
Peer-Reviewed Article

Higher education and real-world training (HEaRT): A new ecosystem for learning

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Abstract: The Higher Education and Real-World Training (HEaRT) model provides a new online experiential ecosystem for learning where learners and employers meet to solve real-world problems. Southern New Hampshire University (SNHU) Academic team works in partnership with Career Services to support learners in healthcare administration, public health, nursing, and health information systems. The HEaRT asynchronous ecosystem allows for learners in an online learning platform to build soft skills—including team building, critical thinking, problem solving, communication, and networking—while connecting theory to practice. This innovative experience includes real-time feedback from industry experts, collaboration with peers, networking in an online learning community, and a learner-to-mentor



Journal of Online Higher Education

ISSN: 2575-1204

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ratio that supports highly effective learning. Learners who successfully meet the mastery requirements of the experience receive a digital badge and have the opportunity to apply for prior learning assessment (PLA) credit.

Keywords: experiential learning, online learning model, real-world training, higher education, digital badges, prior learning assessment

Introduction

Learners in healthcare administration, public health, nursing, and health information systems need technical and soft skills to support their careers. Job postings for healthcare organizations across the United States identify the skills criteria desired when hiring new employees, such as the ability to collaborate, communicate, and problem-solve (Rios et al., 2020). These essential skills help organizations find the potential job candidates who are the most equipped to strategize interprofessionally and meet organization-wide goals in an industry that continues to evolve rapidly in technology, policy, and patient demand. To assist in the development of these skills, an innovative online experiential ecosystem, Higher Education and Real-World Training (HEaRT), was created by Southern New Hampshire University (SNHU) to deliver learning challenges that meet the needs of the healthcare learners.

The HEaRT ecosystem was developed in conjunction with Career Services as a no-cost option to the learner so that learners and employers can meet to solve real-world problems. Once learners enroll, the HEaRT team places learners into diverse teams and are provided with a challenge statement that describes the background of an employer partner's real problem to collaborate on under the guidance of mentors. To complete the challenge successfully and receive a digital badge, learners must submit the required deliverables of their solution and master all the critical elements of the rubric requirements to ensure that the learners master the same skills offered within the traditional online course.

Background

Need for Internship Opportunities

Feedback from nursing and health professions advisory board members (as well as input from the careers and advising departments) revealed that learners were in need of internships or experiential learning opportunities to meet healthcare job listings criteria. A review of available research on industry needs and learner survey data supports this need to assist the next generation of learners in higher education programs. Securing a job can be difficult and will likely continue to be so: 89% of recruiters expect the competition amongst candidates to increase in the near future (Jobvite, 2017). One Gallup study found that 22% of graduates take seven months or more to find a job; however, when learners gained pertinent work experience while in school, they were more than twice as likely to obtain a job post-graduation (Busteed & Auter, 2017). According to the National Association of Colleges and Employers (2017), approximately

40% of undergraduate college students never engaged with companies through internships or similar co-op opportunities. The inability to obtain an internship can be particularly difficult for online undergraduate and graduate students—who often experience internship scarcity more than students in traditional education do—but even traditional students have begun openly embracing alternate solutions. A recent survey by Inside Higher Ed and College Pulse found that 48% of college students now express interest in virtual or remote internships (Ezarik, 2021).

Theoretical Frameworks

The HEaRT model was built on three theoretical frameworks: experiential learning, constructivism, and developmentalism. These theories rest on the seminal work of John Dewey (experiential learning), Jean Piaget, (constructivism and developmentalism), and other theorists.

Experiential Learning

In the early 1900s, John Dewey developed an experiential learning theory that challenged the traditional, teacher-centered approach to learning (Dewey, 1938). He maintained that authentic learning was a result of action by the learner. This theoretical approach moves away from the didactic teacher lecturing to students as passive learners to students, who actively construct their own knowledge through exploration and reflection on their experience. Experiential learning promotes meaningful engagement for the learner on cognitive, social, and emotional levels.

Dewey argued, “the belief that all genuine education comes through experience does not mean that all experiences are genuinely or equally educative” (Dewey, 1938, p. 25). Learners, who have an active relationship with the environment and reflect on their actions as part of the learning process, have significant freedom to explore their experiences and develop skills on their own. However, with this freedom comes the responsibility to provide a fertile learning environment. The educator’s (and the educational organization’s) responsibility is to make certain that learners have guideposts and that their experiences are truly educational. The environment nurtures the learners’ explorations within a certain set of criteria or stated values. This means that the role of the teacher is instrumental in guiding a student’s inquiry. There are different ways in which to assist students in this process, notably the methodology of critical exploration, which encourages students to take rich material, manipulate the material, and create meaning actively, all under the coaching of the teacher (Duckworth, 2005). Rather than

supplying answers or directions to the group, mentors can guide them with questions regarding their assumptions and strategies.

