is known about student learning.
Chapter 3
Methods

The purpose of this study was to compare self-directed learning readiness and online learning readiness between hospitality and tourism college students and industry professionals. The Self-Directed Learning Readiness Scale (SDLRS) was used for measuring self-directed learning readiness. See Appendix A for a copy of the SDLRS. After examining the reliability and validity indices of the Online Learning Readiness Scale (OLRS), it was used in the context of hospitality and tourism for the measurement of online learning and training readiness. See Appendix B for a copy of the modified OLRS.

The parts of this chapter include research design, research questions, pilot study, population and sample, instrumentation, collection of data, data analysis, and a summary of the chapter.

Research Design

This study was a quantitative survey-based study. A pilot study was conducted to test which self-directed learning readiness instruments, the SDLRS or the Oddi Continuing Learning Inventory (OCLI) (Appendix C, the OCLI could not be published in this document), better fit the study purpose among the study samples. This current study was also a quantitative-based study applying descriptive, inferential statistics, and confirmatory factor analysis (CFA).
Research Questions

The following research questions were investigated in this study:

1. What are the reliability and validity indices of the modified OLRS for hospitality and tourism college students and industry professionals?
2. To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the SDLRS?
3. To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the OLRS dimensions?
4. What is the relationship between the SDLRS score and the dimensions of the OLRS:
   a. for the hospitality and tourism college students?
   b. for the hospitality and tourism industry professionals?
   c. for the combined sample from hospitality and tourism college students and industry professionals?

Pilot Study

Demir and Yurdugul (2015) and Yun and Murad (2006) stressed each instrument developed to measure online learning readiness may have weaknesses, so it is important to review an instrument before using it with a specific audience and context.

As mentioned in the Chapter 2, there are multiple instruments which measure online learning readiness. Among these instruments, the OLRS (see Appendix B) was chosen for these reasons: (a) it has been examined in many studies, (b) it was translated to another language and the translated version has acceptable reliability and validity evidence (Yurdugul & Alsancak-Sarikaya, 2013), and (c) it received the most
citations in Google Scholar among these instruments by the date of this research.

Since the OLRS was primarily developed for students, a panel of experts was formed to review the OLRS in the context of hospitality and tourism industry professionals. See Appendix D for the list of panel of experts (who all gave permission to use their real names). The OLRS was used to create an online survey on the Qualtics platform. Each dimension was separated and titled with the name of the constructs. Items in a dimension were shown one at a time and a comment/suggestion text box was also added to the list of items. Also, experts were asked to rate each item with 5-point scale, ranging from Very inappropriate (1) to Very appropriate (5) in the context of measuring readiness of online training of hospitality and tourism industry professionals.

**Panel of experts.** The panel of experts (see Appendix D) consisted of 11 professionals from a variety of backgrounds. For example, there were two professors teaching technology classes in a hospitality college, a professor teaching technology classes in an education college, a professor teaching adult education courses, a measurement/statistic professor, two hotel general managers, a restaurant manager, a professor teaching hospitality courses who used to be the owner of a hospitality management company, a professor teaching hospitality courses who wrote his doctoral dissertation about self-directed learning in the hospitality industry, and an instructional designer who had a hospitality tourism education background with a doctoral degree in adult education and who was currently working as an instructional designer.

Based on the panel of experts’ suggestions, some of the items were reworded and the OLRS was modified. Of the 11 experts, a minimum of eight ranked all of the 18
items as either four (somewhat appropriate) or five (very appropriate). Since there was a high consensus among the experts, the modified OLRS was not sent to the panel of expert for a second-round review.

**Collection of data for the pilot study.** For ethical issues, the University of South Florida (USF) Institutional Review Board (IRB) approval was received on April 17, 2017, for this minimal risk study. See Appendix E for a copy of the IRB approval and the informed consent. An online survey tool, Qualtrics (provided by USF), was used to collect data. Initially, respondents, over 18 years old, were asked whether they would agree to participate in this survey. If they agreed, they were asked to describe themselves either as a professional in the hospitality and tourism industry or a student in a hospitality and tourism college program. Based on their response, they were directed to the related questions.

For the pilot study, the SDLRS (see Appendix A), the OCLI (see Appendix C for comment), and the modified OLRS (see Appendix B) were used. See Appendix F for permission to use each scale. Besides the three instruments, different sets of descriptive questions were asked of the hospitality and tourism college students and industry professionals. See Appendix G for descriptive questions for the hospitality and tourism college students. See Appendix H for descriptive questions for the hospitality and tourism industry professionals. Lastly, demographic questions were asked of both sample groups. See Appendix I for a copy of the demographic questions.

There were two different study populations, hospitality and tourism college students and hospitality and tourism industry professionals. The inclusion criteria for the student population were being an undergraduate hospitality and tourism college student
in Florida. The inclusion criteria for the hospitality and tourism industry professional population were working in the hospitality and tourism industry in Florida.

Data for the hospitality and tourism college student population were collected at the College of Hospitality and Tourism Leadership (CHTL) degree program at the University of South Florida Sarasota–Manatee (USFSM). The anonymous link to the survey and a short explanation of the study were sent to a professor who worked in CHTL at USFSM and who was the Director of the M3 Center for Hospitality Technology and Innovation. He was contacted prior to the submission of this study, and he agreed to help collect data for this study from the active students at the CHTL. See Appendix J for a copy of the agreement to distribute the survey link. He sent the anonymous survey link with a short explanation to the college students two times (April 18, 2017 and April 27, 2017) to collect as much data as needed for the pilot study. See Appendix K for a copy of the sample email which was sent to college students and industry professionals.

Data for the hospitality and tourism industry professional population were collected at hotels and restaurants in area of Sarasota, Florida. The same professor who had the contact list for the hospitality and tourism industry professionals working at Sarasota hotels and restaurants, sent an anonymous survey link with a short explanation to the hospitality and tourism industry professionals during the same time period to collect as much data as needed for the pilot study (see Appendix K).

For the pilot study, two of the three instruments were sent to the potential respondents. The Qualtrics system randomly selected either the SDLRS (see Appendix A) or the OCLI (see Appendix C for comment). In other words, college students or
industry professionals who took the SDLRS did not see the OCLI or vice versa. However, all of the respondents took the modified OLRS (see Appendix B).

A total of 242 usable responses (119 from industry professionals and 123 from college students) were collected using the modified OLRS. On the other hand, a total of 122 usable responses (58 from industry professionals and 64 from college students) were collected using the OCLI, whereas a total of 106 usable responses (53 from industry professionals and 53 from college students) were collected using the SDLRS.

**Data analysis for the pilot study.** Confirmatory factor analysis (CFA) was performed on the collected pilot study data. After investigating the univariate analyses (skewness and kurtosis), which were between +1.5 and -1.5, SmartPLS 3.2.7 software was used to test composite reliability and convergent validity of the modified OLRS on data sets, which were collected from hospitality and tourism college students, hospitality and tourism industry professionals, and a combination of these two samples (Ringle, Wende, & Becker, 2015).

Pilot study results showed the composite reliability of each dimension in college student, industry professional, and combined sample was greater than .7, which was higher than the cut-off value of .6 (Chin, Peterson, & Brown, 2008). The values of average variance extracted (AVE) in the three data sets were over .5. See Appendix L for the composite reliability and validity values for the pilot study for the modified OLRS. According to Hair, Hult, Ringle, and Sarstedt (2013), to be able to validate a model, composite reliability values should exceed .7 whereas AVE should exceed .5. The composite reliability and AVE value findings were in line with the recommended values.
As a result, the modified OLRS was confirmed as a reliable and valid instrument measuring online learning readiness (see Appendix L).

Moreover, to be able to make a decision on the selected instruments, the relationship between online learning readiness (using the modified OLRS) and self-directed learning readiness (using the SDLRS and the OCLI) were examined for the three sets of data. To be able to evaluate the relationship, $R^2$ and beta values were investigated (Hair et al., 2013).

The self-directed learning readiness measured by the SDLRS was positively and significantly related to the online learning readiness measured by the modified OLRS of the college students ($\beta = 0.804; p < .05$), the industry professionals ($\beta = 0.790; p < .05$), and the combined sample ($\beta = 0.804; p < .05$). Moreover, self-directed learning readiness measured by the SDLRS explained 64.6% of the variance in online learning readiness of the college students ($R^2 = .646$), 62.4% of the variance in online learning readiness of the industry professionals ($R^2 = .624$), and 64.7% of the variance in online learning readiness of the combined sample ($R^2 = .647$).

On the other hand, the self-directed learning readiness measured by the OCLI were also positively and significantly related to the online learning readiness measured by the modified OLRS of the college students ($\beta = 0.695; p < .05$), the industry professionals ($\beta = 0.758; p < .05$), and the combined sample ($\beta = 0.693; p < .05$). Moreover, self-directed learning readiness measured by the OCLI explained 48.3% of the variance in online learning readiness of the college students ($R^2 = .483$), 57.4% of the variance in online learning readiness of the industry professionals ($R^2 = .574$), and 48.1% of the variance in online learning readiness of the combined sample ($R^2 = .481$).
\( R^2 \) values in three samples for both instruments were greater than the cut-off value of .26 which was suggested by Cohen (1988) as a rule of thumb for a substantial model. However, since the SDLRS had a larger beta and \( R^2 \) values, the SDLRS was selected for the purpose of the study.

**Population and Sample**

For the purpose of this study, two populations (a) students who enrolled in a hospitality and tourism college program in Florida during Spring 2018 and/or Summer 2018 semesters and (b) professionals who were employed at a company under the hospitality and tourism industry in Florida were identified. According to the National Center for Education Statistics (NCES) (n.d.), of the 19 universities 14 of them had an active four-year program in which hospitality and tourism college education was provided in Florida. A total of 1571 students were graduated from these programs in the academic year of 2016/2017 (NCES, n.d). On the other hand, the Florida Restaurant & Lodging Association (n.d.) reported that 1.4 million people were employed in hospitality and tourism industry in Florida.

**Sampling method.** Homogeneous convenience sample was used to sample the study population. Convenience sampling is a type of non-probability sampling where “members of the target population are selected for the purpose of the study if they meet certain practical criteria, such as geographical proximity, availability at a given time, easy accessibility, or the willingness to volunteer” (Dornyei, 2007, pp. 98-99). Although some researchers believe convenience sampling methods suffer from too much subjectivity and no generalizability (Etikan, Musa, & Alkassim, 2016), Jager, Putnick, and Bornstein (2017) assert that “homogeneous convenience samples have clearer
generalizability relative to conventional convenience samples” (p. 13). To be able to create a homogeneous convenience sample, the sampling procedure can be restricted to certain socio-demographic variables (Jager et al., 2017). Therefore, in this study, the student sample was limited to college students who were studying at a hospitality and tourism college program in Florida and the professional sample was limited to professionals who were working at a hospitality and tourism entity in Florida at the time this research was conducted.

**Sample.** A priori power analysis test using G*Power software (version 3.1) was performed for sample size estimation for comparisons of mean scores of the SDLRS and the modified OLRS dimensions between hospitality and tourism college students and industry professionals. With an alpha = .05 and power = 0.80, the sample size needed with a small effect size was approximately $N = 400$ for each group (Faul, Erdfelder, Buchner, & Lang, 2009). Since there were two groups, hospitality and tourism college students and hospitality and tourism industry professionals, a total sample size of 800 would be sufficient for this study. However, due to non-usable responses these number were not obtained.

**Instrumentation**

In this section, the development, and reliability and validity of the two instruments—the SDLRS and the OLRS—are provided.

**Self-Directed Learning Readiness Scale (SDLRS).** The SDLRS was developed by Guglielmino in 1977. The SDLRS, also known as the Learning Preference Assessment (LPA) (Guglielmino & Guglielmino, 1991), is the most widely used assessment in the field of self-directed learning (Merriam et al., 2007). This
instrument has been taken by over 120,000 adults and has been translated into more than 20 languages (Guglielmino & Guglielmino, 2018). The SDLRS has been utilized both in the education and workplace contexts and has shown correlations with academic achievement and work performance.

**Development of the instrument.** In order to measure the complexity of attitudes, skills, and characteristics which comprise an individual’s current level of readiness to manage his or her own learning, Guglielmino (1977) developed the SDLRS. The Delphi survey technique was used to determine the content of the SDLRS. A three-round Delphi survey of authorities on self-direction was conducted among 14 experts in the field of self-directed learning (Guglielmino, 1977). The SDLRS was revised by Guglielmino and Guglielmino in 1991 and named as the LPA which is a new, self-scoring format of the SDLRS. Three forms of the SDLRS/LPA are available: (1) SDLRS-A is for the general adult population; (2) SDLRS-ABE for adults with low reading levels or non-native English speakers and (3) SDLRS-E for children (Guglielmino & Guglielmino, 2018). The SDLRS-A is a self-report questionnaire with 58 items (41 positively and 17 negatively phrased items), each on a 5-point scale ranging from *Almost never true of me; I hardly ever feel this way* (1) to *Almost always true of me; there are very few times when I don't feel this way* (5). Although the initial instrument was consisted of eight factors (Zhoc & Chen, 2016), the current online version (SDLRS-A/LPA) of the instrument provides a single interpretable SDLRS score. The single interpretable score was also suggested by researchers for the SDLRS (West & Bentley, 1990). The SDLRS scores range from 58 as the lowest score to 290 as the highest score. The categories include low (58-176), below average (177-201), average
(202-226), above average (227-251), and high (252-290) scores (Guglielmino & Guglielmino, 2018). The average score for all adults is 214 with a standard deviation of 25.59 completing the SDLRS-A questionnaire. (Guglielmino & Guglielmino, 2018).

**Reliability and validity.** In a 20-year span, the SDLRS was used in a variety of studies and revealed a very high reliability, ranging from .72 to .92 (Guglielmino & Hillard, 2007). Additionally, in many different studies, the SDLRS showed acceptable validity (Guglielmino, 1977; Guglielmino & Hillard, 2007). Test-retest reliability coefficients scores were reported by Finestone (1984) as .82 and Wiley (1981) as .79. While Field (1989) criticized the validity of the SDLRS, Straka and Hinz (1996) criticized the SDLRS by arguing the original factor structure was not revalidated. West and Bentley (1990) asserted that “an orthogonal solution to the SDLRS measurement model is clearly inadequate” (p. 17). Even though some researchers criticized the SLDRS, the reliability and validity of the instrument were supported by a majority of the studies such as Delahaye and Choy (2000), Delahaye and Smith (1995), Durr (1992), Posner (1989), and Russell (1988). In addition, in a recent study, Nadi and Sajjadian (2012) examined the reliability and validity of the SDLRS. They found Cronbach’s alpha scores of .94. Moreover, their confirmatory factor analysis revealed “a good fit of model (RMR = 0-0.08, RMSEA = 0.063, p = 0.000-0.003, df = 0-35, $\chi^2 = 0-86.81$)” (Nadi & Sajjadi, 2012, p. 479).

**Online Learning Readiness Scale (OLRS).** The OLRS was developed by Hung et al. in 2010. The OLRS consists of five dimensions, which are computer/Internet self-efficacy, self-directed learning (in an online context), learner control (in an online context), motivation for learning (in an online context), and online
communication self-efficacy (Hung et al., 2010). The OLRS consists of 18 items with a 5-point Likert-type scale, ranging from *Strongly disagree* (1) to *Strongly agree* (5). Beside the English version, a validated Turkish version is available (Yurdugul & Alsancak-Sarikaya, 2013).

**Development of the instrument.** To be able to create each construct, Hung et al. (2010) both adapted or selected items from related studies and wrote items that fit each construct. After creating a pool of items, they conducted the *OLRS-themed interviews* to make sure they had covered every aspect of online learning readiness. The interviews were conducted with two college professors and two students who had prior experiences in the online learning environment (Hung et al., 2010). Based on the interviewees’ recommendations, some items were added, some other items were re-worded, and 26 items were selected to collect data. After collecting 1051 usable surveys from the undergraduate students from different majors in three different universities in Taiwan, they run a confirmatory factor analysis. In the initial analysis, Hung et al. (2010) found eight problematic items due to large standardized residuals. After removing these items, they developed the 18-item OLRS.

**Reliability and validity.** Initial study results showed the composite reliability of each construct was greater than .7, which was within an acceptable range of composite reliability value scores. Discriminant validity of the OLRS was also acceptable (square root of the average variance extracted (AVE) of each dimension > the correlation among dimensions) (Hung et al., 2010). In the study by Yurdugul and Alsancak-Sarikaya (2013), both results were confirmed. Moreover, convergent validity was tested by using AVE. Although Peterson (2000) suggested the cut-off value above .50 as an
acceptable value, two constructs in the research of Hung et al. (2010) fell below .50; however, in a later study by Yurdugul and Alsancak-Sarikaya (2013), all constructs had an AVE value higher than .50. Moreover, the pilot study conducted for the purpose of this study also has shown acceptable reliability and validity evidence of the modified OLRS.

**Collection of Data**

Data were obtained via online anonymous links through Qualtrics. This was an online study and it was hosted on the Qualtrics website where the survey links were anonymous. A professor, who worked in CHTL at USFSM and who was the Director of the M3 Center for Hospitality Technology and Innovation, agreed to distribute recruitment information. This email contained the anonymous Qualtrics survey links and a short explanation (see Appendix K). This email was sent to college students at the selected universities and the professionals in the hospitality and tourism industry in Florida. After the initial email, which was sent on April 17, 2018, two reminder emails were sent to individuals. The first reminder email was sent seven days after the initial email (April 24, 2018), while the second reminder email was sent 14 days after the initial email (May 1, 2018).

**Survey.** A self-administered online survey, which included the SDLRS (see Appendix A), the modified OLRS (see Appendix B), descriptive questions (see Appendix G and H), and demographic questions (see Appendix I), was used to collect data. Permission for both the SDLRS and the OLRS (See Appendix F) was granted from the developers. A survey can be defined as “a method of gathering information from a sample of individuals” (Scheuren, 2004, p. 9). Self-administrated surveys, also known
as self-reported data or questionnaires, are “good for gathering data about abstract ideas or concepts that are otherwise difficult to quantify, such as opinions, attitudes and beliefs” (Artino, La Rochelle, Dezee, & Gehlbach, 2014, p. 464). It can be useful collecting not only “data about abstract ideas or concepts” but also “collecting information about behaviors that are not directly observable” such as self-directed learning readiness and online learning readiness (Artino et al., 2014, p. 464).

A self-administrated survey can be conducted in several ways such as mail, in-person, telephone interview, and through the Internet or online (Scheuren, 2004). Among the modes of surveys, online survey research has been gaining popularity and offering some advantages such as saving time, accessing to selected samples in distant locations (Wright, 2005), providing higher response rate, saving resources, and eliminating manual hand-coding (Cobanoglu, Warde, & Moreo, 2001). Therefore, Cobanoglu et al. (2001) recommended web-based or online surveys while gathering data. Based on this recommendation, an online survey was prepared and used to collect data.

While the online survey was being prepared, two surveys, one for the hospitality and tourism college students and one for the hospitality and tourism industry professionals were created to ensure the appropriate respondents completed the correct survey. Also, since respondents needed to complete the two scales along with some descriptive and demographic questions, the length of the instruments might cause some fatigue. Therefore, to prevent response bias on the two scales (the SDLRS and the OLRS), they were randomly presented to respondents, meaning alternate respondents received the SDLRS first, while others received the OLRS first. Moreover,
although participation in the survey was voluntary, the researcher added a validity check question to each scale (i.e., Please mark the “Strongly disagree” option for this item) to assess the attention to detail of the respondents (Cobanoglu, Berezina, Cavusoglu, & Ali, 2016). The respondents had to select the given answer on each scale to ensure the entire survey was read carefully. If they did not select the correct answers, which might indicate that they did not carefully read the question, they were excluded from the data analysis (Cobanoglu et al., 2016). A total of 627 college students and 486 industry professionals started the survey. However, only 426 college students and 310 industry professionals completed both the SDLRS and the OLRS sections. Of the 426 college student responses, 298 were usable whereas of the 310 industry professional responses 252 were usable. In other words, 30% of the college student respondents who completed both instruments and 19% of the industry professional respondents who completed both instruments were eliminated due to failure to correctly answer the validity check questions.

