Lessons Learned About Teaching and Learning from the COVID-19 Pandemic

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Abstract

The outbreak of the COVID-19 pandemic disrupted student learning. The aim of this study was to measure differences in student learning outcomes for students exposed to different high impact practices in undergraduate psychology courses before, during, and after the outbreak of the COVID-19 pandemic. High impact practices in this study included: Service-learning, diversity learning, and experiential learning or fieldwork. A cross-sectional longitudinal research design was used to measure differences in student learning outcomes (SLOs) for 659 students exposed to high impact practices in undergraduate psychology courses before, during, and after the pandemic. The results indicate that students exposed to diversity service-learning develop a deeper understanding of social justice issues and educational inequities in the community by the end of the course compared to those students exposed to traditional fieldwork. Students who engaged in service or fieldwork during the outbreak of the pandemic felt more connected to the University and prepared to enter the workforce after graduation compared to students who engaged in service or fieldwork during the endemic. Educational practices and instructional modalities that warrant further exploration post-pandemic are discussed.

1. Introduction

In Institutions of higher education (IHE) have adopted high-impact practices to increase student engagement and retention [1]. High-impact practices (HIPs) are high quality and effective educational practices that contribute to student learning [2], [3]. High impact practices (HIPs) range from service-learning and diversity strategies to capstone courses and internships [1]. Academic service-learning (ASL) is a philosophical and pedagogical approach that combines academic study with community service [4]; while diversity service-learning (DSL) expands ASL by combining it with diversity learning strategies [5], [6]. ASL and DSL are designed to promote reciprocal learning in which students and recipients (i.e., community partners) learn from each other. In contrast, internships are designed to promote student learning and involve supervised discipline- and career-related work for academic credit [7], [8]. Internships, DSL and ASL are effective methods for exploring the needs of specific undergraduate populations such as first-year students, first generation college students, and students from underserved or underrepresented backgrounds [3], [9].

The worldwide outbreak of the COVID-19 pandemic contributed to disruption and distress in undergraduate students [10], [11], [12]. In the United States, the pandemic led to a halt of in-person instruction and required an immediate shift to online or remote instruction in mid-March 2020 [10]. Instructors were faced with challenges as many of them had little or no experience with teaching courses online [10], [11]. In addition, and beyond campus, community-based agencies, social service organizations, and elementary and secondary schools in some parts of the country shuttered as local officials ordered stay-at-home orders. With institutional closures, many community partners or placement sites began to deliver services primarily or completely remote [10]. Service-learning practitioners and fieldwork instructors who collaborated with these institutions had to scramble to revise service or fieldwork activities so they could occur online or abandon such activities altogether [10], [12]. Instructors made abrupt and unexpected modifications to coursework while balancing the needs of both students and institutions. Students also faced significant changes as they had to vacate their residences, return to permanent addresses, and switch abruptly to a fully online learning experience [10]. Regardless of the placement sites' constraints, most students faced additional challenges as they had to complete their service activities or fieldwork online. Technology was not equally accessible for students and recipients or clients. Students, recipients, and clients alike experienced socioeconomic and geographic limitations to stable Internet with some having access to technological solutions and others unable to access or afford it [10], [11]. The pandemic caused considerable uncertainty for students which in turn increased their distress, anxiety, and depression [13]. Students questioned how their reduced Eservice hours may impact their course grades; while, seniors specifically worried how their reduced field hours and revised internship duties would impact graduation requirements, conditions for graduate programs, and potential for employment.

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Although scholars have examined best practices for teaching online [3], [14], few researchers have explored the effectiveness of HIPs in an online environment. Most research in this area focused on implementing HIPs. Fewer studies evaluated the impacts from a single HIP by comparing student learning outcomes (SLO) for students exposed to either Eservice or internships in face-to-face and online instructional modalities [15], [16], [17]. The COVID-19 pandemic posed unprecedented challenges for faculty, students, and partners; however, it also provided tremendous opportunities for exploring the effectiveness of multiple types of HIPs online, which, in turn, may serve as educational practices beyond the resolution of the public health crisis. The broad aim of this study was to examine differences in student learning outcomes (SLOs) such as civic attitudes and skills (i.e., problem-solving, social justice attitudes) and cultural competence (i.e., color-blind attitudes, cultural awareness and skills) from the beginning to the end of the semester for students exposed to ASL, DSL and fieldwork during the pre-pandemic, pandemic, and endemic phases of COVID-19. Two questions were used to guide this study:

i. Are there differences in SLOs (i.e., problem-solving, social justice attitudes, civic attitudes, color-blind attitudes, cultural awareness and skills, empathetic reactions, multicultural ethnic identity development, multicultural experiences, and socially responsible leadership) from the beginning to the end of the semester for students exposed to ASL, DSL, and fieldwork during the pre-pandemic, pandemic, and endemic phases of COVID-19?

ii. Are there differences in academic challenge, satisfaction with service/fieldwork, and retention ratings for students assigned to psychology course during the pre-pandemic, pandemic, and endemic phases?

