

High Impact Practices in Underserved Communities: Linking Open Educational Resources and Local Non-Profit in Business Communications Course Design

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High-impact educational practices (HIPs) provide a deep and significant learning experience that can enhance academic attainment among students in higher education (Kuh, 2008). HIPS, differing from traditional educational outreach practices, are learning practices that faculty use to increase student commitment and success, specifically in underserved student populations (Valentine & Price, 2021; White, 2018). HIPs may take on different forms to align with specific priorities and course contexts. This paper discusses the development of HIPs used in redesigning a senior-level business communications course at a public four-year institution through project-based learning and connecting students with a local non-profit organization. Faculty utilized HIPs in a course redesign to combine collaborative assignments and projects, community-based learning, and undergraduate research in a writing-intensive course project. Open Educational Resources (OER) were selected for this course. We suggest that HIPs combined with OER can promote increased levels of student engagement and development, especially for the underserved community.

Keywords: high-impact educational practices, open educational resources, course redesign, underserved student populations

INTRODUCTION

The implementation of high-impact educational practices (HIPs) is a strategy used in the design of a course to enhance student experiences. Extensive research indicates that HIPs provide a profound and substantial learning experience that can enhance academic attainment among students in higher education (White, 2018). Kuh (2008) outlined HIPs within eight categories, including first-year connections, common intellectual experiences, learning communities, writing-intensive courses, collaborative assignments, undergraduate research, diversity learning, and community engagement. Each strategy has proven to have a positive effect on students. Some benefits include increased retention, determination, and comprehension leading to a more positive college experience (Peters et al., 2019). Soria and Johnson (2017) found that community engagement increased students' perceptions of their leadership capabilities. Embedding HIPs through community engagement has been shown to improve student experiences in all groups, especially

the underserved (Finley & McNair, 2013). Community engagement aligns students' classroom knowledge with real-world scenarios (Fink, 2016). Ultimately students display higher levels of learning when multiple HIPs strategies are used at once (Finley & McNair, 2013). Incorporating multiple HIPs into a course design provides a synergistic effect and compounds learning and application. This qualitative case study explores the implementation of high-impact practices in underserved student populations in a public four-year institution in Hawaii. Faculty for business communications courses underwent a course redesign with equity to course materials, HIPs, and community-mindedness as engagement tools to enhance the student experience with the material.

Underserved communities have a variety of definitions depending upon the unique contexts. In higher education, underserved communities are typically described as students from low-income backgrounds, first-generation, and students from minority groups. In many underserved communities, languages other than English are spoken at home. Students from underserved populations have on average lower enrollment and college persistence rates compared to traditional peers indicating that their experiences related to college differ from their higher-income, legacy, and traditional-majority peer groups (Tharp, 2012). The "post-traditional" student also known as the adult student market is estimated to make up 70 percent of the national student body (Fischer et al., 2020). In a 2020 survey of nearly 1,000 underserved undergraduate students, aged 22 years or older, 23 percent indicated their primary motivation to enroll in college coincided with the desire to transition to a new career, and 26 percent cited their financial situation changed leading them to seek further education (Fischer et al., 2020). Higher education institutions and faculty need to consider how course designs meet the needs of the large, underserved student population.

The public four-year institution in this study is part of the University of Hawaii system and is located on the island of O'ahu. Unique to the institution is that the enrolled student population predominately resides on the island of O'ahu, but also has students living on other Hawaiian Islands as well as other U.S. states and international students. Enrollment data for the fall 2022 semester highlighted that nearly 24 percent of the student population are first-generation students. Table 1 below highlights five cities with populations greater than 5,000 where the institution receives student enrollment along with the state and national average. An average of 26 percent of all Hawaiians speak a language other than English at home, as compared to 21.6 percent as the national average. Ewa Beach (39.5) and Waipahu (51.8) represent populations where a larger than state and national average speak languages other than English at home. The national average for persons in poverty (11.6) is relatively comparable to the Hawaii state average (11.2); however, Waianae (21.0) is nearly double the poverty rate. Foreign-born persons represent 12.5 percent nationally compared to 18.3 percent for Hawaii. Both Waipahu (41.1) and Ewa Beach (33.6) are more than double the national rate and significantly higher than the Hawaii state average. From this data, the institution's student population indicates a higher number of underserved individuals than the national average.