Data Analysis

This study was a quantitative study applying descriptive, inferential statistics, and confirmatory factor analysis (CFA).

Descriptive and inferential statistics. Descriptive statistics (frequencies, mean, standard deviation, skewness, and kurtosis) were used to report demographic and descriptive information, and inferential statistics (independent samples t test and effect size) were used for the second and third research questions employed in this study. The questions were (a) to what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the SDLRS? and (b) to
what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the OLRS dimensions?

**Confirmatory factor analysis (CFA).** CFA, which is used for “confirming previously defined hypotheses concerning the relationships between variables” (Walker & Maddan, 2008, p. 326), was used to examine the validity for the modified Online Learning Readiness Scale (OLRS). See Figure 1 for the OLRS model. The OLRS consists of five dimensions, which are computer/Internet self-efficacy (CISE), self-directed learning (in an online context) (SDL), learner control (in an online context) (LC), motivation for learning (in an online context) (MfL), and online communication self-efficacy (OCSE) (Hung et al., 2010).

Demir and Yurdugul (2015) and Yun and Murad (2006) stressed each instrument developed to measure online learning readiness may have weaknesses, so it is important to review an instrument before using it with a specific audience and context. Therefore, CFA was run for the following reasons: (a) as mentioned above, since the OLRS was primarily developed for students, a panel of experts was formed to review the OLRS in the context of the hospitality and tourism industry professionals and data collected from industry professionals; (b) based on the panel of experts’ suggestions, some of the items were reworded; (c) the modified OLRS was used to collect data from not only the hospitality and tourism industry professionals, but also hospitality and tourism college students who are a different type of student audience than the student audience used to collect data in previous studies; and (d) lastly, the modified OLRS was used to collect data from respondents who were born and raised in a different cultural background.
Figure 1. Dimensions of the Online Learning Readiness Scale (OLRS) model.  
*Note.* CISE: Computer/Internet Self-Efficacy; SDL: Self-Directed Learning (in an online context); LC: Learner Control (in an online context); MfL: Motivation for Learning (in an online context); OCSE: Online Communication Self-Efficacy.

The 5% Trimmed Mean statistics was used to detect outliers before analyzing the data for the three samples (Pallant, 2013). Univariate analysis (skewness and kurtosis)
should be investigated carefully since normal distribution is crucial for factor analysis (Walker & Maddan, 2008). Therefore, before starting the CFA, based on Walker and Maddan’s (2008) suggestion, skewness and kurtosis of each item in the modified OLRS was checked for both college student, industry professional group responses as well as combined sample.

After the univariate analysis tests, construct reliability, and model fit indices ($\chi^2$, standardized root mean square residual [SRMR], root mean square error of approximation [RMSEA], and comparative fit index [CFI] suggested by Suldo, Dedrick, Shaunessy-Dedrick, Roth, & Ferron, 2015) of the modified OLRS were tested and reported. Also, standardized factor loadings and interfactor correlation coefficients among dimensions of the modified OLRS were examined and reported.

To be able to examine the relationship between the SDLRS score and the dimensions of the OLRS, CFA was used for both hospitality and tourism college student and industry professional groups and as well as for the combined sample. For the CFA, the model fit indices $\chi^2$, SRMR, RMSEA, and CFI were tested and reported. Also, correlation coefficients among the SDLRS score and the dimensions of the OLRS were examined and reported.

**Summary of the Chapter**

This chapter presented the research methods utilized in this study, a quantitative survey-based design. A pilot study, population and sample, instrumentation, collection of data, and data analysis were discussed. Based on the pilot study, the descriptive and demographic questions were revised to reflect input from the pilot study participants. The pilot study was conducted to test which of two self-directed learning
readiness instruments, the SDLRS or the OCLI, better fit the study purpose and to measure reliability and validity indices of the OLRS (see Appendix B) for the study samples. The population and sample section provided information about inclusion criteria for the samples (hospitality and tourism college students and industry professionals) and the type of the sampling approach. For the instrumentation, the development, and reliability and validity indices of the SDLRS (selected based on the pilot study findings) and the OLRS (validated with the samples) were discussed. The survey used in this study and the procedures related to online data collection were provided in the section on data collection. Lastly, descriptive, inferential statistics, and CFA were discussed as part of the data analysis.
Chapter 4
Findings

The purpose of this study was to compare self-directed learning readiness and online learning readiness between hospitality and tourism college students and industry professionals. The Self-Directed Learning Readiness Scale (SDLRS) was used for measuring self-directed learning readiness. See Appendix A for a copy of the SDLRS. After examining the reliability and validity indices of the Online Learning Readiness Scale (OLRS), it was used in the context of hospitality and tourism for the measurement of online learning and training readiness. See Appendix B for a copy of the modified OLRS.

The parts of this chapter include characteristics of the respondents, self-directed and online learning behaviors of the respondents, findings based on the research questions, and a summary of the chapter.

Characteristics of the Respondents

Two different study populations, hospitality and tourism college students and hospitality and tourism industry professionals, were identified for the purpose of this study. The inclusion criteria for the student population were being an undergraduate hospitality and tourism college student in Florida during Spring 2018 and/or Summer 2018 semesters. According to the National Center for Education Statistics (NCES) (n.d.), 14 universities have an active four-year hospitality and tourism college program in Florida. A total of 1571 students were graduated from these programs in the academic year of 2016/2017 (NCES, n.d.). Therefore, the college student population
was predicted to be around 6000 students. On the other hand, the inclusion criteria for the hospitality and tourism industry professional population had to be working in the hospitality and tourism industry in Florida. According to the Florida Restaurant & Lodging Association (n.d.), 1.4 million people were employed in the hospitality and tourism industry in Florida.

Among the distributed surveys, 627 college students partially completed the survey; however, only 298 of the surveys were usable. In a similar manner, 486 industry professionals partially completed the survey; however, only 252 surveys of the industry professionals were usable. Due to the failure of the validity check questions, 128 surveys for college students and 58 surveys for industry professionals were excluded from the data analysis. As a result, a total of 298 responses were used for statistical analyses for the hospitality and tourism college student sample, whereas a total of 252 responses were used for statistical analyses for the hospitality and tourism industry professional sample. For the combined sample, a total of 550 responses (298 from hospitality and tourism college students and 252 from hospitality and tourism industry professionals) were used for statistical analyses.

Information about the respondents included demographic characteristics of the respondents, descriptive characteristics of the respondents (which were later divided into two parts: descriptive characteristics of the college student respondents and descriptive characteristics of the industry professional respondents), and self-directed and online learning behaviors of the respondents.

**Demographic characteristics of the respondents.** In this part of the chapter, demographic characteristics of both hospitality and tourism college student and industry
professional respondents are presented.

Table 1 presents the demographic characteristics of the student and professional samples. While 57% of the student respondents were male, 50.4% of the professional respondents were male. More than 80% of the students were enrolled as full-time students in their college program and almost 87% of them were American domestic students. Of the professionals, 83.7% were full-time employees. Almost half of the professional respondents (49.2%) held a supervisory position, whereas the other half (50.8%) held a non-supervisory position. The position title responses were distributed across the hospitality and tourism industry departments.

More than half of the student respondents (52.7%) were seniors and about a quarter (24.5%) of them were junior student respondents. More than a quarter (26.2%) of the professional respondents had some college, 39.3% of them had a college degree, and only 11.9% of them had either master’s (10.7%) or doctoral degree (1.2%). While more than half of the student respondents (50.3%) were white, over three quarters of the professional respondents (78.6%) were white.

Almost 85% of the student respondents’ ages ranged between 18 to 34 years. In comparison, 57.6% of the professional respondents’ ages ranged between 25 to 34 years and 23.4% of the professional respondents’ ages were between 35 to 44 years. More than one fourth of student respondents (26.5%) reported their incomes were below $20,000. Among the professionals, 23.8% reported incomes ranging between $35,000 to $49,999 and another 23.8% of them reported incomes ranging between $50,000 to $74,999. Moreover, only 9.2% of the professionals reported incomes over $100,000.
Table 1
*Demographic Characteristics of the Student and Professional Samples*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Student</th>
<th></th>
<th>Professional</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%*</td>
<td>n</td>
<td>%*</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>170</td>
<td>57.0</td>
<td>127</td>
<td>50.4</td>
</tr>
<tr>
<td>Female</td>
<td>128</td>
<td>43.0</td>
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<tr>
<td>Enrollment Status</td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>241</td>
<td>80.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Part time</td>
<td>57</td>
<td>19.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Student Type</td>
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<td></td>
<td></td>
</tr>
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<td>-</td>
<td>-</td>
</tr>
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<td>International</td>
<td>39</td>
<td>13.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Employment Status</td>
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<td></td>
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<tr>
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<td>211</td>
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</tr>
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<td>41</td>
<td>16.3</td>
</tr>
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<td></td>
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<td>-</td>
<td>124</td>
<td>49.2</td>
</tr>
<tr>
<td>Non-supervisory</td>
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<td>-</td>
<td>128</td>
<td>50.8</td>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>24</td>
<td>8.1</td>
<td>-</td>
<td>-</td>
</tr>
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<td>Sophomore</td>
<td>27</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Junior</td>
<td>73</td>
<td>24.5</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Senior</td>
<td>157</td>
<td>52.7</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Other</td>
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<td>5.7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Education Level (Professional)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than High School</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
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<td>High School</td>
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<td>-</td>
<td>20</td>
<td>7.9</td>
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<td>Some College</td>
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<td>-</td>
<td>66</td>
<td>26.2</td>
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<td>Associates Degree</td>
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<td>-</td>
<td>28</td>
<td>11.1</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>-</td>
<td>-</td>
<td>99</td>
<td>39.3</td>
</tr>
<tr>
<td>Some Graduate Work</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>2.8</td>
</tr>
<tr>
<td>Master’s Degree</td>
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<td>-</td>
<td>27</td>
<td>10.7</td>
</tr>
<tr>
<td>Doctorate Degree</td>
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<td>-</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>150</td>
<td>50.3</td>
<td>198</td>
<td>78.6</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>30</td>
<td>10.1</td>
<td>13</td>
<td>5.2</td>
</tr>
<tr>
<td>Black or African American</td>
<td>22</td>
<td>7.4</td>
<td>18</td>
<td>7.1</td>
</tr>
<tr>
<td>Native American or American Indian</td>
<td>8</td>
<td>2.7</td>
<td>5</td>
<td>2.0</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>85</td>
<td>28.5</td>
<td>16</td>
<td>6.3</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>1.0</td>
<td>2</td>
<td>0.8</td>
</tr>
</tbody>
</table>

67
Table 1 Continued

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Student n</th>
<th>Student %*</th>
<th>Professional n</th>
<th>Professional %*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24 years old</td>
<td>125</td>
<td>41.9</td>
<td>41</td>
<td>16.3</td>
</tr>
<tr>
<td>25-34 years old</td>
<td>128</td>
<td>43.0</td>
<td>104</td>
<td>41.3</td>
</tr>
<tr>
<td>35-44 years old</td>
<td>30</td>
<td>10.1</td>
<td>59</td>
<td>23.4</td>
</tr>
<tr>
<td>45-54 years old</td>
<td>10</td>
<td>3.4</td>
<td>24</td>
<td>9.5</td>
</tr>
<tr>
<td>55-64 years old</td>
<td>5</td>
<td>1.7</td>
<td>22</td>
<td>8.7</td>
</tr>
<tr>
<td>65-74 years old</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Income</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>Less than $20,000</td>
<td>79</td>
<td>26.5</td>
<td>23</td>
<td>9.1</td>
</tr>
<tr>
<td>$20,000 to $34,999</td>
<td>63</td>
<td>21.1</td>
<td>44</td>
<td>17.5</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>45</td>
<td>15.1</td>
<td>60</td>
<td>23.8</td>
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<tr>
<td>$50,000 to $74,999</td>
<td>49</td>
<td>16.4</td>
<td>60</td>
<td>23.8</td>
</tr>
<tr>
<td>$75,000 to $99,999</td>
<td>28</td>
<td>9.4</td>
<td>34</td>
<td>13.5</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>12</td>
<td>4.0</td>
<td>12</td>
<td>4.8</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>4</td>
<td>1.3</td>
<td>7</td>
<td>2.8</td>
</tr>
<tr>
<td>$200,000 or more</td>
<td>2</td>
<td>0.7</td>
<td>4</td>
<td>1.6</td>
</tr>
<tr>
<td>Chose not to answer</td>
<td>16</td>
<td>5.4</td>
<td>8</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Place of Birth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>195</td>
<td>65.4</td>
<td>232</td>
<td>92.1</td>
</tr>
<tr>
<td>Outside the USA</td>
<td>103</td>
<td>34.6</td>
<td>20</td>
<td>7.9</td>
</tr>
</tbody>
</table>

*Note.* Student \( N = 298 \); Professional \( N = 252 \). *May not equal 100% due to rounding.*

**Descriptive characteristics of the respondents.** In this part of the chapter, descriptive characteristics of both hospitality and tourism college student and industry professional respondents are presented.

While almost 90% of the students (\( n = 265 \)) took online courses, only 59.5% of the professionals (\( n = 150 \)) took online courses during their formal education. Descriptive statistics for student and professional responses to online courses taken at each school level are presented in the Table 2. More than half of the students (50.6%) had at least one online course at high school level. Almost one quarter of the students (24.5%) had 1-3 online courses and more than 9% of them had more than 10 online courses at the high school level. Almost all of the students (98.1%) had at least one
online course at the college level. In terms of the most frequent number of courses taken by the students, 37% reported taking 4-6. In addition, almost half of the students (49.6%) reported that they took at least one Massive Open Online Course (MOOC).

Table 2
Descriptive Statistics for Student and Professional Responses to Online Courses Taken at Each School Level

<table>
<thead>
<tr>
<th>School Level</th>
<th>n</th>
<th>None</th>
<th>1–3</th>
<th>4–6</th>
<th>7–9</th>
<th>10+</th>
<th>%</th>
<th>None</th>
<th>1–3</th>
<th>4–6</th>
<th>7–9</th>
<th>10+</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td>265</td>
<td>49.4</td>
<td>24.5</td>
<td>9.1</td>
<td>7.5</td>
<td>9.4</td>
<td>150</td>
<td>62.7</td>
<td>14.7</td>
<td>6.7</td>
<td>6.7</td>
<td>9.3</td>
<td></td>
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<tr>
<td>College</td>
<td>265</td>
<td>1.9</td>
<td>25.3</td>
<td>37.0</td>
<td>15.8</td>
<td>20.0</td>
<td>150</td>
<td>10.7</td>
<td>31.3</td>
<td>30.7</td>
<td>12.0</td>
<td>15.3</td>
<td></td>
</tr>
<tr>
<td>Massive Open Online Course</td>
<td>265</td>
<td>50.4</td>
<td>17.8</td>
<td>11.4</td>
<td>14.0</td>
<td>6.4</td>
<td>150</td>
<td>52.0</td>
<td>21.6</td>
<td>13.5</td>
<td>6.1</td>
<td>6.8</td>
<td></td>
</tr>
<tr>
<td>Graduate Level (Master’s or Doctoral degree)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>150</td>
<td>70.7</td>
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<td>6.1</td>
<td>5.4</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>48</td>
<td>22.9</td>
<td>25.0</td>
<td>29.2</td>
<td>22.9</td>
<td>23</td>
<td>-</td>
<td>21.7</td>
<td>39.1</td>
<td>17.4</td>
<td>17.4</td>
<td>21.7</td>
<td></td>
</tr>
</tbody>
</table>

*May not equal 100% due to rounding.

Of the 150 professionals, 14.7% took 1-3 online courses at the high school level. While almost 90% of the professionals had at least one online class during the college level, 31.3% of them took 1-3 online courses, and 30.7% of them took 4-6 online courses. While 48% of the professionals had at least one MOOC, only 29.3% of them had at least an online course at graduate level.

Table 3 presents the descriptive statistics for student and professional responses to the type of learning/training preference. The most preferred learning/training method was face-to-face for both students and professionals. Hybrid learning is the second most preferred type among both students (34.9%) and professionals (29.8%). Almost equal percentages of the students (26.8%) and professionals (27.4%) cited online learning as their most preferred learning/training types; however, it was the least preferred method in both samples.
Table 3
Descriptive Statistics for Student and Professional Responses to Type of Learning/Training Preference

<table>
<thead>
<tr>
<th>Preference</th>
<th>Student Learning</th>
<th>Professional Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%*</td>
</tr>
<tr>
<td>Face to face</td>
<td>113</td>
<td>37.9</td>
</tr>
<tr>
<td>Online</td>
<td>80</td>
<td>26.8</td>
</tr>
<tr>
<td>Hybrid (both face to face and online)</td>
<td>104</td>
<td>34.9</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*Note. Student N = 298; Professional N = 252.

*May not equal 100% due to rounding.

Descriptive statistics for student and professional responses to time spent on the Internet per day by activity is presented in Table 4. In a day, 31.5% of the students spent 1-3 hours and almost 25% of them spent 4-6 hours on the Internet for their school homework. Another 31.3% of them spent more than 10 hours on the Internet for their homework. Of the students, 28.3% spent 1-3 hours for their workplace learning and training, while 31.7% of them spent more than 10 hours for the same activity. In addition, while 33.2% of the students spent 1-3 hours on the Internet for their pleasure, 34.9% of them spent more than 10 hours for pleasure.

Six percent of the professionals did not use the Internet for their work and 26% of them used the Internet 1-3 hours for their work, 27.6% of them used the Internet 4-6 hours, and 26.3% of them used the Internet 7-9 hours for their work. Almost a quarter of the professionals (23.5%) did not spend time on the Internet for their workplace training or learning, whereas almost half of them (47.4%) spent 1-3 hours on the Internet for their workplace training or learning. Compared to students, more professionals (44.5%) spent less time (1-3 hours) on the Internet for their pleasure.
Also, 22.8% of the professionals spent more than 10 hours on the Internet for their pleasure.

Table 4
Descriptive Statistics for Student and Professional Responses to Time Spent on the Internet Per Day by Activity

| Activity                        | Student | | | | | | Professional | | | |
|--------------------------------|---------|---|---|---|---|---|---|----------|---|---|---|---|
|                                | None    | 1–3| 4–6| 7–9| 10+| %* | % | % | % | % | % | % |
| For school homework or assignments/Work | -       | 31.5| 24.9| 12.0| 31.3| 6.0 | 26.0 | 27.6 | 26.3 | 14.4 |
| For workplace training or learning | 18.1 | 28.3| 13.3| 8.5| 31.7 | 23.5 | 47.4 | 9.6 | 6.0 | 13.6 |
| For pleasure                   | 0.3 | 33.2| 21.2| 10.4| 34.9 | 1.2 | 44.5 | 22.0 | 9.6 | 22.8 |

*Note. Student N = 298; Professional N = 252.* May not equal 100% due to rounding.

Table 5 presents descriptive statistics for the student and professional responses to online learning barriers. The mean score for barriers to online learning of the students ranged from 3.08 to 3.53. The top two barriers to online learning rated by the students were self-control ($M = 3.53$) and self-management ($M = 3.53$). The two lowest barriers to online learning were community environment ($M = 3.08$) and family environment ($M = 3.15$).

The mean score for barriers to online learning ranged from 2.76 to 3.08 for the professional respondents. While the top two barriers (self-control with a mean of 3.08 and self-management with a mean of 3.04) to online learning were the same for the students, the lowest two barriers to online learning rated by the professionals were community environment ($M = 2.76$) and academic self-concept ($M = 2.80$).

