The Opportunity for Community-Centered Online Learning in a Corporate Environment

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Abstract

The dynamic business climate of today's corporations should only be matched by its commitment to educating its workforce. In a global, constantly developing, competitive business environment, many companies choose eLearning as a method of informing their employees. eLearning offers many benefits; companies can quickly train many employees, across the globe, without the high costs associated with travel. Many corporations utilize a fundamental, self-paced, one-way eLearning model, where learners interact only with learning content. The research indicates that learners do well in a community-centered learning environment. The use of a supportive facilitator and engaging activities provides an additional level of learner support, which can lead to improved retention of learning content, and higher learner satisfaction. This paper showcases one company's current eLearning model and seeks to improve it through the use of a constructivist approach to online learning.

Keywords: Corporate Online University, Corporate eLearning, Learning Community, Constructivist Pedagogy

Introduction

The corporate online education instructor faces many challenges when attempting to foster an online community in the asynchronous learning environment. Many corporate learning environments only account for a passive, objectivist approach to learning, and lack the personalization and authenticity that learners crave. Learners are individuals, each bringing their own learning style, past experience, and perspective to the online environment.

Many corporations are drawn to online learning because of its many benefits:

- On-demand 24/7 access
- Travel cost and time eliminated
- Standardization of learning content
- Learners can match learning paths to their business needs, or they can build their own learning path within the LMS
- Learners can work at their own pace
- Different learning styles are addressed through varied activities
- Builds self-knowledge and self-confidence about company philosophy, policies, and procedures (Sharma & Mishra, 2007).

It is because of these benefits that they seek to utilize online learning as a way to educate their workforce. Unfortunately, many companies do not have the distance education leaders in place to do a sufficient job in this task. True distance education leaders demonstrate personal integrity, loyalty, commitment, high standards, and foster a sense of trust (Beaudoin, 2007). Transformational distance education leaders possess qualities that enable them to easily alter the current climate and create innovative strategies to make revolutionary differences in their

workplaces. (Hersey, Blanchard & Johnson, 2007; Latchem & Hanna, 2001). This is especially true in the corporate learning environment. The business of educating adults is a critical one. It demands competent leaders who are cognizant of the worth of their employees, and who understand the importance of making an investment in their consistent development (Muirhead, 2003). Above all, it is important to provide a supportive learning scaffold upon which learners can grow and succeed.

One of the most important contributions that distance education leaders can make to their students is the cultivation of a collaborative, community-building, constructivist learning environment. Constructivism should be used to promote active learning among students by allowing them and encouraging them to move away from passive learning; and to guide students as they become true catalysts of educational empowerment (Murphy, Mahoney, Chen, Mendoza-Diaz, and Yang, 2005). It is important to design online instruction that sustains collaborative community-based learning by promoting cooperative partnerships through the use of group self-evaluation, appropriate interpersonal skills, individual accountability, and group projects (Bernard, de Rubalcava, & St. Pierre, 2000; Murphy & Cifuentes, 2001). Learners should be told upfront what type of technology they will be using, as well as the type of support resources which are in place should they need help. Appropriate technology should be chosen to support a learning community (Ragan, 2000). An investigation of the literature provides the evidence that proper pedagogy, course design, and suitable technology lay the foundation for learners to succeed.

Literature Review

A successful online learning environment is dependent on two factors: It is the role of the instructor to contribute to the cultivation of a collaborative community building atmosphere; it is

the role of the instructional designer to design the course in such a way that the instructor can carry out the educational mission. This can be accomplished by taking a constructivist, learner-centric approach. An analysis of effective online learning systems reveals specific strategies for the distance education designer and instructor in building a collaborative online community, the results of which yield significant benefits, specifically a positive effect on students' online participation, reflection, collaboration, and learner satisfaction (Menchaca & Bekele, 2008; Swan, 2001). The goal of this research paper is to present evidence that links active, collaborative learning communities and the positive effects that these types of learning communities have on their students. The topics addressed include the importance of:

- Student success factors
- Proper pedagogy
- Effective course design, and
- Appropriate technology.

Student Perceptions: Success Factors

Is a sense of community important to distance education students? According to Conrad (2002), the answer is yes. Conrad (2002) asserts that learners seek to foster a sense of community within the online learning environment through "the art of being nice" (p. 209). This study found that an essential reason in what motivates people to contribute to their online community is the "learner's personal sense of etiquette" (Conrad, 2002, p.202). This research provides an interesting, unique and meaningful perspective as to what motivates learners to participate and the importance of a satisfying sense of community in the online learning environment. It shows that learners understand, value, and will protect their online community. Learners feel they benefit from a true community of inquiry and practice. According to Dobrovolny (2006), in the

corporate eLearning environment, it is this collaborative piece that is missing. Oftentimes the corporate eLearning environment bombards its learners with content, presented in a self-paced manner, using a passive method delivery. The emphasis is placed on the content, not on the learner where it should be. While the content is meaningful, there needs to be a more meaningful way of transmitting that content.