**TABLE 1
POPULATION CHARACTERISTICS OF HAWAII**

	U.S.	Hawaii	Mililani	Waipahu	Ewa Beach	Kapolei	Waianae
Language other than English spoken at home	21.6%	26.0%	16.1%	51.8%	39.5%	21.2%	15.2%
Persons in poverty	11.6%	11.2%	4.9%	11.1%	9.7%	5.2%	21.0%
Foreign born persons	12.5%	18.3%	11.0%	41.1%	33.6%	13.4%	6.0%

Note. U.S. Census Bureau (2020) statistics for the state of Hawaii and for cities and towns with populations of 5,000 or more.

First-generation students are defined as the student population where neither parent obtained a post-secondary degree. First-generation students differ from traditional students regarding ethnic demographics,

socioeconomic status, and academic preparedness for post-secondary education (Conefrey, 2018). Characteristics including poorer academic preparation, funding and financial concerns, low self-esteem, and study and time management challenges are among some of the negative issues for first-generation students (Banks-Santilli, 2014). Not only do first-generation students have significant barriers to overcome just to begin their college education, but they also have numerous unique barriers to degree completion. Persistence rates for first-generation students three years after beginning their post-secondary education averaged around 48 percent whereas their continuing-generation counterparts averaged 67 percent (Cataldi et al., 2018). As a public institution serving first-generation students, it is necessary to identify and provide the necessary resources needed to support the diverse student population in their academic careers and post-education success.

By providing equity in a course design, the faculty create an atmosphere of opportunity, access, and welcoming space for underserved students through the reduction of barriers to higher education. Addressing equity in course design acknowledges that historically underserved students have been given unequal starting places in their higher education (Bolger, 2020). One of the approaches to supporting underserved students is the use of open educational resources (OER). OER provides faculty with the ability to provide course material to the student community in a tailored and customizable way, which could strengthen course objectives. Furthermore, OER provides students with no-cost access to course material, which increases flexibility and access to obtaining the material needed to be successful in the classroom (Zhao et al., 2020). It is through equity and access that course materials should be delivered to students to ensure all students have access to the necessary information for successful participation in a course.

LITERATURE REVIEW

Open Educational Resources

OER is open licensed formatted materials that increase student access, which is essential for underserved student populations hit especially hard during economic downturns (Colvard et al., 2018). The phrase “Open Educational Resources” originated at the United Nations Educational Scientific and Cultural Organization (UNESCO) 2002 Forum focusing on Open Courseware (Zang et al., 2020). UNESCO (2019) defines OER as “learning, teaching, and research materials in any format and medium that reside in the public domain or are under the copyright that has been released under an open license, that permit no-cost access, re-use, re-purpose, adaptation and redistribution by others” (Section I). Content-centered approaches have several advantages including the facilitation of sharing knowledge, the reduction in the cost of learning, as well as ensuring inclusive learning (Zang et al., 2020). OER are often used to curtail the rising costs of postsecondary education and the subsequent reliance on costly publisher content. The increasing cost of attending college is felt by all students; however, the low-income and disadvantaged students feel the greatest brunt of the rising rates causing greater difficulties than wealthier socioeconomic groups (Kuh et al., 2006). Therefore, the cost of both tuition and educational materials are considered when deciding where to apply and attend college.

Higher education that typically utilizes OER focus on free, online learning subject matter, software, and digital materials that are not confined by a copyright license. This compares to traditional and expensive commercially distributed textbooks illustrating the opportunity for widespread savings among the postsecondary student populations (Colvard et al., 2018). While numerous studies have focused on cost savings as well as student and faculty perceptions, much less attention has been given to research focused on OER and student learning. Hilton et al. (2016) found that students enrolled in OER-implemented courses performed equal to or better when compared to students in traditional commercial textbooks only. Additionally, faculty have stated that OER prepared their students with similar rigor and in many cases increased rigor when compared to traditional course materials and textbooks (Bliss et al., 2013). This study addresses the gap in literature combined with the higher levels of underserved students, through the implementation of OER material within the classroom.