Percentages of student and professional responses to most challenging online learning barriers are presented in Table 6.
Table 5
Descriptive Statistics for Student and Professional Responses to Online Learning Barriers

<table>
<thead>
<tr>
<th>Barrier</th>
<th>1*</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>M</th>
<th>SD</th>
<th>Skew.</th>
<th>Kurt.</th>
<th>1*</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>M</th>
<th>SD</th>
<th>Skew.</th>
<th>Kurt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic environment</td>
<td>11.7</td>
<td>13.4</td>
<td>20.1</td>
<td>40.9</td>
<td>13.8</td>
<td>3.32</td>
<td>1.21</td>
<td>-0.56</td>
<td>-0.67</td>
<td>17.9</td>
<td>23.0</td>
<td>25.0</td>
<td>27.4</td>
<td>6.7</td>
<td>2.82</td>
<td>1.21</td>
<td>-0.03</td>
<td>-1.06</td>
</tr>
<tr>
<td>Family environment</td>
<td>14.8</td>
<td>14.8</td>
<td>26.8</td>
<td>27.5</td>
<td>16.1</td>
<td>3.15</td>
<td>1.28</td>
<td>-0.25</td>
<td>-0.95</td>
<td>16.7</td>
<td>22.2</td>
<td>25.4</td>
<td>28.2</td>
<td>7.5</td>
<td>2.88</td>
<td>1.21</td>
<td>-0.08</td>
<td>-1.03</td>
</tr>
<tr>
<td>Community environment</td>
<td>16.4</td>
<td>15.1</td>
<td>24.5</td>
<td>31.9</td>
<td>12.1</td>
<td>3.08</td>
<td>1.27</td>
<td>-0.28</td>
<td>-0.99</td>
<td>15.9</td>
<td>27.4</td>
<td>27.0</td>
<td>24.2</td>
<td>5.6</td>
<td>2.76</td>
<td>1.15</td>
<td>0.06</td>
<td>-0.93</td>
</tr>
<tr>
<td>Academic self-concept</td>
<td>13.4</td>
<td>14.4</td>
<td>24.5</td>
<td>34.2</td>
<td>13.4</td>
<td>3.20</td>
<td>1.24</td>
<td>-0.38</td>
<td>-0.84</td>
<td>14.7</td>
<td>25.4</td>
<td>30.6</td>
<td>24.2</td>
<td>5.2</td>
<td>2.80</td>
<td>1.12</td>
<td>-0.01</td>
<td>-0.84</td>
</tr>
<tr>
<td>Achievement motivation</td>
<td>12.1</td>
<td>12.4</td>
<td>17.1</td>
<td>38.9</td>
<td>19.5</td>
<td>3.41</td>
<td>1.27</td>
<td>-0.69</td>
<td>-0.71</td>
<td>15.5</td>
<td>20.2</td>
<td>25.4</td>
<td>29.8</td>
<td>9.1</td>
<td>2.97</td>
<td>1.22</td>
<td>-0.15</td>
<td>-1.00</td>
</tr>
<tr>
<td>Interest to learn</td>
<td>11.4</td>
<td>14.5</td>
<td>15.5</td>
<td>38.7</td>
<td>19.9</td>
<td>3.41</td>
<td>1.27</td>
<td>-0.56</td>
<td>-0.79</td>
<td>18.3</td>
<td>21.0</td>
<td>18.3</td>
<td>30.6</td>
<td>11.9</td>
<td>2.97</td>
<td>1.32</td>
<td>-0.11</td>
<td>-1.21</td>
</tr>
<tr>
<td>Desire to learn</td>
<td>12.8</td>
<td>11.4</td>
<td>19.8</td>
<td>35.2</td>
<td>20.8</td>
<td>3.40</td>
<td>1.29</td>
<td>-0.55</td>
<td>-0.76</td>
<td>16.7</td>
<td>23.5</td>
<td>19.9</td>
<td>28.7</td>
<td>11.2</td>
<td>2.94</td>
<td>1.28</td>
<td>-0.05</td>
<td>-1.15</td>
</tr>
<tr>
<td>Self-control</td>
<td>10.1</td>
<td>11.4</td>
<td>18.1</td>
<td>36.6</td>
<td>23.8</td>
<td>3.53</td>
<td>1.25</td>
<td>-0.65</td>
<td>-0.57</td>
<td>14.7</td>
<td>17.5</td>
<td>25.4</td>
<td>29.8</td>
<td>12.7</td>
<td>3.08</td>
<td>1.25</td>
<td>-0.22</td>
<td>-0.97</td>
</tr>
<tr>
<td>Self-management</td>
<td>9.4</td>
<td>10.8</td>
<td>20.5</td>
<td>35.7</td>
<td>23.6</td>
<td>3.53</td>
<td>1.23</td>
<td>-0.64</td>
<td>-0.51</td>
<td>14.7</td>
<td>17.5</td>
<td>28.2</td>
<td>28.2</td>
<td>11.5</td>
<td>3.04</td>
<td>1.23</td>
<td>-0.19</td>
<td>-0.92</td>
</tr>
</tbody>
</table>

Note. Student N = 298; Professional N = 252. *1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree; M = Mean; SD = Standard Deviation; Skew. = Skewness; Kurt. = Kurtosis. **May not equal 100% due to rounding.

Table 6
Percentages of Student and Professional Responses to Most Challenging Online Learning Barriers

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Student</th>
<th>Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic environment</td>
<td>18.2</td>
<td>12.7</td>
</tr>
<tr>
<td>Family environment</td>
<td>16.1</td>
<td>25.4</td>
</tr>
<tr>
<td>Community environment</td>
<td>5.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Academic self-concept</td>
<td>5.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Achievement motivation</td>
<td>8.9</td>
<td>5.7</td>
</tr>
<tr>
<td>Interest to learn</td>
<td>10.3</td>
<td>5.7</td>
</tr>
<tr>
<td>Desire to learn</td>
<td>4.8</td>
<td>6.6</td>
</tr>
<tr>
<td>Self-control</td>
<td>13.4</td>
<td>12.7</td>
</tr>
<tr>
<td>Self-management</td>
<td>18.2</td>
<td>23.0</td>
</tr>
</tbody>
</table>

Note. Student n = 292; Professional n = 244. *May not equal 100% due to rounding.
Academic environment (18.2%) and self-management (18.2%) were the two most challenging barriers to online learning for the student respondents. However, the professional respondents reported family environment (25.4%) and self-management (23%) as the most challenging barriers to their online learning. While desire to learn (4.8%), community environment (5.1%), and academic self-concept (5.1%) were marked as the least challenging barriers to online learning by the students; community environment (4.1%) and academic self-concept (4.1%) were rated by the professional respondents as being the least challenging barriers to their online learning.

**Descriptive characteristics of the student respondents.** In this section of the chapter, descriptive characteristics of respondents which apply only to hospitality and tourism college students are presented.

The data presented in Table 7 include the descriptive statistics for student grade point average (GPA) level. Almost three quarters of the students (74.2%) reported they had a GPA of 3.00 or higher. Only 8.7% of the student respondents had a GPA level between 2.00 to 2.49.

<table>
<thead>
<tr>
<th>GPA Level</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.00-2.49</td>
<td>26</td>
<td>8.7</td>
</tr>
<tr>
<td>2.50-2.99</td>
<td>51</td>
<td>17.1</td>
</tr>
<tr>
<td>3.00-3.49</td>
<td>131</td>
<td>44.0</td>
</tr>
<tr>
<td>3.50-4.00</td>
<td>90</td>
<td>30.2</td>
</tr>
</tbody>
</table>

*Note. Student N = 298.*

*May not equal 100% due to rounding.*
Student respondents were asked about their work experience in the hospitality and tourism industry. Of the 298 respondents, 66.4% of them (\( n = 198 \)) reported that they had work experience in the hospitality and tourism industry.

Table 8 presents the information about the student respondents’ experience in the hospitality and tourism industry by the amount of time spent in the industry. Of the student respondents, 25.8% had less than one year of experience in the hospitality and tourism industry. Almost 35% of them worked 1-2 years at the hospitality and tourism industry and 21.7% of the students had 3-5 years of experience in the hospitality and tourism industry.

<table>
<thead>
<tr>
<th>Time</th>
<th>( n )</th>
<th>%*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 6 months</td>
<td>20</td>
<td>10.1</td>
</tr>
<tr>
<td>More than 6 months-Less than 1 year</td>
<td>31</td>
<td>15.7</td>
</tr>
<tr>
<td>1-2 years</td>
<td>69</td>
<td>34.8</td>
</tr>
<tr>
<td>3-5 years</td>
<td>43</td>
<td>21.7</td>
</tr>
<tr>
<td>6-10 years</td>
<td>21</td>
<td>10.6</td>
</tr>
<tr>
<td>11-20 years</td>
<td>8</td>
<td>4.0</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>6</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*May not equal 100% due to rounding.

When the current employment status was asked of the students, 83.9% of them (\( n = 250 \)) reported they were employed. Current employment status for students by industry segment is presented in Table 9. Of the students who were employed (\( n = 250 \)), 26.4% worked in restaurants, 28.8% worked in hotels, 3.6% worked in bars, and...
41.2% worked other places including entertainment, country clubs, theme parks, and retails.

Table 9
*Current Employment Status for Students by Industry Segment*

<table>
<thead>
<tr>
<th>Industry Segment</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant</td>
<td>66</td>
<td>26.4</td>
</tr>
<tr>
<td>Hotel</td>
<td>72</td>
<td>28.8</td>
</tr>
<tr>
<td>Bar</td>
<td>9</td>
<td>3.6</td>
</tr>
<tr>
<td>Other</td>
<td>103</td>
<td>41.2</td>
</tr>
</tbody>
</table>

*Note.* Student n = 250.

*May not equal 100% due to rounding.

Table 10 presents the number of hours worked per week by students who reported they were employed. More than three quarters of the students (76.4%) worked more than 20 hours per week. Only 6.8% of the students worked less than or equal to 10 hours. Moreover, 27.6% of the students worked 21-30 hours and 28% of them worked 31-40 hours per week.

Table 10
*Number of Hours Worked Per Week by Employed Students*

<table>
<thead>
<tr>
<th>Hours</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–10</td>
<td>17</td>
<td>6.8</td>
</tr>
<tr>
<td>11–20</td>
<td>42</td>
<td>16.8</td>
</tr>
<tr>
<td>21–30</td>
<td>69</td>
<td>27.6</td>
</tr>
<tr>
<td>31–40</td>
<td>70</td>
<td>28.0</td>
</tr>
<tr>
<td>More than 40</td>
<td>52</td>
<td>20.8</td>
</tr>
</tbody>
</table>

*Note.* Student n = 250.

*May not equal 100% due to rounding.
Students who reported they were employed \((n = 250)\) were asked about their work satisfaction. Table 11 presents values for student work satisfaction by statements. The mean score for student work satisfaction ranged between 2.66 to 3.69. The statement *Most days I am enthusiastic about my work* had the highest mean score \((M = 3.69)\) whereas the statement *Each day of work seems like it will never end*, which was reverse coded, had the lowest mean score \((M = 2.66)\) among the student respondents.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1*</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>M</th>
<th>SD</th>
<th>Skew.</th>
<th>Kurt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel fairly well satisfied with my present job</td>
<td>2.4</td>
<td>13.6</td>
<td>16.8</td>
<td>50.4</td>
<td>16.8</td>
<td>3.66</td>
<td>0.99</td>
<td>-0.71</td>
<td>-0.04</td>
</tr>
<tr>
<td>Most days I am enthusiastic about my work</td>
<td>3.2</td>
<td>11.2</td>
<td>22.0</td>
<td>40.8</td>
<td>22.8</td>
<td>3.69</td>
<td>1.05</td>
<td>-0.63</td>
<td>-0.18</td>
</tr>
<tr>
<td>Each day of work seems like it will never end***</td>
<td>13.6</td>
<td>37.2</td>
<td>24.4</td>
<td>18.8</td>
<td>6.0</td>
<td>2.66</td>
<td>1.11</td>
<td>0.36</td>
<td>-0.68</td>
</tr>
<tr>
<td>I find real enjoyment in my work</td>
<td>1.6</td>
<td>11.6</td>
<td>24.4</td>
<td>42.0</td>
<td>20.4</td>
<td>3.68</td>
<td>0.98</td>
<td>-0.49</td>
<td>-0.32</td>
</tr>
<tr>
<td>I consider my job rather unpleasant***</td>
<td>12.8</td>
<td>29.6</td>
<td>20.4</td>
<td>21.2</td>
<td>16.0</td>
<td>2.98</td>
<td>1.29</td>
<td>0.13</td>
<td>-1.14</td>
</tr>
</tbody>
</table>

Note. Student \(n = 250\). *1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree; \(M = \) Mean; \(SD = \) Standard Deviation; Skew. = Skewness; Kurt. = Kurtosis. **May not equal 100% due to rounding. ***Statements were reverse coded.

**Descriptive characteristics of the professional respondents.** In this section of the chapter, descriptive characteristics of respondents which apply only to hospitality and tourism industry professionals are presented.

Table 12 presents the time spent in the present position by professionals. More than 27% of the professional respondents had been working in their current position 1-2 years and almost 25% of them worked at the same job position 3-5 years. Overall, more than 50% of the professional respondents had been working at their present position 1-5 years. Only 4.4% of the professional respondents had been working at the same position over 20 years.
Table 12
*Time Spent in the Present Position by Professionals*

<table>
<thead>
<tr>
<th>Time</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 6 months</td>
<td>20</td>
<td>7.9</td>
</tr>
<tr>
<td>More than 6 months-Less than 1 year</td>
<td>34</td>
<td>13.5</td>
</tr>
<tr>
<td>1-2 years</td>
<td>69</td>
<td>27.4</td>
</tr>
<tr>
<td>3-5 years</td>
<td>62</td>
<td>24.6</td>
</tr>
<tr>
<td>6-10 years</td>
<td>36</td>
<td>14.3</td>
</tr>
<tr>
<td>11-20 years</td>
<td>20</td>
<td>7.9</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>11</td>
<td>4.4</td>
</tr>
</tbody>
</table>

*Note.* Professional $N = 252$. *May not equal 100% due to rounding.*

Years worked in hospitality and tourism industry by professionals are presented in Table 13. More than 27% of the respondents worked in the hospitality and tourism industry less than six months. Over 35% of them worked in the hospitality and tourism industry 1-5 years. Only 4.8% of the respondents worked over 20 years in the hospitality and tourism industry.

Table 13
*Years Worked in Hospitality and Tourism Industry by Professionals*

<table>
<thead>
<tr>
<th>Year</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 6 months</td>
<td>69</td>
<td>27.4</td>
</tr>
<tr>
<td>More than 6 months-Less than 1 year</td>
<td>20</td>
<td>7.9</td>
</tr>
<tr>
<td>1-2 years</td>
<td>44</td>
<td>17.5</td>
</tr>
<tr>
<td>3-5 years</td>
<td>45</td>
<td>17.9</td>
</tr>
<tr>
<td>6-10 years</td>
<td>31</td>
<td>12.3</td>
</tr>
<tr>
<td>11-20 years</td>
<td>31</td>
<td>12.3</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>12</td>
<td>4.8</td>
</tr>
</tbody>
</table>

*Note.* Professional $N = 252$. *May not equal 100% due to rounding.*

Professional respondents were asked about the perceived importance of workplace learning. The results are presented in Table 14. Slightly more than 7% of
them reported workplace learning was not important or slightly important. Over 21% of the respondents reported workplace learning was moderately important. Moreover, according to over 70% of the professional respondents, workplace learning was very important (38.5%) or extremely important (32.5%).

Table 14
Perceived Importance of Workplace Learning by Professionals

<table>
<thead>
<tr>
<th>Importance</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not important</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Slightly important</td>
<td>17</td>
<td>6.7</td>
</tr>
<tr>
<td>Moderately important</td>
<td>55</td>
<td>21.8</td>
</tr>
<tr>
<td>Very important</td>
<td>97</td>
<td>38.5</td>
</tr>
<tr>
<td>Extremely important</td>
<td>82</td>
<td>32.5</td>
</tr>
</tbody>
</table>

Note. Professional N = 252.
*May not equal 100% due to rounding.

After workplace learning, the professional respondents were asked about their perceived workplace learning satisfaction; the results are presented in Table 15.

Table 15
Perceived Workplace Learning Satisfaction by Professionals

<table>
<thead>
<tr>
<th>Importance</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dissatisfied</td>
<td>5</td>
<td>2.0</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>27</td>
<td>10.7</td>
</tr>
<tr>
<td>Neither satisfied nor dissatisfied</td>
<td>54</td>
<td>21.4</td>
</tr>
<tr>
<td>Satisfied</td>
<td>119</td>
<td>47.2</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>47</td>
<td>18.7</td>
</tr>
</tbody>
</table>

Note. Professional N = 252.
*May not equal 100% due to rounding.
Over 12% of them were very dissatisfied (2%) or dissatisfied (10.7%). Over 21% of them were neither satisfied nor dissatisfied. Only, 18.7% of the professional respondents were very satisfied with their workplace learning.

Table 16 presents training hours in which professionals participated during the last 12 months. Of the participants, 44% of them attended 0-12 hours training and over 35% of them attended 13-24 hours training during the last 12 months. Only 12.3% of them attended over 36 hours of training during the past 12 months.

Table 16
Training Hours Participated During the Last 12 Month by Professionals

<table>
<thead>
<tr>
<th>Hours</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–12</td>
<td>111</td>
<td>44.0</td>
</tr>
<tr>
<td>13–24</td>
<td>89</td>
<td>35.3</td>
</tr>
<tr>
<td>25–36</td>
<td>21</td>
<td>8.3</td>
</tr>
<tr>
<td>More than 36 hours</td>
<td>31</td>
<td>12.3</td>
</tr>
</tbody>
</table>

Note. Professional N = 252.
*May not equal 100% due to rounding.

Professional respondents were asked whether they took any online training classes during their career. Of the 252 professionals, 143 (56.7%) reported they had taken online training classes for their professional careers. Further, the professional respondents who said they took online training were asked about the number of online training classes; the results are presented in Table 17. Of the participants (n = 143), 31.5% attended 1-3 online training classes, 33.6% attended 4-6 online training classes. More than 22% of the professional respondents attended over 10 online training classes.
Table 17
Participation of Professionals in Online Training by Number of Classes

<table>
<thead>
<tr>
<th>Classes</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–3</td>
<td>45</td>
<td>31.5</td>
</tr>
<tr>
<td>4–6</td>
<td>48</td>
<td>33.6</td>
</tr>
<tr>
<td>7–9</td>
<td>18</td>
<td>12.6</td>
</tr>
<tr>
<td>10+</td>
<td>32</td>
<td>22.4</td>
</tr>
</tbody>
</table>

*Note. Professional n = 143.
*May not equal 100% due to rounding.

Professional respondents were asked to self-assess their success in work performance on a scale where zero was being the least successful and 10 being the most successful. The results are presented in Table 18.

Table 18
Assessment of Success in Work Performance by Professionals

<table>
<thead>
<tr>
<th>Scale*</th>
<th>n</th>
<th>%**</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>2.8</td>
</tr>
<tr>
<td>5</td>
<td>29</td>
<td>11.5</td>
</tr>
<tr>
<td>6</td>
<td>38</td>
<td>15.1</td>
</tr>
<tr>
<td>7</td>
<td>56</td>
<td>22.2</td>
</tr>
<tr>
<td>8</td>
<td>64</td>
<td>25.4</td>
</tr>
<tr>
<td>9</td>
<td>28</td>
<td>11.1</td>
</tr>
<tr>
<td>10</td>
<td>24</td>
<td>9.5</td>
</tr>
</tbody>
</table>

*Note. Professional N = 252.
*0 as being the least successful and 10 being the most successful.
**May not equal 100% due to rounding.

Of the respondents (N = 252), 5.2% reported their success between 0-4. Over 11% of the respondents assessed their workplace performance as being 5, and over 15% of them assessed their workplace performance as being 6. Moreover, over 47%
reported their workplace success as either 7 (22.2%) or 8 (25.4%). Only, 9.5% of the professional respondents assessed their workplace performance as being 10.

After asking the professionals about their self-assessment success in work performance, the professional respondents were asked to enter their evaluation score and the total score available. All total available scores were converted to 100 by the researcher to report them. Evaluation scores of the respondents (n = 227) averaged 86.21 (SD = 11.85) with a range of 10 to 100. Both mode and median were 90.

Table 19 presents values for professional respondents' work satisfaction by statement. The mean score for the professional respondents' work satisfaction ranged from 3.07 to 3.73. The statement *Most days I am enthusiastic about my work* and *I find real enjoyment in my work* had the highest mean score (M = 3.73) whereas as the statement *Each day of work seems like it will never end*, which was reverse coded, had the lowest mean score (M = 3.07) among the professional respondents.