2. Participants

A total of 659 undergraduate students enrolled in ASL (21%), DSL (19%), and internship (60%) courses from Fall 2015 to Spring 2022 at a private teaching university in a northern metropolitan area took part in the study. Most students identified as White (72%) and female (74%) with a mean age of 20.14 years (SD=2.26). The remaining group of students identified as either African-American (12%), Latino/a (5%), Asian-American (3%), Indian (1%), Middle-Eastern (1%) or Multiracial (6%), and either male (25%) or transgender (1%). Of these students, 13% were first-year, 31% were second-year, 37% were third-year and 20% were fourth-year undergraduates. Slightly more than half the students (58%) participated in psychology courses either during the COVID-19 pandemic (33%) or endemic (25%).

3. Course Content

The outbreak of the COVID-19 pandemic required modifications to the instructional modalities and course assignments in ASL, DSL and internship courses (please review original course descriptions [18]). ASL, DSL and internship courses were taught synchronous through Zoom video-conferencing software. A welcome video that describes instructor expectations for each course was sent to students prior to beginning of the semester. Course lectures and discussions were revised using a flipped learning approach [19]. Modules were created for each topic covered in each class and included voice-over power points, video-clips, and questions to generate discussions for class.

Academic Service-Learning [18]. The Educational Psychology course is designed to meet the Pennsylvania Department of Education standards for elementary and secondary certification. This course requires students to complete a “getting-to-know-you” assignment at the beginning of the semester. Students make a video in which they describe their own elementary and secondary educational experiences, interests in becoming either a teacher or school counselor, and needs as a learner. Students are required to review their own videos and summarize what they did or did not learn about themselves and the areas that they need to work on to enhance their professional development. In-class time begins with a discussion about professional development and Eservice. Guest speakers representing different placement sites zoom into class to discuss the requirements for Eservice. Most students were matched to a public school in the Chester-Upland School District; while, the remaining students were matched with the Boys and Girls Club of Chester and Chester Eastside. Both community-based programs served as host schools during the pandemic for children whose parents had to work and could not assist them with their online school and those children who either did not have technological resources or access to stable internet. Students typically complete 15 hours of service in which they serve as tutors and assist with homework. Students answer structured reflection questions that correspond to each hour of service. The number of reflections questions and service hours were reduced because of the pandemic. Students also complete a cultural competence assignment in which they work in groups. The cultural competence assignment requires students to interview a teacher or guidance counselor using questions that inquire about professional experiences, work with diverse

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populations, teaching or counseling methods, and challenges as a professional. Students make a video or power point presentation in which they compare teacher responses and connect them to diversity, motivational, behavioral, and developmental theories. Students summarize what they did or did not learn about diversity, equity, inclusion, and belonging.

Diversity Service-Learning [18]. The Multicultural Psychology course fulfills a distribution requirement in the African and African American Studies, Liberal Arts, and Psychology curricula. This course begins with a multicultural awareness assignment in which students make a video about their own culture and how they learned about racism or Whiteness. Students describe their family's culture, traditions, and history related to racism or Whiteness, and concerns about discussing issues related to race, class, and culture in class. Students watch their own video recording and then summarize what they did or did not learn about themselves and describe what they need to develop as a learner. The next two classes consist of a discussion on student concerns about taking this class and guidelines for discussion, followed by an orientation on Eservice-learning from guest speakers representing different placement sites. Students complete 15 hours of service and answer structured reflection questions after each class and service experience so they can critically analyze their thoughts and feelings about race and class concepts within the course and service context over the semester. About half the students served as virtual tutors at either a public school or a community program; while the remaining group of students pivoted from in-person to online (and vice versa) at agencies that delivered services to adults diagnosed with intellectual disabilities and mental health disorders. Experiential activities designed for online learning [14] were used to generate discussions about stereotypes, prejudice and discrimination, ageism, sexism, and other isms, classism and racism, racial identity development, White privilege, microaggressions, and cultural competence. In addition, students were required to complete movie review and intercultural interview assignments that were designed to improve their multicultural knowledge and skills [18]. Students were given an opportunity to complete each assignment in a paper, video, or presentation format. The course ends with a social network activity and a reflective discussion about how student concerns about taking this class have changed throughout the semester.

Internship [18]. The internship serves as a capstone and requires students to gain extensive "real world" experience [20]. Students are matched to placements that include community mental-health centers, drug and alcohol counseling centers, rehabilitation and community centers, behavioral programs, and other agencies in which they put their knowledge of psychology into practice. Students pivoted from in-person to online fieldwork during the pandemic. Students also attend weekly seminars and complete an advanced ethical dilemma paper, structured reflections, a scholarly paper, and a poster presentation. Students were given opportunities to use different formats to complete the ethical dilemma paper and structured reflections. Most students completed assignments in a paper format while a few of them made video-recordings or presentations. All students made a poster of their scholarly paper that was converted into a pdf file. Students presented their posters online at the end of the semester.