High-Impact Educational Practices

The Association of American Colleges and Universities (AAC&U) identifies eleven HIPs to include capstone courses and projects, collaborative assignments and projects, common intellectual experiences, diversity, and global learning, eportfolios, first-year seminars and experiences, internships, learning communities, service learning and community-based learning, undergraduate research, and writing-intensive courses (AAC&U, n.d.). HIPs are an approach that universities can and are encouraged to engage in to improve the academic success and retention of all students, not just first-generation and underserved student populations. However, research does support that HIPs have a proven track record for disadvantaged students through the mitigation of gaps in academic preparedness as well as an improved sense of belonging (Eynon & Gambino, 2016; Kuh, 2008). Extensive research indicates that high-impact educational practices (HIPs) provide a profound and substantial learning experience than can enhance academic attainment among students in higher education (Kuh, 2008). The degree to which HIPs are integrated into the curriculum differ for each course and campus, however, existing evidence highlight participation in HIPs is linked to gains in student learning, higher academic performance, early career performance, and psychosocial growth (Mayhew et al., 2016; Wolniak & Engberg, 2019). Furthermore, HIPs tied with community service activities provide postsecondary students with the opportunity to solve real-world problems which supports the development of intrapersonal and multicultural communication skills (Chesbrough, 2011; Keen & Hall, 2009).

HIPs diverge from traditional education outreach practices and are learning practices that faculty use to strengthen student commitment and success, especially in underserved student populations (Valentine & Price, 2021; White, 2018). The underserved college student population is the student group that was the most negatively impacted by COVID-19 (Gan & Sun, 2021). Although COVID-19 forced faculty to change their course designs to cater to the online environment, faculty need to consider the negative impact that brought upon those with limited access to stable internet and equipment to conduct online assignments. Faculty can use this as an opportunity to assist this large and growing population through HIPs. Gan and Sun discovered that underserved students are more successful in the classroom when assignments are connected to the community's needs.

RESEARCH METHODOLOGY

This qualitative case study explores the implementation of high-impact practices in underserved student populations in a public four-year institution in Hawaii. Faculty for a business communications course underwent a course redesign with equity to course materials, HIPs, and community-mindedness as engagement tools to enhance the student experience with the material in mind. The business communications course is typically taught in a twelve-week format, as compared to the traditional fifteen-week semester. Prior to the course redesign, the faculty used a publisher textbook, assignments, and instructor materials in an asynchronous format. During 2020, it became apparent that students were struggling with coursework engagement and academic performance due to the constraints and complications of Hawaii's COVID-19 shutdown. The shutdown caused students to focus on financially surviving instead of completing coursework. Due to Hawaii's high poverty rate and economic reliance on tourism, students were faced with funding essentials like food, rent, and electricity, and many turned to non-profits for help. Reliance and support for non-profit organizations quickly became both solutions and an opportunity for student engagement. In the traditional course design, students expressed that the assignments and publisher content were disconnected and lacked real-life application. Below illustrates student sentiment collected from the post-course evaluation.

Having to go to the publisher site to complete assignments as well as the learning management system was confusing. I feel like the textbook could have been more helpful. I would like to see supplemental readings or real-life examples that could have helped my learning of the material.