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>1*</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>M</th>
<th>SD</th>
<th>Skew.</th>
<th>Kurt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel fairly well satisfied with my present job</td>
<td>3.2</td>
<td>13.9</td>
<td>13.1</td>
<td>48.8</td>
<td>21.0</td>
<td>3.71</td>
<td>1.05</td>
<td>-0.79</td>
<td>-0.06</td>
</tr>
<tr>
<td>Most days I am enthusiastic about my work</td>
<td>3.6</td>
<td>9.1</td>
<td>20.2</td>
<td>45.2</td>
<td>21.8</td>
<td>3.73</td>
<td>1.02</td>
<td>-0.78</td>
<td>0.24</td>
</tr>
<tr>
<td>Each day of work seems like it will never end***</td>
<td>9.9</td>
<td>23.8</td>
<td>24.6</td>
<td>32.5</td>
<td>9.1</td>
<td>3.07</td>
<td>1.15</td>
<td>-0.17</td>
<td>-0.90</td>
</tr>
<tr>
<td>I find real enjoyment in my work</td>
<td>2.8</td>
<td>9.9</td>
<td>22.2</td>
<td>41.7</td>
<td>23.4</td>
<td>3.73</td>
<td>1.02</td>
<td>-0.65</td>
<td>-0.05</td>
</tr>
<tr>
<td>I consider my job rather unpleasant***</td>
<td>6.0</td>
<td>17.1</td>
<td>17.1</td>
<td>34.5</td>
<td>25.4</td>
<td>3.56</td>
<td>1.21</td>
<td>-0.52</td>
<td>-0.76</td>
</tr>
</tbody>
</table>

Note. Professional N = 252. *1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree; M = Mean; SD = Standard Deviation; Skew. = Skewness; Kurt. = Kurtosis. **May not equal 100% due to rounding. ***Statements were reverse coded.
Self-Directed and Online Learning Behaviors of the Respondents

In this part of the chapter, self-directed and online learning readiness behaviors of both the hospitality and tourism college students and industry professionals are presented.

Descriptive statistics for the modified OLRS items for both student respondents and professional respondents are presented in Table 20. The mean scores ranged from 3.21 to 4.20 for the student respondents. The statement, I am not distracted by other online activities (e.g., instant messages, Internet surfing) when learning online, had the lowest mean score ($M = 3.21$) and I am confident in using the Internet (e.g., Google, Yahoo) to find or gather information for online learning had the highest mean score ($M = 4.20$) among the student respondents. For the professional respondents, the mean scores ranged from 3.32 to 4.27. Both items, which had the highest and lowest mean score, were the same as the student respondents.

Table 21 presents the descriptive statistics for the SDLRS items for both student respondents and professional respondents. The mean scores ranged from 2.68 to 4.02 for the student respondents. The statement, It takes me a while to get started on new projects (reverse coded), had the lowest mean score ($M = 2.68$); whereas Learning is a tool for life had the highest mean score ($M = 4.02$) among the student respondents. For the professional respondents, the mean scores ranged from 3.01 to 4.02. The statement, If I can understand something well enough to get by, it doesn’t bother me if I still have questions about it (reverse coded), had the lowest mean score ($M = 3.01$); whereas I love to learn had the highest mean score ($M = 4.02$) among the professional respondents.
Table 20
Descriptive Statistics for Student and Professional Responses to the Modified Online Learning Readiness Scale (OLRS) by Statement

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I am confident in performing the basic functions of Office programs (e.g., Word, Excel, and PowerPoint)</td>
<td>1.3</td>
<td>5.0</td>
<td>14.4</td>
<td>38.9</td>
<td>40.3</td>
<td>4.12</td>
<td>0.93</td>
<td>-1.03</td>
<td>0.79</td>
<td>1.2</td>
<td>6.7</td>
<td>17.5</td>
<td>32.9</td>
<td>41.7</td>
<td>4.07</td>
<td>0.98</td>
<td>-0.88</td>
<td>0.09</td>
</tr>
<tr>
<td>I am confident in my knowledge and skills of how to use software (e.g., company websites, YouTube, any other learning management software) for online learning</td>
<td>1.0</td>
<td>5.7</td>
<td>17.8</td>
<td>38.3</td>
<td>37.2</td>
<td>4.05</td>
<td>0.93</td>
<td>-0.83</td>
<td>0.22</td>
<td>1.2</td>
<td>5.6</td>
<td>15.9</td>
<td>32.5</td>
<td>44.8</td>
<td>4.14</td>
<td>0.96</td>
<td>-1.00</td>
<td>0.42</td>
</tr>
<tr>
<td>I am confident in using online tools (e.g., email, discussion) to effectively communicate with others</td>
<td>1.7</td>
<td>6.4</td>
<td>22.5</td>
<td>38.3</td>
<td>31.2</td>
<td>3.91</td>
<td>0.97</td>
<td>-0.69</td>
<td>0.05</td>
<td>2.0</td>
<td>6.3</td>
<td>21.8</td>
<td>37.7</td>
<td>32.1</td>
<td>3.92</td>
<td>0.98</td>
<td>-0.74</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Note. Student N = 298; Professional N = 252. *1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree; M = Mean; SD = Standard Deviation; Skew. = Skewness; Kurt. = Kurtosis. **May not equal 100% due to rounding.
### Table 21
Descriptive Statistics for Student and Professional Responses to the Self-Directed Learning Readiness Scale (SDLRS) by Statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Student</th>
<th></th>
<th>Professional</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1*</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I'm looking forward to learning as long as I'm living</td>
<td>1.0</td>
<td>8.4</td>
<td>17.4</td>
<td>44.3</td>
</tr>
<tr>
<td>I know what I want to learn</td>
<td>2.0</td>
<td>7.7</td>
<td>27.9</td>
<td>36.6</td>
</tr>
<tr>
<td>When I see something that I don't understand, I stay away from it</td>
<td>10.7</td>
<td>22.8</td>
<td>29.2</td>
<td>23.5</td>
</tr>
<tr>
<td>If there is something I want to learn, I can figure out a way to learn it</td>
<td>1.7</td>
<td>7.0</td>
<td>22.1</td>
<td>44.0</td>
</tr>
<tr>
<td>I love to learn</td>
<td>0.7</td>
<td>6.0</td>
<td>24.8</td>
<td>38.6</td>
</tr>
<tr>
<td>It takes me a while to get started on new projects</td>
<td>16.8</td>
<td>31.2</td>
<td>26.5</td>
<td>17.8</td>
</tr>
<tr>
<td>In a classroom situation, I expect the instructor to tell all class members exactly what to do at all times</td>
<td>13.1</td>
<td>29.2</td>
<td>32.6</td>
<td>19.1</td>
</tr>
<tr>
<td>I believe that thinking about who you are, where you are, and where you are going should be a major part of every person's education</td>
<td>1.7</td>
<td>8.4</td>
<td>24.2</td>
<td>41.3</td>
</tr>
<tr>
<td>I don't work very well on my own</td>
<td>9.1</td>
<td>19.1</td>
<td>19.8</td>
<td>27.2</td>
</tr>
<tr>
<td>If I discover a need for information that I don't have, I know where to go to get it</td>
<td>1.3</td>
<td>10.1</td>
<td>29.2</td>
<td>39.3</td>
</tr>
<tr>
<td>I can learn things on my own better than most people</td>
<td>1.7</td>
<td>10.7</td>
<td>28.9</td>
<td>39.3</td>
</tr>
<tr>
<td>Even if I have a great idea, I can't seem to develop a plan for making it work</td>
<td>9.4</td>
<td>27.2</td>
<td>29.2</td>
<td>26.2</td>
</tr>
<tr>
<td>In a learning experience, I prefer to take part in deciding what will be learned and how</td>
<td>2.3</td>
<td>11.1</td>
<td>33.9</td>
<td>36.6</td>
</tr>
<tr>
<td>Difficult study doesn't bother me if I'm interested in something</td>
<td>3.0</td>
<td>15.1</td>
<td>20.8</td>
<td>34.6</td>
</tr>
<tr>
<td>No one but me is truly responsible for what I learn</td>
<td>2.0</td>
<td>9.7</td>
<td>26.5</td>
<td>35.6</td>
</tr>
<tr>
<td>I can tell whether I'm learning something well or not</td>
<td>1.3</td>
<td>6.7</td>
<td>24.5</td>
<td>40.9</td>
</tr>
<tr>
<td>There are so many things I want to learn that I wish there were more hours in a day</td>
<td>4.0</td>
<td>13.4</td>
<td>30.5</td>
<td>30.2</td>
</tr>
</tbody>
</table>
Table 21 Continued

<table>
<thead>
<tr>
<th>Statement</th>
<th>1*</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>M</th>
<th>SD</th>
<th>Skew</th>
<th>Kurt.</th>
<th>1*</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>M</th>
<th>SD</th>
<th>Skew</th>
<th>Kurt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>If there is something I have decided to learn, I can find time for it, no matter how busy I am</td>
<td>3.0</td>
<td>16.1</td>
<td>23.8</td>
<td>36.6</td>
<td>20.5</td>
<td>3.55</td>
<td>1.08</td>
<td>-0.40</td>
<td>-0.65</td>
<td>3.2</td>
<td>11.9</td>
<td>34.5</td>
<td>31.0</td>
<td>19.4</td>
<td>3.52</td>
<td>1.04</td>
<td>-0.27</td>
<td>-0.45</td>
</tr>
<tr>
<td>Understanding what I read is a problem for me</td>
<td>10.7</td>
<td>21.8</td>
<td>27.9</td>
<td>22.1</td>
<td>17.4</td>
<td>3.14</td>
<td>1.25</td>
<td>-0.05</td>
<td>-0.98</td>
<td>6.7</td>
<td>15.9</td>
<td>23.4</td>
<td>22.2</td>
<td>31.7</td>
<td>3.56</td>
<td>1.27</td>
<td>-0.41</td>
<td>-0.95</td>
</tr>
<tr>
<td>If I don't learn, it's not my fault</td>
<td>8.1</td>
<td>18.5</td>
<td>20.8</td>
<td>29.5</td>
<td>23.2</td>
<td>3.41</td>
<td>1.25</td>
<td>-0.35</td>
<td>-0.95</td>
<td>5.2</td>
<td>17.9</td>
<td>18.3</td>
<td>27.8</td>
<td>31.0</td>
<td>3.62</td>
<td>1.24</td>
<td>-0.47</td>
<td>-0.92</td>
</tr>
<tr>
<td>I know when I need to learn more about something</td>
<td>2.0</td>
<td>8.1</td>
<td>27.2</td>
<td>41.6</td>
<td>21.1</td>
<td>3.72</td>
<td>0.95</td>
<td>-0.53</td>
<td>-0.01</td>
<td>1.2</td>
<td>11.1</td>
<td>26.2</td>
<td>40.9</td>
<td>20.6</td>
<td>3.69</td>
<td>0.96</td>
<td>-0.42</td>
<td>-0.40</td>
</tr>
<tr>
<td>If I can understand something well enough to get by, it doesn't bother me if I still have questions about it</td>
<td>12.1</td>
<td>30.5</td>
<td>32.2</td>
<td>15.4</td>
<td>9.7</td>
<td>2.80</td>
<td>1.14</td>
<td>0.30</td>
<td>-0.60</td>
<td>7.9</td>
<td>22.6</td>
<td>38.9</td>
<td>21.4</td>
<td>9.1</td>
<td>3.01</td>
<td>1.06</td>
<td>0.04</td>
<td>-0.47</td>
</tr>
<tr>
<td>I think libraries are boring places</td>
<td>10.1</td>
<td>21.8</td>
<td>28.9</td>
<td>19.1</td>
<td>20.1</td>
<td>3.17</td>
<td>1.26</td>
<td>-0.03</td>
<td>-1.02</td>
<td>5.6</td>
<td>16.7</td>
<td>22.6</td>
<td>24.6</td>
<td>30.6</td>
<td>3.58</td>
<td>1.24</td>
<td>-0.41</td>
<td>-0.93</td>
</tr>
<tr>
<td>The people I admire most are always learning new things</td>
<td>1.3</td>
<td>7.4</td>
<td>29.5</td>
<td>36.6</td>
<td>25.2</td>
<td>3.77</td>
<td>0.96</td>
<td>-0.41</td>
<td>-0.33</td>
<td>3.2</td>
<td>7.5</td>
<td>28.2</td>
<td>32.5</td>
<td>28.6</td>
<td>3.76</td>
<td>1.05</td>
<td>-0.57</td>
<td>-0.21</td>
</tr>
<tr>
<td>I can think of many different ways to learn about a new topic</td>
<td>2.3</td>
<td>11.1</td>
<td>30.5</td>
<td>37.9</td>
<td>18.1</td>
<td>3.58</td>
<td>0.99</td>
<td>-0.38</td>
<td>-0.30</td>
<td>2.4</td>
<td>8.7</td>
<td>27.8</td>
<td>37.3</td>
<td>23.8</td>
<td>3.71</td>
<td>1.00</td>
<td>-0.51</td>
<td>-0.20</td>
</tr>
<tr>
<td>I try to relate what I am learning to my long-term goals</td>
<td>3.0</td>
<td>8.1</td>
<td>25.8</td>
<td>38.9</td>
<td>24.2</td>
<td>3.73</td>
<td>1.01</td>
<td>-0.62</td>
<td>-0.01</td>
<td>1.2</td>
<td>9.1</td>
<td>27.8</td>
<td>36.1</td>
<td>25.8</td>
<td>3.76</td>
<td>0.98</td>
<td>-0.41</td>
<td>-0.47</td>
</tr>
<tr>
<td>I am capable of learning for myself almost anything I might need to know</td>
<td>1.7</td>
<td>11.7</td>
<td>29.5</td>
<td>38.3</td>
<td>18.8</td>
<td>3.61</td>
<td>0.98</td>
<td>-0.35</td>
<td>-0.42</td>
<td>2.4</td>
<td>10.3</td>
<td>27.8</td>
<td>33.3</td>
<td>26.2</td>
<td>3.71</td>
<td>1.04</td>
<td>-0.45</td>
<td>-0.45</td>
</tr>
<tr>
<td>I really enjoy tracking down the answer to a question</td>
<td>2.0</td>
<td>12.8</td>
<td>28.2</td>
<td>35.6</td>
<td>21.5</td>
<td>3.62</td>
<td>1.02</td>
<td>-0.36</td>
<td>-0.55</td>
<td>2.0</td>
<td>7.5</td>
<td>25.0</td>
<td>37.7</td>
<td>27.8</td>
<td>3.82</td>
<td>0.99</td>
<td>-0.60</td>
<td>-0.11</td>
</tr>
<tr>
<td>I don't like dealing with questions where there is not one right answer</td>
<td>12.8</td>
<td>26.2</td>
<td>29.9</td>
<td>20.5</td>
<td>10.7</td>
<td>2.90</td>
<td>1.18</td>
<td>0.12</td>
<td>-0.83</td>
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<td>20.6</td>
<td>32.9</td>
<td>19.4</td>
<td>17.5</td>
<td>3.15</td>
<td>1.21</td>
<td>-0.01</td>
<td>-0.86</td>
</tr>
<tr>
<td>I have a lot of curiosity about things</td>
<td>1.0</td>
<td>6.7</td>
<td>28.2</td>
<td>36.2</td>
<td>27.9</td>
<td>3.83</td>
<td>0.95</td>
<td>-0.43</td>
<td>-0.40</td>
<td>1.6</td>
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<td>33.3</td>
<td>33.3</td>
<td>3.87</td>
<td>1.04</td>
<td>-0.62</td>
<td>-0.42</td>
</tr>
<tr>
<td>I'll be glad when I'm finished learning</td>
<td>14.4</td>
<td>32.6</td>
<td>27.2</td>
<td>13.8</td>
<td>12.1</td>
<td>2.77</td>
<td>1.21</td>
<td>0.38</td>
<td>-0.74</td>
<td>7.5</td>
<td>17.5</td>
<td>29.8</td>
<td>25.0</td>
<td>20.2</td>
<td>3.33</td>
<td>1.20</td>
<td>-0.21</td>
<td>-0.84</td>
</tr>
<tr>
<td>I'm not as interested in learning as some other people seem to be</td>
<td>9.4</td>
<td>26.5</td>
<td>22.1</td>
<td>26.8</td>
<td>15.1</td>
<td>3.12</td>
<td>1.23</td>
<td>-0.04</td>
<td>-1.06</td>
<td>6.0</td>
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<td>34.1</td>
<td>24.2</td>
<td>3.50</td>
<td>1.23</td>
<td>-0.44</td>
<td>-0.93</td>
<td></td>
</tr>
<tr>
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<td>5.0</td>
<td>13.8</td>
<td>23.2</td>
<td>34.9</td>
<td>23.2</td>
<td>3.57</td>
<td>1.14</td>
<td>-0.51</td>
<td>-0.54</td>
<td>4.8</td>
<td>9.1</td>
<td>23.4</td>
<td>39.3</td>
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<td>3.67</td>
<td>1.08</td>
<td>-0.69</td>
<td>-0.04</td>
</tr>
<tr>
<td>I like to try new things, even if I'm not sure how they will turn out</td>
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<td>13.8</td>
<td>26.8</td>
<td>40.6</td>
<td>17.8</td>
<td>3.60</td>
<td>0.97</td>
<td>-0.33</td>
<td>-0.57</td>
<td>3.2</td>
<td>7.5</td>
<td>31.7</td>
<td>37.7</td>
<td>19.8</td>
<td>3.63</td>
<td>0.99</td>
<td>-0.49</td>
<td>0.02</td>
</tr>
<tr>
<td>I don't like it when people who really know what they're doing point out mistakes that I am making</td>
<td>9.4</td>
<td>23.5</td>
<td>32.9</td>
<td>26.2</td>
<td>8.1</td>
<td>3.00</td>
<td>1.10</td>
<td>-0.06</td>
<td>-0.69</td>
<td>7.5</td>
<td>23.0</td>
<td>31.3</td>
<td>24.2</td>
<td>13.9</td>
<td>3.14</td>
<td>1.15</td>
<td>-0.02</td>
<td>-0.80</td>
</tr>
<tr>
<td>I'm good at thinking of unusual ways to do things</td>
<td>2.0</td>
<td>10.7</td>
<td>30.9</td>
<td>38.6</td>
<td>17.8</td>
<td>3.59</td>
<td>0.97</td>
<td>-0.37</td>
<td>-0.28</td>
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<td>11.5</td>
<td>29.0</td>
<td>35.7</td>
<td>21.4</td>
<td>3.62</td>
<td>1.02</td>
<td>-0.39</td>
<td>-0.43</td>
</tr>
<tr>
<td>I like to think about the future</td>
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<td>7.4</td>
<td>26.8</td>
<td>36.9</td>
<td>26.8</td>
<td>3.79</td>
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<td>-0.15</td>
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<td>32.5</td>
<td>29.4</td>
<td>3.75</td>
<td>1.09</td>
<td>-0.60</td>
<td>-0.32</td>
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<tr>
<td>--------------------------------------------------------------------------</td>
<td>----</td>
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<td>----</td>
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<td>----</td>
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<td>----</td>
<td>----</td>
<td>------</td>
<td>-----</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>I'm better than most people are at trying to find out the things I need to know</td>
<td>2.7</td>
<td>11.1</td>
<td>31.5</td>
<td>38.6</td>
<td>16.1</td>
<td>3.54</td>
<td>0.98</td>
<td>-0.40</td>
<td>-0.21</td>
<td>2.8</td>
<td>12.7</td>
<td>35.3</td>
<td>32.9</td>
<td>16.3</td>
<td>3.47</td>
<td>1.00</td>
<td>-0.24</td>
<td>-0.40</td>
</tr>
<tr>
<td>I think of problems as challenges, not stop-signs</td>
<td>2.7</td>
<td>8.1</td>
<td>30.9</td>
<td>38.3</td>
<td>20.1</td>
<td>3.65</td>
<td>0.98</td>
<td>-0.47</td>
<td>-0.06</td>
<td>2.4</td>
<td>8.3</td>
<td>27.4</td>
<td>37.3</td>
<td>24.6</td>
<td>3.73</td>
<td>1.00</td>
<td>-0.53</td>
<td>-0.16</td>
</tr>
<tr>
<td>I can make myself do what I think I should</td>
<td>2.0</td>
<td>7.7</td>
<td>27.9</td>
<td>41.9</td>
<td>20.5</td>
<td>3.71</td>
<td>0.95</td>
<td>-0.53</td>
<td>0.04</td>
<td>4.8</td>
<td>5.2</td>
<td>29.8</td>
<td>36.9</td>
<td>23.4</td>
<td>3.69</td>
<td>1.04</td>
<td>-0.67</td>
<td>0.23</td>
</tr>
<tr>
<td>I'm happy with the way I investigate problems</td>
<td>1.0</td>
<td>7.0</td>
<td>28.9</td>
<td>43.6</td>
<td>19.5</td>
<td>3.73</td>
<td>0.89</td>
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<td>-0.09</td>
<td>1.2</td>
<td>6.0</td>
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<td>43.3</td>
<td>23.8</td>
<td>3.83</td>
<td>0.90</td>
<td>-0.53</td>
<td>0.06</td>
</tr>
<tr>
<td>I become a leader in group learning situations</td>
<td>3.0</td>
<td>13.1</td>
<td>26.8</td>
<td>35.2</td>
<td>21.8</td>
<td>3.60</td>
<td>1.06</td>
<td>-0.42</td>
<td>-0.51</td>
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<td>4.0</td>
<td>28.6</td>
<td>27.8</td>
<td>32.5</td>
<td>21.0</td>
<td>3.52</td>
<td>1.10</td>
<td>-0.36</td>
</tr>
<tr>
<td>I enjoy discussing ideas</td>
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<td>11.4</td>
<td>23.5</td>
<td>39.6</td>
<td>22.5</td>
<td>3.67</td>
<td>1.04</td>
<td>-0.57</td>
<td>-0.26</td>
<td>5.6</td>
<td>6.0</td>
<td>19.0</td>
<td>38.1</td>
<td>31.3</td>
<td>3.84</td>
<td>1.11</td>
<td>-0.94</td>
<td>0.38</td>
</tr>
<tr>
<td>I don't like challenging learning situations</td>
<td>8.4</td>
<td>23.5</td>
<td>30.2</td>
<td>25.2</td>
<td>12.8</td>
<td>3.10</td>
<td>1.15</td>
<td>-0.03</td>
<td>-0.82</td>
<td>4.8</td>
<td>21.4</td>
<td>23.4</td>
<td>28.2</td>
<td>22.2</td>
<td>3.42</td>
<td>1.19</td>
<td>-0.22</td>
<td>-1.00</td>
</tr>
<tr>
<td>I have a strong desire to learn new things</td>
<td>1.0</td>
<td>9.7</td>
<td>25.8</td>
<td>38.9</td>
<td>24.5</td>
<td>3.76</td>
<td>0.96</td>
<td>-0.44</td>
<td>-0.44</td>
<td>2.4</td>
<td>7.9</td>
<td>25.4</td>
<td>38.1</td>
<td>26.2</td>
<td>3.78</td>
<td>1.00</td>
<td>-0.60</td>
<td>-0.08</td>
</tr>
<tr>
<td>The more I learn, the more exciting the world becomes</td>
<td>1.3</td>
<td>10.4</td>
<td>21.1</td>
<td>42.6</td>
<td>24.5</td>
<td>3.79</td>
<td>0.98</td>
<td>-0.59</td>
<td>-0.22</td>
<td>2.0</td>
<td>7.9</td>
<td>30.6</td>
<td>31.0</td>
<td>28.6</td>
<td>3.76</td>
<td>1.02</td>
<td>-0.42</td>
<td>-0.45</td>
</tr>
<tr>
<td>Learning is fun</td>
<td>1.3</td>
<td>12.4</td>
<td>22.1</td>
<td>37.2</td>
<td>26.8</td>
<td>3.76</td>
<td>1.03</td>
<td>-0.50</td>
<td>-0.56</td>
<td>1.6</td>
<td>6.3</td>
<td>24.6</td>
<td>39.3</td>
<td>32.8</td>
<td>3.86</td>
<td>0.95</td>
<td>-0.61</td>
<td>-0.01</td>
</tr>
<tr>
<td>It's better to stick with the learning methods that we know will work instead of always trying new ones</td>
<td>13.1</td>
<td>24.5</td>
<td>29.5</td>
<td>23.2</td>
<td>9.7</td>
<td>2.92</td>
<td>1.18</td>
<td>0.03</td>
<td>-0.86</td>
<td>6.3</td>
<td>21.0</td>
<td>30.2</td>
<td>29.4</td>
<td>13.1</td>
<td>3.22</td>
<td>1.11</td>
<td>-0.14</td>
<td>-0.74</td>
</tr>
<tr>
<td>I want to learn more so that I can keep growing as a person</td>
<td>1.3</td>
<td>6.7</td>
<td>25.5</td>
<td>36.6</td>
<td>29.9</td>
<td>3.87</td>
<td>0.96</td>
<td>-0.55</td>
<td>-0.23</td>
<td>1.6</td>
<td>8.3</td>
<td>25.4</td>
<td>36.1</td>
<td>28.6</td>
<td>3.82</td>
<td>0.99</td>
<td>-0.54</td>
<td>-0.31</td>
</tr>
<tr>
<td>I am responsible for my learning - no one else is</td>
<td>1.0</td>
<td>9.7</td>
<td>23.5</td>
<td>38.9</td>
<td>26.8</td>
<td>3.81</td>
<td>0.98</td>
<td>-0.51</td>
<td>-0.41</td>
<td>2.0</td>
<td>7.9</td>
<td>23.8</td>
<td>37.3</td>
<td>29.0</td>
<td>3.83</td>
<td>1.00</td>
<td>-0.62</td>
<td>-0.13</td>
</tr>
<tr>
<td>Learning how to learn is important to me</td>
<td>2.0</td>
<td>7.0</td>
<td>24.8</td>
<td>38.6</td>
<td>27.5</td>
<td>3.83</td>
<td>0.98</td>
<td>-0.62</td>
<td>-0.02</td>
<td>3.6</td>
<td>7.9</td>
<td>29.4</td>
<td>31.0</td>
<td>28.2</td>
<td>3.72</td>
<td>1.07</td>
<td>-0.53</td>
<td>-0.28</td>
</tr>
<tr>
<td>I will never be too old to learn new things</td>
<td>2.7</td>
<td>6.4</td>
<td>20.5</td>
<td>34.6</td>
<td>35.9</td>
<td>3.95</td>
<td>1.03</td>
<td>-0.84</td>
<td>0.19</td>
<td>3.2</td>
<td>7.1</td>
<td>18.7</td>
<td>29.0</td>
<td>42.1</td>
<td>4.00</td>
<td>1.09</td>
<td>-0.93</td>
<td>0.12</td>
</tr>
<tr>
<td>Constant learning is a bore</td>
<td>11.7</td>
<td>23.5</td>
<td>20.5</td>
<td>22.1</td>
<td>22.1</td>
<td>3.19</td>
<td>1.33</td>
<td>-0.10</td>
<td>-0.21</td>
<td>5.2</td>
<td>13.1</td>
<td>25.8</td>
<td>26.6</td>
<td>29.4</td>
<td>3.62</td>
<td>1.18</td>
<td>-0.46</td>
<td>-0.71</td>
</tr>
<tr>
<td>Learning is a tool for life</td>
<td>1.3</td>
<td>4.4</td>
<td>21.8</td>
<td>35.9</td>
<td>36.6</td>
<td>4.02</td>
<td>0.94</td>
<td>-0.75</td>
<td>0.15</td>
<td>3.2</td>
<td>6.3</td>
<td>21.0</td>
<td>32.1</td>
<td>37.3</td>
<td>3.94</td>
<td>1.06</td>
<td>-0.85</td>
<td>0.15</td>
</tr>
<tr>
<td>I learn several new things on my own each year</td>
<td>1.3</td>
<td>6.4</td>
<td>23.8</td>
<td>37.6</td>
<td>30.9</td>
<td>3.90</td>
<td>0.96</td>
<td>-0.62</td>
<td>-0.11</td>
<td>1.6</td>
<td>9.1</td>
<td>22.6</td>
<td>34.9</td>
<td>31.7</td>
<td>3.86</td>
<td>1.02</td>
<td>-0.61</td>
<td>-0.34</td>
</tr>
<tr>
<td>Learning doesn't make any difference in my life</td>
<td>10.4</td>
<td>19.8</td>
<td>17.4</td>
<td>18.1</td>
<td>34.2</td>
<td>3.46</td>
<td>1.40</td>
<td>-0.33</td>
<td>-1.26</td>
<td>7.1</td>
<td>13.5</td>
<td>22.6</td>
<td>21.8</td>
<td>34.9</td>
<td>3.64</td>
<td>1.28</td>
<td>-0.52</td>
<td>-0.85</td>
</tr>
<tr>
<td>I am an effective learner in a classroom situation and on my own</td>
<td>2.0</td>
<td>6.7</td>
<td>25.2</td>
<td>43.0</td>
<td>23.2</td>
<td>3.79</td>
<td>0.94</td>
<td>-0.63</td>
<td>0.20</td>
<td>3.2</td>
<td>9.5</td>
<td>30.2</td>
<td>31.0</td>
<td>26.2</td>
<td>3.67</td>
<td>1.06</td>
<td>-0.45</td>
<td>-0.42</td>
</tr>
<tr>
<td>Learners are leaders</td>
<td>2.0</td>
<td>5.4</td>
<td>23.5</td>
<td>34.9</td>
<td>34.2</td>
<td>3.94</td>
<td>0.99</td>
<td>-0.73</td>
<td>0.09</td>
<td>2.8</td>
<td>4.4</td>
<td>25.4</td>
<td>34.1</td>
<td>33.3</td>
<td>3.91</td>
<td>1.00</td>
<td>-0.75</td>
<td>0.22</td>
</tr>
</tbody>
</table>

