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Effectiveness of eLearning versus Instructor Led Training on Healthcare Administrators

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ABSTRACT

This study sought to explore video based training or eLearning as an effective tool in the training and development of healthcare administrators. While traditional instructor led methods remain successful, they are lengthy, require much coordination and increase costs, including the need for resources. The trend of video based training and microburst learning minimize training time and ease delivery by providing quick, self-paced lessons focused on a specific topic. eLearning is cost effective, mobile and meets demands of technically enhanced learners.

Keywords: eLearning; Healthcare; Administrator; Instructor; Workflows

INTRODUCTION

Training in our organization is quickly embracing professional industry trends with the development and distribution of eLearning lessons or Video Based Training (VBT). In healthcare, the training of non-clinical administrators for learning and development is typically related to the processes and experiences of patient care, scheduling. Utilizing current tools allow for the leveraging of an existing learning management system that collaborates with a scheduling platform known as workforce management; a product of Avaya's workforce optimization. This tool provides agents shift details. Reducing training delivery by deviating from ILT or instructor led training and adapting eLearning as a blended learning model is the current focus to both preserve and maximize productivity.

There is a need to explore the efficiency of eLearning to understand its effectiveness on learning outcomes. Questions arise as to the effectiveness in understanding and applying course objectives through the delivery of eLearning as a conceptual tool in training for learning and development. Another question considers accommodations to various learning styles of diverse participants. Since this approach is so new, there is little evidence to determine if eLearning allows for the absorption and application of content considering. Different learning styles. Ruminating quick pacing along with concentrated disciplines of microburst learning modules through eLearning, we must responsibly deduce the duration and delivery allowance for absorption of the training content as conceptual learning. Participant engagement is vital to a successful outcome leaving the application of lessons crucial in determining effectiveness. Dependency on the technology contributes to the value of eLearning, making an assessment of its access, in addition to the translation of the lesson, another research component in exploring efficiency. All stakeholders have a vested interest in this subject and support the research along with projected outcomes. The approach is new to our environment, so there is little research to identify any crisis or other risks in the use of this method [1]. Applying this strategy without tangible

evidence of its efficiency can have detrimental results impacting productivity, employee engagement and delaying other projects.

Background

Historically, training has been provided to employees either internally or externally. Hired professionals may work directly with participants or be hired as a contracted service. Lead by one or more instructors, the trainer invests time assessing needs, researching, developing and instructing.

This process is both time consuming and costly. Typically, classroom training requires space and may take up to three weeks for, a contiguous block of time.

MATERIALS AND METHODS

Components

eLearning components include the development, management, delivery and standardization of training modules. There is little research identifying details on developing, managing, distributing or standardizing eLearning as a digital adoption to our learning and development platform for (non-clinical) healthcare administrators. Although these components are sporadically mentioned, there is more research focused on particular impacts and learning outcomes for clinical team members and other sectors outside of healthcare. Financial impacts are an important component that is given more insight than previously discussed components. While financial impacts are of concern, funding can transition from existing ILT training in terms of resources when considering location, materials and FTE's or full time employee costs. According to the United States Department of Labor, Bureau of Labor Statistics, the median annual wage for a training and development manager costs $111,340. Financial implications overall can include all cost factors as well as the benefits of transitioning to an electronic learning and development format within the department.

Control

eLearning allows for the student and the person assessing learning needs, to present much control over training. The content, sequence, pace, individual objectives and delivery create asynchronous, concentrated lessons within a holistic program.

Scheduling is flexible, as well as the mobility of access. eLearning has revolutionized the delivery of training programs into a digital platform that complements today's modern workforce and adult learners [2]. This can also be complementary of a blended learning approach. It is cost effective, timely and is utilized to initiate training on new concepts, provide refresher training, in addition to offering skill development options on a basic or intermediate level of upskilling.

This is important with continual changing processes or regulations. We can consider these controls as the reskilling

and upskilling of both mandatory and non-mandatory training and development among healthcare administrators dependent on business, technical, managerial and soft skill attributes.

Benefits

All studies reviewed discuss the benefits of eLearning with a focus on cost and program effectiveness. The program effectiveness assessed post learning knowledge gain, skill development and attitude toward applicable learning outcomes. While it was identified that eLearning is not a replacement for traditional instructor led training, the holistic idea of blended learning pursues long term acquisition of knowledge, skills and attitude. Blended learning or student centered learning environments enhance students' motivation for learning.

Modules can be developed in as little as a few hours or over a few days, depending upon the intricacy of the content, supporting on demand educational needs. Module creation first assesses learning needs which cultivates short learning sessions.

Dismantling lessons into segregated modular concepts are customizable according to requirements or preferences. Templates allow for standardization discounting preparation for acute implementation that foster training demands. A foundational template can continue to allow custom.