Constructivism

Constructivists view learning as a process in which learners make meaning and construct their knowledge from their experiences in the environment. Jean Piaget advanced the work of experiential learning by describing the biological and cognitive processes of learning. Simply put, when learners create meaning from experiences, they create schemes. Schemes (also called schemata) can be likened to building blocks of knowledge (Piaget, 1952, p. 7). Schemes are part of meaning structures, which may change as the learner accommodates or assimilates within existing schemes. This process is transformative, with structures becoming increasingly more complex and differentiated due to biological maturation and interaction with the environment. Duckworth (1987) said:

Intelligence cannot develop without matter to think about. Making new connections depends on knowing enough about something in the first place to provide a basis for thinking of other things to do or other questions to ask—that demand more complex connections in order to make sense. The more ideas that people have at their disposal, the more new ideas occur and the more they can coordinate to build up still more complicated schemes. (p. 14)

Developmentalism

The HEaRT model also embraces developmentalism, which holds that the acquisition of knowledge is a process comprising stages of increased complexity. Piaget posited that individuals progress through four consecutive stages of cognitive development: sensorimotor (infancy), preoperational (toddler–early childhood), concrete operational (elementary–preadolescence), and formal operational (adolescence–adulthood) (Piaget, 1981, p. 123). Individuals move through these stages in a logical order as they grow and develop. However, other research indicates that adolescents do not necessarily move from concrete operational thinking to formal operational thinking as Piaget predicated (Kuhn et al., 1977). It appears that, while maturation of age might be needed, an environment offering rich experiences is also required for adolescents and adults to move to the formal operational stage. Given this finding, the role that higher education plays in encouraging exploratory behavior and critical reasoning is central for developmental growth. Lawrence Kohlberg envisioned education as a means away

from a limited viewpoint and to one that is open and flexible, with an emphasis on active engagement by challenging the learner's current approach to knowledge and learning (McAuliffe & Eriksen, 2011, p. 20). Piaget said:

The principle goal of education in the schools should be creating men and women who are capable of doing new things, not simply repeating what other generations have done – people who are creative, inventive, and discoverers. The second goal of education is to form minds which can be critical, can verify, and not accept everything they are offered. (as cited in Duckworth, 1964, p. 498)

In an environment like the HEaRT project, learners will not be not asked to work on a problem that has a correct answer; instead, they are asked to look at a challenge, research it to gain a broader perspective, discuss and reflect upon it, and propose a solution. These are activities that equip them with the knowledge and skills they will need and use to expand their worldview and deal with challenges throughout their lives.

HEaRT Experiential-Learning Model

Overview of HEaRT Structure

The HEaRT Academic team places students who have enrolled in the challenge into diverse teams based on educational level and field of study. These teams are provided with a one-page challenge statement that describes the background of the employer partner's real problem, as well as a wide range of scholarly and web-based resources for the student to review. Each team has their own online team collaboration area where they meet privately, introduce themselves, and begin to share their thoughts on the challenge statement. Learners also have access to a private online social media platform to share ideas and questions with the employer partner and with all participants, including those outside of their team. Mentors monitor each team, encouraging and directing learners how to find resources and any data within the course that will assist in the formation of their solutions. Mentors continue to review the progress of each individual team, offering insight into team development and guiding the team toward potential solutions. Learners start by completing their own research and then submitting their individual worksheet in the course. Learners also share their individual worksheet within their team. Teams then work together to finalize and submit their solutions to the problem, a team-written Executive Summary and a team-developed PowerPoint presentation. All participants

submit an individual reflection describing their feelings about the experience and individual contributions within the experience.

Collaborative Partners

Employer Partners

HEaRT requires the recruitment of employer partners, who provide a real-world problem for use in the HEaRT model. Members of the Academic team work with employers to determine ways in which learners can help them solve a problem; learners then encounter the challenge that the employer partner is experiencing in their organization. For example, one challenge focused on the nursing shortage and nursing retention in the United States and Puerto Rico. Working in teams, learners present an Executive Summary and PowerPoint Presentation to the employer partner and a long-term care facility, providing possible solutions that would appeal to leadership and front-line workers. Throughout the challenge, learners are able to connect to the employer partner through the learning community for real-time responses, providing critical industry feedback as part of the learner experience. The employer partner also benefits from this online alliance because, by the end of each challenge, they will receive recommendations based on industry best practices from potential front-line staff to share with their leadership teams for review and potential implementation.