Measures (as described [21]). A Demographic Questionnaire, developed by the researchers, was used to gather information on gender, race, age, and year in school. Student data were coded according to course, high impact practice, year of course completion, and COVID status. Questions about academic challenge and retention developed by Gallini and Moely [22] were used to assess academic challenge and retention at the end of course. Academic Challenge requires respondents to assess course qualities such as intellectual challenge and difficulty, and Retention requires respondents to evaluate the course's impact on continuing at the university. Perceptions About Fieldwork, developed by the researchers, was based on previous work [22] and used to gather student views about their activities at placement sites. Cronbach's coefficient alpha for each scale ranged from .74 to .82.

The Civic Attitudes, Knowledge, and Skills Measures (CAKSM) measures constructs related to civic engagement [23] and is based on the Civic Attitudes and Skills Questionnaire (CASQ) [24]. The CAKSM is a self-report questionnaire that yields scores on three domains and 11 subscales:

i. Attitudes (Civic Responsibility, Social Justice, Valuing Community Engagement, and Cultural Awareness subscales),

ii. Knowledge (Seeks Knowledge about Political Issues, Knowledge of New Orleans Culture, and Knowledge of Current Events subscales), and

iii. Skills (Interpersonal Problem-Solving, Leadership, and Cultural Skills).

The civic responsibility (i.e., respondents evaluate their intentions to become involved in community service), social justice (i.e., respondents rate their agreement with items expressing attitudes concerning the causes of poverty and how social problems can be solved), cultural awareness (i.e., respondents assess their interest in learning about different cultures) and skills (i.e., respondents

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evaluate their ability to relate to people from a different race or culture), interpersonal problem-solving (i.e., respondents evaluate their ability to listen, work cooperatively, take the role of the other, think logically and analytically, and solve problems), and leadership (respondents evaluate their ability to lead) subscales were used in the current study. Coefficient alpha for each subscale ranged from .77 to 78.

The Color-Blind Racial Attitude Scale (CoBRAS) assesses contemporary racial attitudes [25]. The CoBRAS, a 20-item self-report measure that yields scores on three scales:

i. Unawareness of Racial Privilege (i.e., respondents evaluate their lack of awareness of White racial privilege),

ii. Unawareness of Institutional Discrimination (i.e., respondents evaluate their lack of awareness of racial issues associated with social policies, affirmative action, and discrimination), and

iii. Unawareness of Blatant Racial Issues (i.e., respondents evaluate their lack of awareness of blatant racial problems in the United States). Cronbach's coefficient alpha for each scale ranged from .86 to .88.

The Multigroup Ethnic Identity Measure (MEIM), measures two aspects of students' ethnic identity:

i. Ethnic Identity Achievement based on exploration and commitment, and

ii. Sense of Belonging to and attitudes toward, one's ethnic group [26]. Cronbach's alpha for this scale is .80.

The Multicultural Experiences Questionnaire (MEQ), measures multicultural attitudes on two subscales:

i. Multicultural Experiences is based on the number of multicultural experiences, and

ii. Multicultural Desires is based on effort or desire to increase multicultural experiences [27]. Cronbach's alpha for the subscales ranged from .53 to .73.

The Psychological Costs of Racism to Whites Scale (PCRW), measures the costs of racism as emotional, cognitive, and behavioral consequences experienced by White individuals from racism on three subscales:

i. White Empathetic Reactions Toward Racism,

ii. White Guilt, and

iii. White Fear of Others [28]. The White Empathetic Reactions Toward Racism (i.e., respondents assess their feelings about racial injustice) and White Guilt (i.e., respondents assess the degree to which they feel responsible for racism) subscales were used in this study. Cronbach's coefficient alpha for each scale ranged from 63. to .78.

The Socially Responsible Leadership Scale, measures characteristics associated with leadership on eight subscales: 1. Consciousness of Self, 2. Congruence, 3. Commitment, 4. Common Purpose, 5. Collaboration, 6. Controversy with Civility, 7. Citizenship, and 8. Change [29]. The citizenship (i.e., respondents assess the importance of playing an active role in communities) subscale was used in this study. Internal consistency for each subscale ranged from .69 to .92.

3. Procedure

A cross-sectional longitudinal research design was used to measure differences in student learning outcomes in psychology courses that utilize ASL, DSL, and internship as educational practices for students before, during, and after the pandemic (i.e., endemic phase). Students completed an electronic consent form and a pretest survey that measured the Civic Awareness, Knowledge, and Skills (CAKSM), the Color-blind Attitudes Scale (CoBRAS), the Multigroup Ethnic Identity Measure (MEIM), the Multicultural Experience Questionnaire (MEQ), the Psychological Costs of Racism to Whites Scale (PCRW), and the Socially Responsible Leadership Scale (SRLS). Students completed the survey again at the end of the course. Questions about academic challenge, perceptions about fieldwork, and retention were included in the posttest survey. Surveys took approximately 30 minutes to complete.