Menchaca and Bekele (2008) analyze perceived learners and instructor success factors in the distance learning environment (p. 231). Their well-rounded, rich study utilizes a comparative analysis methodology and is supported by a proper theoretical framework (Menchaca & Bekele, 2008). The study specifically calls out "student satisfaction" as "one of the major success measures" (Menchaca & Bekele, 2008, p. 231). The study identifies several noteworthy conclusions including:

1. "Collaboration, reflection, and building a learning community are important strategies supported by multiple tools, and
2. Participant satisfaction, appropriate prerequisite skills, and faculty and administrative involvement ensure programmatic success" (Menchaca & Bekele, 2008, p. 231).

Obviously, students feel that they benefit from a collaborative online community. How do designers and instructors of online education ensure the success of such an endeavor? The answer lies in three components: Ground the online course in appropriate learning theory, design the course in order to facilitate collaborative discourse, and use appropriate technology to support students as they actively engage and interact in the distance education system of learning (Conrad, 2002; Menchaca & Bekele, 2008).

Pedagogy

Constructivism is a psychological theory of knowledge which argues that "learning is an active process in which learners construct new ideas or concepts based upon their current or past knowledge" (Bodomo, 2005, p. 404). Conrad (2002) discusses how constructivist learning approaches yield the type of meaning to learning that advances the learners' new pathways as they make their way on their educational journey. Constructivist learning suggests that learning atmospheres maintain "multiple perspectives or interpretations of reality, knowledge construction, context-rich, experience-based activities" (Conrad, 2002, p. 201). In other words, constructivism is a theory that supports an educational arena where learners build knowledge for themselves based upon prior knowledge, based upon reflections on their own experiences, and based on the social interactions they have with others. Constructivist advocates feel that learning is an active process, and that learning occurs when learners fully participate in that process. Because of this, constructivism is a natural fit for sustaining an online learning community.

Constructivism has been shown to be an effective way to encourage online community building. Murphy, Mahoney, Chen, Mendoza-Diaz, and Yang (2005) use a constructivist approach to guide and prepare learners as they participate in web based community discussions, negotiations and deliberations. Their model achieves three significant outcomes: to encourage active learning, to supply an effective support system that promotes a world where learners to become catalysts of learning; and to permit online educators to diminish their work load (Murphy et al., 2005).

According to Murphy et al. (2005), social constructivism is often used to encourage active learning. Social constructivism purports that comprehension of learning content is created by learners when they truly reflect on their past and current experiences and when they collaborate with their peers in a learning community. This shared learning experience requires learners to

employ active techniques, interacting and exchanging ideas and negotiating meaning by accounting for numerous viewpoints of all involved in the course.

Research by Dennen and Wieland (2007) found that the constructivist approach enables learners to collaboratively interact in social learning processes. Although this particular study only compares the discourse of two classes, it supports the long standing, well-researched viewpoint that a constructivist approach, a facilitative instructor, and well focused discussion assignments lead to true student collaboration in an online learning community. The instructional implications of this study offer techniques to persuade learners to truly interact and connect with each other through their dialogue where they can reach new heights in their understanding, heights they may not have reached by themselves (Dennen & Wieland, 2007).

Design

Interaction is the foundation of the learning community. The specialized design of the online learning community should take into account the need for many significant interactions between students, between facilitator and students, between student and content. These interactions enhance and develop the learning community and need to be accounted for upfront as the instructional designer prepares and organizes the structure of the online educational program.

Instructional designers must overcome barriers in the online environment and surpass the utilization of the recommended tactics to cultivating instruction and knowledge construction (Irlbeck, Kays, Jones, & Sims, 2006). It is important to take a new approach to course design and move from a traditional instructive model to one that will support a constructivist model. Irlbeck et al. (2006) argue for a new model that provides for the complexity of active, collaborative online learning environments. Their important contribution examines a convergence of inspired

instructional design techniques and emergence theory, which provides for an uncompromising addition of a learner-centered design that sustains resourceful, inspired, innovative education (Irlbeck et al., 2006).

"Learners construct their own knowledge by actively participating in the learning process. Constructivist instructional developers value collaboration, learner autonomy, generativity, reflectivity and active engagement" (Moallem, 2001, p. 114). Constructivist online course design must incorporate activities that will encourage collaboration, empower self-reflection, and support active learning. Designers that use the constructivist approach expect that each participant in the learning process brings with him a distinctive viewpoint and that the course needs to be designed in such a way as to place the learner front and center. Every learner has a unique voice, and valuable experience that he brings with him. It is the job of the designer to create a forum where he can express himself and share his ideas. Examples of collaborative activities include facilitated debates, group case study projects, peer review, threaded discussion, self-evaluation, and real world role plays (Karagiorgi & Symeou, 2005; Persico, Pozzi & Sarti, 2010).

A successful learning experience is often defined by a positive verification of learning transfer and an increase in learner satisfaction. The research conducted by Gunawardena, Linder-VanBerschot, LaPointe, and Rao (2010) shows a positive effect between learner satisfaction and learning transfer in a corporate setting when a course is designed utilizing a constructivist approach. The online courses that they design promote active learning by incorporating real–world based cases where students are encouraged to solve authentic problems. This authenticity provides for a higher level of learning. Their results, which take in to account the input from learners, facilitators, and instructional designers, reveal two significant predictors of success for

learners in a corporate environment. Gunawardena et al. (2010) assert that the greatest catalyst for learner satisfaction was “online self-efficacy” while appropriate “collegial support” foretold effective learning transfer. (p. 207).

