



## THE NEEDS OF ACTIVE LEARNING AND HIGH-IMPACT EDUCATIONAL PRACTICES IN ONLINE PROGRAMS

**Hwangji S. Lu<sup>i</sup>,**

**Robert Smiles**

Department of Health Sciences,  
University of Arizona Global Campus,  
Chandler, AZ, USA

### **Abstract:**

Adult learners take online courses or programs because of the convenience, cost-saving, flexible schedule, and work-life-school balance. In the United States, student enrollment in online education has proliferated in the past few decades. The online modality of providing education has become a crucial part of higher education. Online courses are in high demand. However, due to adult learners' characteristics and work-life situations, the course design and facilitation in online education can only partially replicate directly from the traditional classroom setting. Owing to high attrition rates in online classrooms, institutions and educators must carefully design or redesign courses relevant to the competitive job market demands. The need for contemporary instructional designs focusing on student-centered education is essential. Supported by comprehensive research studies, active learning, and high-impact educational practices have helped learners develop critical competencies and skills required by employers. Moreover, adopting appropriate pedagogical practices is necessary for better student engagement, academic performance, and retention rate.

**Keywords:** active learning, course redesign, ePortfolio, high-impact educational practices, online education

### **1. Introduction**

Because of the rapid advances in information and communications technology, colleges and universities in the United States have embraced online modality for decades. Lately, due to other social and economic changes, such as the COVID-19 pandemic, higher education institutions have accelerated the adoption of distance learning worldwide. As many studies have uncovered, the dropout rate in online classrooms is a serious issue (Radovan, 2019). Aiming at student engagement and student success to increase retention is essential for students and universities. Higher education institutions must commit to

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<sup>i</sup> Correspondence: email [hwangji.lu@uagc.edu](mailto:hwangji.lu@uagc.edu)

the resources to improve student's learning experience, increase persistence, and boost degree completion rate (Campbell & Blankenship, 2020). An effective course design will encourage students to engage in more profound learning experiences that lead to successful learning. Higher education institutions also need to commit the resources to revise the courses and evaluate the effectiveness of the course redesign, ensuring that the courses are engaging and relevant to students.

This paper focuses on a survey of course redesign in online education. After the section of the introduction, there are six main sections. The first section details the essence of course redesign based on various scholarly sources and research studies. The topic of course relevancy will be depicted in Section 3. Section 4 will examine active learning that is described in the literature. In Section 5, the case study method will be reviewed explicitly regarding its impact and usefulness in adult learners. Section 6 will discuss the importance of high-impact educational practices in online education, particularly capstone courses, capstone projects, and ePortfolios. The final section will conclude this paper by advocating the implementation of multiple active learning and high-impact educational practices to maximize students' learning outcomes.

## **2. Course Redesign**

Course redesign refers to various efforts to restructure a course (Krsmanovic, 2021). Course redesign encompasses choosing effective teaching and learning strategies to generate greater learning experiences and aligning assessment methods with measurable course learning outcomes. The course design or redesign quality is a key performance indicator for higher education institutions (Budihal et al., 2020). The impacts of course redesign have received considerable scholarly attention in recent years. Many scholars and researchers examined how innovations in course curricula, instructional delivery, or pedagogy can enhance student engagement, promote student learning, and advance student success (Krsmanovic, 2021). Consequently, appraising the courses' effectiveness is a vital step to determine whether the courses lead to proper evidence of student learning.

Substantial research studies have assessed the effectiveness of course redesign. It is generally accepted that the efforts invested in course redesign positively impact on student learning from various aspects. The outcomes include boosting attendance and intellectual engagement (Das et al., 2019; Kropf et al., 2019), increasing student satisfaction and self-efficacy (Krsmanovic, 2021), enhancing student academic performance (Wilson et al., 2018), and improving course completion rates (Hudson et al., 2015; Kropf et al., 2019). The ultimate goal of course redesign is to support students to learn better and acquire a broader knowledge of the study field (Kropf et al., 2019). A thoroughly planned and executed course redesign can successfully resolve many issues associated with the existing course.

Numerous research studies have discovered that the main reason for high attrition rates in online classrooms is students' feelings of isolation (Radovan, 2019). Given that,

online course design or redesign must be geared towards enhancing active learning, student engagement, and higher-order thinking activities (Abernathy, 2019; Krsmanovic, 2021). These foundational best practices can enhance students' learning experience and raise course or degree completion rates, as opposed to the passive learning often associated with more traditional teaching models.

### **3. Course Relevancy**

Over the past few decades, motivation researchers in education and psychology have studied and endorsed the notion that education should be relevant to students. Course relevance refers to the alignment between course content and job market demands, a critical quality measure in online courses (Wang & Song, 2022). Collins and McLain (2021) advised that carefully choosing assignments, media, modalities, pacing, and variety can result in high relevancy, raising student engagement in online learning.