4. Results

A repeated measures analyses of variance of covariance (ANCOVAs) with orthogonal contrasts were conducted on SLOs (i.e., CAKSM, CoBRAS, MEIM, MEQ, PCRW, and SRLS) to measure change from the beginning to the end of the semester for students assigned to ASL, DSL and internship courses during the pre-pandemic, pandemic, and endemic phases of COVID-19. The type of HIP (i.e., ASL, DSL, and internship) served as the independent variable, pretest and posttest survey scores served as the dependent variables, and phases of the COVID-19 pandemic served as the covariate. There were significant main effects for group and time as shown in Table 1. Bonferroni t tests were conducted to detect differences in adjusted means for students assigned to different types of HIPs while controlling

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the Family Wise (FW) Error Rate [30]. This analysis was conducted to control for Type I errors associated with orthogonal contrasts. Results from pairwise comparisons indicate that students exposed to diversity service-learning practices develop a deeper understanding of social justice issues and educational inequities in the community by the course end compared to those students exposed to traditional fieldwork. Results from pairwise comparisons also suggest that students decrease their empathetic reactions over time, regardless of the type of high impact practice they were exposed to in the course.

Table 1. Mean scores, standard deviations, and f ratios for pre- and posttest survey scores as a function of HIPs and COVID-19

Time Points					F ratios					
	Pretest		Posttest					Time x	Time x	
Measure	M	SD	M	SD	Time	COVID	Course	COVID	Course	Post hoc
CAKSM										
Social Justice					10.43***	.64	5.44**	.02	.42	
1Internship	29.92	3.25	32.62	4.74						1 < 2
2DSL	31.12	3.03	34.24	4.03						2 > 1
3ASL	29.74	3.09	33.21	4.77						3 = 2, 1
Total	30.06	3.20	33.01	4.67						
PCRW					14.74***		.66	3.08*	.95	.58
Empathetic Reactions										
1Internship	25.67	3.91	22.00	3.71						1 = 2, 3
2 DSL	27.19	2.42	22.93	2.80						1 = 2, 3
3 ASL	26.40	3.88	21.90	3.40						1 = 2, 3
Total	26.16	3.73	22.11	3.52						

Note. ***p<.001, **p<.01, *p<.05. *p<.05. The numbers in rows refer to the numbers used for illustrating significant differences in the last column titled "Post hoc."

Relatively few differences in SLOs for students exposed to HIPs during the pre-pandemic, pandemic, and endemic phases. Therefore, an exploratory analysis was conducted to detect COVID-19 impacts on student learning. A repeated measures analyses of variance (ANOVA) with Tukey Post Hoc comparisons were conducted to evaluate student learning outcomes (SLOs) from the beginning to the course end for students before, during, and after the COVID-19 pandemic. COVID-19 pandemic status (i.e., pre-pandemic, pandemic, and endemic) was used as the independent variable, and pretest and posttest survey scores were used as dependent variables.

The significant interaction effects for multicultural experience scores. Post hoc analysis revealed that there were no observed differences in multicultural experience scores for students who took part in either service or fieldwork during the pre-pandemic, pandemic, or endemic phases of the public health crisis. Main effects for time revealed that students increased their civic awareness, problem-solving, social justice, cultural awareness, socially responsible leadership, and White guilt scores, and they decreased their unawareness of White privilege and institutional discrimination scores from the beginning to the course end.

Table 2. Mean scores, standard deviations, and f ratios for pre- and posttest Scores as a Function of COVID-19 pandemic status

	Time Points				F ratios			
	Pretest	Posttest				Time x		
Measure		M	SD	M	SD	Time	Group	Group
CAKSM-Problem-Solving						10.48***	1.58	.61
Pre-Pandemic	43.56	4.14	44.23	5.47				
Pandemic	44.23	5.47	45.12	5.91				
Endemic		43.98	4.14	45.77	4.05			
Total	43.66	4.92	45.10	5.34				
Social Justice					70.35***		.51	.85
Pre-Pandemic	29.90	3.12	32.64	5.33				