Appropriate evaluation is a key step in the instructional design process. Sims, Dobbs, and Hand (2002) suggest proactively evaluating learners so that online courses can be designed specifically for them, supporting them in their efforts. This adds a new dimension to the design of collaborative online courses – One that will provide a higher level of analysis and support – One that will make “subsequent formative and summative evaluation more directed and meaningful” (Sims, Dobbs, and Hand, 2002, p. 137).

The research presents best practices and guiding principles for the design of distance education systems that support active learning and collaboration in online educational communities. Some best practices include: supporting constructive interdependence through group projects; individual responsibility; and group self-evaluation.

Technology

The research indicates that electronic communications technologies are an effective tool for building and preserving collaborative online active learning communities.

It is important to think about any boundaries between learners and technological tools when educational technologies are utilized as part of the educational program (Ragan, 2000). Learners should be properly prepared; they should be told in advance what type of technology that they will be using. Effective support mechanisms should also be in place for the learner as he works through the technological platform. It is important that learners and instructors are afforded an appropriate amount of time and opportunity to become acquainted with the technologies needed

to interact with peers, facilitator, and learning content. It is also important to recognize that technology can sustain numerous stages of interaction; employing the proper technology to carry the preferred levels is of utmost importance (Ragan, 2000).

Beldarrain (2006) investigates the advantages of "using emerging technology tools, such as wikis, blogs, and podcasts, and social software applications, such as Writeboard™, InstaColl™, and Imeem™", to encourage learner interaction and collaboration in the online learning environment, with the ultimate goal of initiating and developing a foundation where an online community can thrive. Referencing the work of many distance education leaders, she substantiates her argument for student interaction to be a central anchor for the foundation of the learning community.

Beldarrain (2006) suggests that in order to establish a thriving online community, technology should:

- "Encourage contact between students and faculty.
- Develop reciprocity and cooperation among students.
- Use active learning techniques.
- Give prompt feedback.
- Emphasize time on task.
- Communicate high expectations.
- Respect diverse talents and ways of learning" (p.144).

Beldarrain (2006) asserts that the need for online learning will not diminish. Because of ever-evolving technological features and characteristics, those that wish to use distance education as a teaching tool will be forced to find new means of generating distance systems of learning that

will groom participants to engage in life-long learning, individuals who can solve problems by establishing global collaborative partnerships.

One important technological advance which can offer a possible foundation to support active learning in an online collaborative community is social software. Dron (2007) states that social software places the high emphasis on the group as a whole, and the interactions that take place between learner-group, facilitator-group, "content-group and group-group" (p. 62). Social software permits students to decide if they want to manage and direct their learning or to hand over that to the group (Dron, 2007). The learning community is in a constant state of change and it adapts and moves as it serves the needs of the group as a whole.

Dron (2007) highlights best practices for designing an educational platform which utilizes social software. Each of these best practices is designed to provide a safe, secure, thriving environment to support learners as they engage in active learning in a collaborative community. "Social software in e-learning offers great potential pedagogic and practical benefits, both through the amplification and creation of social ties, and through allowing learners to choose whether they control or be controlled in a learning transaction" (Dron, 2007, p. 68).

Corporate Online University Profile

Schneider Electric offers eLearning courses to their employees, sales force and customers through two online corporate universities. Data Center University (DCU) was launched in January 2006 and has approximately 81,000 users. "DCU offers industry-leading education for IT professionals, facilities managers, engineers, designers, consultants, and anyone involved in the critical decisions and infrastructure planning of data centers worldwide" (Data Center University, 2008). Energy University (EU) was launched in June 2009 and has approximately

33,000 users. EU seeks to “provide the latest information and professional training on energy efficiency concepts and best practice” (Energy University, 2010). EU provides online learning to help users develop solutions for energy efficiency and conservation that deliver a return on investment, reduce capital costs, and reduce delivery time (Energy University, 2010).

Both universities offer free eLearning courses. They follow the same delivery model. The current courses are created using Adobe Presenter and Microsoft PowerPoint. They utilize an asynchronous, passive learning approach; they are self-paced and available online via a learning portal that is supported by Global Knowledge, an external IT and business skills training company. The LMS is an Oracle based iLearning platform that supports the posting and tracking of content and user activity. Standard reporting functionality allows for easy extraction of information at any time in an excel format. The LMS is a globally sourced environment, so users from around the world can gain access to this learning.

Data Center University and Energy University learners currently only interact with learning content. They do not interact with a facilitator or other learners. Learners log on to the site, create a user name and password, choose a learning path, or individual course, and begin their learning journey. At the end of the learning experience, they take an online quiz and an online survey. DCU and EU offer minimal learner support; they provide an email addresses as a point of contact if learners need assistance, and a response is usually generated within twenty-four hours.

What is the effect of weaving collaborative learning community features and attributes into the eLearning courses offered through Energy University? This research project seeks to answer that question. The researcher hypothesizes that when Energy University learners engage in active learning, in a collaborative learning community, there will be an increase in learning transfer,

illustrated by a positive increase in test scores, and an increase in learner satisfaction, illustrated by survey results and follow up interviews.

