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An examination of instructional delivery method and college and career skill development on college graduates' degree utilization

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Abstract

This study examines college and career readiness (CCR) among online and face-to-face business school students to determine what factors influence how graduates utilize their degree for its intended purpose. Demographic and academic statistics are used to compare online and face-to-face graduates to determine what factors influence business school graduates' expectation and utilization of their degree within its intended scope following graduation. Key findings reveal that GPA is a pivotal indicator of CCR, experiential learning and plays a significant role in developing both technical and employability skills, and self-determination (i.e., self-efficacy and goal setting) is a determinant of degree utilization. Additionally, the study uncovers that networking is underutilized by graduates from both modalities, and there exists a notable variation in multiple CCR outcomes between online and traditional learning environments. Recommendations include the development of an online specific pedagogy to address the challenges of online classes. The researchers provide a list of practical adjustments that can increase experiential learning in online teaching environments.

Keywords: business degree utilization, experiential learning, undergraduate students, career readiness, self-determination

Introduction

One of the main concerns regarding business education is the lack of college and career readiness (CCR) skills that graduates possess when moving into the workforce or furthering their education (Berr, 2016; Kosnik et al., 2013; Robles, 2012). Studies indicate that many students are ill-prepared when transitioning into their next stage of life post-graduation, lacking essential skills needed for college and workforce success (New England Board of Higher Education, 2018). Many universities have adopted CCR frameworks and adjusted their degree programs to develop CCR skills better, i.e., academic development and self-development; (Black et al., 2021; Ritter et al., 2018). One of the primary adjustments undertaken by institutions of higher education around the globe is an increase in online instruction. This programmatic shift has accelerated markedly in the past five years, largely driven by the COVID-19 pandemic. But what is the impact of this shift in instructional modality on student outcomes, career readiness, and degree utilization?

The examined business school lacks critical data on the CCR skills and degree utilization of its graduates across both online and face-to-face delivery methods. This gap hinders their ability to reorganize and effectively present their degree programs. Assessing degree utilization is vital for understanding if students are meeting their educational goals and using their degrees as intended. By evaluating these elements between both online and face-to-face graduates, the institution can gain valuable insights to optimize their business degree programs.

This study examines a fundamental research question with one hypothesis:

RQ: *Is there a measurable difference in academic development and self-development between online and face-to-face business school graduates?*

H₀: *Graduates who completed online business degrees compare equally to face-to-face graduates in academic development and self-development as these relate to business degree utilization.*

Literature Review

Existing research suggests looking at CCR through multiple factors, including academic development (Jackson, 2018; Rodge & Gupta, 2020; Strusowski, 2013) and personal development (Bennett et al., 2020; Deer et al., 2018; McElroy, 2019). Few, if any, studies have looked at all these factors holistically and assessed how they might explain graduate success (Harrell & Reglin, 2018). Existing research has found that CCR influences degree utilization and that academic and demographic factors such as age, gender, ethnicity, first-generation status, and enrollment status may also affect degree utilization (Bailey et al., 2005; Clotfelter et al., 2013; Wang, 2012). Existing literature also shows a positive correlation between institutional career services and degree utilization. Therefore, assessing CCR, delivery method, degree type, and institutional career services regarding degree utilization may provide valuable alumni and program data that can be used to optimize students' business degree programs among both online and face-to-face delivery methods.

Various studies have looked at the efficacy of experiential learning and how it aids in developing academic skills, e.g., technical and employability skills, and self-development skills, e.g., help-seeking and self-determination (Bennett et al., 2020; Deer et al., 2018; Jackson et al., 2016; McElroy, 2019; Rodge & Gupta, 2020; Strusowski, 2013). Critics of business schools point to a lack of practical learning experiences as a significant issue (Kosnik et al., 2013). Because of these criticisms, accreditation boards now emphasize academic, professional, and moral values to the student (ibid). With this emphasis, the hope is that students would graduate more prepared to meet workforce demands. This emphasis results in most business schools incorporating experiential learning as a foundational element of business pedagogy. Implementing experiential learning has allowed business education to aid in developing CCR effectively (ibid). However, there is limited research that compares the implementation of experiential learning in online classes to the implementation of experiential learning in face-to-face settings.