Note. Student N = 298; Professional N = 252. *1 = Almost never true of me; I hardly ever feel this way; 2 = Not often true of me; 3 = Sometimes true of me; I feel this way about half the time; 4 = Usually true of me; I feel this way more than half the time; 5 = Almost always true of me; there are very few times when I don't feel this way; M = Mean; SD = Standard Deviation; Skew. = Skewness; Kurt. = Kurtosis. **May not equal 100% due to rounding.
Findings for Research Questions

In this part, findings related to the following research questions are presented:

1. What are the reliability and validity indices of the modified OLRS for hospitality and tourism college students and industry professionals?

2. To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the SDLRS?

3. To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the OLRS dimensions?

4. What is the relationship between the SDLRS score and the dimensions of the OLRS:
   a. for the hospitality and tourism college students?
   b. for the hospitality and tourism industry professionals?
   c. for the combined sample from hospitality and tourism college students and industry professionals?

Findings for the research question 1. To answer the first question, *What are the reliability and validity indices of the modified OLRS for hospitality and tourism college students and industry professionals?*, Cronbach’s alpha scores and a CFA were used to evaluate the five-factor structure developed by Hung et al. (2010) for each sample (hospitality and tourism college students, hospitality and tourism industry professionals, and combined sample).

The 5% Trimmed Mean statistics was used to detect outliers, and none were found (Pallant, 2013). As Walker and Maddan (2008) suggested, it is important to check skewness and kurtosis of the item scores before starting the factor analysis.
“Skewness is a measure to what extent a distribution of values deviates from symmetry around the mean, whereas kurtosis is a measure of the peakedness or the flatness of a distribution” (Tijhuis, Brattli, & Sæther, 2002, p. 71). George and Mallery (2016) indicated a value range between +2 to -2 for skewness and kurtosis is adequate for a normal univariate distribution. However, Tabachnick and Fidell (2013) stressed the acceptable values for skewness and kurtosis should be between +1.5 and -1.5. As a result, since normal distribution is crucial for the factor analysis, the skewness and kurtosis of the variables were carefully investigated (Walker & Maddan, 2008). Both skewness and kurtosis scores were within the cutoff value of -/+1.5 for both samples as Tabachnick and Fidell (2013) stressed.

After checking normality, Cronbach’s alpha reliability indices were examined for each dimension, which are computer/Internet self-efficacy (CISE), self-directed learning (in an online context) (SDL), learner control (in an online context) (LC), motivation for learning (in an online context) (MfL), and online communication self-efficacy (OCSE) of the OLRS; the results are reported in Table 22. Also, two prior studies, which were conducted by Hung et al. (2010) and Yurdugul and Alsancak-Sarikaya (2013), were added to the table for comparisons with their Cronbach’s alphas. According to Pallant (2013), Cronbach’s coefficient alpha is the best known and most commonly used test of reliability. For both normality statistics and Cronbach’s alphas, the researcher used SPSS software version 25.0 (IBM Corporation, 2017).

When the reliability indices were compared to prior studies, the results showed the current study has slightly lower alphas. However, the recommended cutoff value of Nunnally (1978) for Cronbach’s alpha is a minimum of .70. Reliability of each
dimension was calculated separately and other than the LC, all other Cronbach’s alpha reliability indices were above the recommended threshold value by Nunnally (1978) for each sample.

Table 22
Cronbach’s Alpha Reliability of the Modified Online Learning Readiness Scale (OLRS)

<table>
<thead>
<tr>
<th>Dimension</th>
<th># of Items</th>
<th>Student Cronbach’s Alpha</th>
<th>Student Cronbach’s Alpha</th>
<th>Combined Sample Cronbach’s Alpha</th>
<th>Combined Sample Cronbach’s Alpha</th>
<th>Hung et al. (2010) Cronbach’s Alpha</th>
<th>Hung et al. (2010) Cronbach’s Alpha</th>
<th>Yurdugul &amp; Alsancak-Sarikaya (2013) Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISE</td>
<td>3</td>
<td>.77</td>
<td>.79</td>
<td>.78</td>
<td>.74</td>
<td>.92</td>
<td>.92</td>
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<td>SDL</td>
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<td>.78</td>
<td>.79</td>
<td>.78</td>
<td>.87</td>
<td>.84</td>
<td>.84</td>
<td></td>
</tr>
<tr>
<td>LC</td>
<td>3</td>
<td>.53</td>
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<td>.54</td>
<td>.73</td>
<td>.85</td>
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<td>MIL</td>
<td>4</td>
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<td>.77</td>
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<td>OCSE</td>
<td>3</td>
<td>.70</td>
<td>.75</td>
<td>.72</td>
<td>.87</td>
<td>.91</td>
<td>.91</td>
<td></td>
</tr>
<tr>
<td>Total N</td>
<td>298</td>
<td>252</td>
<td>550</td>
<td>1051</td>
<td>724</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. CISE: Computer/Internet Self-Efficacy; SDL: Self-Directed Learning (in an online context); LC: Learner Control (in an online context); MIL: Motivation for Learning (in an online context); OCSE: Online Communication Self-Efficacy.

Given adequate normality and Cronbach’s alphas, CFA was run. Maximum likelihood was used for the method of estimation in Mplus software version 8 (Muthén & Muthén, 2017). Although the researcher used the missing data treatment features in Mplus software version 8.0 (Muthén & Muthén, 2017) to get the maximum number of responses, there were no missing responses in either sample. Therefore, the researcher secured 298 responses for the hospitality and tourism college student sample, 252 responses for the hospitality and tourism industry professional sample, and 550 responses for the combined sample from hospitality and tourism college students and industry professionals for the CFAs.

As suggested by Suldo et al. (2015, p. 351), the model fit was tested by “statistical criteria (χ², standardized root mean square residual [SRMR], root mean square error of approximation [RMSEA], and comparative fit index [CFI]).” The results
of each statistical criteria are presented in Table 23. Also, two prior studies, which were conducted by Hung et al. (2010) and Yurdugul and Alsancak-Sarikaya (2013), were added to the table for comparisons with their model fit indices.

For the student sample five-factor model, the model fit was as follows: \( \chi^2(125, N = 298) = 314.74, p < .001, \text{CFI} = .90, \text{RMSEA} = .07, \text{and SRMR} = .06 \). For the professional sample five-factor model, the model fit was as follows: \( \chi^2(125, N = 252) = 284.59, p < .001, \text{CFI} = .92, \text{RMSEA} = .07, \text{and SRMR} = .05 \). Finally, for the combined sample five-factor model, the model fit was as follows: \( \chi^2(125, N = 550) = 427.17, p < .001, \text{CFI} = .92, \text{RMSEA} = .07, \text{and SRMR} = .05 \).

### Table 23
Confirmatory Factor Analysis: Tests of Model Fit From Mplus

<table>
<thead>
<tr>
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<tr>
<td>( \chi^2 )</td>
<td>314.74</td>
<td>284.59</td>
<td>427.17</td>
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<tr>
<td>( \chi^2/df )</td>
<td>2.52</td>
<td>2.28</td>
<td>3.42</td>
<td>3.61</td>
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<td>.99</td>
<td>.94</td>
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<td>RMSEA</td>
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<td>.07</td>
<td>.07</td>
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<td>.07</td>
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<tr>
<td>SRMR</td>
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<td>.05</td>
<td>.04</td>
<td>.04</td>
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<tr>
<td>Total N</td>
<td>298</td>
<td>252</td>
<td>550</td>
<td>1051</td>
<td>724</td>
</tr>
</tbody>
</table>

*Note. \( \chi^2 \) = chi square goodness of fit statistic; \( \chi^2/df \) = chi square to degree of freedom ratio, reasonable fit < 5; df = 125; CFI = comparative fit index, ≥.90 acceptable fit; RMSEA = root mean-square error of approximation, < .08 reasonable fit; SRMR = standardized root means square residual, < .08 acceptable fit, \( p < .001 \).*

The chi square test result showed a significant lack of fit. Further, \( \chi^2/df \) ratio was checked. According to MacCallum, Browne, and Sugarwara (1996), a \( \chi^2/df \) ratio value less than five may demonstrate an acceptable fit between the model and sample data. Based on the suggested evidence, all \( \chi^2/df \) ratios were below the suggested cutoff value of five, so they showed an acceptable fit. Since the \( \chi^2 \) test might be sensitive to sample size (Bollen, 1989), other "descriptive measures of fit using cutoff values for
acceptable fit of SRMR < .08, RMSEA < .06, and CFI ≥ .90” (Suldo et al., 2015, p. 351) were examined and reported along with χ2 measures. However, besides Suldo et al. (2015), different cutoff values were reported and suggested for the RMSEA values in the literature. For example, a RMSEA value, which is less than .05, is considered a close fit, whereas a RMSEA value which ranges from .05 to .08 is considered a reasonable, acceptable, or fair fit (Browne & Cudeck, 1993; MacCallum et al., 1996).

When the results are compared to prior studies (Hung et al., 2010; Yurdugul & Alsancak-Sarikaya, 2013), the χ²/df ratio showed better results, CFI was slightly less than the other two studies, RMSEA was equal to the results of the study by Yurdugul and Alsancak-Sarikaya (2013), but slightly higher than the results of the study by Hung et al. (2010), and SRMR was slightly higher than the SRMR result of the study by Hung et al. (2010). However, based on the suggested cutoff values by Suldo et al. (2015), CFI and SRMR indicated a good fit. Based on the study by Browne and Cudeck (1993) and MacCallum et al. (1996), RMSEA was considered a reasonable fit in each sample.

Standardized factor loadings are reported in Table 24. Also, two prior studies, which were conducted by Hung et al. (2010) and Yurdugul and Alsancak-Sarikaya (2013), were added to the table for comparisons with their standardized factor loadings. Standardized factor loadings ranged from .41 to .78 for the student sample, .41 to .81 for the professional sample, and .41 to .78 for the combined sample and statistically significant at p < .001.

Although Pallant (2013) has suggested .30 be the set point for factor loadings, Matsunaga (2010) reported the minimum cutoff point should be .40 or higher. The standardized factor loadings compared to the studies of Hung et al. (2010) and
Yurdugul and Alsancak-Sarikaya (2013) were low in general, but in line with the threshold values supported by the literature (Matsunaga, 2010; Pallant, 2013). See Appendix M for the modified OLRS model diagram of the CFA for student, professional, and combined samples.

Table 24

<table>
<thead>
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<td>.04</td>
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<td>.85</td>
<td>.03</td>
<td>.86</td>
<td>.03</td>
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<td>.68</td>
<td>.04</td>
<td>.63</td>
<td>.03</td>
<td>.81</td>
<td>.03</td>
<td>.89</td>
<td>.03</td>
</tr>
</tbody>
</table>

Total N: 298 252 550 1051 724

Note. SE: Standard Error. CISE: Computer/Internet Self-Efficacy; SDL: Self-Directed Learning (in an online context); LC: Learner Control (in an online context); MfL: Motivation for Learning (in an online context); OCSE: Online Communication Self-Efficacy. p < .001.