Methodology and Participants

This case study utilizes a comparative data research methodology and quantitative analysis techniques.

Schneider Electric hosts an internal "Collaborative Project Portal" website, which is currently used by employees to communicate across the globe and across departments when working on team projects. The Portal contains all the necessary attributes of a Web2.0 platform, so it was the perfect stage for the online classroom for this case study (Figure 1).

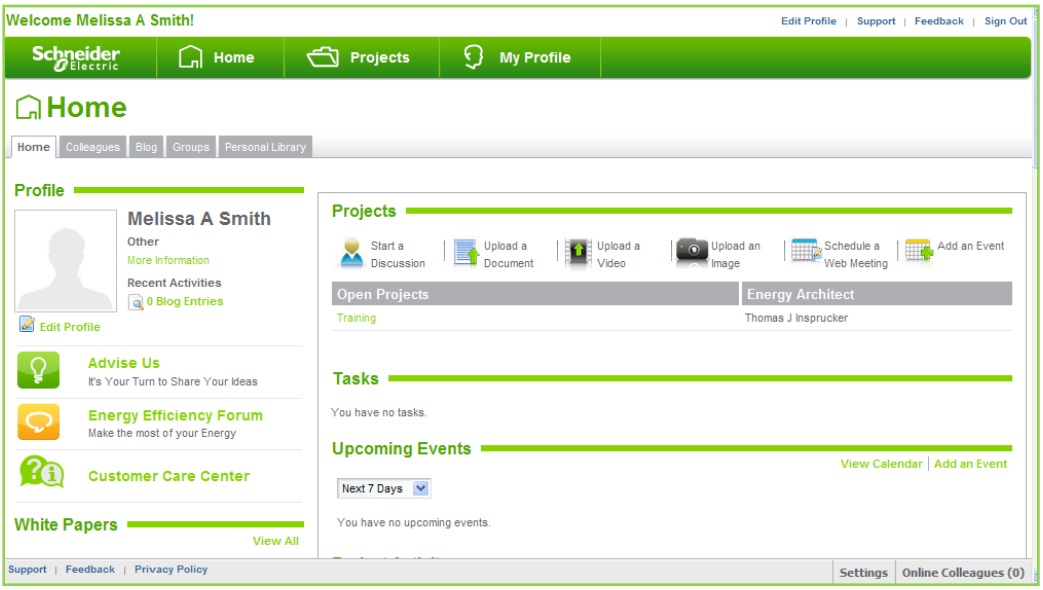

Figure 1 – A snapshot of a user's home page on the Collaborative Portal

The Portal was a good technological choice because the employees of Schneider Electric are already familiar with the technology and the navigation of the site; hence there was no ancillary

distraction for learners having to become familiar with new technology. On the Portal, it is possible to:

- Communicate in threaded discussion on a bulletin board
- Schedule and participate in Web Meetings
- Chat with fellow users
- Upload and download various types of files (including documents, videos, and images)
- Create wiki and blog entries

Past participants of DCU, who are also internal employees of Schneider Electric, were invited to participate in the new form of learning utilizing content from EU. These participants were chosen because:

1. They are internal employees of Schneider Electric.
    a. The online classroom lives on an internal "Collaborative Project Portal" website, so it was necessary to have employees participate in this study.
2. They had taken one or more courses on the DCU platform.
    a. Their DCU test scores were recorded and available. If a participant took more than one DCU course, the test scores were averaged to arrive at a base number for comparison.
    b. They had prior experience with passive, self-paced, online learning.
3. Upon completion, they had responded to an online survey regarding their experience with DCU.
    a. Their DCU survey responses were recorded and available.
4. They had never taken any courses on the EU platform.

a. The learning content was new to them. They do not have prior experience with the learning content.

Course Information

Course Title: Going Green Learning Path **Course length: 7 days** **Number of participants: 13**		
Module Title	**Learning Objectives**	**Activity**
Day 1 - Module topic: *Building Envelope*	• Define building envelope and building load and the terms “thermally light” and “thermally heavy” • List and describe methods of minimizing load and losses through the building envelope	Participants will introduce themselves; respond to questions posed by the instructor; work through heat flow calculations to calculate losses by transmission, infiltration and ventilation; interact with others in a threaded discussion
Day 2 - Module topic: *Alternative Power Generation Technologies*	• Evaluate fuel cells and micro turbines as power generation alternatives • Discuss the benefits and drawbacks of both traditional and emerging power generation technologies • Determine the impact of alternative power generation on total cost of ownership (TCO)	Participants will respond to questions posed by the instructor; interact with others in a threaded discussion Online Debate – Which is a more sustainable energy efficient generator of electrical energy? Fuel cells or wind turbines? The instructor will split the class into two groups. Group A will debate for fuel cells; Group B will debate for micro turbines.
Day 3 - Module topic: *Alternative Power Generation Technologies*	• Complete the Online Debate	Groups will complete the Online Debate in the threaded conference area
Day 4 - Module topic: *Commissioning For Energy Efficiency*	• Explain the purpose and benefits of commissioning, and how it relates to energy efficiency • Define new construction commissioning, retro-commissioning, re-commissioning, continuous commissioning, and monitoring-based commissioning • Explain key success factors for commissioning	Participants will respond to questions posed by the instructor; interact with others in a threaded discussion.