Though using experiential learning in the classroom setting is highly effective, it may translate to a different effectiveness in online classes (Serdyukov, 2015). This causes a gap in our understanding of whether experiential learning transfers well to the online classroom environment. The delivery method may not cause differences in online class effectiveness; instead, it may indicate issues within the instructional design. For example, designing online courses by transferring over face-to-face courses may limit concrete experiences or promote experiences with less active participation, affecting the development of CCR. Limited concrete experiences in online classes can result from limited student-teacher interactions, student-

student interactions, and asynchronous delivery, further illustrating the need for online-specific pedagogy (Jaggars, 2014; Xu & Jaggars, 2013).

For a graduate to succeed, specific skills must be mastered prior to graduation. Technical skill has long been the emphasis of education as it is the knowledge required to succeed in a field of study/profession; however, there is a growing body of evidence showing that purely academic factors do not sufficiently explain CCR and are not in alignment with the knowledge and skills needed for successful transition into additional higher education and the workforce (Morningstar et al., 2017).

In recent years, more emphasis has been placed on employability skills because they are needed to gain a competitive advantage over other job candidates (Sethi & Gyan, 2016). These researchers' findings are essential; however, a gap remains in examining both technical skills and employability skills, their interactions, and their effect on CCR. This paper addresses that gap in the literature.

Employability skills are often synonyms with soft skills, personality traits, interpersonal skills, non-cognitive skills, emotional intelligence, and habits of mind (Miller, 2019). It is important to note however that employability skills do not replace technical skills and academic standards; rather, they work side-by-side with other career skills to create a well-rounded candidate (Miller, 2019). One of the biggest problems with employability skills results from a lack of continuity between what skills are needed and how to assess them. This causes inconsistency in results and quality of employability skills instruction. Furthermore, every individual has different levels of inherent employability skills making implementation difficult.

To remedy this, a list of employability skills was developed at the examined community college to guide the business curriculum (Area Study Design Team, 2020). The Area Study Design Team identified a list of employability skills which are found within all year one courses in a sample of business degree programs. This list is consistent with employability skill findings identified in existing research literature (Mohamad et al., 2018). These skills include:

- Communication and Listening
- Critical Thinking
- Emotional Intelligence
- Perseverance
- Self-Development
- Help-Seeking
- Self-Determination

These employability skills must not be lost, whether the instruction mode is face-to-face, online, or in some other hybrid instructional format. In a study comparing the effectiveness of online education to traditional education, Soffer and Nachmias (2018) looked at multiple variables, such as instructional aspects within courses (e.g., experiential learning), to determine the differences in effectiveness between delivery methods and found that the online delivery method was just as effective, if not more, than the face-to-face delivery method. However, Jaggars and Bailey (2010) found that online courses outperformed face-to-face courses only when students had extra time or attention given to them. With performance variations observed across instructional modes, care must be taken in the instructional design of online courses to decrease outcome inequities and close the performance gap.

Much of the existing research on degree utilization focuses on graduation rate, employment rate, and transfer rate as their primary measures for successful degree utilization among community colleges and four-year institutions (Clotfelter et al., 2013). Degree utilization is a multi-factor issue involving the use of CCR skills gained through the education process (Wang, 2012), the networks students built while attending school (Eunyoung, 2009), and the effect of school experiences on out-of-school issues (Pugh, 2011). These three factors provide a well-rounded picture of how useful a degree is based on what is gained while

attaining the degree. Current literature indicates lower levels of degree utilization among community college graduates (Bailey et al., 2005; Monaghan & Attewell, 2015; Wang, 2012). The lack of degree utilization can be explained in part by the shift of college and career goals, loss of credits when transferring, unanticipated life circumstances, and need for additional skills (ibid). All sources cited here uniformly agree that academic and self-development directly impact CCR and degree utilization after graduation.