Table 2 provides an illustration of four HIPs used in the business communications course design to stimulate teaching and learning. Each high-impact practice is tied to one or more activities and is mapped against the anticipated learning outcomes and their corresponding assessment methods. Prior to the HIPs course redesign, the business communications course was taught using traditional publisher content including an online assignments lab, simulations, videos, and eBook. The coursework consisted of module work where the assignments were unrelated and topical from week to week. The final student portfolio was comprised of revised weekly writing assignments collected from the semester to include research in the final portfolio. When incorporating HIPs into the redesign, the course utilized an openly accessed eBook that was zero cost to the students. The redesign consisted of assignments created by the instructor to incorporate concepts from the chapter modules and from their term portfolio project. All activities created throughout the course centered on the theme of a local non-profit and were built upon the last assignment. This allowed for spiral learning to take place and provided an iterative approach by revisiting topics and themes to deepen understanding with each successive encounter. See Table 3 for all highlighted differences in course design. Although all students focused on the same non-profit, they had individual freedom and latitude on the goal selection and idea approach for the research. The final student portfolio project incorporated research and contained revised applied writing and digital content assembled into a presentable business report for the non-profit organization and its board of directors.

TABLE 2
BUSINESS COMMUNICATIONS COURSE REDESIGN INCORPORATING HIPs
TEACHING & LEARNING ACTIVITIES

High-impact practice	Implemented activity	Learning outcome(s)	Assessment method
Community-based learning	Project-based learning Non-profit goal integration Peer evaluations	Problem-solving Collaboration with others Oral communication Creativity Written communication	Portfolio project Peer evaluations
Undergraduate research	Research a chosen topic Find peer-reviewed sources Integrate data into a report	Critical thinking Written communication Problem-solving	Portfolio project Infographic/flyer/social media posts
Writing-intensive courses	Prepare memos & reports Prepare portfolio project Prepare supplemental documents	Critical thinking Written communication Problem-solving	Portfolio project Infographic/flyer/social media posts
ePortfolios	Create/prepare digital works Reflection writing	Creativity Analysis and information synthesis Written communication Oral communication	Portfolio project Infographic/flyer/social media posts Final presentation

Note. Highlights application of HIPs in course with activities, learning outcomes, and assessment methods.

TABLE 3
TRADITIONAL VS. HIP COURSE DESIGN

Traditional publisher content	HIPs course re-design
Publisher ebook (\$\$)	Open access ebook (\$0)
Publisher online assignments	LMS assignments
Activities based on concepts	Applied to course activities
Unit approach to content	Spiral learning of content
Portfolio of revised assignments	Portfolio project of revised applied activities

Note. Comparison of a traditional publisher content course vs. a HIPs course re-design.

Community Partner

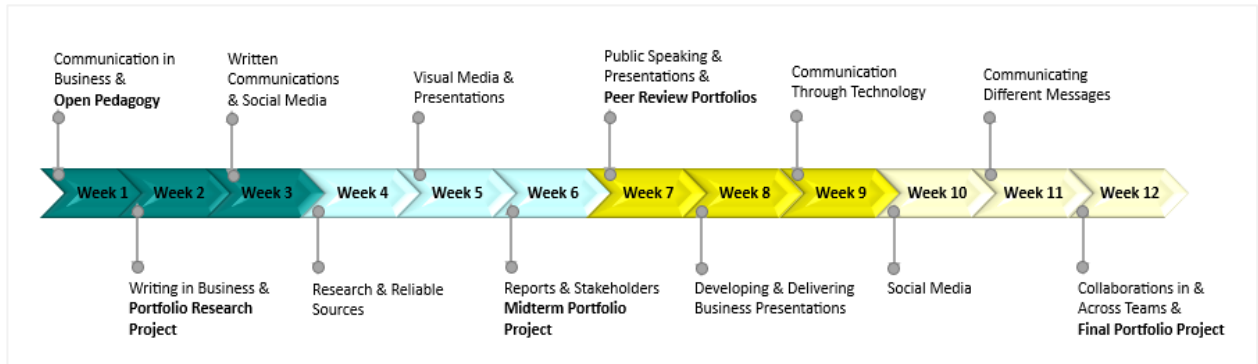
In preparation for the 2021 term, HIPs and partnerships with local area non-profits were incorporated into the business communications course redesign. Since Hawaii was still in lockdown, students were directed to participate and partner with businesses in an online setting. Students were assigned a local non-profit focusing on the distribution of food to Oahu residents and asked to conduct a thorough review of their strengths and weaknesses to appropriately generate recommendations and solutions for one of the non-profit's future goals. Involving a non-profit in the course design not only benefits all student groups but also benefits the surrounding community (Johnson, 2013). Students gain greater insight into how to apply learned theory to the current struggles of local organizations. Further, the surrounding community benefits from enhancing the non-profit's ability to consider the recommendations to improve efficiencies within the organization. In addition to community-based learning, the course redesign also incorporated undergraduate research, was a writing-intensive course and developed an eportfolio for sharing and distribution of work. This qualitative study expands on the four HIPs listed above as well as included OER to ensure that all student groups had the resources necessary to succeed.