As a final step, interfactor correlation coefficients among the dimensions were examined; the results are presented in Table 25. Also, two prior studies, which were conducted by Hung et al. (2010) and Yurdugul and Alsancak-Sarikaya (2013), were added to the table for comparisons with their correlation coefficients. The correlations among the five factors were statistically significant (p < .001) for all three samples which included student, professional, and combined. The correlations among the dimensions
of the modified OLRS ranged from moderate to very high correlation (Mukaka, 2012). The largest correlation was between LC and SDL ($r = .99$ for students, $r = .98$ for professionals, and $r = .98$ for combined sample), whereas the lowest correlation was between LC and CISE ($r = .63$ for students, $r = .66$ for professionals, and $r = .65$ for combined sample) for all three samples. These results were supported by the study of Hung et al. (2010). Compared to two prior studies, there were higher correlations among the dimensions. These correlations might be due to cultural differences, encouragement of the self-directed learning in the higher education, and popularity of the online learning in the U.S.

Table 25
*Interfactor Correlation Coefficients Among Dimensions*

<table>
<thead>
<tr>
<th>Dimension</th>
<th>CISE</th>
<th>SDL</th>
<th>LC</th>
<th>MfL</th>
<th>OCSE</th>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
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<td>SDL</td>
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<td>1</td>
<td>.63ₐ/.66ₐ/.65₇/</td>
<td>1</td>
<td>1</td>
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<tr>
<td></td>
<td>.09₈/.22₉</td>
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<td>.99ₐ/.98₉/.98₉₉/</td>
<td></td>
<td>1</td>
</tr>
<tr>
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<tr>
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<td>.66ₐ/.41₉</td>
<td></td>
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<td>1</td>
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<tr>
<td>MfL</td>
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<td>.79ₐ/.78ₗ₉/.78ₗ₉/</td>
<td>.90ₐ/.86ₗ₇/.87ₗ₉/</td>
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<td>1</td>
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<tr>
<td></td>
<td>.27ₗ₉/.29ₗ₇</td>
<td>.57ₗ₉/.72ₗ₇</td>
<td>.51ₗ₉/.38ₗ₉</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>OCSE</td>
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<td>.71ₗ₉/.82ₗ₉/.76ₗ₉/</td>
<td>.84ₗ₉/.86ₗ₉/.85ₗ₉/</td>
<td>.88ₗ₉/.94ₗ₉/.91ₗ₉/</td>
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<tr>
<td></td>
<td>.15ₗ₉/.70ₗ₉</td>
<td>.46ₗ₉/.25ₗ₉</td>
<td>.41ₗ₉/.10ₗ₉</td>
<td>.62ₗ₉/.48ₗ₉</td>
<td>1</td>
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</table>

*Note.* CISE: Computer/Internet Self-Efficacy; SDL: Self-Directed Learning (in an online context); LC: Learner Control (in an online context); MfL: Motivation for Learning (in an online context); OCSE: Online Communication Self-Efficacy.

Findings for the research question 2. To answer research question two, To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the SDLRS?, descriptive statistics (means, medians, standard deviations, variances, skewness, kurtosis, percentages, and range)
were used to determine the level of the self-directed learning readiness between hospitality and tourism college students and industry professionals. Following the descriptive statistics, independent samples t tests were used to determine if there was a significant difference between the level of the self-directed learning readiness of hospitality and tourism college students and industry professionals. As a final step, effect size was used to quantify the size of the difference (if any) between the two groups: the hospitality and tourism college students and hospitality and tourism industry professionals.

The SDLRS scoring was provided by the SDLRS developer, Guglielmino, as part of the copyright agreement. After completing the data collection, an Excel sheet including the SDLRS raw data with a unique ID were extracted from Qualtrics and sent to Guglielmino to calculate the SDLRS scores for each respondent using the SDLRS scoring system. The SDLRS is a self-report questionnaire with 58 items (41 positively and 17 negatively phrased items). She returned each respondents' SDLRS score with the unique ID associated with each respondent. Then, the scores for the SDLRS were entered manually into the SPSS software (version 25) for the further statistical analyses.

Table 26 presents descriptive statistics for the SDLRS scores. West and Bentley (1990) suggested a single interpretable readiness score for the SDLRS. The total SDLRS score ranged from 140 to 286 for the student respondents, 127 to 286 for the professional respondents, and 127 to 286 for the combined sample. The mean score was 204.98 (SD = 28.42) for the student respondents, 211.64 (SD = 33.33) for the professional respondents, and 208.03 (SD = 30.92) for the combined sample. The mean scores were slightly less, and standard deviations were higher than the average
score for all adults \( M = 214; \ SD = 25.59 \) completing the SDLRS-A questionnaire (Guglielmino & Guglielmino, 2018).

Table 26
Descriptive Statistics for the Self-Directed Learning Readiness Scale (SDLRS) Scores

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Student</th>
<th>Professional</th>
<th>Combined Sample</th>
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<tr>
<td>Mean</td>
<td>204.98</td>
<td>211.64</td>
<td>208.03</td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>1.65</td>
<td>2.10</td>
<td>1.32</td>
</tr>
<tr>
<td>Median</td>
<td>200</td>
<td>205</td>
<td>201</td>
</tr>
<tr>
<td>Mode*</td>
<td>181</td>
<td>182</td>
<td>178</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>28.42</td>
<td>33.33</td>
<td>30.92</td>
</tr>
<tr>
<td>Variance</td>
<td>807.71</td>
<td>1110.82</td>
<td>955.86</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.65</td>
<td>0.29</td>
<td>0.49</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>0.14</td>
<td>0.15</td>
<td>0.10</td>
</tr>
<tr>
<td>Kurtosis</td>
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<td>-0.42</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
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<td>Minimum</td>
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<td>127</td>
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<tr>
<td>Maximum</td>
<td>286</td>
<td>286</td>
<td>286</td>
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</table>

*Note. Student \( N = 298 \); Professional \( N = 252 \); Combined Sample \( N = 550 \).
*Multiple modes exist. The smallest value is shown.

The SDLRS scores range from 58 to 290 and are categorized as low (58-176), below average (177-201), average (202-226), above average (227-251), and high (252-290) scores (Guglielmino & Guglielmino, 2018). The categories of the SDLRS scores were calculated; the results are presented in Figure 2.

Based on Figure 2, almost equal percentages of the student respondents (13.8%) and the professional respondents (13.1%) fell into the low score category ranging from 58 to 176. More student respondents fell into below average and average categories than the professionals whereas more professional respondents fell into above average and high categories than the student respondents.
Following the descriptive statistics, Cronbach’s alphas of the SDLRS were examined over the three samples (student, professional, and combined sample) for the reliability of the scale. Cronbach’s alpha reliability indices were .94, .96, and 95 for student, professional, and combined samples respectively insuring a high reliability. Cronbach’s alphas were higher than the range (.72 to .92) Guglielmino and Hillard (2007) reported in a 20-year span.

Later, an independent samples t test was conducted to compare the SDLRS scores for students and professionals. Based on the Levene’s test ($F = 14.40, p = .01$), the data violated the assumption of equal variance and the degrees of freedom were adjusted from 548 to 496 (Pallant, 2013). Therefore, for this test, it was assumed the variances were not equal. There was a significant difference in the SDLRS scores for the student respondents ($M = 204.98, SD = 28.42$) and the professional respondents ($M = 211.64, SD = 33.33$) $t(496) = -2.50, p = .01$.

As a further analysis, an effect size for independent samples t test was
calculated. Based on the Cohen’s effect size value \((d = 0.22)\), there was a small effect (Lipsey & Wilson, 2001). In other words, the SDLRS score of the average professional was 0.2 standard deviations above the average student, and hence exceeded the SDLRS scores of 58% of the student group. These results indicated professional respondents were more self-directed than the student respondents.

**Findings for the research question 3.** To answer research question three, *To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the OLRS dimensions?*, the same statistical procedures used for the second research question were followed for the third research question.

Descriptive statistics for dimensions of the OLRS for each sample are presented in Table 27.

Table 27  
*Descriptive Statistics for the Online Learning Readiness Scale (OLRS) by Dimensions*

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Student Mean</th>
<th>Student Std. Error</th>
<th>Student Median</th>
<th>Student Mode*</th>
<th>Professional Mean</th>
<th>Professional Std. Error</th>
<th>Professional Median</th>
<th>Professional Mode*</th>
<th>Combined Sample Mean</th>
<th>Combined Sample Std. Error</th>
<th>Combined Sample Median</th>
<th>Combined Sample Mode*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CISE</td>
<td>SDL</td>
<td>MfL</td>
<td>OCSE</td>
<td>CISE</td>
<td>SDL</td>
<td>MfL</td>
<td>OCSE</td>
<td>CISE</td>
<td>SDL</td>
<td>MfL</td>
<td>OCSE</td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Median</td>
<td>4.33</td>
<td>3.80</td>
<td>3.67</td>
<td>4.00</td>
<td>4.00</td>
<td>4.33</td>
<td>3.80</td>
<td>3.67</td>
<td>4.00</td>
<td>4.00</td>
<td>4.33</td>
<td>3.80</td>
</tr>
<tr>
<td>Mode*</td>
<td>5.00</td>
<td>4.00</td>
<td>3.33</td>
<td>4.00</td>
<td>4.00</td>
<td>5.00</td>
<td>3.80</td>
<td>4.00</td>
<td>5.00</td>
<td>4.00</td>
<td>5.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>0.77</td>
<td>0.73</td>
<td>0.71</td>
<td>0.68</td>
<td>0.77</td>
<td>0.80</td>
<td>0.73</td>
<td>0.74</td>
<td>0.82</td>
<td>0.81</td>
<td>0.79</td>
<td>0.73</td>
</tr>
<tr>
<td>Variance</td>
<td>0.60</td>
<td>0.54</td>
<td>0.50</td>
<td>0.46</td>
<td>0.59</td>
<td>0.65</td>
<td>0.53</td>
<td>0.54</td>
<td>0.67</td>
<td>0.65</td>
<td>0.62</td>
<td>0.54</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.69</td>
<td>-0.30</td>
<td>-0.29</td>
<td>-0.08</td>
<td>-0.59</td>
<td>-0.76</td>
<td>-0.25</td>
<td>-0.43</td>
<td>-0.46</td>
<td>-0.72</td>
<td>-0.28</td>
<td>-0.18</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>0.14</td>
<td>0.14</td>
<td>0.14</td>
<td>0.14</td>
<td>0.14</td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
<td>0.15</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-0.06</td>
<td>-0.47</td>
<td>-0.28</td>
<td>-0.54</td>
<td>0.60</td>
<td>0.07</td>
<td>0.03</td>
<td>0.04</td>
<td>-0.37</td>
<td>-0.09</td>
<td>-0.01</td>
<td>-0.24</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>0.28</td>
<td>0.28</td>
<td>0.28</td>
<td>0.28</td>
<td>0.28</td>
<td>0.31</td>
<td>0.31</td>
<td>0.31</td>
<td>0.31</td>
<td>0.21</td>
<td>0.21</td>
<td>0.21</td>
</tr>
<tr>
<td>Range</td>
<td>3.33</td>
<td>3.40</td>
<td>4.00</td>
<td>3.00</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Minimum</td>
<td>1.67</td>
<td>1.60</td>
<td>1.00</td>
<td>2.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>

*Note. Student N = 298; Professional N = 252; Combined Sample N = 550. CISE: Computer/Internet Self-Efficacy; SDL: Self-Directed Learning (in an online context); LC: Learner Control (in an online context); MfL: Motivation for Learning (in an online context); OCSE: Online Communication Self-Efficacy. *Multiple modes exist. The smallest value is shown.*
Means for dimensions of the OLRS ranged from 3.58 to 4.12, 3.59 to 4.16, and 3.59 to 4.14 for students, professionals, and combined sample, respectively.

An independent samples t test was conducted to compare the mean differences of dimensions of the OLRS for students and professionals. There was no significant difference in the mean scores of any of the dimensions (CISE, SDL, LC, MfL, and OCSE) of the OLRS for the student respondents and the professional respondents.

As a last step, the mean scores of the dimensions of the OLRS were compared among the three samples and the results of the two prior studies in a bar chart. The results are presented in Figure 3. While the mean scores of CISE were the highest, the mean scores of LC were the lowest for both students and professionals.

![Figure 3](image-url)

**Figure 3.** Comparison of means of the Online Learning Readiness Scale (OLRS) dimensions for hospitality and tourism college students, industry professionals, combined sample, Hung et al. (2010), and Yurdugul and Alsancak-Sarikaya (2013).  
**Notes.** CISE: Computer/Internet Self-Efficacy; SDL: Self-Directed Learning (in an online context); LC: Learner Control (in an online context); MfL: Motivation for Learning (in an online context); OCSE: Online Communication Self-Efficacy.
When the mean scores of the dimensions of the OLRS in the current study were compared to mean scores of the other studies, there were slight differences. For example, the mean scores of CISE in the study of Hung et al. (2010) were greater than any other studies, while the mean score of LC in the study of Yurdugul and Alsancak-Sarikaya (2013) was lower than any of the other studies.

**Findings for the research question 4.** To be able to examine the relationship between the SDLRS score and the dimensions of the OLRS, which was research question four, *What is the relationship between the SDLRS score and the dimensions of the OLRS: (a) for the hospitality and tourism college students?; (b) for the hospitality and tourism industry professionals?; (c) for the combined sample from hospitality and tourism college students and industry professionals?*, CFA was used for both the hospitality and tourism college student and hospitality and tourism industry professional groups and as well as for the combined sample.

For the CFA, maximum likelihood was used for the method of estimation in Mplus software version 8 (Muthén & Muthén, 2017). There were no missing data as previously mentioned. Therefore, the researcher used 298 responses from the hospitality and tourism college students, 252 responses from the hospitality and tourism industry professionals, and 550 responses from the combined sample for the CFA analysis.

CFA model fit indices, which were $\chi^2$, $\chi^2$/df, SRMR, RMSEA, and CFI, were tested and the results are reported in Table 28. The chi-square, CFI, and SRMR (only for students) indicated a statistically significant lack of fit for each CFA model: student: $\chi^2(2759, N = 298) = 6361.11, p < .001, \text{CFI} = .63, \text{SRMR} = .09$; professional: $\chi^2(2759,$
\(N = 252\) = 5702.87, \(p < .001\), CFI = .71; and combined sample: \(\chi^2(2759, \ N = 550) = 7985.55, \ p < .001, \ CFI = .71\). However, alternative measures of fit for each model indicated an acceptable or good fit: student: \(\chi^2/df = 2.31; \ RMSEA = .06\); professional: \(\chi^2/df = 2.07; \ RMSEA: .06, \ SRMR = .07\); combined sample: \(\chi^2/df = 2.89; \ RMSEA: .06, \ SRMR = .08\).

Although the overall model suggested a fair fit, model modification indices were checked. As suggested by Brown (2003), reverse-worded items were checked to investigate whether they were a source of model misfit. The top five largest modification index items indicated negatively phrased items were a source of misfit. Since the SDLRS and the OLRS were independent models and the overall model suggested a fair fit, further analyses were not conducted.

Table 28
Confirmatory Factor Analysis for the Self-Directed Learning Readiness Scale (SDLRS) Score and the Dimensions of the Online Learning Readiness Scale (OLRS): Tests of Model Fit From Mplus

<table>
<thead>
<tr>
<th>Measure</th>
<th>Student</th>
<th>Professional</th>
<th>Combined Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\chi^2)</td>
<td>6362.11</td>
<td>5702.87</td>
<td>7985.55</td>
</tr>
<tr>
<td>(\chi^2/df)</td>
<td>2.31</td>
<td>2.07</td>
<td>2.89</td>
</tr>
<tr>
<td>CFI</td>
<td>.63</td>
<td>.71</td>
<td>.71</td>
</tr>
<tr>
<td>RMSEA</td>
<td>.06</td>
<td>.06</td>
<td>.06</td>
</tr>
<tr>
<td>SRMR</td>
<td>.09</td>
<td>.07</td>
<td>.08</td>
</tr>
<tr>
<td>Total (N)</td>
<td>298</td>
<td>252</td>
<td>550</td>
</tr>
</tbody>
</table>

Note. \(\chi^2 = \) chi square goodness of fit statistic; 
\(\chi^2/df = \) chi square to degree of freedom ratio, reasonable fit < 5; \(df = 2759\); 
\(CFI = \) comparative fit index, \(\geq .90\) acceptable fit; 
\(RMSEA = \) root mean-square error of approximation, < .06 acceptable fit; 
\(SRMR = \) standardized root means square residual, < .08 acceptable fit. \(p < .001\).
Correlation coefficients between the SDLRS score and dimensions of the OLRS are presented in Table 29. The correlations among the SDLRS score and five dimensions of the OLRS were all statistically significant ($p < .001$) and positive for all three samples, which were student, professional, and combined. There was a moderate correlation (.50 to .70) between the SDLRS score and SDL and the SDLRS score and CISE for both student and combined samples (Mukaka, 2012).

According to Mukaka (2012), there were a very high correlation and the largest correlation between the SDLRS score and MfL ($r = .91$ for students, $r = .90$ for professionals, and $r = .91$ for the combined sample). The lowest correlation was between the SDLRS score and SDL ($r = .63$) for students, the SDLRS score and CISE ($r = .71$) for professionals, and the SDLRS score and SDL ($r = .68$) for the combined sample.

Table 29

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Student</th>
<th>SDLRS</th>
<th>Professional</th>
<th>Combined Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$r$</td>
<td>$SE$</td>
<td>$r$</td>
<td>$SE$</td>
</tr>
<tr>
<td>CISE</td>
<td>.65</td>
<td>.04</td>
<td>.71</td>
<td>.04</td>
</tr>
<tr>
<td>SDL</td>
<td>.63</td>
<td>.05</td>
<td>.73</td>
<td>.04</td>
</tr>
<tr>
<td>LC</td>
<td>.74</td>
<td>.05</td>
<td>.88</td>
<td>.05</td>
</tr>
<tr>
<td>MfL</td>
<td>.91</td>
<td>.03</td>
<td>.90</td>
<td>.02</td>
</tr>
<tr>
<td>OCSE</td>
<td>.78</td>
<td>.04</td>
<td>.81</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. Student $N = 298$; Professional $N = 252$; Combined Sample $N = 550$. CISE: Computer/Internet Self-Efficacy; SDL: Self-Directed Learning (in an online context); LC: Learner Control (in an online context); MfL: Motivation for Learning (in an online context); OCSE: Online Communication Self-Efficacy. $p < .001$. 

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Summary of the Chapter

This chapter presented the research findings of this study. After providing findings about the characteristics of the respondents, self-directed and online learning behaviors of the respondents were described. Lastly, findings for the four research questions were discussed. A total of 550 usable responses (298 from hospitality and tourism college students and 252 from hospitality and tourism industry professionals) were collected. Reliability and validity indices of the modified OLRS were examined. There was a significant difference in the SDLRS scores for the hospitality and tourism college student and industry professional respondents. The average scores on the SDLRS for both the hospitality and tourism college student and industry professional respondents were slightly less than the average score for all adults completing the SDLRS questionnaire. There was no significant mean difference in the dimensions of the OLRS for the hospitality and tourism college student and industry professional respondents. There was a significant and positive correlation between the SDLRS score and the dimensions of the OLRS.
Chapter 5
Summary, Conclusions, Implications, and Recommendations

The purpose of this study was to compare self-directed learning readiness and online learning readiness between hospitality and tourism college students and industry professionals. The Self-Directed Learning Readiness Scale (SDLRS) was used for measuring self-directed learning readiness. After examining the reliability and validity indices of the Online Learning Readiness Scale (OLRS), it was used in the context of hospitality and tourism for the measurement of online learning and training readiness.

This chapter includes a summary of the study, conclusions, implications, and recommendations for further research.