Methodology

This study evaluates CCR in business school graduates by comparing academic development and self-development between online and face-to-face students. The community college defined online graduates as those who took 80% or more of their classes online, whereas those who took 79% or less of their classes online were considered face-to-face graduates. This loose definition of online and face-to-face graduates is a limitation of the study, as it complicates the ability to assign causality based on the delivery method. Based on the definition provided by the community college, graduates from the institution were surveyed and data were collected and analyzed using standard statistical methods for identifying statistical significance and validity.

Population

This study's population includes graduates from associate degree programs in management, marketing, accounting, finance, computer science, and information systems from a community college located in the Mountain West region of the United States. This community college has a student population that consists of mostly Caucasian students but has a high number of Hispanic/Latino students. The community college resides in a predominately Republican state that is highly religious and politically conservative.

The total population was 1,895 graduates from fall 2019 through spring 2022. Because of the relatively small size of the population, a census approach of 2019-2022 School of Business graduates was used to increase survey participation. Since not all individuals in the population responded to the survey, inferential statistics are used to extrapolate meaningful insights about the entire population (Freedman et al., 2007; Knaub, 2015).

Instrumentation and Measures

Information about the nature of the study was sent in a letter of consent at the beginning of the survey. The CCR survey combined items from four instruments, existing literature, and the input of program stakeholders. Sources used to develop the survey are drawn from the following sources: World Learning (2020), NACE (2021),

Cheng and Tsai (2011), Young et al. (2008), and researcher-developed items. Since program stakeholders consider online and face-to-face courses equivalent in student outcomes, all participants received the same survey to accurately compare the delivery methods. Table 1 summarizes the instruments adapted to create the survey.

Table 1: Summary of Measures Used to Develop CCR Survey

Measures	Variable	Items from NACE (2021)	Items from Cheng and Tsai (2011)	Items from Young et al. (2008)	Items from World Learning (2020)	Items developed by researcher
Experiential learning						
Concrete experience	5-point			Item 3		
Reflective observation	Likert			Item 4		
Abstract conceptualization	5-point			Item 5		
Experimentation	Likert			Item 6		
	5-point					
	Likert					
Explanatory variables						
Delivery method	Nominal	Item 1				
Institutional career services	4-point Likert	Item 7				
Employability skills						
Critical thinking	5-point				Item 8	
Emotional intelligence	Likert				Item 9	
Communication and listening	5-point				Item 10	
Persistence	Likert				Item 11	
	5-point					
	Likert					
	5-point					
	Likert					
Self-development						
Help-seeking	5-point		Item 14			
Self-determination	Likert				Items 13, 15	Item 16
	5-point					
	Likert					
Degree utilization						
	Nominal	Items 18-19				
	5-point					Item 17
	Likert					
Demographic factors						
	Nominal					Items 21-23, 25
Academic factors						
	Nominal					Items 2, 12
	Interval					20, 24

Delivery Method

Item one determined which type of delivery method the respondent primarily participated in while attending SLCC. The question allowed the respondent to select one of two options (i.e., 80%–100% of their classes were taken online and less than 80% of their classes were taken online). Those that select the first option

are placed in the category of “online” delivery method and those that selected the second option were put in the category of “face-to-face” delivery method. We created this measure based on the delivery method classifications provided by SLCC and this question provided nominal data.

Experiential Learning

The experiential learning construct includes 12 statements about respondents’ classroom learning experiences covering each of the four-experiential learning subconstructs (i.e., concrete experiences, reflective observation, abstract conceptualization, and experimentation) from the Experiential Learning Stages Scale. Their answers were ranked on a 5-point scale (1 = strongly disagree to 5 = strongly agree) and provided continuous data. Each of the four subconstructs has three items scored from 3-15, with scores of 15 in each section indicating that the classroom experiences strongly delivered on the specific tenet of experiential learning. Riskas (2023) reported Cronbach’s alpha of .95 for the reliability of the Experiential Learning Stages Scale.