Data Collection Process

Participants in this case study were business students enrolled in a business communications course for the summers of 2018, 2020, 2021, and 2022. Representing the traditional publisher content courses student artifacts and reflections from 2018 and 2020 were reviewed (n=36). Student artifacts and reflections from 2021 and 2022 (n=34) provided a comparison of the HIP course redesign elements. For the purposes of this study, student comments and reflections from 2021 and 2022 were used to illustrate engagement and the student experience with the HIPs business course redesign. Figure 1 shows the twelve-week workflow illustrating the content covered. During week 1, students are introduced to OER concepts and pedagogy and asked to complete a permission form that includes their desired open access level for their final portfolio project. In week 2, the local non-profit presented, and a deep dive into their mission, work, and future goals as an organization are conducted. Each student is given latitude in choosing one of the organization's goals for the primary focus of their portfolio project. Instruction on researching the non-profit, data analysis, and outside research is performed next. By week 6, students have developed their midterm portfolio project to include a professional business memo to the Communications Director for the non-profit along with a six-page proposal focusing on the chosen future goal. Supplementing their proposal is a research matrix illustrating the research history and credibility of their work. During week 7, students peer-reviewed three fellow students' midterm portfolio projects using a grading rubric covering the project description, adequacy and feasibility, projected costs, likelihood for success, research and supporting documents, and grammar and mechanics. Comments from peer reviewers are required and provided to portfolio authors as constructive and supportive elements for the revision of the portfolios. At the end of the term in week twelve, the final portfolio project consists of revisions made to the midterm portfolio and a letter to the non-profit's Board of Directors. Included in this revision are five or more current and credible sources cited in the proposal to provide needed application and support for the analysis. Supplemental documents also provided include a proposal flyer, example social media posts, an infographic, as well as a recorded

PowerPoint presentation to the board of directors. Students are also asked to review and include their open-access permission form, indicating the permission level for their final portfolio project.

FIGURE 1
HIP BUSINESS COMMUNICATIONS COURSE WORKFLOW



Note. Terms in bold indicate activities tied to the term portfolio project.

FINDINGS AND REFLECTIONS

Community-Based Learning

Activities tied to community-based learning and community service provide valuable opportunities for students to solve problems facing the surrounding community in which they live. Throughout the process, students develop interpersonal and multicultural communication skills (Chesbrough, 2011; Keen & Hall, 2009). Community-based learning allows students exposure to and interaction with people and circumstances that vary from their typical situation. These new opportunities allow students to discover learning through real-world applications, which provides a meaningful investment of time and effort over the course of an extended period (Kuh et al., 2013). Community-based learning in the business communications course connects students with a community partner. In this course, the community partner is a local non-profit whose mission is to help feed Oahu by diverting food waste to the community through collection and distribution efforts. Students are encouraged to choose one of the four future goals listed on the non-profit's website. The future goals include data collection, improving access to quality food, expanding their sustainable volunteer workforce, and increasing advocacy and education efforts. Below is a writing reflection example from a student who tied their geographic location and community orientation to the project's objectives.

We do live on an island, so it is very difficult to find fresh quality produce since nearly everything is imported. I could focus on finding more local vendors to provide quality produce or food distribution companies that could benefit from joining the non-profit's mission. Another aspect could even be about local community gardens and trying to see if they can contribute produce.