Course relevancy is key to engaging students in the online learning environment. Considering online learners who are job-oriented with career goals, online courses should be designed to be related to job markets and help learners build marketable skills, which will affect learner satisfaction and online education's success (Wang & Song, 2022). Students will be more interested and motivated to learn when the course materials are aligned with educational and professional needs (Arnold, 2019). In the classrooms, students are instilled with a broad foundation of theory and principles to meet future challenges in careers and life. Gilman and Anderman (2006) argued that making education relevant to students' lives and experiences is crucial, enabling them to perceive connections between acquired knowledge and competencies to real-life situations and problems. Courses should be designed or redesigned to prepare students for their future careers by providing opportunities to engage in authentic tasks that have meaning in real-world situations (Albrecht & Karabenick, 2018). Depro (2022) affirmed that using real-life examples in classrooms has been around for several decades. Students are more engaged in higher-order critical thinking through different assignments incorporated with real-world applications and can practice with knowledge and skills applicable to their current or future careers (Depro, 2022; Gilman & Anderman, 2006). Additionally, Albrecht and Karabenick (2018) advocated that the courses should be built according to students' cultural backgrounds, interests, and personal experiences.

### **4. Active Learning**

The notion of active learning in higher education can be traced back to the 1980s (Pan & Fan, 2020). Active learning is a teaching approach that involves students to actively participate in the learning process (Benková et al., 2022; Prince, 2004). Active learning can be geared toward case-based, collaborative, cooperative, problem-based, and team-based learning (Collins & McLain, 2021; Prince, 2004). Examples of active learning activities include case studies, debates to engage students with the course material through

discussions with peers, exploratory labs, games, group projects, peer-teaching, role-playing, simulation, and other application activities (Abernathy, 2019; Collins & McLain, 2021; Pan & Fan, 2020).

Especially in the past decade, with the rapid increase in competition and the world's complexity, employers demand more practice-oriented graduates who possess professional skills related to communications, critical thinking, decision-making, leadership, and problem-solving (Shi, 2019). In line with this trend, higher education institutions worldwide have adapted to the marketplace's demand and offered courses that are less focused on theoretically driven lectures and more on practicing and acquiring professional skills (Casado-Aranda et al., 2021). Accordingly, the new aspiration of higher education institutions is to move away from traditional passive learning approaches to more active learning methodologies. Active learning presents new learning experiences, engages students in activities, and empowers students in courses; furthermore, students must reflect on and experience real-world problems when making decisions (Arnold, 2019). Active learning engages students better in the affective, cognitive, and practical domains than traditional, lecture-based teaching methodologies (Claro & Esteves, 2021).

Compared to passive approaches such as independent reading, viewing videos, and completing assessments, active learning approaches place greater responsibility on learners, but instructor guidance is still essential in active learning (Collins & McLain, 2021). In this approach, students become the center of the learning process and spend more time practicing hands-on tasks and developing analytical and decision-making competencies (Casado-Aranda et al., 2021). In contrast, the role of instructors shifts from delivering knowledge to facilitating and motivating functions (Budihal et al., 2020). Instructors take facilitating and guiding roles to ask questions, provide guidance whenever necessary, and address students' questions while students concentrate on learning (Cattaneo, 2017). Instructors have become facilitators of abilities, professional knowledge, and skills (Casado-Aranda et al., 2021). Therefore, the success of active learning relies on the instructor's facilitating and guiding capacities and students' maturity.

Active learning advance students to inquire, experiment, collaborate, and experience the joy of learning (Budihal et al., 2020). To engage in active learning, students must engage in higher-order thinking tasks, including analysis, evaluation, and synthesis, to solve problems (Benková et al., 2022). Thus, active learning can support and develop critical skills, such as communication, cooperation, creativity, critical thinking, and knowledge-gathering (Benková et al., 2022). Prince (2004) argued that if the courses emphasize formulating active learning, these meaningful learning activities will help students accomplish learning outcomes effectively. Subsequently, a student's ability to apply prior knowledge, self-esteem, and academic achievement will improve. Research on innovative higher education has shown that active learning improves student engagement and attention (Hyun et al., 2017). Dixson (2010) conducted a research study on student engagement and suggested that active learning can increase social presence

and interpersonal interactions and positively impact student engagement. Research by Robinson and Hullinger (2008) found that active learning fosters higher analytical work and student engagement in online courses. Similarly, Vlachopoulos and Makri's study (2017) unveiled that active learning techniques positively affect problem-solving skills, peer learning, and critical thinking. In another study accomplished by Akçayır and Akçayır (2018), the findings indicated that active learning methodologies boost attendance, creativity, enjoyment, knowledge retention, and self-confidence. The results generated from Keinänen et al.'s (2018) study concluded that using active learning pedagogical practices in business and marketing courses advances students' innovation and decision-making skills as well as raises students' confidence in working in a team and under pressure. Hence, course design or redesign decisions should consider the balance of active and passive learning (Abernathy, 2019).