Learning Community

Learners gain access to an online learning community designed specifically for the HEaRT challenges. In the community, learners connect and network with each other as well as the employer partner, Academic deans, a Career Services representative, and mentors in the challenge. The learning community is a place where participants introduce themselves and provide specific information about their careers, and their educational goals. The real-time feedback from the employer partner ensures that learners have answers to questions, as they are uncovering details about the challenge. Not only are learners networking with the employer, they are also engaging with the nursing deans, health professions deans, and mentors who provide encouragement and tips for success throughout the time span of the challenge.

International Learners

Participants of the challenge are undergraduate and graduate learners from the U.S. and undergraduate learners from refugee camps in Kenya, Rwanda, Malawi, South Africa, and Lebanon. The international learners are part of the Global Education Movement (GEM), an

initiative with SNHU to provide a college education and a path to work for refugees. The challenge is filling an important need, as the GEM learners prior to HEaRT had very limited (if any) opportunities for internships. The challenge assists in their educational development at no cost and in turn assists in the development of their communities. GEM learners have expressed that their ability to work remotely is improved, and their confidence levels are boosted as they work to obtain meaningful employment.

Learning Competencies and Mastery

Although HEaRT began with a focus of teams contesting with one another to win a challenge, as the program evolved and the number of challenges grew, further development focused on learning competencies and individual mastery of the challenge. As a result, the core team created a learning rubric to determine learning effectiveness by thorough evaluation of the learner deliverables. Evaluation includes five critical elements: professionalism, teamwork, feasibility of the project, and two elements that specifically address the depth of knowledge related to the competencies. The successful mastery of the rubric requirements ensures that students master the same skills offered within the traditional online course. Mentors rate students as “mastered” or “not mastered” for each rubric element. To complete the challenge successfully, students must master all five critical elements.

Learner Benefits

The HEaRT experiential learning model is a learner-centered initiative that delivers many benefits to the learner within an online environment. The goal of the HEaRT model is to meet learners where they are and to prepare them for job advancement in their current organizations or for future careers in healthcare. HEaRT supports the learners’ educational plans and helps prepare learners to have a positive impact in their workplace and community. The benefits of this model are expansive and focus the learner experience on developing soft skills, technical skills, and networking—which ultimately builds a learner’s resumé.

Digital Credentials and Resumé Building

Although initially HEaRT provided a certificate of completion to members of the winning team, now students can instead earn a digital badge after successfully finishing each challenge. Digital badges are “electronic symbols used to document performance and achievement” and function as an additional means of documenting skills to aid students in professional advancement. (Carey & Stefaniak, 2018, p. 1211). Badging is believed to promote

autonomy and motivation in learning by assisting learners in taking ownership of their own learning and acquirement of skills. If a learner successfully masters two challenges within the similar content area, the learner will earn an additional badge: a meta-badge. Any badges a learner earns can be displayed on their digital resumé as well as social networking sites that focus on professional networking and career development such as LinkedIn. Students also store their badges in the digital backpack along with other badges that they may earn through other courses or initiatives. Beyond badges, the Career Services representative provides learners with support in developing the resumé content to describe the real-world experience.

Access

Eligible learners can participate in the HEaRT challenge free of charge in this initiative. In addition, more learners are able to access key learning information on recruiting in healthcare, healthcare reimbursement, healthcare communications, and healthcare policy due to the faculty-student mentoring ratio of 1:100. Because much of the work is team-based, the model succeeds with a student to faculty ratio without detriment to the learner or faculty experience.

Prior Learning Assessment

The challenges are directly aligned with competencies in the respective SNHU course, with the challenge projects aligning to a minimum of 75% of the course outcomes. Learners who have completed the two companion challenges and earned a meta-badge may opt for prior learning assessment (PLA) credit for the experience and receive credit for a three-credit course, if needed for their program of study. The cost to apply for the PLA is minimal, with an estimated cost savings of \$1,900.

Developing HEaRT

Planning for the HEaRT challenge required many considerations. Questions that arose include: How will the university deliver the experience? What would add value for the learner and employer partner? How can a dynamic model template be more “agile” than a traditional course? How can the model accommodate over 100 learners who want to participate? Other considerations included a review of all the stakeholders that would be needed to help carry out various tasks in the process. To meet these needs, Career Services, Marketing, Academics, Curriculum Design, Academic Technology, advisors, and Executive Team members joined the larger stakeholder team that was responsible for oversight of the entire project. For working

efficiency, a core team included representation from Careers, Academics, and Marketing to address specific challenge elements.