Undergraduate Research

Student research is an important part of the business communications course. Once students have chosen their non-profit goal for the portfolio project, the next step is a thorough and systematic investigation of the non-profit's website, data, and outside research. Research experiences are needed for all disciplines for students to connect key concepts with new and innovative solutions (AAC&U, n.d.). The primary goal for research for the portfolio project is to identify and answer the important questions needed to properly recognize and propose a potential solution to the non-profit's future goal. Below is a student's written perspective on the importance of conducting thorough research before writing a paper.

Most of the time in the research phase of my writing I would only use the first resources I found to write my material. When I would do this, my writing wouldn't be that strong and it would just lack a lot of detail. This would also contribute to having a brief body within my write-up, and not giving enough information that supports what the paper is about. After realizing this, I dug further into my research and learned some strategies for finding more valuable and credible sources that I can use for my writing. I now know that I should use scholarly articles, reliable website domains (.edu, .gov, and .org), and reliable databases for research to find credible information.

Writing-Intensive Courses

In the business communication course, students produce a variety of informal and formal writing for various audiences. Most of the audience is employees of the local non-profit, and students need to consider their background and status before determining the level of formality. Formal writing includes a thorough draft, peer review, and instructor feedback, which is followed by revisions. A formal research application is strongly suggested and required for the final portfolio project. A student's reflection below on the process of writing a formal paper illustrates this importance.

Throughout this entire semester, there have been numerous moments where I had to push myself, in my writing skills and process. The whole writing process for this semester has been very beneficial to me and has pushed my skills a lot. Within this writing process, different stages focused on different parts of writing. One part of the writing process that helped me strengthen my writing was the research portion of my writing process.

Eportfolios

Eportfolios have numerous applications in the academic setting for not only teaching and learning opportunities, but also assessment and career growth. The premise of an eportfolio is to electronically collect student work overtime, such as a semester or academic year while providing time and opportunities for students to reflect upon their growth (AAC&U, n.d.). The key with eportfolios is collection and collaboration which means this HIP works well alongside other HIPs elements to provide additional meaning, integration, and intentional understanding (Eynon & Gambino, 2016). Below is a student quote about their experience with eportfolios.

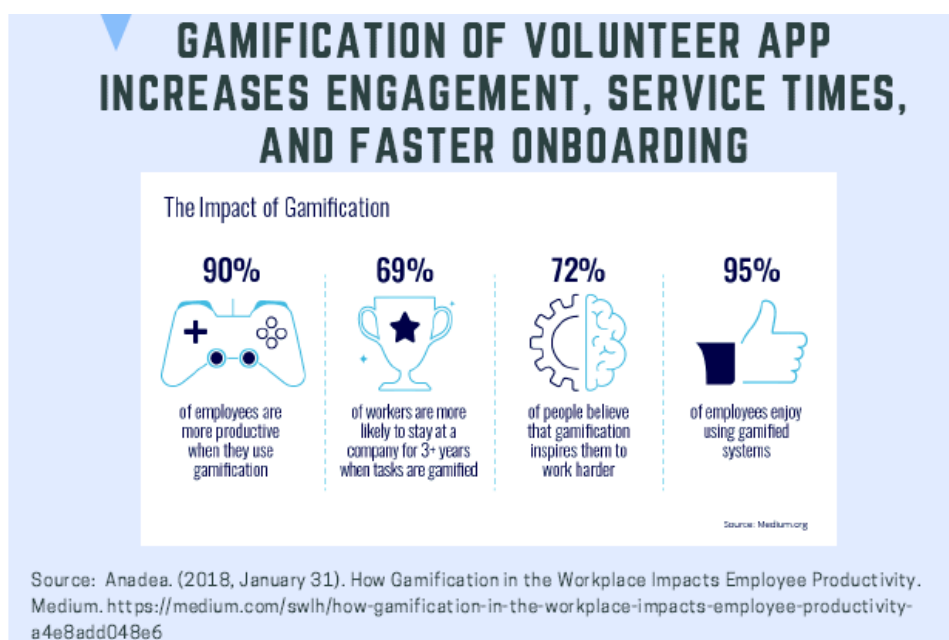
Before the open pedagogy assignment, I did not know any resources like this. Open pedagogy gives the students the ability to show and demonstrate their understanding of the class/material through the act of creation. The products that students created through open pedagogy can be openly licensed, so this allows the students to expand their material beyond the classroom. Further, students can collaborate on projects while also being able to share their knowledge with others. Before this assignment I had no experience with OER textbooks, thus having no experience in creating open-sourced work. I think that this is a very useful resource that can provide a lot of information.