Day 5 - Module topic: *Maintenance Best Practices for Energy Efficient Facilities*	• List organizational problems that lead to inadequate maintenance • Identify the characteristics of an effective maintenance system • List examples of energy efficiency costs caused by insufficient maintenance • Calculate the energy costs associated with various types of maintenance failure, for example, in compressed air, or steam systems, and • Identify simple ways that infrared, vibration analysis, and ultrasonic surveys can contribute to identifying maintenance needs	Participants will respond to questions posed by the instructor; interact with others in a threaded discussion Group Role Play – You are a new energy architect at a prominent oil and gas company. Your company utilizes legacy methods and technology. What can you do to improve energy efficiency at your company? Work together in groups of 2 or 3 and design a long term plan for commissioning and maintenance.
Day 6 – Module topic: *Commissioning and Maintenance*	• Complete the role play exercise	Groups will complete the Role Play in the threaded conference area
Day 7 - Module topic: *Going Green with Leadership in Energy and Environmental Design* Course Wrap Up	• Define the characteristics of green buildings • Explain the mission of the US Green Building Council • Identify the rating system for Leadership in Energy and Environmental Design, known as LEED • Describe Schneider Electric products and services that satisfy LEED requirements	Participants will discuss the importance of organizations like LEED; reflect on the previous six days; participate in an online quiz, and an online survey

Data Generation

The data generation process for this study included the following steps.

1. The researcher contacted fifty random DCU participants via email. The purpose of this email was to assess interest level, invite participation, summarize the project, and set

expectations. A letter of consent (Appendix A) was attached. Seventeen responded affirmatively. Twenty-one declined to participate. Twelve did not respond.

2. The researcher set up conference calls with the seventeen possible participants to discuss the research project, answer any questions, and ensure that the participants were familiar with the Collaborative Portal (technology). At the end of the phone interviews, thirteen committed to joining the seven day training session.
3. The researcher (acting as facilitator) and participants joined in the interactive seven day training session on the Collaborative Project Portal. Course activities included guided, threaded discussion, online debate, and group role play.
4. The participants took a twenty-five question assessment at the end of the seventh day.
5. The participants responded to a satisfaction survey at the end of the seventh day.
6. The researcher conducted follow up interviews, either by telephone or face-to-face, approximately one - two weeks after training.

Analysis and Results

The researcher compiled the participants DCU (passive learning) test scores and compared them to the new EU (active learning) test scores. Eleven participants scored higher on the EU (active learning) test. One participant obtained the same score. One participant scored higher on the DCU (passive leaning) test.

The cut score for the test is 80% and we will use this as a “pass” indicator. 12 out of 13 – or 92% of all EU participants - scored a 80% or better compared to the DCU passive eLearning results, which indicate that only 8 out of 13 (62%) scored an 80% or better.

