Effective e-Learning for a Global Workforce: Designing with Cultural Competency

Byron Pulu, University of Hawai'i, United States
Michael Menchaca, University of Hawai'i, United States

The IAFOR International Conference on Education – Hawaii 2021
Official Conference Proceedings

Abstract
Multinational corporations are designing e-learning for a global workforce, yet little is known about factors being considered during design or overall training effectiveness. Contemporary research indicates that the success of e-learning for a global audience requires cultural competence during design. Therefore, this research examined how a multinational corporation considered cultural competence when designing e-learning for a global workforce. Based on a review of the literature on designing e-learning, cultural competence, and training effectiveness, an online survey was distributed to Learning and Development (L&D) professionals working for a multinational corporation. The survey was developed to investigate these professionals' use of cultural competence when designing e-learning training and to determine their perceptions of its effectiveness. The overall results of the survey suggest the organization considered cultural competencies when designing e-learning but there was room for improvement. Interpersonal standards, relating to awareness and understanding of employees working in countries foreign to the organization's home country, scored lowest. Additionally, when surveyed about the efficiency of e-learning for a global workforce, L&D professionals' overall rating was neutral with a wide range in rankings, suggesting a lack of consistency in e-learning training. The information provided may assist L&D professionals working for a multinational corporation with improving training efficiency of e-learning designed for a global workforce and provide a reference to improve the consideration of cultural competence when designing e-learning.

Keywords: Cultural Competence, Training Efficiency, Global Workforce, Multinational Organization

Introduction

The transition to digitalized environments has allowed multinational corporations to work faster, hire the best people, and expand into new regions worldwide. One of the benefits of digitalization is having immediate access to real-time information. Events occurring on one side of the globe might instantly affect businesses on the other. Zoom, a video conferencing multinational organization, provides a prime example of this with its ability to respond quickly and adjust business practice in response to the COVID pandemic (Gallagher, 2020). In the first week of March 2020, Zoom began offering free accounts to educators prior to the shelter in place order. The availability of information from countries like China and Italy allowed Zoom to respond and adjust business activities in the U.S. for greater success. As a result, Zoom's stock has jumped 386% since March 2020 (Zoom video Communications Inc, ZM, n.d.). However, information is only as useful as the people using it, which requires skilled individuals. For organizations to sustain a competitive advantage, skilled individuals who can interpret information, develop strategies, and implement said strategies are necessary (Bulut & Culta, 2010). Organizations recognizing this have aligned internal departments to the idea, including Learning and Development (L&D) departments. L&D professionals have been tasked with employee development, which Bulut and Culta (2010) describe as systemic activities leading to improved skills, knowledge, and behavior in order to perform job-related tasks. As a result, L&D organizations employ instructional designers who are charged with developing relevant and engaging courses. In recent years, many organizations have created electronic learning (e-learning) to provide content to a global workforce; however, little is known about how this e-learning is designed and its effectiveness.

Literature Review

In order to effective, cultural-based e-learning, three areas of literature were reviewed: understanding cultural competence, designing for a global workforce, and measuring training effectiveness. With regard to cultural competence, a significant challenge of e-learning is a lack of considering the diversity of learners, an area not often addressed by instructional designers (Woodley, 2017). Research conducted by Overall (2009) analyzed the use of a cultural competence model in a professional setting. Cultural competence refers to understanding and respecting differences in culture and addressing issues of disparity among diverse populations. Overall's cultural competence model identified three critical domains necessary to understand and appreciate diverse cultural groups and underserved populations: cognitive, environmental, and interpersonal. Within each domain are actionable standards that can measure an organization's cultural competence. Figure 1 illustrates Overall's cultural competence model. L&D professionals can apply this model to determine the extent to which cultural competencies are considered when designing e-learning.