Employability Skills

Items 8-11 measure four employability skills: critical thinking, emotional intelligence, communication and listening, and persistence. These items were adapted from WLSVA World Learning (2020), asking participants to self-assess their employability skills at the time of their graduation on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Critical thinking scores ranged from 6-30 with a reported reliability of 0.97 (Riskas, 2023). Communication and listening scores range from 5–25 with Cronbach’s alpha reliability score of 0.94 (ibid). Perseverance scores range from 4–20 with a .92 reported Cronbach’s alpha (ibid). Emotional intelligence (EQ) scores range from 4–20 with Cronbach’s alpha reliability of .93 (ibid). Higher scores indicate higher self-perceived employability skills.

Self-determination

Self-determination is a summated score of items 13, 15, and 16 that measure self-efficacy and goal setting. Item 13 adapted the WLSVA self-efficacy questionnaire, containing four items asking participants to rank their answers on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) on their level of confidence in completing tasks. This question provides continuous data and was scored from 4–20 with 20 indicating the highest level of perceived self-efficacy. Items 15 and 16 determine if participants had goal-setting experiences while attending school and if they could set and achieve meaningful goals. Item 15 consists of four statements asking participants to rank their ability to set short and long-term goals, confidence in completing them, and the importance of accomplishing them. Item 16 asks participants about the frequency of goal setting within their business classes. Each was scored from 1 (strongly disagree) to 5 (strongly agree), providing continuous data. Riskas (2023) reported an overall internal reliability alpha of .93 for the Self-determination Scale.

Degree Utilization

Participants reported the frequency with which they used their degree based on the elements of skills, network, and experience. This variable is measured by summing the score of three 5-point Likert-scale items (1 = never to 5 = always). Higher Likert-scale summated scores indicated higher levels of degree utilization and provided continuous scale data. Riskas (2023) reported an overall internal reliability alpha of .78 for the Degree Utilization Scale.

Results

The population for the study consisted of 1,895 graduates, of which 1,632 graduates were invited via email to participate. The response rate for the survey was 5.82% ($n = 95$). Only 83 surveys of the 95 submitted were complete and valid for use. Of the usable surveys, 53.01% of respondents ($n = 44$) completed their degree face-to-face and 46.99% ($n = 39$) completed their degree online. G*power was used to determine the generalizability of the statistical analyses; This study had a 5.83% response rate ($n = 95$). This allowed for an effect size of 0.10 (Faul et al., 2009).

Overall Degree Utilization

Graduates reported how often they used the skills they obtained through their studies at SLCC, how often they used the network they established while attending SLCC, and how often they reflect on the experiences they had at SLCC to resolve current issues. Table 2 provides the frequencies and percentages of three-degree utilization items: skill use, network use, and experience use.

Of the 39 face-to-face respondents who answered the skill use question, 46.15% ($n = 18$) indicated that they always use the skills that they obtained in completing their degree or certificate. Of the 37 online respondents who answered the skill use question, 35.14% ($n = 13$) indicated that they always use the skills they obtained from their degree or certificate.

Among the 39 face-to-face respondents who answered the network use question, 38.46% ($n = 15$) never used the network they established while getting their degree/certificate at SLCC. Similarly, among the 37 online respondents, 37.84% ($n = 14$) indicated that they never use the network they established while in school.

Table 2: Degree Utilization by Delivery Method

Variable	Face-to-face		Online	
	<i>n</i>	%	<i>n</i>	%
Skill use				
Never	0	0.00	2	5.41
Sometimes	5	12.82	6	16.22
About half the time	7	17.95	6	16.22
Most of the time	9	23.08	10	27.03
Always	18	46.15	13	35.14
Network use				
Never	15	38.46	14	37.84
Sometimes	12	30.77	8	21.62
About half the time	4	10.26	4	10.81
Most of the time	2	5.13	5	13.51
Always	6	15.38	6	16.22
Experience use				
Never	3	7.69	4	10.81
Sometimes	8	20.51	9	24.32
About half the time	5	12.82	6	16.22
Most of the time	15	38.46	9	24.32
Always	8	20.51	9	24.32