Summary of the Study

This study investigated online and self-directed learning and training readiness between hospitality and tourism college students and industry professionals. This study used a quantitative survey-based design. Two different study populations, hospitality and tourism college students and hospitality and tourism industry professionals, were identified for the purpose of this study. The inclusion criteria included being a hospitality and tourism college student in Florida for the college student population and working in the hospitality and tourism industry in Florida for the industry professional population. Based on the pilot study, the demographic and descriptive questions were revised to obtain input from the participants of this research study. The pilot study was conducted to test which of two self-directed learning readiness instruments, the SDLRS or the Oddi Continuing Learning Inventory (OCLI), better fit the study purpose and to collect
reliability and validity evidence of the modified OLRS. Based on the pilot study results, the SDLRS, the modified OLRS, and demographic and descriptive questions were used to collect data.

Data were obtained via online anonymous links, which included the demographic and descriptive questions and the two instruments (the SDLRS and the OLRS) through Qualtrics. A professor, who worked in College of Hospitality and Tourism Leadership (CHTL) at University of South Florida Sarasota-Manatee (USFSM) and who was the Director of the M3 Center for Hospitality Technology and Innovation, agreed to distribute recruitment information for both sample groups through emails. The email contained the anonymous Qualtrics survey link and a short explanation to the hospitality and tourism college students and hospitality and tourism industry professionals. This email was sent to hospitality and tourism college students at the selected universities and the professionals in the hospitality and tourism industry in Florida.

A total of 550 usable responses (298 from hospitality and tourism college students and 252 from hospitality and tourism industry professionals) were collected and used for statistical analysis. The following research questions were investigated in this study: (1) What are the reliability and validity indices of the modified OLRS for hospitality and tourism college students and industry professionals?; (2) To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the SDLRS?; (3) To what extent, if any, do hospitality and tourism college students and industry professionals differ on the mean scores of the OLRS dimensions?; and (4) What is the relationship between the SDLRS score and the dimensions of the OLRS: (a) for the hospitality and tourism college students?; (b) for the
hospitality and tourism industry professionals?; (c) for the combined sample from hospitality and tourism college students and industry professionals?

Reliability and validity indices of the modified OLRS were examined using Cronbach’s alpha scores and confirmatory factor analysis (CFA). Based on the results, the modified OLRS was established as a valid and reliable instrument. The mean score differences on the SDLRS score and the dimensions of the OLRS between the hospitality and tourism college students and industry professionals were investigated using independent samples t tests. Although there was a significant difference in the SDLRS scores, there were no significant differences in the mean scores of the dimensions of the OLRS between the hospitality and tourism college students and industry professionals. Finally, the relationship between the SDLRS and dimensions of the OLRS among hospitality and tourism college students and industry professionals were tested by using CFA and reported a significant and positive correlation among these variables.

**Conclusions**

Based on the results of this study, the conclusions are discussed below.

The modified OLRS is a valid and reliable instrument to test online learning readiness for hospitality and tourism college students and industry professionals. This conclusion concurs with the initial development and validation study of Hung et al. (2010) and the translated version of the OLRS (Yurdugul & Alsancak-Sarikaya, 2013). Therefore, this study filled the gap in the literature by providing a valid and reliable instrument for measuring online learning readiness of the not only hospitality and tourism college students but also hospitality and tourism industry professionals.
The hospitality and tourism industry professionals were more self-directed than hospitality and tourism college students. In addition, more college student respondents fell into below average and average categories than the industry professionals; whereas more industry professional respondents fell into above average and high categories than the college student respondents.

Online learning readiness behaviors of the hospitality and tourism college students and industry professionals were similar to each other. This might be due to the increasing popularity of online learning among students (Seaman et al., 2018) and online training for the global job market (Global Industry Analysts, 2016; McCue, 2014).

The correlation between the SDLRS score and dimensions of the OLRS for hospitality and tourism college students and hospitality and tourism industry professionals were positive and ranged from moderate to very high correlation. In other words, higher readiness in self-directed learning indicates higher readiness in online learning. The correlation between the SDLRS score and the dimensions of the OLRS for the industry professionals were stronger than for the college students. Although there was a consensus among most of the researchers that self-directed learning plays a significant role in online learning readiness (Demir-Kaymak & Horzum, 2013; Hsu & Shiue, 2005; Rashid & Asghar, 2016; Schuemer 1993), this assumption was made based on the self-directedness of the students (Carpenter, 2011). However, the relationship between self-directed learning readiness and online learning readiness was not statistically tested in prior studies. This assumption was statistically proven in this current research.
Between both sample groups (hospitality and tourism college students and hospitality and tourism industry professionals), online learning opportunities were spread across all school levels including high school; therefore, these findings were not surprising. These results were much higher than the results of Seaman et al. (2018).

Academic environment and family environment were identified as the most challenging barriers for online learning as measured by the modified OLRS. This finding is also similar to the findings of Ramli et al. (2018).

The majority of the hospitality and tourism college student respondents had work experience in the hospitality and tourism industry, which indicated additional support for the integration of the hospitality and tourism industry into hospitality and tourism education. Also, this finding was supported by Altinay et al.'s (2016) review of previous studies.

Lastly, this study found a gap between the questions related to the importance of workplace learning and the reported perceptions of workplace learning satisfaction.

**Implications**

This study contributes to the knowledge of self-directed learning readiness and online learning readiness among hospitality and tourism college students and industry professionals. Therefore, the implications for educational and research practices for students and industrial practices for professionals are addressed below.

Understanding their own self-directed learning readiness and online learning readiness preferences may help students to improve their learning skills. Based on the online learning readiness and self-directed learning readiness scores, students may pick the appropriate learning methods, such as face-to-face, online, or hybrid to get the
most out of their learning. Knowing industry professionals are more self-directed learners may encourage college students to improve their self-directed learning skills.

Understanding the self-directed learning readiness and online learning readiness preferences of students may help instructors develop additional teaching strategies, which could match students’ learning preferences as well as industry needs. It may also improve student learning performance. Therefore, this study may help hospitality and tourism college instructors to review their course syllabi and add practices which could help students improve their self-directed learning skills. Moreover, instructors may use the modified OLRS to screen for online learning readiness, before starting an online course. This might help to determine the strength and weak areas of their students’ skills for online learning.

Since there was a gap between self-directed learning readiness of hospitality and tourism college students and industry professionals, hospitality and tourism college administrators may revise the overall curriculum to adopt more self-directed learning practices to close this gap and prepare students more in line with industry requirements for their future hospitality and tourism careers.

Understanding their own self-directed learning/training readiness and online learning/training readiness preferences may help professionals obtain additional job training. This type of anyone, anywhere, anytime, and any device learning environment or model (Qui, 2018) may motivate professionals to obtain life-long job training.

Based on the online and self-directed learning or training readiness, professionals may be given the appropriate training methods, such as face-to-face, online, or hybrid by their companies or trainers. Based on company needs, self-directed
online training materials or modules may be prepared for the industry professionals and they may take these online materials/modules as needed for their job training at their convenience. Trainers may track professionals’ activities, such as the number of modules completed or their test scores through online training platforms and may provide support as needed.

In addition, understanding learning/training preferences within hospitality and tourism college students and industry professionals may help human resource directors of hospitality and tourism organizations develop training strategies, which could match the professionals’ learning/training types. This strategy may help the hospitality and tourism industry to lower training costs, which is one of the major expenses in this industry (Cole-Gomolski, 1999; Collins & Cobanoglu, 2008; Guglielmino & Murdick, 1997; Lema & Agrusa, 2009; Merriam, 1993).

While employers may decrease training costs by providing online training, they may also encourage their professionals for more life-long job training. They can monitor training performance of their professionals on their online training platform. They may also promote or raise the salary of hospitality and tourism industry professionals based on their success and the number of required training modules completed for the available position.

This study found the majority of hospitality and tourism college students and industry professionals took multiple online courses. This indicated the wide spread adoption of online courses. The fact individuals adopt this new type of learning is promising for online learning. In addition, the finding of similarities for the mean scores of online learning readiness among hospitality and tourism college students and
industry professionals also support this point. The findings of this study may be beneficial to instructors and human resource directors to focus on the online mode of the instruction or training methods in hospitality and tourism higher education and industrial learning.

The academic environment is one of the most challenging barriers for online learning. This finding may be useful for universities and companies, which may want to encourage the use of self-directed and online learning/training. Some individuals may not choose self-directed or online learning/training methods by choice. However, readiness for self-directed learning and online learning can be improved (Guglielmino & Guglielmino, 2018). Implementing some policies (i.e., each student must take one online course per semester or each professional must take one online training per year) may be useful to improve readiness for self-directed learning and online learning.

**Recommendations for Further Research**

This study can stimulate more research on the impact of self-directed learning readiness and online learning readiness in the educational and industrial practices of hospitality and tourism. Based on the results of this study, recommendations for future studies follow:

1. Based on the panel of experts' suggestions, the OLRS was modified. Since the modified OLRS version was validated, the modified OLRS version is suggested for future studies. Also, the modified OLRS can be used in the context of measuring the online learning/training readiness for hospitality and tourism industry professionals.
2. This study found that using the validity check question within the survey controls for respondents who may not take the time or effort to read the survey carefully and who pick responses randomly. In the current generation of smartphones and social media applications, the attention span of people tends to be lower. This may cause the respondents not to read each question carefully. By planting the validity check question, bad responses can be minimized. Therefore, in future studies, it is suggested researchers should utilize a validity check question in their survey to ensure respondents read the survey questions carefully. Researchers may exclude the surveys of those who did not correctly respond to the validity question.

3. Besides the validity check question, researchers may want to screen the online learning readiness of the sample before conducting studies related to online learning. The level of online learning readiness may impact many factors such as satisfaction, engagement, and academic success in the online learning or training environment. Therefore, researchers are suggested to use the modified OLRS to conduct correlational studies related to the factors mentioned above.

4. The benefits of online learning are obvious through research, especially if the population is ready for it. The researchers may need to focus more on the future of online learning, which could include 100% self-directed learning supported by online learning. It may be possible for teaching and training to be conducted 100% with computers and the Internet. This may
change the ways employers provide training to their employees or professionals. Similarly, teachers provide instruction to their students for their future careers in hospitality and tourism industry. Online learning will change as methods improve.

5. There is a gap between the importance of the workplace learning and perceived workplace learning satisfaction. To be able to motivate professionals for workplace training, this gap should be investigated, and workplace learning satisfaction could be improved.

6. In terms of the college student population, this study focused on only hospitality and tourism college students enrolled in a program in Florida. Future research for hospitality and tourism students may concentrate on:
   a. students enrolled in a hospitality and tourism college programs in other states;
   b. students enrolled in a hospitality and tourism college program in other countries;
   c. students enrolled in other types of hospitality and tourism programs such as technical schools, or community colleges; and
   d. students enrolled in master’s or doctoral programs in the field of hospitality and tourism.

7. In terms of the industry professional population, this study focused on only hospitality and tourism industry professionals who worked in Florida. Future research for hospitality and tourism professionals may concentrate on:
a. professionals working in other states;

b. professionals working in other countries;

c. professionals working in different level of job position in the hospitality and tourism; and

d. professionals who have a different level of education, such as a bachelor’s, master’s, or doctoral degree.

8. A cross-cultural study could be conducted to determine if cultural differences exist with self-directed and online learning readiness.

9. This study may be replicated with the different sub-categories of hospitality and tourism businesses, which include the entire scope of the hospitality and tourism industry: travel (air, cruise ships, rail, coach, automobile, ecotourism), lodging (hotels, motels, resorts), assembly and event management (meetings, conventions, expositions), restaurants and managed services, and recreation (attractions, gaming parks). Future research could also compare the broader categories (i.e., travel, lodging, etc.) or the sub-categories.

10. This study may be replicated in different populations where education and industry are integrated with each other, such as with nursing students and nurses.

11. Online learning readiness could be compared across the SDLRS score categories which are low, below average, average, above average, and high scores.
12. Online and self-directed learning readiness of students, who enrolled only in online courses and those only in traditional in-seat classes, could be compared.

13. Online and self-directed learning readiness of professionals who had some experiences in online training before and those who never had online training could be compared.

14. In-depth interviews or focus groups could be conducted to determine if the participants' responses are similar to the instruments used in this study.

15. Both the OLRS and the SDLRS were translated into Turkish so this study could be replicated with Turkish versions of these instruments.

16. Both instruments could be translated into other languages so data may be collected using the versions translated into the same languages so results could be compared to those found in this study.

17. There are some companies who highly support life-long learning for their employees or professionals. Therefore, industry professionals who work for such companies and those working in other companies who do not support life-long learning for their employees or professionals could be compared.
References


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National Center for Education Statistics. (n.d.). *College navigator*. Retrieved from https://nces.ed.gov/collegenavigator/?s=FL&p=52.0901+52.0999+52.1910+52.0903+52.1905+52.1906+03.0207+52.0909+52.0904&l=93&ic=1&pg=1


Appendices
Appendix A: Self-Directed Learning Readiness Scale (SDLRS)

Learning Preference Assessment
Copyright © Lucy M. Guglielmino, 2008

Instructions:
Ideally, you should complete the LPA at one sitting. It should take no more than 15 or 20 minutes. If you leave the site before completing the assessment, you will need to begin again. The LPA asks questions about your learning preferences and attitudes towards learning. There are no right or wrong answers. After reading each item, please click on the number of the response that best describes your feelings, beliefs, skills, or actions. There is no time limit for the questionnaire. Try not to spend too much time on any one item. Your first reaction to the question will usually be the most accurate.

Key to responses:
1 = Almost never true of me; I hardly ever feel this way.
2 = Not often true of me; I feel this way less than half the time.
3 = Sometimes true of me; I feel this way about half the time.
4 = Usually true of me; I feel this way more than half the time.
5 = Almost always true of me; there are very few times when I don't feel this way.

1. I'm looking forward to learning as long as I'm living.
2. I know what I want to learn.
3. When I see something that I don't understand, I stay away from it.
4. If there is something I want to learn, I can figure out a way to learn it.
5. I love to learn.
6. It takes me a while to get started on new projects.
7. In a classroom situation, I expect the instructor to tell all class members exactly what to do at all times.
8. I believe that thinking about who you are, where you are, and where you are going should be a major part of every person's education.
9. I don't work very well on my own.
10. If I discover a need for information that I don't have, I know where to go to get it.
11. I can learn things on my own better than most people.
12. Even if I have a great idea, I can't seem to develop a plan for making it work.
13. In a learning experience, I prefer to take part in deciding what will be learned and how.
14. Difficult study doesn't bother me if I'm interested in something.
15. No one but me is truly responsible for what I learn.
16. I can tell whether I'm learning something well or not.
17. There are so many things I want to learn that I wish there were more hours in a day.
18. If there is something I have decided to learn, I can find time for it, no matter how busy I am.
19. Understanding what I read is a problem for me.
20. If I don't learn, it's not my fault.
21. I know when I need to learn more about something.
Appendix A continued

22. If I can understand something well enough to get by, it doesn't bother me if I still have questions about it.
23. I think libraries are boring places.
24. The people I admire most are always learning new things.
25. I can think of many different ways to learn about a new topic.
26. I try to relate what I am learning to my long-term goals.
27. I am capable of learning for myself almost anything I might need to know.
28. I really enjoy tracking down the answer to a question.
29. I don't like dealing with questions where there is not one right answer.
30. I have a lot of curiosity about things.
31. I'll be glad when I'm finished learning.
   [Please mark the “Strongly disagree” option for this item.]
32. I'm not as interested in learning as some other people seem to be.
33. I don't have any problems with basic study skills.
34. I like to try new things, even if I'm not sure how they will turn out.
35. I don't like it when people who really know what they're doing point out mistakes that I am making.
36. I'm good at thinking of unusual ways to do things.
37. I like to think about the future.
38. I'm better than most people are at trying to find out the things I need to know.
39. I think of problems as challenges, not stop-signs.
40. I can make myself do what I think I should.
41. I'm happy with the way I investigate problems.
42. I become a leader in group learning situations.
43. I enjoy discussing ideas.
44. I don't like challenging learning situations.
45. I have a strong desire to learn new things.
46. The more I learn, the more exciting the world becomes.
47. Learning is fun.
48. It's better to stick with the learning methods that we know will work instead of always trying new ones.
49. I want to learn more so that I can keep growing as a person.
50. I am responsible for my learning - no one else is.
51. Learning how to learn is important to me.
52. I will never be too old to learn new things.
53. Constant learning is a bore.
54. Learning is a tool for life.
55. I learn several new things on my own each year.
56. Learning doesn't make any difference in my life.
57. I am an effective learner in a classroom situation and on my own.
58. Learners are leaders.

*This item was added as a validity check item and is not part of the 58-item SDLRS*
Appendix B: Modified Online Learning Readiness Scale (OLRS)

Instructions:
This instrument asks questions about your online learning preferences and attitudes towards online learning. There are no right or wrong answers. After reading each item, please click on the number of the response that best describes your feelings, beliefs, skills, or actions. There is no time limit for the questionnaire. Try not to spend too much time on any one item. Your first reaction to the question will usually be the most accurate.

Key to responses:
1 = Strongly disagree
2 = Disagree
3 = Neither agree nor disagree
4 = Agree
5 = Strongly agree

1. I am confident in performing the basic functions of Office programs (e.g., Word, Excel, and PowerPoint).
2. I am confident in my knowledge and skills of how to use software (e.g., company websites, YouTube, any other learning management software) for online learning.
3. I am confident in using the Internet (e.g., Google, Yahoo) to find or gather information for online learning.
4. I carry out my own study/work plan.
5. I seek assistance when facing learning problems when learning online.
6. I manage time well.
7. I set my learning goals.
8. I have high expectations for my learning performance.
   *Please mark the “Strongly disagree” option for this item.*
9. I can direct my own learning progress.
10. I am not distracted by other online activities (e.g., instant messages, Internet surfing) when learning online.
11. I review online instructional materials as needed.
12. I am open to new ideas.
13. I am motivated to learn.
15. I like to share my ideas with others.
16. I am confident in using online tools (e.g., email, discussion) to effectively communicate with others.
17. I am confident in expressing myself including emotions and humor through online communication.
18. I am confident in posting questions in online discussions.

*This item was added as a validity check item and is not part of the 18-item OLRS*
Appendix C: Oddi Continuing Learning Inventory (OCLI)

Permission to reproduce this instrument was not granted by the developer.
Appendix D: The List of Panel of Experts*

<table>
<thead>
<tr>
<th>#</th>
<th>First Name</th>
<th>Last Name</th>
<th>Degree</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Keith A.</td>
<td>Barron</td>
<td>Esq.</td>
<td>Instructor of the College of Hospitality and Tourism Leadership, previously owner of a hospitality management company</td>
</tr>
<tr>
<td>2</td>
<td>Katerina</td>
<td>Berezina</td>
<td>PhD</td>
<td>Assistant Professor of Hospitality and Tourism Leadership</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>McKibbon Endowed Chair Professor of Hospitality and Tourism Leadership, the Director of the M3 Center for Hospitality Technology and Innovation</td>
</tr>
<tr>
<td>3</td>
<td>Cihan</td>
<td>Cobanoglu</td>
<td>PhD</td>
<td>Professor and Program Coordinator of Measurement and Research Program</td>
</tr>
<tr>
<td>4</td>
<td>Robert</td>
<td>Dedrick</td>
<td>PhD</td>
<td>Professor of Hospitality and Tourism Management Studies</td>
</tr>
<tr>
<td>5</td>
<td>John</td>
<td>Horne</td>
<td>Mr</td>
<td>Restaurant Manager</td>
</tr>
<tr>
<td>6</td>
<td>Waynne</td>
<td>James</td>
<td>EdD</td>
<td>Professor of Adult Education</td>
</tr>
<tr>
<td>7</td>
<td>Joseph</td>
<td>Lema</td>
<td>PhD</td>
<td>Assistant Professor of Technology in Education</td>
</tr>
<tr>
<td>8</td>
<td>Gunce</td>
<td>Malan-Rush</td>
<td>PhD</td>
<td>Instructional Designer/PO</td>
</tr>
<tr>
<td>9</td>
<td>Jeff</td>
<td>Mayers</td>
<td>Mr</td>
<td>Hotel General Manager</td>
</tr>
<tr>
<td>10</td>
<td>Damien</td>
<td>O'Riordan</td>
<td>Mr</td>
<td>Hotel General Manager</td>
</tr>
<tr>
<td>11</td>
<td>Sanghoon</td>
<td>Park</td>
<td>PhD</td>
<td></td>
</tr>
</tbody>
</table>

*Permission to use actual names at panel experts was given by all participants.*
Appendix E: IRB Approval Letter and Informed Consent

IRB Approval Letter

rsch-arc@usf.edu <rsch-arc@usf.edu>                         Mon, Apr 17, 2017 at 4:49 PM
Reply-To: rsch-arc@usf.edu
To: muhittincavusoglu@gmail.com

---

IRB Study Processing Completed

To: Muhittin Cavusoglu
RE: SDLRvsOLR
PI: Muhittin Cavusoglu
Link: Pro00030442

You are receiving this notification because processing has been completed on the above-listed study. For more information, please navigate to the project workspace by clicking the Link above.