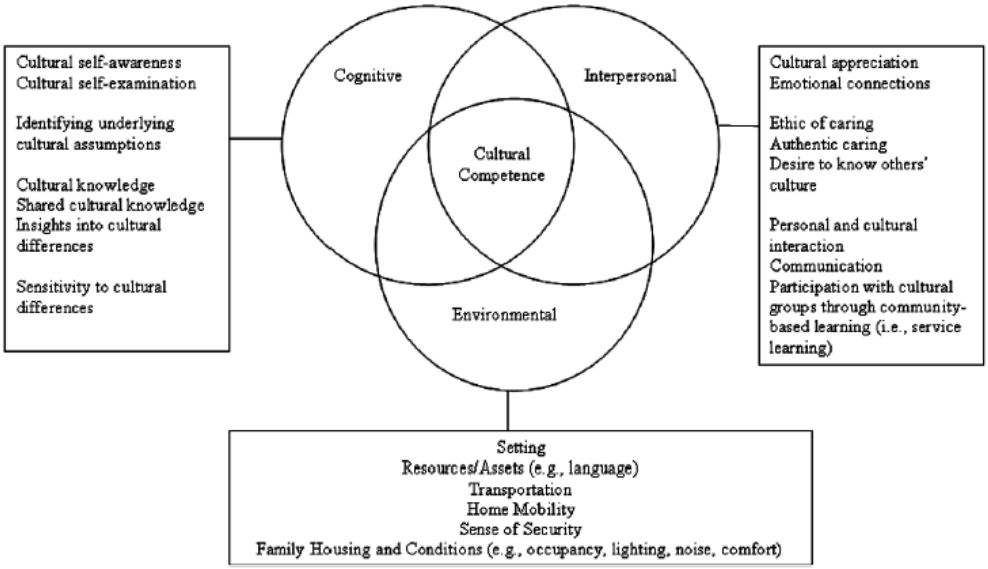

Figure 1: Cultural competence model.

In addition to cultural competence, literature on designing e-learning for a global workforce was reviewed. One study (McLaughlin, 2009) identified three key themes for effective design: self-efficacy, accessibility, and cultural sensitivity. Self-efficacy encourages employees to take ownership in their training, accessibility concerns using technologies to address challenges of language, information and support, while cultural sensitivity refers to an awareness of learners' socio-cultural backgrounds and abilities (McLaughlin, 2009). Woodley (2017) identified technical aptitude as a consideration for e-learning design, where L&D professionals working for multinational corporations conduct thorough audience analysis for different regions or countries. This process of audience analysis is included in many design frameworks including the ADDIE, SAM, and Dick and Carey design models (Instructional Design Models, n.d.). Last, Hawks and Judd (2020) offered strategies for developing global e-learning, including the use of Open Educational Resources (OER) and sourcing a local subject matter expert (SME).

Finally, in addition to cultural competence and global workforce design, measuring training effectiveness is a significant objective for multinational corporations. A benchmark report on corporate L&D trends that surveyed 660 L&D professionals from 55 different countries showed training efficiency to be amongst the top goals for the field (Little, 2016). Determining training effectiveness varies for each organization. A manufacturing organization may define training effectiveness through job application and output quantity, whereas a medical device organization may rely on employee signatures. However, appropriately measuring effectiveness may require analysis of organizational training culture. Beinicke and Kyndt's (2020) research on maximizing training effectiveness in corporate settings identified four factors that may be most relevant to training efficiency: (a) support from managers, (b) positive and negative consequences, (c) phases of exercise, and (d) meaningful feedback.

Methodology

A survey was developed to assess L&D professionals' perceptions of the use of cultural competence when designing e-learning and to collect data on how multinational corporations design e-learning for a global workforce. This study asked the following questions: (a) which cultural competencies are L&D professionals working for a multinational organization considering when designing e-learning for a global workforce and (b) what are the perceptions of L&D professionals working for a multinational organization on the effectiveness of e-learning created for a global workforce? Using google forms, the survey was divided into seven sections:

1. Demographics of L&D professional
2. Data about the corporation
3. How e-learning is designed
4. The cognitive domain of cultural competence
5. The interpersonal domain of cultural competence
6. The environmental domain of cultural competence
7. Perception on training efficiency

To gather demographics about the surveyor, organization, and available resources, 15 open-ended and multiple-choice questions were included in sections one to three. In sections four through seven, 19 questions were created using a 5-point Likert-scale to determine cultural competence in designing e-learning and training efficiency. The 5-point Likert-scale ranged from never (1) to always (5). Cultural competence questionnaires derived from Overall's (2009) cultural competency model and training efficiency questionnaires derived from Beinicke and Kyndt's (2020) research findings on maximizing training effectiveness in corporate e-learning.

The target audience for the survey were L&D professionals who work for a multinational corporation. The authors used LinkedIn, a professional social networking platform, to recruit survey participants. The survey was available for eight days in December 2020. Surveys were anonymous and data received were analyzed statistically.

Results

The survey was conducted over eight days asynchronously and feedback was anonymous. Overall, data were collected from 14 survey participants. Thirteen of the respondents self-identified as an L&D professional while 1 respondent did not identify as an L&D professional and was therefore excluded from the results. The data were divided into three parts: (a) demographics, (b) cultural competence, and (c) training effectiveness. The demographics showed the average years of experience amongst survey participants was 9 working in L&D as either a manager, instructional designer, specialist, or coordinator. When asked if a current role directly influences how e-learning is designed, 100% of the participants answered yes. The respondents represented various industries, including technology, bio-medical, food and beverage, finance, and surgical robotics. Among the 13 respondents, 30 languages were identified as being used when designing e-learning. All respondents indicated they worked for an organization designing e-learning internally within the organization. All of the respondents also indicated using a learning management system and an authoring tool

to create and track e-learning. However, when asked if they were provided with opportunities to learn cultural competence, 46% of respondents answered no.