When it came to reflecting on the experiences face-to-face respondents had to help with current issues they face at work, 38.46% ($n = 15$) stated that they use their SLCC experience most of the time when looking to

solve current issues. Online respondents were more varied in their experience use, reporting 24.32% ($n = 9$) always used their experiences, 16.22% ($n = 6$) reporting that they use their experiences most of the time, and 24.32% ($n = 9$) used their experiences at school only sometimes. If respondents answered “never” to all the degree utilization questions, they explained why they have not utilized their degree. One respondent (1.31%) answered “never” to all three skills. The respondent stated that they needed additional skills for career progress as the reason why they have not utilized their degree.

Career Path Post-Graduation Outcomes

The post-graduation outcomes of respondents with career path degrees and their perceptions of degree utilization presents a comprehensive view of the benefits and challenges experienced by graduates. Table 3 provides frequencies and percentages for respondents based on their engagement in job-seeking activities, interview experiences, job offers, and the helpfulness of their degrees in job searches. The sample size (n) for the career path group was significantly reduced when we categorized the responses based on degree type. This reduction in (n) may affect the generalizability and strength of the analysis, therefore further research with a larger sample size of career path respondents is recommended.

Regarding those actively seeking a job within their major, 28.57% ($n = 2$) of face-to-face respondents strongly agreed and 28.57% ($n = 2$) neither agreed nor disagreed. For online respondents, 37.50% ($n = 3$) neither agreed nor disagreed about actively looking for a job in their major. When asked if they have had interviews since graduation, 57.14% of the face-to-face respondents ($n = 4$) strongly agreed and 37.50% online respondents ($n = 3$) strongly agreed. For face-to-face respondents, 42.86% ($n = 3$) strongly agreed to having received a job offer since graduation. Job offers for online respondents were more spread out with 25.00% ($n = 2$) strongly agreeing with receiving a job offer, 25.00% ($n = 2$) somewhat agreeing to receiving a job offer, and 25.00% ($n = 2$) neither agreeing nor disagreeing to receiving a job offer post-graduation. Three face-to-face respondents (42.86%) strongly agreed that their degree has helped them in their job search. However, three online respondents (37.50%) indicated that they neither agreed nor disagreed on whether their degree has helped them in their job search.

Table 3: Frequencies and Percentages of Career Path Graduates

Variable	Face-to-face		Online	
	<i>n</i>	%	<i>n</i>	%
Actively look for job within major				
Strongly disagree	1	14.29	2	25.00
Somewhat disagree	1	14.29	1	12.50
Neither agree nor disagree	2	28.57	3	37.50
Somewhat agree	1	14.29	0	0.00
Strongly agree	2	28.57	2	25.00
I have had interviews since graduating				
Strongly disagree	0	0.00	1	12.50
Somewhat disagree	0	0.00	1	12.50
Neither agree nor disagree	2	28.57	2	25.00
Somewhat agree	1	14.29	1	12.50
Strongly agree	4	57.14	3	37.50
I have received job offers since graduating				
Strongly disagree	1	14.29	1	12.50
Somewhat disagree	0	0.00	1	12.50
Neither agree nor disagree	2	28.57	2	25.00
Somewhat agree	1	14.29	2	25.00
Strongly agree	3	42.86	2	25.00

Variable	Face-to-face	Online		
	<i>n</i>	%	<i>n</i>	%
What I learned at school has helped in my job search process				
Strongly disagree	1	14.29	1	12.50
Somewhat disagree	0	0.00	2	25.00
Neither agree nor disagree	1	14.29	3	37.50
Somewhat agree	2	28.57	1	12.50
Strongly agree	3	42.86	1	12.50

Table 4 highlights how respondents felt their degrees have helped them after graduation. Results indicated 72.70% ($n = 32$) of face-to-face respondents reported that their degree has helped in preparing for continuing education, and 61.40% ($n = 27$) used the skills they gained from their degree.