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Pandemic	29.97	3.24	33.36	4.47				
Endemic		30.33	3.22	32.76	4.41			
Total	30.64	3.22	33.01	4.67				
Cultural Awareness					5.01*		2.54	1.44
Pre-Pandemic	33.86	3.45	33.88	3.80				
Pandemic	32.47	4.49	33.83	4.03				
Endemic		32.48	4.15	33.30	3.85			
Total	32.79	4.20	33.69	3.92				
Civic Awareness						3.90*	.09	1.85
Pre-Pandemic	37.09	4.63	37.73	5.53				
Pandemic	36.58	5.58	38.45	5.49				
Endemic		37.63	5.66	37.70	5.31			
Total	37.01	5.40	38.06	5.44				
CoBras-White Privilege						21.09***	.88	.25
Pre-Pandemic	17.83	6.01	15.83	6.06				
Pandemic	17.55	5.39	14.85	5.63				
Endemic		17.02	5.42	14.94	5.40			
Total	17.44	5.53	15.08	5.65				
Institutional Discrimination					4.65*	2.59	.19	
Pre-Pandemic	15.45	4.36	14.70	5.59				
Pandemic	16.53	5.00	15.18	5.47				
Endemic		16.88	5.17	16.00	5.24			
Total	16.41	4.94	15.33	5.43				
MEIM-Ethnic Identity Achievement					22.80***		.71	.88
Pre-Pandemic	16.11	3.98	18.14	3.88				
Pandemic	17.04	4.37	18.12	4.23				
Endemic		16.25	4.15	18.14	3.71			
Total	16.60	4.23	18.13	3.99				
MEQ-Experiences					46.90***		.27	4.91**
Pre-Pandemic	26.83	5.37	29.32	5.53				
Pandemic	26.92	5.76	28.94	5.16				
Endemic		25.76	5.36	30.92	5.80			
Total	26.55	5.57	29.62	5.49				
PCRW-White Guilt					6.55*		1.76	.25
Pre-Pandemic	13.10	4.53	14.07	5.05				
Pandemic	12.20	4.82	13.74	5.56				
Endemic		12.03	4.81	12.94	5.45			
Total	12.35	4.76	13.57	5.42				
SRLS-Citizenship					9.41**		.45	1.52
Pre-Pandemic	33.70	4.72	34.12	5.85				
Pandemic	33.29	5.70	35.45	5.15				
Endemic		33.78	5.17	35.03	4.70			
Total	33.53	5.32	35.02	5.21				

Note. ***p<.001, **p<.01, *p<.05.

A One-Way Analysis of Variance (ANOVA) with Tukey post hoc comparisons was conducted on posttest questions that measured academic challenge, perceptions of fieldwork, and retention. As shown in Tables 3 and 4, students who participated in fieldwork during the outbreak of the pandemic reported feeling more connected to the University compared to those students who participated in service or fieldwork during the endemic phase of the pandemic.

Table 3. Mean scores, standard deviations, and one-way analysis of variance for posttest scores as a function of COVID-19 pandemic status

Variable and source	SS	MS	df	F
I feel more connected to the University				
Between Groups	7.90	3.95	2, 336	3.31*

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Within Groups	398.43	1.19		
Experience was related to my field				
Between Groups	18.56	9.28	2, 338	5.57**
Within Groups	559.77	1.66		
Assumed responsibility over time				
Between Groups	18.35	9.17	2, 336	5.46**
Within Groups	561.00	1.68		
Received feedback				
Between Groups	15.72	7.86	2, 336	4.79**
Within Groups	547.23	1.63		
Treated as a professional				
Between Groups	13.00	6.50	2, 336	4.30*
Within Groups	504.52	1.51		
Work was challenging and rewarding				
Between Groups	14.87	7.43	2, 337	4.58*
Within Groups	543.77	1.62		
Prepared to enter the workforce				
Between Groups	14.32	7.16	2, 337	3.85*
Within Groups	622.60	1.85		
Engaged in helping behaviors				
Between Groups	15.54	9.27	2, 336	5.75**
Within Groups	538.11	1.61		
Cultural competence				
Between Groups	19.04	9.52	2, 336	6.58**
Within Groups	483.28	1.44		
I was given a degree of autonomy				
Between Groups	24.31	12.15	2, 336	7.05***
Within Groups	575.64	1.72		

Note. ***p<.001, **p<.01, *p<.05.

Table 4. Mean scores, standard deviations, and post hoc analyses for posttest scores as a function of COVID-19 pandemic status

	Pre-Pandemic (1)		Pandemic (2)		Endemic (3)		
Variables	M	SD	M	SD	M	SD	Post hoc
I feel more connected to the University	3.85	1.12	4.13	.99	3.81	1.17	2 > 3
My experience was related to my field	2.86	1.08	2.73	1.28	3.24	1.38	2 < 3
I engaged in helping behaviors	2.80	1.12	2.45	1.19	2.96	1.40	2 < 3
I assumed responsibility over time	3.10	1.14	2.62	1.28	3.09	1.36	2 < 1, 3
I received feedback	3.00	1.00	2.66	1.30	3.12	1.36	2 < 3
I demonstrated cultural competence	2.70	1.08	2.45	1.13	2.97	1.31	2 < 3
I was given a degree of autonomy	2.88	1.19	2.52	1.25	3.11	1.42	2 < 3
I was treated as a professional	2.80	1.01	2.54	1.25	2.97	1.29	2 < 3
The work was challenging and rewarding	2.91	1.18	2.75	1.28	3.21	1.29	2 < 3
I feel prepared to enter the workforce	2.96	1.22	3.22	1.43	2.98	1.37	2 > 3

*p<.05. The numbers in parentheses in column heads refer to the numbers used for illustrating significant differences in the last column titled "Post hoc."