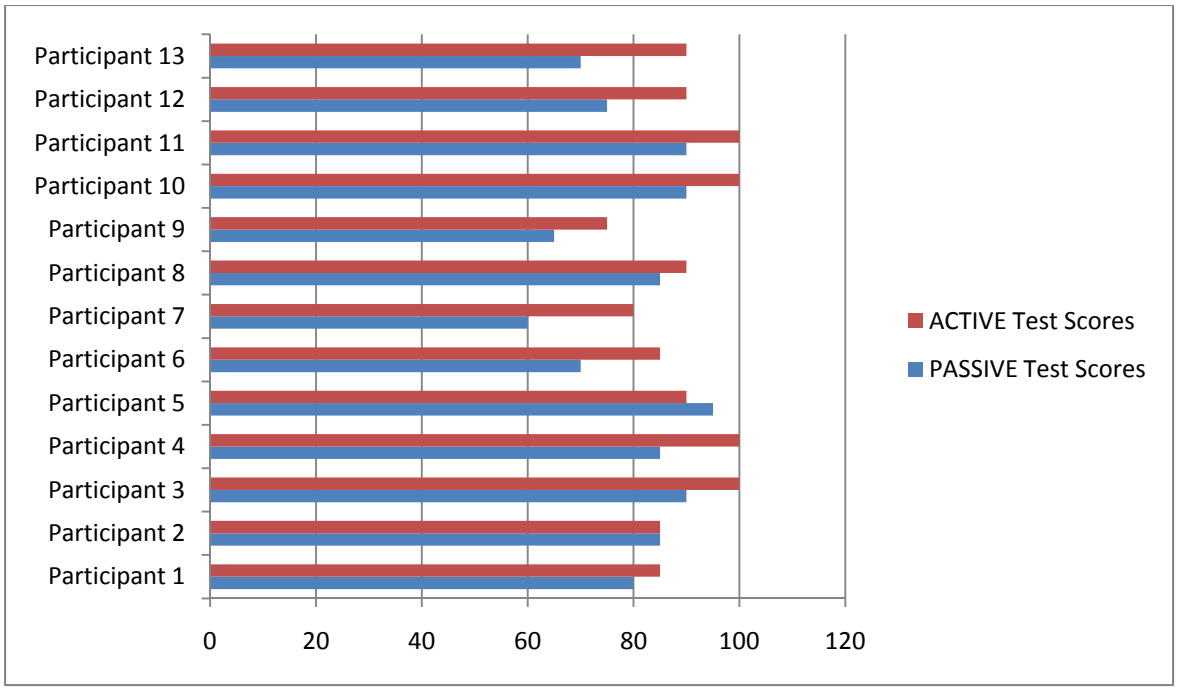

Figure 2 – Active learning test scores vs. Passive learning test scores

Survey Responses

On day seven of the training session, each participant took an online learner satisfaction survey. The researcher gathered the data from both the passive learning survey and the active learning survey. The same questions were asked on both surveys. The responses use a 5 point Likert Scale ranging from Strongly Disagree (1) to Strongly Agree (5).

Question 1 - The module objectives were met.
Question 2 - The course materials were of high quality and effectively illustrated the topic.
Question 3 - The course narration was of high quality, clear and well-paced (DCU passive only).
Question 3 - The instructor was participatory, well-organized, and supportive (EU active only).
Question 4 - The material was delivered in a well organized format.
Question 5 - The amount of time allotted to covering the material in the course was just right.
Question 6 - The knowledge I gained from this course is valuable to me or will provide value to me in my career.
Question 7 - I would take a DCU/EU course again.

Question 8 - I would likely recommend Data Center University/Energy University to a friend or colleague.
Question 9 - Please tell us how we could improve this course or improve Data Center University/Energy University.
Question 10 - What topics you would like to see covered at Data Center University/Energy University?

Questions 6, 7, and 8 specifically address learner satisfaction. Here are the survey results comparing the participants experience with the passive learning course(s) and the active learning course for those questions.