Once the core team was in place, the team prepared an outline of tasks with sub-committees to investigate the options available to build and deliver the first pilot challenge. The core team worked to recruit an employer partner, identify a platform to deliver the experience, and design the real-world challenge. In addition, the core team obtained Academic Technology support, and identified the qualifiers for learner participation such as number of previously completed credits as an undergraduate or as a graduate student and grade point average.

Recruiting the Employer Partner

The stakeholder team developed a list of potential employer partners and began scheduling meetings with the employers to discuss the initiative. Discussion topics included the role of the employer partner, anticipated time involvement, benefits to the employer, and learner qualifications. They next discussed potential challenge topics from a variety of locations within the employer organization, specific development of the topic, and identified an individual who could represent the employer partner during the challenge in the learning community.

Identifying Platform for Delivery of Challenge

Simultaneously, the core team met with the instructional design team to discuss the options available internally for delivering the HEaRT experience. Utilizing the existing university learning management system (LMS) would be cost effective, so the team requested a course in the testing environment, where a pilot HEaRT challenge could be created. The Academic team explored many delivery options within the LMS. The course design included general content and directions to include across challenges. Courses also allowed for new employer-specific challenge content that could be easily developed and inserted in the course shell as employers bring forward new problems to address.

Academic Technology Support

Delivery of a real-world challenge required a look and feel that was less like a course and more like a streamlined set of goals that would not be overwhelming. The core team and Academic Support explored options in adjusting the course shell to make the experience look and feel more like a project. Next, the Academic Technology department mapped the details of how learners would enroll in the course shell and in the online learning community. Finally, the

stakeholder team determined the university learning community platform could support the HEaRT learners and objectives.

Communication Plan

The core team decided that a robust communication plan should be developed for both learners and other university staff. The team developed a frequently asked questions (FAQ) document for learners and a toolkit for academic advisors to assist with learner questions. The core team also compiled key communications to use for the challenge. One communication was to inform the learners they met the criteria to participate (a 3.0 GPA and either 90+ undergraduate credits or 6+ graduate credits) and alert the learner to the opportunity. One communication informed learners of acceptance into the challenge, while another thanked learners for participating. Career Services prepared a registration document that included questions that supported learners during and after the challenge. In addition, Career Services developed an end-of-term survey to obtain learner feedback for future HEaRT team quality improvements.

Designing the Real-World Challenge

The challenge design process has been incremental. In the pilot phase, challenges were developed specifically around issues that the employer had specifically requested. Using the presented real-world problem, the HEaRT core team used a subject-matter expert (SME) formatted the issue into a challenge statement that succinctly described the issue and the problem to be solved. Next, the SME located learner-centric resources (including scholarly articles, timely videos, and websites) to support the student to create their final deliverable, which includes an executive summary and PowerPoint presentation. The end goal was for the student to access the LMS site and feel that they had—as a consultant would—been handed a project to complete, along with resources to assist them. The process to develop the challenges was team-based with input from all key stakeholders and took approximately three months per challenge.

As the challenges were aligned to specific courses, the SME used the competencies from the course to align the needs of the employer to the correct challenge. Often an employer would have a complex need that could potentially apply to many challenges, and the role of the SME and core team was to tease out the needs of the employer and ensure an accurate fit for the competencies. The core team designed the challenges so that two separate challenges would cover 75% of the competencies of a single course. The SME and the core team agreed upon the

distribution of competencies between the two challenges to ensure content accuracy. The SME and core team developed six challenges with alignment to the three courses over an eight-month period. With each challenge development, the core team would map the finished challenge to the course to ensure consistency.

Implementation and Delivery

Pilot Launch

The HEaRT pilot launched in October of 2018 and lasted for ten weeks. The main goal was to deliver an online experiential learning opportunity that provided learners a flexible curriculum that looked and felt less like a course and more like a task that they might be given on the job. Twenty-five participants were placed into five teams with learners from nursing, public health, and healthcare administration programs. Teams were assigned to include a diversity of degree programs within each team. The initial challenge was for a large nationwide healthcare employer and related to the nursing shortage experienced by many healthcare employers across the United States. Five teams submitted executive summaries and presentations that included final recommendations for nursing retention and nursing recruitment. The employer partner reviewed learner submissions and selected a winning team based on the rubric criteria for the challenge. Employers indicated that several of the submissions were actionable, and they selected the submission with the highest probability of being incorporated as the winning team.

Subsequent Offerings

The second offering of HEaRT doubled in the number of participants, with over 50 students, and focused on succession planning for the organization. During the first two challenges, the subject-matter expert who assisted in the content design served as the mentor, which was advantageous for all stakeholders. Also during the second offering, HEaRT required significant revision because of a university-wide change in the LMS. The HEaRT model has now been utilized in three different LMS platforms: Blackboard, Motivis, and D2L Brightspace. In each case, the HEaRT model was easily adapted to include learner enrollments, set up of teams, and adjustment of modules to phases.