5. Discussion

Research on distance learning has shown that teacher effectiveness requires more than expertise in content area [3, 14]. In fact, teacher effectiveness relies on the instructor's ability to competently deliver content through both sound pedagogical practices and the effective integration of technology

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[31]. The COVID-19 pandemic required instructors to transition to online with little time to adapt their pedagogical approach. Although this abrupt transition affected students' learning experiences [10], [11], it allowed instructors to review and redesign educational practices. Embracing these opportunities may allow instructors to discover innovative educational practices and instructional modalities for teaching and learning [16]. The current study expands previous research by demonstrating how the use of multiple HIPs in an online environment contribute to student learning during the outbreak of the pandemic. Therefore, it is worth considering how to normalize these practices in the new normal post-pandemic [12].

The primary aim of this study was to measure differences in student learning outcomes (i.e., CAKSM, CoBRAS, MEIM, MEQ, PCRW, and SRLS) from the beginning to the end of the semester for students assigned to ASL, DSL and internship courses during the pre-pandemic, pandemic, and endemic phases of COVID-19. Students exposed to diversity service-learning develop a deeper understanding of social justice issues and educational inequities in the community by the course end compared to those students exposed to traditional fieldwork, consistent with previous research on in-person and online multicultural psychology courses [15], [32], [21]. Researchers [15] compared cultural competence outcomes for graduate students enrolled in a face-to-face and an online multicultural psychology course and found a nonsignificant effect for modality, thus suggesting that students in online courses make similar changes in racial attitudes as students in face-to-face courses.

Students also decreased their empathetic reactions over time and is partially consistent with previous research [15], [16], [17]. Reich and colleagues [17] compared empathetic communication skills for students enrolled in a face-to-face counseling course, an asynchronous version of this course, and an internship. Students in the face-to-face course improved their skills more than students in an asynchronous course and those students in an internship. In contrast, Iseminger et al. [16] compared psychology majors in an online to a face-to-face course and found that both student groups scored low in empathy. The White empathetic reactions toward racism subscale measures anger, sadness, and helplessness. As White students learn about multicultural issues, they typically experience increases in empathetic reactions (i.e., agender, sadness) toward racial oppression [28]. Over half the sample took part in the study during the pandemic and endemic phases of COVID-19, and although, the instructor and pandemic status were held constant, it is possible that students decreased their levels of empathetic reactions because of their awareness and involvement in George Floyd, Black Lives Matter, and other racial protests. Unfortunately, students may also have become numb or immune to racial injustices that occurred in the United States and the introduction of such content may have rendered them less angry and sad. Another aim of this study was to measure differences in SLOs from the beginning to the course end for students during the pre-pandemic, pandemic, and endemic phases of COVID-19. Students were taught in-person in the pre-pandemic and endemic phases of COVID-19; while students were taught online during the pandemic. There were no differences in SLOs for students exposed to different instructional modalities. However, students improved their ability to listen to others and solve problems and increased their interest in becoming involved in community service, consistent with previous service-learning research [12], [18], [21]. Xiao and colleagues [12] observed no difference in student learning for students exposed to Eservice and in-person service-learning and surmised that Eservice was a viable method for teaching about civic responsibilities. In addition, students developed cultural competence over time. Students improved their understanding of their ethnic identity development (i.e., increased), White privilege and institutional discrimination (decreased), and interests in learning about different cultures (increased) and multicultural work (increased), consistent with [15], who found that students develop cultural competence by the end of a multicultural psychology course. Students also increased their White guilt in that they felt responsible for racism. Spanierman and Heppner [28] suggest that White students experience shame and guilt regarding their own Whiteness. White students who score high on this construct tend to have some understanding of institutional racism and feel a sense of personal responsibility for it. Students in this study increased their awareness of White privilege and institutional discrimination, which in turn may have contributed to both shame and guilt, thus increasing their interest in multicultural work perhaps to take responsibility for racism.

A final aim of the study was to measure changes in posttest surveys for students during the pre-pandemic, pandemic, and endemic phases of COVID-19. Local emergency orders stemming from the global pandemic required social service agencies and educational institutions to shift from in-person to remote work. Not all organizations were able to adhere to these orders. In fact, organizations scrambled to develop and implement protocols for clients and staff, at the same time, continuing to provide 24-hour care in the form of clinical and residential services. Students who participated in service or fieldwork during the outbreak of the

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pandemic either continued to provide in-person services, transitioned to telehealth and other types of remote work, or were reassigned activities to fulfill their hours. It is not surprising that this student group had lower ratings for service activities or fieldwork as rewarding. This student group also felt more connected the University and more prepared to enter the workforce after graduation compared to those students who took part in service or fieldwork during the endemic. Contrary to previous research [11], students were engaged during the pandemic. All courses were taught synchronously in which students met online several times a week to discuss their Eservice and other virtual activities, which, in turn may have deepened their connection to the institution. Students who engaged in Eservice, telehealth, and in-person work during the pandemic had unimaginable learning experiences in and out of the classroom. Additional research is needed to understand COVID-19 impacts on student learning.

COVID-19 transformed education as it opened the door to online learning. Distance learning allows institutions to exhaust fewer resources and improve accessibility for students [15]. The most salient finding from this study was that few differences were observed for students exposed to different HIPs during the pre-pandemic, pandemic, and endemic phases. High impact practices such as ASL, DSL, and internships are easily transferable to an online environment, but only if educational practices are integrated into an online course the same way as they are in a face-to-face course. A necessary component for Eservice and virtual fieldwork is to ensure that online courses are a close replication of in-person courses. The online courses described in this study were taught synchronous; therefore, additional research is required to compare student learning outcomes for students exposed to different HIPs in asynchronous courses.