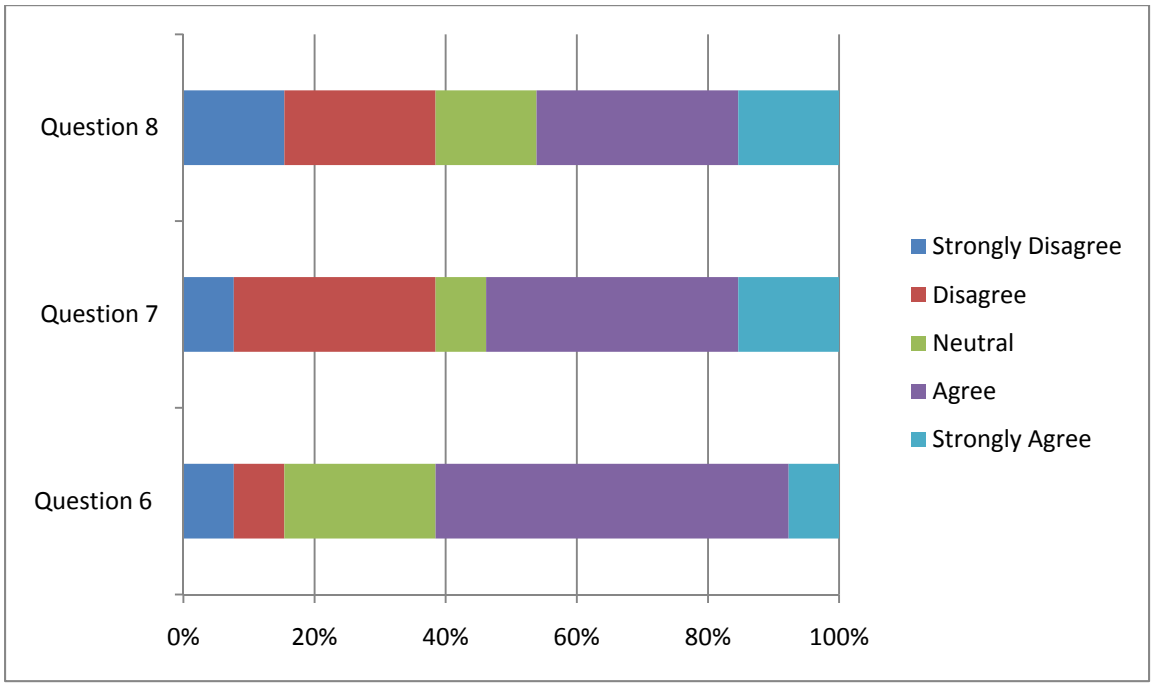

Figure 3 – DCU Learner Satisfaction Survey Results

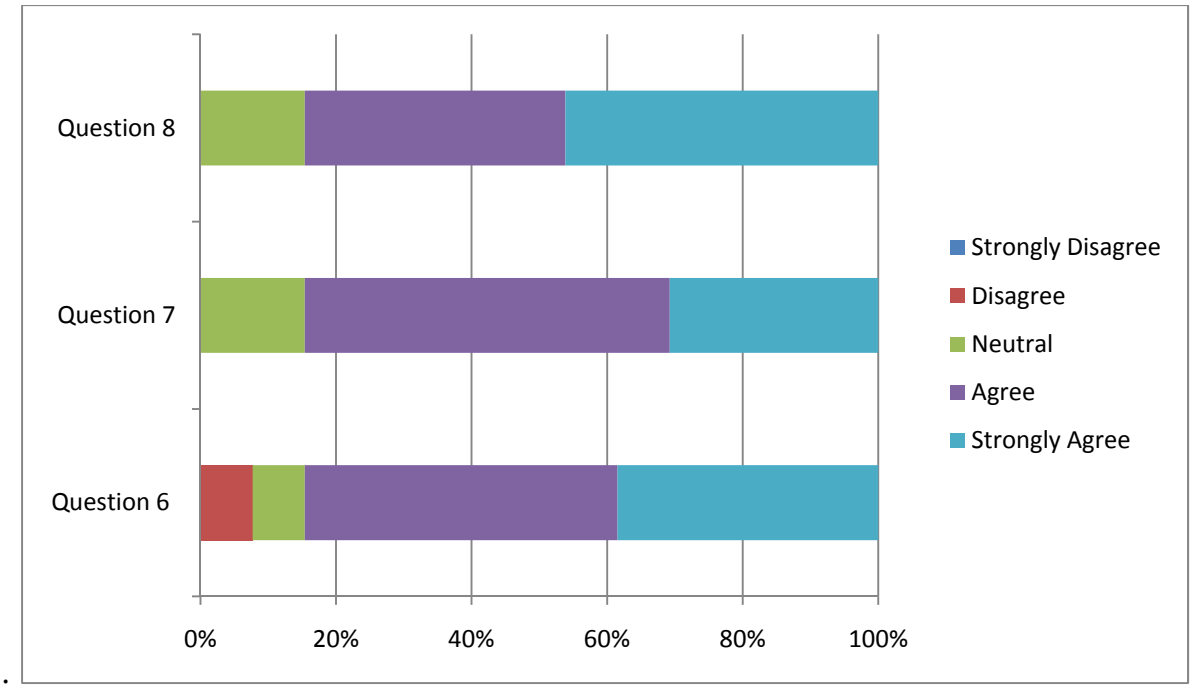

Figure 4 – EU Learner Satisfaction Survey Results

When participants participated in the passive learning course offered by DCU, approximately 62% of the participants felt that the knowledge they gained would be helpful to them in their career, 54% would take a subsequent DCU course, and 46% would recommend Data Center University to a friend or colleague. When these participants shared in the active learning course, 84% agreed that they would benefit from the learning in their careers, would take another active learning EU course, and would recommend the training to a friend. The participants preferred the active learning approach where they could build upon the thoughts of their co-workers in the online learning community.

Interview Questions

The researcher set up interviews with each participant approximately two weeks after the training session ended. The researcher familiarized herself with the responses from the

survey and kept those in front of her while she conducted each interview, personalizing each interview as she went.

The following set of questions was asked:

Question 1 - Which five words describe your experience in this class?
Question 2 - Have you ever participated in this type of active online learning before (e.g. threaded discussion; group projects; collaborative online community)?
Question 3 - Compare your recent experience in our EU class with the DCU course(s) that you took in the past. What did you like? What would you change?
Question 4 - Have you used any of the knowledge that you gained from our class? If yes, please describe this.
Question 5 - How has your view of online learning changed after your participating in our course?
Question 6 - Would you consider participating in this type of online course again if it was offered to you?

Some of the more positive responses included:

"I enjoyed our time together. It was nice to connect with fellow EU employees. I would definitely join another class if it was offered!" –Senior Engineer

"You covered just what I need. Great job on your part! I imagine that it was not easy keeping up with the class…and all their comments. The one suggestion I would have for you is to maybe bring in SMEs from the various departments to help answer some of the more challenging questions that you had to get back to us on. Maybe have visiting experts in the class? Overall, a fine job!" –Customer Solutions Training Manager

"I recently had a discussion with my VP about how this company's managers need to be efficient ambassadors in front of the external community. Seems to me that this type of course can help in that endeavor. Educating our workers should

be the number one goal. They ARE Schneider Electric. I think there is still a bit of the old APC mentality around, too many people don't know enough about Energy Efficiency…and this type of training could help with that." -Communications Operations Specialist [speaking of the buy-out of the former company American Power Conversion]

"I found the training to be a wonderfully supportive tool. Thank you for doing it." -IT Director

"The information I got was great and I have passed this project on to all my colleagues in the tech department…There were quite a few who said they would love to have the opportunity to participate in something like this too. Will you be running another class soon?" -Campaign Manager

"Seems to fit the bill. If our intent is to be and to be known as THE "one" energy management company, it seems to me that a way to get there is ensuring that our people have the right level of notoriety to be considered as the reference and making sure that we are all skilled enough to keep our promises. I think education and training are the keys to accomplishing that." -Application Engineer

"I will say that I definitely learned a thing or two about energy efficiency. It was great to be able to chat with people from other groups and get their take on things. I actually went to lunch with ____ the other day and we are planning to work on another project together that was sparked by our exchange in the classroom. Thanks for hooking us up!"-Interactive Media Producer

> *"With the quality you have demonstrated, you should expand beyond this one class and continue on and make this a constant in our offerings. Move away from just energy efficiency and get more into infrastructure and into all areas of IT." - Translation Project Manager*

