Experiential and Transformative Learning in an Informal Online Learning Environment: An Approach to Initiate Sustainable Changes

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Abstract. As the use of technology increased in educational settings, both availability and viability of online learning opportunities increased substantially. Research indicates that more and more institutions of higher learning are increasing online course offerings as a way to increase enrollment in formerly closed settings. Indeed, the use of online learning has paved the way for global connections in a once closed world. However, as a way of promoting the use of online technologies outside of the class environment, Ashford University has begun to promote sustainability efforts through their student Sociology Club. In this case, the use of a social networking site to connect faculty and students in an experiential learning environment was designed to help educate students while, at the same time, prompting community-based action no matter how geographic boundaries separated participants.

Keywords: Computer mediated communication · Computer supported collaborative learning · Experiential learning · LinkedIn · Sustainability · Transformative learning

1 Introduction

During its early years online education was ostracized in many areas in higher education. However, as time as passed, the stigma of participating in an online class or even obtaining a degree online has decreased. A recent study completed by The National Center for Education Statistics revealed 4.3 million undergraduate students, or 20 % of all undergraduates, took at least one distance education course in 2007–2008 [1]. This number climbed to 7.1 million undergraduates taking at least one online course in 2013 [2]. According to Allen and Seaman (2014), higher education institutions are acknowledging the extent to which online learning plays a role in their continued success with an increase from less than one half in 2002 to 66 % of institutions reporting online education is critical to their long term strategies in 2013.

Ashford University plays a critical role in the online learning programs and has a large online presence with over 58,100 students taking online class and 99 % (57, 235) of these pursuing their degree solely online [3]. Many of the students come into their online learning experience very familiar with technology while others become increasingly aware as they navigate their online classes. This familiarity, and in some

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cases preference for, technology drives the creation of more learning arenas. The formal learning platform is essential in online learning platforms but informal learning experiences, particularly in collaborative modalities, are finding a home in the online learning experience as well. Investigating how this transpires and the best practices being implemented is an on-going process that continues to build upon this varied modality of knowledge acquisition. One element that deserves further investigation is group learning in the online learning environment.

2 Literature Review

Traditionally, students have presented pushback to group learning in the classroom [4] and because the online learning modality is one where individual interaction in the classroom is contingent on the individual's availability, group work can understandably be met with a lack luster response. After all, this kind of autonomy and ability to work on one's own time is a primary reason student's enroll in online programs. In the formal online learning environment, group projects also rely upon the participation of group members to produce a coherent and objective satisfying outcome to be submitted for evaluative purposes in a timely fashion. An informal computer supported collaborative learning (CSCL) approach alleviates many of these issues. This is primarily because students can log on and interact with the group in their own time while the group collectively adds to the body of data without reliance on each other in a time restricted way and the pressure of an evaluative grading process is alleviated. This method allows for autonomy while at the same time promoting group participation.

Using computer mediated communication (CMC) we are investigating how social media can be used informally for CSCL about sustainability initiatives for students in online learning programs as a transformative learning experience. The success of sustainability initiatives has been researched more widely in brick and mortar institutions, which give us insight into possible approaches for online learning platforms. Experiential and transformative learning in relation to sustainability is producing effective results in brick and mortar institutions through combining the hands-on elements with complimentary institutional philosophies and paradigms. Through experiencing, conceptualizing, analyzing and applying knowledge to real world issues [5], Texas University's "Common Experience" initiative connects experiences with knowledge about sustainability through activities that demonstrate practical purpose, and engage students in applying creativity, knowledge, and critical thinking to positively impact the campus, community and society in relation to sustainability. These efforts resulted in a shared vision and solution-discourse on sustainability [6]. Another example, the University of California, Davis uses "a personal 'Resource Consumption and Waste Audit'" [7] to engage students and involve them in sustainability practices beyond the theories. Both the 'Common Experience' and the 'Resource Consumption and Waste Audit' motivate their educational communities to change their behaviors in regards to sustainability.

Many institutions of higher education, in consideration of the United Nation's call for sustainability education [8], have implemented or expanded traditional, hybrid and distance curricula and programs in sustainability [9]. In *Many Roads Lead to Sustainability: a Process-oriented Analysis of Change in Higher Education*, Barth notes the results of a multi-case study analyzing the process of implementing sustainability, and concludes that the influencing factors are "student-led change from informal to formal learning, sustainability as a concern in campus operation; and sustainability as a unique selling-point" [10]. Reshaped through the processes of action, reflection, and knowledge, students emerging from traditional brick and mortar institutions, which implement experiential/transformative pedagogical practices, are empowered to affect social change. This research has shown that collaborative learner outcomes have been successful at transferring learning into social action beyond the classroom.