Survey results regarding cultural competence are provided below in Tables 1, 2, and 3, with mean, median, mode, and range indicated. Mean ratings with values of 1 and 2 were considered negative, 3 neutral, and 4 and 5 positive.

Standards of the Cognitive Domain	Mean	Median	Mode	Range
(1) Self-Awareness: *Understands their job role and responsibilities*	4.08	4	5	2
(2) Cultural Knowledge: *Understands the culture of their team, division, and worksite*	4.15	4	4	2
(3) Shared cultural knowledge: *Understands company-wide culture*	4.08	4	4	2
(4) Insights into cultural differences: *Understands cultural differences of employees working abroad*	3.00	3	2	4
(5) Sensitivity to cultural differences: *Able to customize design base on cultural differences*	3.15	3	4	4
Overall: *Cognitive domain of cultural competence*	3.69			

Table 1: Survey results of the cognitive domain of cultural competence.

There were 5 standards within the cognitive domain (Table 1) of cultural competence. The overall mean of the cognitive domain was 3.69 which is just above neutral.

Standards of the Environmental Domain	Mean	Median	Mode	Range
(1) Language Barriers: *Support language issues by providing solutions*	3.23	3	4	4
(2) Access to technology: *Considers the technology needed to perform the e-learning and can support learners with the tools needed.*	4.08	4	4	2
(3) E-Learning Usability: *Learners ability to complete the e-learning with ease*	3.85	4	4	3
(4) Sense of Security: *Learners are comfortable participating in the e-learning.*	4.00	4	5	3
(5) Training Support: *Having someone immediately available to address challenges or requests for help.*	3.77	4	4	3
Overall: *Environmental domain of cultural competence*	3.78			

Table 2: Survey results of the environmental domain of cultural competence.

There were 5 standards within the environmental domain (Table 2) of cultural competence. The overall mean of the environmental domain was the highest among all the domains at 3.78.

Standards of the Interpersonal Domain	Mean	Median	Mode	Range
(1) Cultural appreciation: *Advocate for employees based outside your home country*	3.31	4	4	4
(2) Desire to know other cultures: *Invest time into learning about co-workers based outside your home country.*	3.31	4	4	4
(3) Interact with employees: *Specifically, those based outside your home country.*	3.54	4	4	4
(4) Build Community: *with employees based outside your home country.*	3.38	4	4	4
Overall: Interpersonal domain of cultural competence	3.38			

Table 3: Survey results of the interpersonal domain of cultural competence.

There were 4 standards within the interpersonal domain (Table 3) of cultural competence. The overall mean of the interpersonal domain was 3.38 which was the lowest among the domains.

The final section of the survey data was training effectiveness. Using Beinicke and Kyndt's (2020) research findings on maximizing training effectiveness in corporate e-learning, six criteria were used to analyze whether L&D professionals perceived e-learning for a global workforce as efficient. A yes or no questionnaire was used to measure criteria one and two, while a 5-point Likert-scale ranging between never (1) and always (5) was used to measure criteria three to six. Criterion one showed that 92% of organizations included a quiz in their e-learning, while criterion two showed only 67% solicited feedback from learners. Results from criteria three to six are shown in Table 4.

	Mean	Median	Mode	Range
(3) On average, learners are able to retain information provided through e-learning.	3.38	4	4	2
(4) On average, managers support employees with e-learning	3.00	3	3	3
(5) On average, learners are aware of the positive and negative consequences for completing or not completing e-learning	3.54	4	4	3
(6) Learners receive analytically meaningful feedback	3.00	3	3	3
Overall training effectiveness	3.23			

Table 4: Criteria of training effectiveness.

The overall training effectiveness of e-learning designed for a global audience was 3.23, just about neutral.

Conclusion

The overall perception rating of L&D professionals regarding the consideration of cultural competence in designing e-learning for a global workforce (Tables 1, 2, and 3) had a mean slightly above neutral (3.64) with five standards receiving a mean at 4 or above and nine standards with a mean equal to or greater than 3 and less than 4. As for

overall training efficiency (Table 4), L&D professionals' ratings were slightly neutral (3.23) as well, with all activities receiving a mean of equal to or greater than 3 and less than 4. These data suggest a lack of consistency for both the consideration of cultural competence in design as well as the efficiency of the e-learning training.

L&D professionals' rating of the cognitive domains (Table 1) were mixed between positive (standards one, two, and three) and neutral (standards four and five). Unlike positive rated standards, neutral standards asked participants to consider employees working abroad. Furthermore, neutral standards ranges showed L&D professionals' responses were spread across all five rank choices. These two findings suggest providing insight and sensitivity to cultural differences as areas of organizational improvement for L&D professionals.