Please note, as per USF IRB Policy 303, "Once the Exempt determination is made, the application is closed in eIRB. Any proposed or anticipated changes to the study design that was previously declared exempt from IRB review must be submitted to the IRB as a new study prior to initiation of the change."

If alterations are made to the study design that change the review category from Exempt (i.e., adding a focus group, access to identifying information, adding a vulnerable population, or an intervention), these changes require a new application. However, administrative changes, including changes in research personnel, do not warrant an amendment or new application.

Given the determination of exemption, this application is being closed in ARC. This does not limit your ability to conduct your research project. Again, your research may continue as planned; only a change in the study design that would affect the exempt determination requires a new submission to the IRB.
Appendix E continued

Informed Consent

Informed Consent to Participate in Research
Information to Consider Before Taking Part in this Research Study

Pro # Pro00030442
Researchers at the University of South Florida (USF) study many topics. To do this, we need the help of people who agree to take part in a research study. This form tells you about this research study. We are asking you to take part in a research study that is called: Online and Self-Directed Learning and Training Readiness Among Hospitality and Tourism College Students and Professionals. The people who are in charge of this research study is Muhittin Cavusoglu, MS. as the Principal Investigator.

Purpose of the Study
The purpose of this study is to compare self-directed learning readiness and online learning readiness between hospitality and tourism college students and the hospitality and tourism industry professionals by using reliable and valid instruments.

Why are you being asked to take part?
We are asking you to take part in this research study because your responses as a citizen of the United States, either studying at a hospitality and tourism college or working in hospitality and tourism industry and as person 18 years of age or older could help us understand online and self-directed learning and training readiness among hospitality and tourism college students and professionals.

Study Procedures
If you take part in this study, you will be asked to complete an online questionnaire. The responses will be recorded anonymously with no possibility to link your identity.

Alternatives / Voluntary Participation / Withdrawal
You have the alternative to choose not to participate in this research study. You should only take part in this study if you want to volunteer; you are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study.
Benefits and Risks
If you choose to participate in this study, you will have the satisfaction of contributing to research that can assist your profession. This research is considered to be minimal risk.

Compensation
There is no compensation.

Time
It will take 15-20 minutes to complete the survey.

Privacy and Confidentiality
We must keep your study records as confidential as possible. It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online.

Certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The people who will be allowed to see these records are: Muhittin Cavusoglu, MS as the Principal Investigator and the University of South Florida Institutional Review Board (IRB).

It is possible, although unlikely, that unauthorized individuals could gain access to your responses. Confidentiality will be maintained to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet. However, your participation in this online survey involves risks similar to a person's everyday use of the Internet. If you complete and submit an anonymous survey and later request your data be withdrawn, this may or may not be possible as the researcher may be unable to extract anonymous data from the database.

Contact Information
If you have any questions about your rights as a research participant, please contact the USF IRB at (813) 974-5638 or contact by email at RSCH-IRB@usf.edu. If you have questions regarding the research, please contact the Principal Investigator at the e-mail address mcavusoglu@mail.usf.edu.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. You can print a copy of this consent form for your records.

I freely give my consent to take part in this study. I understand that by proceeding with this survey that I am agreeing to take part in research and I am 18 years of age or older.

☐ Checking this means you agree to participate in this survey
Appendix F: Data Collection Permissions of the SDLRS, the OCLI, and the OLRS

Data Collection Permission of the SDLRS for Pilot Study (100 copies)

Lucy Guglielmino <lguglielmino@rocketmail.com>
Reply-To: Lucy Guglielmino <lguglielmino@rocketmail.com>
To: Muhittin CAVUSOGLU <muhittincavusoglu@gmail.com>

This is to certify that Muhittin Cavusoglu has my permission to administer the SDLRS/LPA to 100 individuals through a Qualtrics online survey. The data will be sent to Guglielmino & Associates in an Excel spreadsheet for scoring.

Lucy Madsen Guglielmino
Don't miss the annual International Self-Directed Learning Symposium in February in Cocoa Beach! Go to www sdlglobal.com for details on the symposium and to view the International Journal of Self-Directed Learning.

Data Collection Permission of the SDLRS for Final Study (800 copies)

April 14, 2018 5:01 PM
From: «Lucy Guglielmino» <lguglielmino@rocketmail.com>
To: «Muhittin Cavusoglu» <muhittinmcavusoglu.com>

Muhittin, I have received your witnessed Agreement to Honor Copyright. You now have my permission for 800 uses of the SDLRS in your doctoral dissertation.

Lucy Madsen Guglielmino
Don't miss the annual International Self-Directed Learning Symposium in February in Cocoa Beach! Go to www sdlglobal.com for details on the symposium and to view the International Journal of Self-Directed Learning.
Appendix F continued

Data Collection Permission of the OCLI

OCLI License

LICENSE AGREEMENT

Lorys F. Oddi (Licensor) hereby grants a license under the copyright on the Oddi Continuing Learning Inventory (OCLI) to the undersigned Licensee on the following terms and conditions:

1. The license is granted only for use of the OCLI in research to be undertaken by the Licensee as specified in the research proposal provided herein by the Licensee.

2. The license is granted on a royalty-free basis provided the OCLI is used only for the specified research. Any use of the OCLI for other purposes is strictly prohibited without the express written authorization of the Licensor.

3. The Licensee shall include the following statement in any written report (published or communicated to others) of the research undertaken with the use of the OCLI: “For the purposes of this research, a royalty-free copyright license for the use of the OCLI was granted by Lorys F. Oddi.”

4. The Licensee shall provide Licensor with a copy of the final version of any written report (published or communicated to others) of the research undertaken with the use of the OCLI.

5. The Licensee shall provide Licensor with item scores and demographic data, which shall be used only for further development of the OCLI.

6. A copy of the OCLI or its scoring key will not be published or included with study report.

AGREED this 27 day of February, 2014

Lorys F. Oddi
(Licensor)

Multiplier Casacatly
(Licensee)

Licensee’s research proposal attached.
Hi, Muhittin CAVUSOGLU:

Thanks for your email and inquiry about the OLRS.

We are very happy to allow you to use the OLRS scale, as located at the end of the article.

If you do use this scale to finish your research, please cite our article in yours -- Computers & Education, 55(3), 1080-1090. (as attached)

Also please share your final published article with us so that we can cite it in our further studies.

Please keep contact and good luck on your research.

Best regards,

Minling
Appendix G: Descriptive Questions for Hospitality and Tourism College Students

Q1 Checking this you mean agree to participate in this survey  □

Q2 Which of the following category best describe your enrollment status?
   • Full-time
   • Part-time

Q3 How are you enrolled in your current program?
   • Domestic student
   • International student

Q4 Have you taken any online courses before?
   • Yes
   • No

If yes selected in the previous question, the next question was shown to the respondents

Q5 How many courses have you taken online at each level?

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>1-3</th>
<th>4-6</th>
<th>7-9</th>
<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Massive Open Online Course (e.g., Coursera, Udemy, ItunesU)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q6 Please indicate your level of agreement with the following barriers to (the items that deter/prevent you from) online learning.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic self-concept</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest to learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desire to learn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other 1 (Please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other 2 (Please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other 3 (Please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G continued

Q7 Please select the most challenging barrier to online learning. Please specify the reason for the selected option.

- Academic environment: ____________________
- Family environment: ____________________
- Community environment: ____________________
- Academic self-concept: ____________________
- Achievement motivation: ____________________
- Interest to learn: ____________________
- Desire to learn: ____________________
- Self-control: ____________________
- Self-management: ____________________

Q8 What format would you prefer for your learning?

- Face to face
- Online
- Hybrid (both face to face and online)
- Other (please specify) ____________

Q9 What is your current school year?

- Freshman
- Sophomore
- Junior
- Senior
- Other (please specify) ____________

Q10 What is your GPA?

- 0.00-1.99
- 2.00-2.49
- 2.50-2.99
- 3.00-3.49
- 3.50-4.00

Q11 Do you have any hospitality/tourism industry work experience?

- Yes
- No
Appendix G continued

If yes selected in the previous question, the next question was shown to the respondents
Q12 How long have you worked in the hospitality/tourism industry?
   • Less than 6 months
   • More than 6 months-Less than 1 year
   • 1-2 years
   • 3-5 years
   • 6-10 years
   • 11-20 years
   • More than 20 years

Q13 Are you currently employed?
   • Yes
   • No

If yes selected in the previous question, the next question was shown to the respondents
Q14 In which industry do you currently work?
   • Restaurant
   • Hotel
   • Bar
   • Other (please specify) ___________

If yes selected in the Question 13, the next question was shown to the respondents
Q15 How many hours do you work in a week?
   • 1-10
   • 11-20
   • 21-30
   • 31-40
   • More than 40 hours
Appendix G continued

If yes selected in the Question 13, the next question was shown to the respondents

Q16 Please indicate your level of agreement with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel fairly well satisfied with my present job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most days I am enthusiastic about my work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each day of work seems like it will never end</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I find real enjoyment in my work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I consider my job rather unpleasant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q17 On average how much time do you spend on the Internet per day:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

<table>
<thead>
<tr>
<th>Category</th>
<th>Time Spent (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>For school homework or assignments</td>
<td></td>
</tr>
<tr>
<td>For workplace training or learning</td>
<td></td>
</tr>
<tr>
<td>For pleasure</td>
<td></td>
</tr>
</tbody>
</table>
Appendix H: Descriptive Questions for Hospitality and Tourism Industry Professionals

Q1 Checking this you mean agree to participate in this survey □

Q2 Which of the following category best describe your employment status?
   • Full Time
   • Part Time

Q3 What is your job position?
   • Supervisory
   • Non-supervisory

Q4 What is your position title?
   __________________________

Q5 How long have you been working in your present position?
   • Less than 6 months
   • More than 6 months-Less than 1 year
   • 1-2 years
   • 3-5 years
   • 6-10 years
   • 11-20 years
   • More than 20 years

Q6 How long have you worked in the hospitality/tourism industry?
   • Less than 6 months
   • More than 6 months-Less than 1 year
   • 1-2 years
   • 3-5 years
   • 6-10 years
   • 11-20 years
   • More than 20 years

Q7 How important do you think workplace learning is?
   • Not Important
   • Slightly Important
   • Moderately Important
   • Very Important
   • Extremely Important
Appendix H continued

Q8 *How satisfied with your workplace learning are you?*
   - Very dissatisfied
   - Dissatisfied
   - Neither satisfied nor dissatisfied
   - Satisfied
   - Very satisfied

Q9 *Please indicate your level of agreement with the following statements:*

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel fairly well satisfied with my present job</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Most days I am enthusiastic about my work</td>
<td></td>
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</tr>
<tr>
<td>Each day of work seems like it will never end</td>
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</tr>
<tr>
<td>I find real enjoyment in my work</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>I consider my job rather unpleasant</td>
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</tbody>
</table>

Q10 *How many training hours for your professional work did you participate in during the last 12 months?*
   - 0-12
   - 13-24
   - 25-36
   - More than 36 hours

Q11 *Have you taken any online courses in your formal education (e.g., high school, college)?*
   - Yes
   - No

If yes selected in the previous question, the next question was shown to the respondents

Q12 *How many courses have you taken online at each level?*

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>1-3</th>
<th>4-6</th>
<th>7-9</th>
<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td></td>
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<tr>
<td>College</td>
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<tr>
<td>Massive Online Course (e.g., Coursera, Udemy, ItunesU)</td>
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<tr>
<td>Graduate Level (Master’s or Doctoral degree)</td>
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<tr>
<td>Other (Please specify)</td>
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</tbody>
</table>
Appendix H continued

Q13 Have you taken any online training classes for your professional career?
   • Yes
   • No

If yes selected in the previous question, the next question was shown to the respondents

Q14 How many online training classes have you taken?
   • 1-3
   • 4-6
   • 7-9
   • 10+

Q15 What type of workplace training do you prefer?
   • Face to face
   • Online
   • Hybrid (both face to face and online)
   • Other (please specify) ____________

Q16 On average how much time do you spend on the Internet per day:

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>For work</td>
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<tr>
<td>For workplace training or learning</td>
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<td>For pleasure</td>
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</tbody>
</table>

Q17 Please indicate your level of agreement with the following barriers to (the items that deter/prevent you from) online learning.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
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<td>Academic environment</td>
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<td>Family environment</td>
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<tr>
<td>Community environment</td>
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<tr>
<td>Academic self-concept</td>
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<tr>
<td>Achievement motivation</td>
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<tr>
<td>Interest to learn</td>
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<tr>
<td>Desire to learn</td>
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<tr>
<td>Self-control</td>
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<tr>
<td>Self-management</td>
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<tr>
<td>Other 1 (Please specify)</td>
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<tr>
<td>Other 2 (Please specify)</td>
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<td></td>
</tr>
<tr>
<td>Other 3 (Please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Appendix H continued

Q18 Please select the most challenging barrier to online learning. Please specify the reason for the selected option.
- Academic environment: __________________
- Family environment: ____________________
- Community environment: __________________
- Academic self-concept: ___________________
- Achievement motivation: __________________
- Interest to learn: ________________________
- Desire to learn: _________________________
- Self-control: ____________________________
- Self-management: _______________________ 

Q19 How successful do you feel in your job (self-assessment of your work performance)?
- 0 least successful
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 most successful

Q20 What was your evaluation score last year?

<table>
<thead>
<tr>
<th>Please enter your evaluation score and the total score available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your score</td>
</tr>
<tr>
<td>Out of</td>
</tr>
</tbody>
</table>

Q21 What is the highest level of education you completed?
- Less than High School
- High School
- Some College
- Associates Degree
- Bachelor’s Degree
- Some Graduate Work
- Master’s Degree
- Doctorate Degree
- Other (please specify) ____________
Appendix I: Demographic Questions

Q1 What is your gender?
- Male
- Female

Q2 What is your ethnicity?
- White
- Hispanic or Latino
- Black or African American
- Native American or American Indian
- Asian/Pacific Islander
- Other (please specify) ___________

Q3 What is your age?
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old
- 75 years or older

Q4 What is your annual income?
- Less than $20,000
- $20,000 to $34,999
- $35,000 to $49,999
- $50,000 to $74,999
- $75,000 to $99,999
- $100,000 to $149,999
- $150,000 to $199,999
- $200,000 or more
- Choose not to answer

Q5 Where were you born?
______________________

Q6 Any further suggestions and comments
______________________

Thank you very much for your participation in my research study!
Appendix J: Agreement to Distribute Survey Link

Muhittin CAVUSOGLU <muhittincavusoglu@gmail.com>  
To: Cihan Cobanoglu <cihan@cihan.org>

Dear Dr. Cihan,

I hope my email finds you well. I am doing my pilot study for my dissertation. I need collect data from 100 hospitality students. Can you please help me to distribute my anonymous Qualtrics link with your students at the College of Hospitality and Tourism Leadership, USFSM? Also, I need your help to distribute my survey to hospitality/tourism professionals.

Thank you

--
Best Regards / Saygilarimla,

Muhittin Cavusoglu, MS
PhD Student in College of Education  
University of South Florida  
Teaching Assistant  
Scientific Relations Coordinator: IIBA Conference  
+1 941 264 9296

Cihan Cobanoglu <cihan@cihan.org>  
To: Muhittin CAVUSOGLU <muhittincavusoglu@gmail.com>

Dear Muhittin,

I will be happy to help you with this. Please send me the links for both surveys and I will distribute.

Good luck with your study.

Dr. Cihan Cobanoglu, CHTP

McKibben Endowed Chair & Director of M3 Center  
International Programs Coordinator, CHTL  
University of South Florida Sarasota-Manatee  
Editor, Journal of Hospitality and Tourism Technology (JHTT)  
Co-Editor, IIBA Journal (iibajournal dot org)  
Co-Chair, IIBA Conference (iibaconference dot org)  
President, Association of North America Higher Education International (ANAHEI dot org)  
Co-Chair, Global Conference on Education and Research (GLOCER) (coferenceアナキーdotorg)  
Chair & Founder, Graduate Student Research Conference in Business and Economics (Gradconference dot org)
Appendix K: Sample Email Sent to Students and Professionals

Cihan Cobanoglu <cihan@cihan.org>       Thu, Apr 20, 2017 at 9:15 PM

Dear Students,

I would like to ask you to please help one doctoral student with his research study. The title of this study is "Learning readiness and preferences among hospitality/tourism college students and professionals"

https://usf.az1.qualtrics.com/jfe/form/SV_6AlajQTqyzzvjRb

The purpose of this study is to compare scores of two learning readiness and preference assessments among hospitality/tourism college students and professionals and to determine the correlation between the two assessments.

The survey is anonymous and there is no identification questions.

Thank you for your help for a doctoral student.

Dr. Cihan Cobanoglu, CHTP
McKibbin Endowed Chair & Director of M3 Center
International Programs Coordinator, CHTL
University of South Florida Sarasota-Manatee
Editor, Journal of Hospitality and Tourism Technology (JHTT)
Co-Editor, IIBA Journal (iibajournal dot org)
Co-Chair, IIBA Conference (iibaconference dot org)
President, Association of North America Higher Education International (ANAHEI dot org)
Co-Chair, Global Conference on Education and Research (GLOCER) (coference.anahei dot org)
Chair & Founder, Graduate Student Research Conference in Business and Economics (Gradconference dot org)
Appendix L: Composite Reliability and Validity Values for Pilot Study for the Modified OLRS

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Student Sample</th>
<th>Professional Sample</th>
<th>Combined Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CR</td>
<td>AVE</td>
<td>CR</td>
</tr>
<tr>
<td>CISE</td>
<td>.891</td>
<td>.732</td>
<td>.835</td>
</tr>
<tr>
<td>LC</td>
<td>.775</td>
<td>.549</td>
<td>.785</td>
</tr>
<tr>
<td>MfL</td>
<td>.854</td>
<td>.595</td>
<td>.814</td>
</tr>
<tr>
<td>OCSE</td>
<td>.843</td>
<td>.642</td>
<td>.828</td>
</tr>
<tr>
<td>SDL</td>
<td>.852</td>
<td>.544</td>
<td>.846</td>
</tr>
</tbody>
</table>

CR = Composite Reliability; AVE = Average Variance Extracted
Appendix M: Modified OLRS Model Diagrams of the Confirmatory Factor Analysis (CFA) for Student, Professional, and Combined Sample

Modified OLRS Model Diagrams of the CFA for Student Sample
Appendix M continued

Modified OLRS Model Diagrams of the CFA for Professional Sample

[Diagram showing the relationships between variables CISE, SDL, LC, MfL, and OCSE, with arrows and correlation coefficients labeled for each connection.]
Appendix M continued

Modified OLRS Model Diagrams of the CFA for Combined Sample
About the Author

Muhittin Cavusoglu is a certified hospitality educator. He started his hospitality and tourism education in a Hospitality and Tourism Vocational High School in Turkey. He has two bachelor’s degrees in Tourism and Hotel Management, Bilkent University; and in Public Administration, Anadolu University in Turkey. He earned his masters’ degree in hospitality management at the University of South Florida Sarasota-Manatee, FL, USA. He is currently working as an adjunct instructor at the College of Hospitality and Tourism Leadership, University of South Florida Sarasota-Manatee. He has taught courses in the U.S. and Kazakhstan. He has more than five years of industry experience in event management. He has been serving as the Director of International Conferences for Association of North America Higher Education International (ANAHEI) in his specialties. In this role, he is responsible for producing conferences all around the world. He also has different level experiences in various hospitality and tourism companies.