Students recognize that by creating a creative-commons license for their portfolio project, they can allow others to retain, reuse, revise, remix, or redistribute their work for future use thus, making their materials more widely accessible (Wiley & Hilton, 2018).

I think that OER is a great resource for students and companies. Having others contribute to your work to improve it while also gaining other people's perspectives on your work.

Figure 2 below provides an excerpt example from a student final portfolio infographic highlighting the importance of gamification to recruit and increase volunteer engagement with the non-profit.

FIGURE 2
STUDENT ARTIFACT - INFOGRAPHIC EXAMPLE



Note. An example of a student infographic artifact from their final portfolio.

Reflections

Students' approaches to their final eportfolios varied considerably by design as they were given creative liberties to the digital supplements for the written proposal. Three main themes were collected from the review and analysis of the final portfolio project, student comments, and course evaluation:

- (1) The HIPs played an important role part in student engagement with the course material. Below is a student's response when asked what her overall evaluation of the course was:

Very informative and useful for everyday and professional life. I have learned a lot from this course and applied what I learned in my daily communication at work when communicating with coworkers. I enjoyed this course and found it manageable, informative, and fun.

- (2) Students' grades on the final portfolio project increased when compared to the midterm portfolio grade by an average of 9 percent, indicating the process of draft writing and research contributed significantly toward increased academic performance. Here is the student's response:

I felt this course pushed me as a student. Some of the assignments felt like it was outside of my comfort zone, but I realize how valuable these skills are. My instructor did more than teach format, etiquette in writing, and the proper way to accomplish professionalism, she provided added skills in practicing different ways to present the research I compiled. There was a totality of everything she did because all the resources she offered helped in ways that complimented each other for my benefit.

- (3) Application of the course materials was quick and readily applied to other areas of the student's life. The student's response is as follows:

This course enhanced my professional development by allowing me to apply all the fundamentals of this course to my photography and cake business and improved my progress by 10 percent. That is a huge difference from where I originally started.

CONCLUSION

The quality of education depends on the faculty's ability to develop teaching strategies and assessments to allow all groups of students to succeed. Within this study, the implementation of four HIPs strategies allowed students to further enhance their student experiences both in the classroom as well as in their community, which is consistent with Conefrey and Smyth's (2021) and Ilyas et al. (2020) findings. Incorporating data from non-profits allowed students to connect with their local community and its needs, especially during a post-epidemic era when food distribution continues to be an issue for many. This study further emphasized the need for faculty to use OER. OER not only allowed all students, regardless of their financial situation, to obtain course materials for free but also inspired students to share their knowledge. Underserved students were able to gain the same level of resources as any other student group, giving them equal opportunities to further their knowledge. Ultimately, this study displays how the course design of business communication courses positively impacted the students exposed to the courses as well as the surrounding community.

LIMITATIONS AND FUTURE RESEARCH

This qualitative case study does have some limitations. First, the sample is relatively limited in location given the sample is concentrated from one institution in Hawaii. Although Hawaii has a large range of diverse populations, caution should be taken when generalizing the research findings. Second, the sample was taken from a business course. Further research can include institutions from other areas to expand the sample demographics and from other concentrations to draw conclusions from different fields of study. Lastly, the research focused on the combination of four HIPs. More research is needed to identify how each of the individual HIPs and activities contributed to student development either positively or negatively.

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