Content while providing preliminary formatting to reduce the time permissible in developing new modules. Self-paced learning is a key component to engagement. On-demand training can provide the learner a self-regulated pace due to control of the subject (Singh, Reed and Centra 2001) through pausing and testing, with the added benefit of immediate application.

Disparities

Disparities on impacts of eLearning in healthcare administration specifically are present throughout this research. Much of the previous focus relates to general learning and development or clinical healthcare training.

There is little revealed about the maintenance and management of eLearning which can have significant impacts on cost and delivery if not planned appropriately.

Access to eLearning modules have been given little to no consideration from a technical perspective; especially for remote users. This is a huge dependency on the success and effectiveness of knowledge and skill development. Touched upon gently, was the aspect of behavioral or attitude changes [3]. Disruptive or lack of connectivity could provide a poor training outcome for the student which ultimately would provide negatively impacting responses from their experience. The Kirkpatrick model of learning is considered, but the value of addressing all learning styles is overlooked. Conceptual learning has been considered, although limitations are exposed due to minimized interactions and opportunities for self-made content.

Although this concept projects a proficient, consistent avenue for continuous training and development, there is little result providing the sustainability of electronic learning concepts. The idea has been around for approximately fifteen years. However, it has only begun to increase in popularity over the last five years. Professional training and development organizations offer consultations and sell eLearning programs for businesses lacking internal support.

Overall, the cost of training new employees according to a survey taken in 2016 from SHRM organization is reportedly an average of $4,129 with a turnover rate of 19%.

Technical components such as software (including both standard and non-standard applications), maintenance and troubleshooting can drain a budget by over two hundred thousand dollars annually according to a training industry report.

Data Collection

Collecting data for this research exploited results of training outcomes using technology. In order to accumulate the necessary data, a concentration on the results of a pilot eLearn, combined with relevant published papers, surveillance of applied skills and surveyed feedback from participants was collected [4]. A sample of quality assessments was also reviewed. The quantitative data is examinable to measure participation from this case study and provided descriptive results that will allow for the development of an optimal training curriculum. Qualitative measurements examine engagement, perception and comfortability of the participant. Researching this topic as a case study has provided insight as to the efficiency of utilizing this trend and these tools. Explanatory research revealed undetected problems overlooked during risk assessment. This further validated issues by providing additional insight. In compiling anonymous survey questions, documenting the results of an ethnographic approach has further validated conceptual learning through observation of applied skills.

The administrative participants range between twenty and fifty years in age and are disbursed between full time and part time employment as well as on site or remote status. All work under the umbrella of the same department with varying skill level. Responsibilities are indicative of a call center with small cubicles, scripted dialogue and mediocre technology. Driven by organizational goals, engagement in learning and development is consistent with personal attitude about their job [5].

RESULTS AND DISCUSSION

Hypothesis

The hypothesis concludes the proposed training format of delivering short eLearning modules may be ineffective in delivering training for the learning and development of our healthcare administrators. The null hypothesis may conclude that several brief eLearning modules are effective in delivering

effective training for the learning and development of our healthcare administrators. The results have clarified if this approach will provide effective learning outcomes posing positive impacts on productivity, duration of training and budgets while providing conceptual exposure for application.

Data Analyzation

Data collection and analyzation is an expected responsibility in healthcare administration. The facts reveal productivity in all areas; more important they provide insight into the areas offering opportunities to improve. This is typically partnered with training. While short videos are hailed as the wave of the present, not enough information has been revealed to understand if it is truly an effective platform or if they complement a blended learning environment. Researching this has revealed its efficiency considering learning styles, access, engagement, translation and application of content. Alternative methods will be implemented to continue to accommodate learning needs where eLearning is proven ineffective [6]. For example, implementing a train the trainer model or reigniting instructor lunch and learn series can be provided. The goal is to optimize training outcomes that maximize productivity and ensure an exceptional patient experience. In order to accomplish this, we must meet the demands of the learner at minimum and exceed expectations.

Measuring training impacts has long been challenging because there is inconsistency in gauging achievement of conceptualization for a lesson. Tools and techniques must focus on measuring quality and performance improvement more so than simply number of training hours attended.

The research of eLearning is not new, nor is it highly studied. Trainers and leaders alike believe the benefits of microburst learning through video based training or eLearning is the best alternative to traditional instructor led. The call center operations environment is the type that was ready to adopt eLearning as a blended training and development approach. If successful, the benefits include higher productivity, skill development, decreased time off phones and increased engagement through self-paced learning.