Similarly, 64.10% of online respondents ($n = 25$) found their degrees helpful, using the skills they gained from their degree. Further, of the online respondents, 69.20% ($n = 27$) felt that their degree prepared them to continue their education and 66.70% ($n = 26$) felt their degree helped them succeed in further education, while 54.50% ($n=24$) of face-to-face respondents shared this sentiment.

Table 4: Frequencies and Percentages for How Graduates Felt Their Degree has Helped Them

Response	Face-to-face		Online	
	<i>n</i>	%	<i>n</i>	%
Has prepared me to continue my education.	32	72.70	27	69.20
I use the skills I gained in my current job.	27	61.40	25	64.10
SLCC helped me gain knowledge and skills that are directly applicable to my current job.	25	56.80	25	64.10
My degree/certificate has been a valuable addition to my professional life.	24	54.50	21	53.80
Helped me succeed in continuing my education.	24	54.50	26	66.70
Qualify for a promotion.	15	34.10	14	35.90
Has not helped me in my professional life.	7	15.90	10	25.60

Despite these positive outcomes, some respondents indicated their degrees had not significantly impacted their professional lives, with 15.90% ($n=7$) of face-to-face respondents and 25.60% ($n=10$) of online respondents feeling their degree had not helped them professionally.

While the data suggests that most respondents found their degrees to be beneficial in various aspects of their professional and educational journeys, the findings are limited by small sample sizes. This limitation indicates the need for further research to better understand and enhance degree outcomes for all graduates.

Transfer Path Degree Utilization

For the 59 respondents who received a transfer degree, 83.33% ($n = 25$) of face-to-face respondents and 65.52% ($n = 19$) of online respondents indicated that they have already started their classes at their transfer institution (Table 5).

Table 5: Frequencies and Percentage of Respondents on the Transfer Path to Another Institution

Response	Face-to-face		Online	
	<i>n</i>	%	<i>n</i>	%
I have already begun classes at my new institution.	25	83.33	19	65.52
I have been accepted and will be starting classes soon.	0	0.00	2	6.90
I have not begun classes but have applied.	0	0.00	2	6.90
I have not begun but have spoken with an academic counselor.	0	0.00	3	10.34
I have not begun and have changed my plans.	0	0.00	1	3.45
I have not begun for other reasons.	5	16.67	2	6.90

Discussion

The study found that face-to-face respondents were more proactive in seeking post-graduation employment and had an increase in job searches and interviews, compared to those who completed a career-focused degree online. This aligns with findings from Ojha and Rahman (2020), who pointed out that online graduates often are older and frequently already employed at the time of graduation, negating the need for active job searching and interviews. Online and face-to-face career path graduates were comparable in how they could use their degree for career advancement. Many online and face-to-face respondents did not use their network established in school.

Results revealed statistically significant differences in self-assessed levels of communication and listening, perseverance, help-seeking, and self-determination between graduates who completed their degree online versus face-to-face. It is important to note that due the definition of online and face-to-face delivery methods provided by SLCC lacks a clear demarcation between online and face-to-face respondents. No respondents are entirely classified as exclusively online or face-to-face. This makes a clear comparison impossible, therefore it should be understood that all comparisons are made on the loosely defined groupings provided to the researchers. The observed statistical disparities led to the rejection of the null hypothesis, indicating that online and face-to-face graduates are not equal in CCR skills upon graduation.

Though there were statistical differences in communication and listening, and perseverance, each of these elements showed only a small to medium effect size. Morgan and Adams (2009), Xu and Jaggars (2013), and Raymundo (2020) explained that some of the deficiencies found in online courses stem from a lack of activities that foster some elements of CCR. However, it is important to note that though face-to-face instruction may provide more opportunities for engagement, these opportunities are also available to online courses or programs. Song et al. (2019) and Xu and Jaggars (2013) concluded that adjusting the development and implementation of online classes affects the attainment of knowledge in key employability skills.