The standards in the environmental domain (Table 2) varied between tools, atmosphere of learning, and human support. Access to technology had the highest mean standard with the lowest range which suggested an overall positive perception of technology by L&D professionals. Language barriers were the opposite, having the lowest mean with the highest range, suggesting a broad spectrum in performance among organizations when addressing language issues and an area for improvement.

The interpersonal domain (Table 3) of cultural competence received the lowest overall mean (3.38) with all standards' means in the neutral rank. Interpersonal domain standards required L&D professionals to consider employees working outside the organizations home country. Similarly, standards from the cognitive and environmental domains that asked L&D professionals to consider employees outside the organizations home country also had means in the neutral rank with a wide range of four. These findings suggest areas of improvement for organizations to begin considering cultural competence when designing e-learning. The results of the training effectiveness survey (Table 4) show an overall mean of 3.23 and all four criteria in the neutral rank. Since participants were asked to share perceptions of training provided, neutral rankings also indicate inconsistency and concern with the effectiveness of the training.

Overall means in all three domains of cultural competency were in the neutral rank and ranges tended to be broad. This suggests organizations were considering cultural competence at different levels and perhaps future research should more specifically focus on scale. Additionally, L&D professionals perceived training effectiveness of e-learning for a global workforce as neutral. Organizations should be doing a better job in this area.

Overall, this study provides insight on cultural competence and training effectiveness in a multinational corporation. The significance of this study is threefold:

1. It provides data regarding the current use of cultural competence when multinational organizations design e-learning for a global audience;
2. It provides a glimpse to how L&D professionals perceive training effectiveness of e-learning for a global audience; and
3. It provides a reference for analyzing cultural competence and training effectiveness when creating e-learning for a global workforce.

The demographics provided suggest multinational corporations have the tools necessary to create and track e-learning. All L&D participants confirmed having a

learning management system and an authoring tool to create e-learning. Furthermore, access to the interpersonal domain's technology standard received a positive rating with a low range rating. This suggests that the process in how e-learning is created could benefit from considering cultural competence for some organizations.

Recruiting participants exclusively through LinkedIn and the small sample size were limitations of the study. In addition, there is a need for future research. For example, a grander scale for the study would be beneficial. This could be accomplished by promoting the survey to a broader audience. Additionally, adjusting the research to determine the scale of use of cultural competence could prove illuminating. Finally, designing a study to explore the relationship between training efficiency for a global workforce and the use of cultural competence when designing e-learning is recommended.

References

Beinicke, A., & Kyndt, E. (2020). Evidence-based actions for maximising training effectiveness in corporate E-learning and classroom training. Studies in Continuing Education, 42(2), 256=276. https://doi.org/doi/full/10.1080/0158037X.2019.1608940

Bulut, C., & Çulha, O. (2010). The Effects of Organizational Training on Organizational Commitment. *International Journal of Training and Development*, *14*. https://doi.org/10.1111/j.1468-2419.2010.00360.x

Gallagher, R. (2020, March 29). Expanded Access for Schools [Zoom Blog]. *Zoom for Online Learning Updates*. https://blog.zoom.us/how-to-use-zoom-for-online-learning/

Hawks, S. R., & Judd, H. A. (2020). Excellence in the Design and Delivery of an Online Global Health Survey Course: A Roadmap for Educators. Pedagogy in Health Promotion, 6(1), 70–76. https://doi.org/10.1177/2373379919872781

Instructional Design Models. (n.d.). Home. Retrieved February 10, 2021, from https://www.instructionaldesigncentral.com/instructionaldesignmodels

Little, B. (2016). Benchmark report reveals trends in corporate learning and development. Industrial and Commercial Training, 48(5), 225–230. https://doi.org/10.1108/ICT-12-2015-0079

McLoughlin, C. (1999). Culturally responsive technology use: developing an online community of learners. British Journal of Educational Technology, 30(3), 231–243. https://doi.org/10.1111/1467-8535.00112

Overall, P. M. (2009). Cultural Competence: A Conceptual Framework for Library and Information Science Professionals. The Library Quarterly, 79(2), 175–204. https://doi.org/10.1086/597080

Woodley, X., Hernandez, C., Parra, J., & Negash, B. (2017). Celebrating Difference: Best Practices in Culturally Responsive Teaching Online. TechTrends. https://doi.org/10.1007/s11528-017-0207-z

Zoom Video Communications Inc (ZM : NASDAQ) Stock Price & News - Google Finance. (n.d.). Retrieved February 10, 2021, from https://www.google.com/finance/quote/ZM:NASDAQ

Contact email: bpulu@hawaii.edu