The current study expands the scholarship on HIPs by assessing multiple educational practices and instructional modalities on a large sample of students; however, there are methodological limitations that prevents us from generalizing the results beyond our sample. An overwhelming majority of students were White females. Male and transgender students and students from underserved or underrepresented backgrounds may have answered questions about White empathetic reactions differently. There is no way of knowing for certain if diversity service-learning or a particular instructional modality (i.e., online, face-to-face) contributed to posttest changes in student learning outcomes without the use of an experimental design.

The outbreak of the COVID-19 pandemic in the middle of the semester impacted in-person instruction and fieldwork which may have contributed to changes in student learning outcomes, thus making replication of this study difficult. Students worked at community-based programs, social service organizations, and educational institutions. The uniqueness of service experiences and fieldwork make replication further difficult. Researchers may want to compare student learning outcomes for students exposed to multiple HIPs using different instructional modalities (i.e., online, face-face). The use of randomization and a control group with diverse samples of students would advance this area of research.

Despite the mentioned limitations, there are pedagogical and instructional methods that may be worth exploring post-pandemic. The "getting-to-know you" activities in ASL and DSL courses should continue to be used to engage students. Student engagement can increase retention at colleges and universities. The flipped learning approach should continue to be used to further increase student engagement and retention [19]. In addition, the use of different options for assignments (i.e., paper vs. video) should be retained. This flexible approach affords students the opportunity to highlight their skills. Some students have an innate ability to write, while, other students are better at verbalizing their thoughts in a video presentation. Eservice and telehealth options should be further explored as potential best practices. Eservice and telehealth allow students to collaborate with recipients and clients in the broader University-community. Students may provide services to recipients who have limited options because of their geographic location. Eservice and telehealth may also allow students to connect with diverse recipients in the United States and beyond, thus contributing to the development of their own cultural competence.

The need for exposing students to diversity learning strategies and other types of high impact practices remain, yet little is known about the degree to which these educational practices contribute to changes in student attitudes and facilitate learning of multicultural awareness, knowledge, and skills in general and in online instruction [15]. Additional research on high impact practices, instructional modalities, and cultural competence is necessary to expand this area of study.

6. Conclusion

Our study contributes to the literature by providing preliminary evidence of attitude shifts related to cultural competence (i.e., color-blind racial attitudes, cultural awareness) and civic engagement (i.e., social justice attitudes, civic awareness) in students. Students exposed to ASL, DSL, and fieldwork made changes in domains (i.e., attitudes and skills) related to cultural competence and civic engagement regardless of the pedagogical method or

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instructional modality. In contrast, students who engaged in fieldwork and service activities during the pandemic acquired the necessary skills to transition to the workforce even though they had to pivot from in-person to virtual work (i.e., Eservice, telehealth). ASL, DSL and fieldwork should be integrated in undergraduate studies to foster cultural competence and civic engagement in students. The use of multiple HIPs should be further explored in an online learning environment.

7. References

[1] G.D. Kuh, and K. O'Donnell. (2013). Ensuring Quality and Taking High-Impact Practices to Scale. Washington, DC: Association of American Colleges and Universities.

[2] Kuh. G. D. (2008). High-impact education practices: What are they, who has access to them, and why they matter. Washington DC: Association of American Colleges and Universities.

[3] Linder, K. E., and Hayes, C.M. (2018). High-impact practices in online education. Sterling Virginia: Stylus Publishing.

[4] Eyer. J. (2002). Reflection: Linking service and learning-linking students and communities. Journal of Social Issues, 58 (3), 517-534.

[5] Baldwin, S. C., Buchanan, A. M., and Rudisill, M. E., (2007). What teacher candidates learned about diversity, social justice, and themselves from service-learning experiences. Journal of Teacher Education, 58 (4), 315-327.

[6] Sperling. R. (2007). Service-learning as a method of teaching multiculturalism to White college students. Journal of Latinos and Education, 6 (4), 309-322.

[7] Sigmon. R. L. (1996). The problem of definitions in service-learning. In R.L. Sigmon and colleagues (Eds.), Journey to service-learning, 9-12. Washington: DC: The Council of Independent Colleges.

[8] Sweitzer, H. F., and King. M. A. (2009). The successful internship: Personal, professional, and civic development. Belmont, CA: Brooks/Cole.

[9] Eyler, J. S. and Giles. D. E. (1999). Where's the learning in service-learning? San Francisco: Jossey-Bass.

[10] Bell, D. J., Self, M. M., Davis, C., Conway, F., Washburn, J. J., and Crepeau-Hobson, F. (2020). Health service psychology education and training in the time of COVID-19: Challenges and opportunities. American Psychologist, 75 (7), 919-932.