## 5. Case Study

Professor Wallace B. Donham, appointed as the second dean of the Harvard Business School in 1919, advocated using case studies as an innovative teaching method at Harvard Business School (Daniels, 2011). Since then, colleges and universities worldwide have adopted this teaching approach to improve the quality of graduates. This methodology uses a real or hypothetical situation to show a problem or information relevant to the course's content to enhance learning and cultivate essential skills (Casado-Aranda et al., 2021). A case study allows students to explore the complexity of issues in a real-world setting and apply the concepts, frameworks, and theories they have studied to demonstrate their levels of understanding (Grant & Baden-Fuller, 2018; Shi, 2019).

Integrating learning and perspective as applied to real-world phenomena is not a skill that can be taught in one semester; rather, it needs to be nurtured through intentionally designed case studies (Shi, 2019). The case study teaching method is more effective than the instructor-led lecture in attaining cognitive and motivational objectives in the classroom (Grant & Baden-Fuller, 2018). By design, a case study allows students to place themselves as managers or leaders with specific analytical and decision-making tasks and experience the pressure of solving a real-world problem, which cannot be accomplished by an instructor-led lecture (Casado-Aranda et al., 2021). Case study teaching methodology enables students to understand real-world issues or situations in a bigger picture. By practicing phenomena-based case studies, students will gain confidence, critical thinking, and problem-solving ability, enhancing their leadership and teamwork skills (Shi, 2019). Likewise, case study methods in a capstone course help students transition from an academic setting to the real-life environment where they are working or hope to work after completing the academic program (Cycyota et al., 2020).

## 6. High-Impact Practices

Based on the findings from empirical research regarding student learning experiences, the Association of American Colleges and Universities lists 11 high-impact educational practices (HIPs). These 11 HIPs comprise capstone courses and projects, collaborative assignments and projects, common intellectual experiences, diversity/ global learning, e-portfolios, first-year seminars and experiences, internships, learning communities, service community-based learning, undergraduate research, and writing-intensive courses (Kuh, 2008). HIPs positively affect educational outcomes and best correlate with increased retention, student engagement, and persistence to graduation (Campbell & Blankenship, 2020). Moreover, these high-impact practices work for students from various socioeconomic and educational backgrounds; they uphold lifelong learning strategies that can be transformative or life-changing (Abad-Jorge & Kronenburg, 2020). To strengthen student engagement and success, many higher education institutions have integrated evidence-based, high-impact educational practices into course curricula (Collins & McLain, 2021).

### 6.1. Capstone Courses

A capstone course is a course of study taken toward the end of an academic program. Capstone courses are intentionally designed to meet the need for a culminating or integrating experience that advances students to synthesize and apply their learning from various courses holistically as they complete their education (Abad-Jorge & Kronenburg, 2020; Cocyota et al., 2020). Capstone courses allow students to integrate their abilities, knowledge, and skills acquired in various disciplines or courses to meet the demands of a dynamic workplace and address complex real-world issues (Abernathy, 2019).

### 6.2. Capstone Project

A capstone project is usually the final assignment in an academic program and has become an integral part of the curriculum in many academic programs. The capstone project is designed to strengthen students' learning with valuable hands-on experience via a real-world problem (Vande Wiele et al., 2017). In essence, the capstone project enables students to consolidate their academic, personal, and professional experiences centered on creating, integrating, reflecting, and applying previously acquired knowledge and skillsets during a course of study (Blanford et al., 2020). The capstone project is a means to evaluate students' analytical, communication, and problem-solving skills, allowing students to reflect on accomplishments and future goals (Mossa, 2014). A capstone project aims to develop students into well-prepared and well-rounded graduates.

Abernathy (2019) contended that the commitment to project-based learning is another important design feature in the course redesign process. Research suggested a need to implement the project-based learning activity with strong relevancy to course learning objectives for practice, personalization, active engagement, and higher-order

critical processes (Abernathy, 2019). Capstone projects offer many benefits to adult learners in online education. A capstone project is vital in developing and enhancing professional graduate students' knowledge, skills, and practical applications (Blanford et al., 2020). Students can showcase their varied skillsets and industry-related competencies, such as analytical thinking, communication, creativity, interpersonal skills, project management, teamwork, and writing, through the integration of and reflection on knowledge gained in the project-based activity (Blanford et al., 2020; Mossa, 2014; Vande Wiele et al., 2017). A capstone project provides meaningful and realistic experiences that help students build their professional identities (Vande Wiele et al., 2017). Moreover, the capstone project learning experiences offer a transition between academic study and work readiness for leadership roles and career advancements (Blanford et al., 2020).