While effective in the traditional institutions of higher education, the online learning environment encounters unique challenges to enacting concrete change through experiential/transformative learning because it involves critical reflection on assumptions that result from critical-dialectical discourse to test the validity of the transformation [11]. To facilitate learners encountering the dilemma of sustainability in the distance education environment, there are issues that need to be examined and accounted for. Connecting to others who are exploring new roles, finding options in relation to sustainability, and planning a course of action that allows for building competencies and integrating new perspectives into life to affect social change, means that institutions employing online learning modalities must find avenues that permit the written word to transcend distance and generate co-learner experiences [12]. It is these avenues that have the ability to bridge the physical distance between like-minded students who are focused on sustainability.

Both experiential and transformative learning require reflection beyond the facts. However, opportunities for students to take initiative and engage with each other and society at large can pose challenges in the relative autonomous environment of the online classroom. Educators and institutions of online learning can cultivate the process of experiential and transformative learning in relation to issues of sustainability by employing interactive synchronous and asynchronous communication that gives impetus to the understanding of reality. Epistemology that accurately reflects the reality of the need for sustainability to transcend the knowledge realm, evolve into action, and prompts a shift in current assumptions can become the foundation for transferring knowledge into social action outside the classroom will be essential to online learning models on sustainability.

As higher education in online environments evolve, the importance of experiential and transformative learning's ability to generate social change in relation to sustainability issues hinges on how well it can work to create actions that inspire reflection about how humanity is collectively and individually embedded and interconnected in Earth's ecological systems. This demands that online learning arenas reach beyond the known limits of technology and work to employ experiences and transformative pedagogical strategies that inspire a shift to a systemic and collective action and thought in relation to sustainability in a globalized learning environment.

3 Current Study

Using the Time, Interaction and Performance (TIP) theory, we posit the collaborative social media entity LinkedIn can be used informally for CSCL about sustainability with students enrolled in online learning programs to cultivate a transformative learning experience. This theory proposes three things work simultaneously in group collaborations; (1) production function, which is the collaborative efforts towards task completion, (2) group wellbeing indicated by maintaining positive and consistent communication among the group members and, (3) supporting the members of the group as necessary [13]. Research suggests that individual and competitive efforts in CSCL are less effective than collaborative learning [14]. Johnson and Johnson (1996) also found CSCL promotes greater quantity and quality of daily achievement, greater mastery and application of factual information and greater success in problem solving. Because LinkedIn is a many-to-many interfaced modality, the potential to create collective intelligence or intelligence born of collaborative efforts is tenable. Our hypothesis is- Is an informal platform such as LinkedIn is a useful tool to facilitate transformative learning when used as an informal computer supported collaborative learning environment evidenced by 30 % or more of the membership participating in the sustainability challenge. Our research question- Is an informal online platform a useful tool to result in transformative learning?

Efforts to accomplish this initiative have included introducing tasks related to sustainable behaviors that help students understand not only why certain behaviors should be implemented but also details on how to implement them. The tasks vary in complexity but initial tasks require small changes with easy to follow instructions and increase in complexity as time passes and greater familiarity with sustainable practices is gained. Feedback is being required from participants on the results of their efforts, which serves to reinforce participation and provide support for continued interactions. There is an increased likelihood that students will engage in shared behavior if there is a sense of reciprocity in the sharing process. Recent research suggests "that using online social networks as educational platforms may support learners in forming social connections with others while they collaborate to share ideas, create products, construct identities, and receive timely feedback" [15]. For the purposes of this study, we are utilizing the Ashford University Sociology Club developed by the sociology program, which has been housed in LinkedIn for the past several months.

While a structured initiative such as the one we are currently conducting has not yet been tested for any other initiative in the sociology club, interactions among students in the club have been robust and consistent thus far. Interest has been expressed in understanding the interconnectedness of humanity as well as learning more and implementing behaviors that improve interactions between people locally and globally. This approach to initiate sustainable changes is the logical step in the evolution of the club as well as the first step in testing the grounds for working on sustainability initiatives in an informal learning environment using the many-to-many interface, LinkedIn.

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