There were a few negative responses, as well. Here are some examples:

> *"I really preferred the DCU [passive learning] classes more. I found the commitment to the new [active learning] training to be too taxing. I simply dreaded having to log on and comment on all the topics! I'd love to see more DCU courses on High Density Blade Servers. Please add that to the suggestion box?." -Consulting Engineer*

> *"I have never participated in anything like this before. And I probably won't again. It's too much work!"-Communications Production Director*

> *"I didn't enjoy the group project at all. I felt like I was totally alone in the endeavor. I felt supported by you, but not at all by those in my group! I completely resented having to carry them!"-Workflow Platform Manager*

Overall, the responses were quite positive, with participants indicating that they would be interested in attending another active online learning session. The few participants that preferred passive learning state that they just want to log on to the system and "get it done." They are interested getting the information quickly. Time is of the essence for them, and they do not want the commitment that active learning requires. When asked if they minded that they sacrificed more learning and the interactive part of training, they indicated that it did not bother them to do so.

Limitations

The biggest limitation of this study is the number of participants that were involved in the study. Time constraints of the project limited the ability to conduct more than one training session. More classes need to be conducted to gather data to further strengthen the preliminary findings that learners score higher and feel more satisfied in a course where they are able to construct knowledge through collaboration in a corporate online learning community. One other limitation had to do with the researcher's inexperience with conducting this type of training exercise. While she has conducted many face to face training sessions and developed many online passive training modules, facilitating active learning was a new challenge for her. Even with these limitations, the findings suggest that learners who feel supported in a collaborative online community system of distance learning perform better, and feel more satisfied when compared to a passive learning approach.

Conclusion

Interaction is at the heart of every educationally-sound distance education system. A community of learners is formed through the interactions of learner to learner, learner to instructor, and learner to content. "Community-centered learning environments offer a new perspective on the importance of creating a supportive context within which learners can navigate the process of learning, collaborate, and become collectively wise" (Gunawardena, Ortegano-Layne, Carabajal, Frechette, Lindemann & Jennings, 2006, p. 219). The research indicates that when learners become a part of collaborative learning community, they will be moved to search for solutions to their problems, to thrive, and to increase their online participation, reflection, collaboration, and overall satisfaction (Ragan, 2000). "Computer-

mediated asynchronous learning via the Internet has a potential for building online communities among the learners with bonds and relationship overriding space and time boundaries that favorably impact student engagement and persistence in academic programs" (Ivankova & Stick, 2005, para. 60). The challenge for distance educators is to incorporate tactics and techniques for creating and preserving collaborative learning communities.

This is especially true in a corporate learning environment. Many corporate eLearning programs account for only one-way transmission of learning content. They only deal with learner-content interaction, and do not allow students to build upon the thoughts of others in a supportive group. Providing a more robust learning tool will set learners up for success and have them coming back for more. Active online learning can play an indispensable role in a business' plan for competitiveness. Inadequate support both in funding and in executive involvement can lead to eLearning solutions that betray its true potential. Active online learning can prove to be a strategic tool where meaningful, memorable interactivity can demonstrate a true empowering of learners and corporate executives alike.

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Appendix A – Letter of Consent

Dear _____,

I have an exciting proposition for you!

I am a Senior Instructional Designer at Schneider Electric. In my role, I design online learning courses for Data Center University and Energy University. But that is not the only hat I wear…

I am also a graduate student at the University of Maryland University College, pursing a Master of Distance Education (MDE) degree. I'm currently in my final semester, and as a requirement of my Capstone course, I am tasked with the completion of a research project.

You are being contacted because you are an employee of Schneider Electric who has taken one or more asynchronous eLearning courses with Data Center University.

As part of my research project, I would like to invite you to participate in a new form of online learning that I will offer through Energy University. This new form of online learning will still be asynchronous, but will allow you the ability to interact with your peers, and share your knowledge and ideas with other learners (and with me!) in an online classroom.

My research paper will compare the outcomes of two different types of learning in the corporate environment. One of them you have already experienced through your participation in Data Center University courses: Passive, one-way, asynchronous eLearning. The other form we will explore together: Interactive, asynchronous online learning. The results of my study will only be used for the purposes of this unpublished research paper, to complete my Capstone course requirement. Upon completion, I will share the full document with you if you would like, per your request.

What do I need from you?

I will run a ***7 day online training session*** on the topic: Going Green with Energy Efficiency. The dates of our course will be February 24th – March 4th. You will be expected to enter the online classroom at your convenience on each of these seven days and participate in the online discussions and activities that are posted there. On March 4th, I will ask you to take a quiz, and fill out a learner satisfaction survey. The following week, I would like to set up time to interview you to further gain your insights on this type of online learning.

Our online class will take place on our internal "Collaborative Project Portal". If you have not signed up for the collaborative project portal yet, please do so. Once you have joined, I will "friend you" and send you an invitation to join our "Energy Efficiency Online Classroom" Project.

I hope you will consider supporting this exciting new endeavor. If you would like to participate, please email me at melissa.smith@schneider-electric.com.

Thank you in advance for your support!

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