### **6.3. ePortfolios**

An ePortfolio is a collection of a student's electronic representations of his or her learning and experiences to demonstrate the student's competencies developed at an educational institution (Slade & Downer, 2020; Sabio et al., 2020). Students can upload relevant digital examples of their work to their ePortfolios as evidence of achievements, learning, and skills. These digital examples include certificates, collaborative assignments, community engagements, photographs, newspaper clippings, transcripts, teamwork activities, reports, research papers, video presentations, and written reflections on formal and informal learning experiences (Abad-Jorge & Kronenburg, 2020; Lu, 2021). The process of curating evidence of learning becomes more meaningful through reflection. Students build ePortfolios to link courses, disciplines, co-curricular activities, and life experiences (Lu, 2021). Students develop their ability to connect theory and practice by building their ePortfolios (Slade & Downer, 2020). ePortfolio application is an active learning process in which students collect, evaluate, organize, and synthesize meaningful artifacts that reflect evidence of academic progress and achievement (Abad-Jorge & Kronenburg, 2020; Schmidt-King, 2020). Sabio et al. (2020) asserted that ePortfolio offers an analytical, interactive, and reflective way of acquiring knowledge and helps students build their professional identities.

The ePortfolio platform serves a multitude of purposes, for instance, appraisal, documentation, employability, and evidence of professional competency (Slade & Downer, 2020). Healthcare-related programs such as nursing have adopted ePortfolio as a part of program assessment since the 2000s (Sabio et al., 2020). Collecting the evidence of the learning and reflecting on the learning over time is a vital aspect of the ePortfolio process. The pedagogical versatility of ePortfolios allows students to reflect on their personal and academic growth (Anderson et al., 2017; Slade & Downer, 2020). While reflecting on their learning in the program, students think critically and become independent and self-directed learners (Anderson et al., 2017). In addition, an ePortfolio can demonstrate a student's professional and personal growth as well as provide a planning space for future professional development needs. If executed properly, ePortfolios deepen student learning and make it visible to their peers, instructors, and

external audiences as students integrate their learning experiences and reflect on the significance and relevance of their learning in the classrooms and extra-curricular activities (Anderson et al., 2017). In Abad-Jorge and Kronenburg's (2020) views, an ePortfolio is a robust tool for students to demonstrate their key competencies and skills for future employment.

Incorporating ePortfolios into capstone courses will augment students' connections among various educational experiences in the academic program and prepare students for employment (Mossa, 2014). However, Kuh and Kinzie (2018) advised that integrating HIPs into curricula only warrants high-impact results if the implementation is adequate. Implementing a successful ePortfolio approach in an educational program, across different programs, or within a college in a larger university requires university leadership's support and the commitment to quality professional development (Abad-Jorge & Kronenburg, 2020). Moreover, it is imperative that educational institutions and educators evaluate the effectiveness of ePortfolios, identify barriers to implementation, and employ strategies to engender desired future outcomes (Slade & Downer, 2020).

## **7. Conclusion**

Because of its convenience and flexibility, online learning has become a crucial component of higher education, providing enthralling opportunities for adult learners to meet their educational needs and simultaneously fulfill other life obligations. With the outbreak of the COVID-19 pandemic, higher education institutions around the globe have grappled with offering online courses to their students who need uninterrupted education. Apart from student's self-motivation, innovative teaching methods are necessary to provide new learning capacities and perspectives in online education.

There needs to be more than the most cutting-edge technology to make the teaching processes more appealing to students. Higher education institutions must dedicate their time and resources to revising outdated course materials and curricula to increase student engagement and improve learning outcomes. Higher education institutions should ensure that the courses are relevant to job market demands by implementing active learning and high-impact educational practices to enhance students' managerial abilities and capacities to react to and solve real-world problems. Adult learners in online classrooms need to practice and strengthen their professional skills through online experiential learning. Especially in a capstone course, several instructional methods, including case studies, capstone projects, and ePortfolios, can help students showcase their cumulative knowledge in their field of study. Utilizing multiple active learning and high-impact instructional practices can help students integrate concepts and theories acquired in the program, apply the learned knowledge and skills to real-life situations, and demonstrate their capacities and competencies to future employers.



### **Conflict of Interest Statement**

The authors declare no conflicts of interest.

### **About the Author(s)**

**Dr. Hwangji Sherrie Lu**, is Associate Professor at the Department of Health Sciences at the University of Arizona Global Campus. Her research interests include high impact educational practices, student engagement in online learning, educational technology, course evaluation, and leadership development. Dr. Lu is an advisor member of the Institute of Research Engineers and Scientists, the International Society for Engineering Research and Development, and the Universal Conferences Institute.

**Dr. Robert Smiles**, is Assistant Professor at the Department of Health Sciences at the University of Arizona Global Campus. His research interests include student learning, student success, course revision, and high-impact educational practices.

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