[11] Usher, E. L., Golding, J. M., Han, J., Griffiths, C. S., McGavran, M. B., Brown, C. S., and Sheehan, E. A. (2021). Psychology students' motivation and learning in response to the shift to remote instruction during COVID-19. Scholarship of Teaching and Learning in Psychology, Advance online publication. DOI: 10.10.1037/st10000256.

[12] Xiao, C., Wan, K., and Chan, W-F. C. (2022). Ensuring the effectiveness of eservice-learning in holistic education under social distancing. Journal of Experiential Education, 1-25. DOI: 10.1177/10538259221077184.

[13] Elmer, T., Mepham, K., and Stadtfeld, C. (2020). Students under lockdown: Comparisons of students' social networks and mental health before and during the COVID-19 crisis in Switzerland. PLOS ONE, 15 (5), article e0236337. DOI: 10.1371/journal.pone.0236337.

[14] Nilson, L. B., and Goodson, L. A. (2018). Online teaching at its best: Merging instructional design with teaching and learning research. San Francisco, CA: Jossey-Bass,

[15] de la Caridad Alvarez, M., and Domenech Rodriguez, M. M. (2020). Cultural shifts in multicultural psychology: Online versus face-to-face. Translational Issues in Psychological Science, 6 (2), 2020, 160-174.

[16] Iseminger, S. I., Diatta-Holgate, H. A., and Morris. P. V. (2020). Describing students' intercultural competence after completing a cultural diversity course online or face-to-face. Teaching and Learning Inquiry, 8 (2), 114-127.

[17] Reich, C. M., LaCaille, L. J., Axford, K.E., and Slaughter, N.R. (2022). Empathetic communication skills across applied undergraduate psychology courses: A replication study. Teaching of Psychology, 49 (1), 49-56.

[18] Simons, L., Marshall, C., Blank, N., and Weaver, N. (2022). Differences in student learning outcomes that utilize high impact practices, The European Journal of Social and Behavioral Sciences (EJSBS), XXVII (3), 3049-3073.

[19] Talbert. R. (2007). Flipped learning: A guide for higher education faculty. Sterling, Virginia: Stylus Publishing.

[20] American Psychological Association. (2016). Guidelines for the undergraduate psychology major: Version 2.0. American Psychologist, 71 (2), 102-111.

[21] Simons, L., Fehr, L., Blank, N., Fernandez, D., Georganaz, D., Padro, J., and Peterson. V. (2013). A comparative analysis of experiential education and student development: Does the type of service matter? World Journal of Education, 3 (3), 63-74.

[22] Gallini, S. M., and Moely, B. E. (2003). Service-learning and engagement, academic challenge, and retention. Michigan Journal of Community Service-Learning, 10 (1), 5-14.

[23] Moely, B. E., and Ilustre, V. (2011). University students' views of a public service graduation requirement. Michigan Journal of Community Service Learning, 17 (2), 2011, 43-58.

 | DOI: 10.20533/ijcdse.2042.6364.2022.0578

[24] Moely, B. E., Mercer, S. H., Ilustre, V., Miron, D., and McFarland, M. (2002). Psychometric properties and correlates of the civic attitudes and skills questionnaire (CASQ): A measure of student's attitudes related to service-learning. Michigan Journal of Community Service Learning, 8 (2), 15-26.

[25] Neville, H. A., Lilly, R. L., Duran, G., Lee, R. M., and Browne, L. (2000). Construction and initial validation of the Color-Blind Racial Attitude Scale (CoBRAS). Journal of Counseling Psychology, 47, 59-70.

[26] Phinney. J. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with adolescents and young adults from diverse groups. Journal of Adolescent Research, 7, 156-176.

[27] Narvaez, D., Endicott, L., and Hill. P. (2017). Guide for using the multicultural experience questionnaire (MEQ) for college students and adults. Notre Dame, IN: University of Notre Dame. https://www3.nd.edu/~dnarvaez/documents/MulticulturalExperiencesQuestionnaireV4REVISION.pdf (Access Date: 3 May 2022).

[28] Spanierman, L. B., and Heppner. M. J. (2004). Psychological costs of racism to Whites scale (PCRW): Construction and initial validation. Journal of Counseling Psychology, 51 (2), 249-262.

[29] Dugan, J. P. (2006). Involvement and leadership: A descriptive analysis of social responsible leadership. Journal of College Student Development, 47 (1), 335-343.

[30] Howell, D. C. (1992). Statistical methods for psychology. Massachusetts: PWS-KENT.

[31] Koehler, M. J., and Mishra, P. (2009). What is technological pedagogical content knowledge? Contemporary Issues in Technology and Teacher Education, 9 (1), 60-70.

[32] Patterson, C. A., Papa, L. A., Reveles, A. K., and Domenech Rodriguez. M. M. (2018). Undergraduate student change in cultural competence: Impact of a multicultural psychology course. Scholarship of Teaching and Learning in Psychology, 4 (2), 81-92.

 | DOI: 10.20533/ijcdse.2042.6364.2022.0578