With each challenge, the core team reviewed faculty and learner input to apply significant modification since its inception. This initiative initially began as a ten-week contest in which eligible students could participate twice per year. After reviewing faculty and learner input, the challenges now are offered in eight-week sessions, as the shorter time period keeps teams

focused. Initially, the challenge proceeded by weeks or modules. With better understanding of multiple teams working in various stages, the core team developed phases that now allow teams to move at their own collective pace. In addition, the challenge has now grown to incorporate specific competencies that students address, and the university now offers two different challenges each term. Students from the winning team initially received a certificate of completion, but now students receive a digital badge.

Results

Since 2018, 566 learners have mastered a HEaRT challenge. To date, learners have provided solutions for eight real-world employer problems, including maximizing reimbursement in the outpatient arena, developing internal policies that expedite safe patient discharge, and marketing new healthcare services.

Each learner is asked to complete a survey about the HEaRT experience. One question posed was “what is your reason for participating in HEaRT?” Respondents indicated that they wanted the opportunity to network with employers (38%), to gain experience in order to change careers (27%), and for collaboration with their peers (14%). A few learners also indicated they desired to work closely with Career Services.

Learner Satisfaction

While this experiential model is still new and data regarding job acquisition are not available, learner surveys submitted at the end of the challenge provide important quality improvement data to assist in planning future challenges. Through post-challenge surveys, learners expressed a high level of satisfaction with the HEaRT experience. Since 2018, the overall average rating of the learner experience has been 8.6.

In the post-completion surveys, learners indicated what they liked the most about learning in a team environment. Students expressed that they liked learning in teams because they were able to work with others with from different backgrounds, viewpoints, and geographical locations. In addition, learners expressed that teamwork increased their communication skills and that the exchange of ideas produced motivation, creativity, and commitment. Learners articulated that they liked receiving feedback from their peers, the collaborative process, and shared responsibilities. One learner expressed that the teamwork decreased the loneliness of being an online student. In addition, learners relayed what soft skills they were able to apply during the challenge. Responses included critical thinking, leadership,

and problem solving. Learners also expressed an appreciation of greater cultural diversity and patience/tolerance because of the experience.

The survey also asked learners how they would apply what they learned in the experience. Learners stated they intended to be more confident in their skills, to listen to other points of view more, and to apply leadership skills in future endeavors. Other comments included that being flexible and taking initiative can increase productivity, and that they have become more at ease with change. One learner indicated that they planned to use research in the future to compare potential solutions in order to select the best response. Finally, another learner indicated they would use the experience to communicate with their co-workers at their current job more effectively.

Mentor Satisfaction

The core team of HEaRT collected mentor perceptions and comments regarding the HEaRT challenge in weekly meetings and formal evaluation sessions after the completion of each challenge. Mentors expressed positive comments. The university utilized three full-time faculty as mentors in 2019 to deliver the experiential learning challenge. Although the mentoring model varied greatly from the typical online classroom model, all mentors indicated that they had high satisfaction in mentoring students, as opposed to using strictly traditional instructional methods. Specifically, mentors stated that they had great satisfaction in mentoring students in their acquisition of soft skills such as communication, problem solving, and leadership in team collaborations. Admittedly, mentor expectations regarding a wholly team-driven experience required an adjustment in teaching style to acting as a “guide from the side.” However, faculty had high satisfaction from seeing what teams were able to develop with only mentoring input. Especially high satisfaction came when teams that initially appeared unable to work as a cohesive group completed the challenge successfully. Finally, all mentors expressed overwhelming satisfaction in working with diverse learners from all over the globe.

Faculty also discussed the 1:100 mentor to learner ratio as contributing to the success of the learning model. With this higher ratio, D2L’s Intelligent Agent feature eased the burden of grading. The Intelligent Agent alerts faculty when learners have submitted all required documents so that grading is required only for those who chose to complete the entire challenge. The Intelligent Agent eliminated the need to constantly check and re-check the assignment areas as faculty grade in a bundle for each student and each team, streamlining grading for the mentor.

Conclusion

The issue of limited or nonexistent internships for online learners can be addressed using this unique model. The continued use of this model needs to be explored further, as it has proven to be flexible, cost-effective, easy to replicate, and improves access to experiences for learners. Future considerations for HEaRT include expanding the challenges to include learners in other programs within the university, learners from other institutions, and shorter more intense challenges that may create bursts of learning.

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