The Mann-Whitney U tests further revealed that experiential learning, self-assessed critical thinking, and emotional intelligence were not significantly different between the two delivery methods. The results of this study provide empirical support for how the business school has incorporated experiential learning theory into its business courses by showing no statistical difference between online and face-to-face respondents. It suggests that these graduates incorporated Kolb's learning stages in their business courses, linking an experiential activity with past experiences and course content and reflecting upon these experiences. This study's lack of difference in critical thinking and emotional intelligence is consistent with Soffer and Nachmias (2018), who found that online classes are equally effective as face-to-face courses. The comparison of online to face-to-face employability skill development is a complex area of study, with some studies showing the benefit of online and others a disparity between delivery methods, resulting in

inconclusive results on outcomes of online delivery method in comparison to face-to-face delivery method (Emerson & MacKay, 2011; Figlio et al., 2013; Serdyukov, 2015; Xu & Jaggars, 2013). The findings in this study are more in line with the conclusions of Bahhouth and Bahhouth (2011), who found no differences among online students in critical thinking but found major drawbacks in communication and listening and perseverance. Furthermore, Xu and Jaggars (2013) found that peer performance within an online course significantly affected the perseverance and performance of each student. For example, a student was likely to perform poorly if their peers were disengaged and performed poorly. Performance, based on peer engagement, implies that increasing classroom comradery may increase individual perseverance.

It is essential to recognize the finding from Serdyukov (2015) that indicated that many of the performance deficiencies between online and face-to-face delivery do not come from the delivery method itself but from improper course development and a failure of the instructor or institution to properly adjust the pedagogy of the online course to meet the specific needs and demands of an asynchronous classroom environment. Based on the existing literature that found performance gaps between the delivery methods, it is likely that a lack of a specific online pedagogy is the cause for variability among delivery methods (Jaggars, 2014; Serdyukov, 2015; Xu & Jaggars, 2013). These findings are consistent with online course development where many online classes are built by taking the face-to-face curriculum and simply transferring that course online without making significant pedagogical changes. Transferring face-to-face course content to online courses without adjustment only happens with some courses. However, based on the results and the existing literature, this is one possible explanation of the differences in outcome.

This study highlights the significant difference between online and face-to-face graduates in terms of post-graduation degree utilization. Face-to-face students displayed higher propensity of job searching and interviewing activities. This increased job activity aligns with the findings of Ojah and Rahman (2020) who suggest that online graduates often do not require active job searching and interviews because of their employment status at graduation (e.g. typically already employed). Additionally, there were measured differences in communication and listening, perseverance, and self-determination. These differences exhibited small to medium effect sizes. However, the absence of significant differences in experiential learning, critical thinking, and emotional intelligence between the delivery methods highlights the effectiveness of the business school's application of experiential learning into its curriculum.

The mixed outcomes of this study echo the inconclusive results found in existing literature (Emerson & MacKay, 2011; Figlio et al., 2013; Serdyukov, 2015; Xu & Jaggars, 2013) and contribute to the growing body of research that advocates for online courses to adopt an online specific pedagogy. By developing an online specific pedagogy, care is taken in understanding and addressing the unique challenges that come with online asynchronous classes such as decreased student to student and student to teacher interactions. For example, a face-to-face class may call for in-class group projects and problem solving. If an online class tries to adopt this without compensating for the difficulties of asynchronous instruction, then the results of the activity may drastically differ. An online specific pedagogy can include virtual simulations, interactive multimedia content, discussion boards, and reflection and journaling activities to enhance the effectiveness of online education (Riskas, 2023; Stover & Holland, 2018). These specific recommendations for online pedagogy are effective because they address the unique challenges of online learning environments by promoting active learning, student engagement, and the development of both technical and employability skills, which are crucial for the successful utilization of a degree. By considering the nuances of online delivery and adapting pedagogy and instruction to uniquely develop CCR skills, the practical value of online degrees increases.

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