Alignment of timing was impeccable for this research as eLearning was scarcely introduced prior; nor was it driven internally. Conceptually, the idea gained great support from leadership due to expected outcomes. With a lack of knowledge regarding effectiveness, research was implemented to discover efficiency of eLearning as an effective learning tool on training outcomes [7]. The need to understand application of course objectives through the delivery of eLearning as a conceptual tool in training for learning and development drove the research.

Variables

In a brief review of the results, the comparison of dependent to independent variables indicates preference and improved functionality of eLearning as a training method (Table 1).

Table 1: Variables.

Variables	
Dependent	Continue traditional training with Instructor Led Training (ILT) exclusively
Independent	Improvement to trianing through application of elearning (VBT)

Methods used to collect data were complimented by a fixed design mainly including electronic, anonymous surveys. A preliminary survey constructed of seven formatted, yet low coefficient questions were dispensed prior to the initial eLearn.

Discovery of the participant's current knowledge and perceptions of eLearning was obtained. This is referred to in the study as pre eLearning. Subsequently, for comparison in understanding conceptualization and objective application, two months later a new eLearn lesson was assigned to the same population [8]. This particular eLearn occupied a process change where the workflow was slightly altered and instructions provided for team members to apply immediately. Once complete, participants were asked to complete an additional survey constructed of the same questions (latter tense). Participation rates can be found in **Table 2**.

Table 2: Participation table.

S.no	Question	Pre eLearn	Post eLearn	Variance
1	Undersdtanding	66	62	6%
2	Comfortability	66	61	8%
3	Knowledge	66	61	8%
4	Benefit	68	61	8%
5	Time alloted	66	61	8%
6	Application	66	61	8%
7	Job perfomance	66	61	8%
8	Observation scale	0	1	

Without revealing, direct and indirect observations were documented by support staff. This led the fixed design to include an evaluation approach collaboratively. Finally, the quality manager conducted a random assessment of 3% from recorded activities of participants. This would conclude data collection, results, revealed anticipated conclusions.

The data was consistent with the hypothesis in that participants were showing an increase in knowledge and increased positive perception of eLearning. This allows engagement to become a success factor in VBT. We saw a shift in moderate perceptions and knowledge to a greater status tallied in the survey [9]. Statistically, the favorable response increased and was measured distinctly **(Table 3).**

Table 3: Survey responses analyzed.

Questions	Improved	Sustained	Declined
Understanding of eLearning	28%	-24%	25%
Comfortability using eLearning	29%	-30%	0%
Knowledge using eLearning	-4%	18%	-67%
Benefit of eLearning			
Time to completion			
Application of content			
Benefit job perfomance			

This was proven through statistical testing of the hypothesis or P value, which acknowledged that it should not be rejected by computing the T-value of -1042 with a standard deviation of 0.014/0.554. The ANOVA identified decreased participation in the survey (51%, <6% variation) compared to the initial survey. This was partnered with an increase in eLearning participation by 1%.

Observation performed both directly with participant's knowledge and indirectly, without participant's knowledge, revealed only two inquisitions that were related to eLearning. This evaluation further validated the data provided by the surveys. The data authenticated the original theory that eLearning was in fact, an effective method of training for healthcare administrators [10].

The final course of data collection was provided through the quality manager. The quality manager is responsible for monitoring and evaluating of performance according to set standards. The standards measure call components and workflows including verbiage and implementation of appropriate processes. Utilizing concurrent tools to evaluate application and use of workflows, a sample of (45) forty five recorded interactions was sampled and revealed only 38% of participants revised their workflow according to the process outlined in the (post) eLearn. This returned a surprising rejection to the hypothesis and contradicted all other collected data.

The findings of the research portrayed beneficent findings to the conceptual learning and application that VBT's could provide through microburst eLearning.

Further research is required with heightened analyzation of application because the participant responses contradict the recorded sample views. This challenges findings of clinical eLearning research results used in contrast [11]. It appears that reliance of participant responses was invalid and impractical. There remains opportunity for additional research in this field.

The hypothesis for this study anticipated that eLearning or video based training, would be an acceptable training alternative compared to traditional instructor led forums.

Alternately, participants studied could reject the proposal of eLearning as an alternate method.

Future studies may benefit from a stringent timeline to minimize risk of missing data. In the event the volume of responses is mismatched, a random sample size can be selected from each pool to ensure accuracy. For participants that prefer alternate methods of learning (tangible), other learning formats can be an adjunct to eLearning. For example, a document supporting the eLearn content may complement and satisfy the eLearn and the learner [12]. However, survey results could vary where participants were previously exposed to the content or learning platform. This can be assessed prior to eLearn assignment in future studies.

In a brief review of the results, the comparison of dependent to independent variables indicates preference and improved functionality of eLearning as a training method (**Figure 1**) [13].
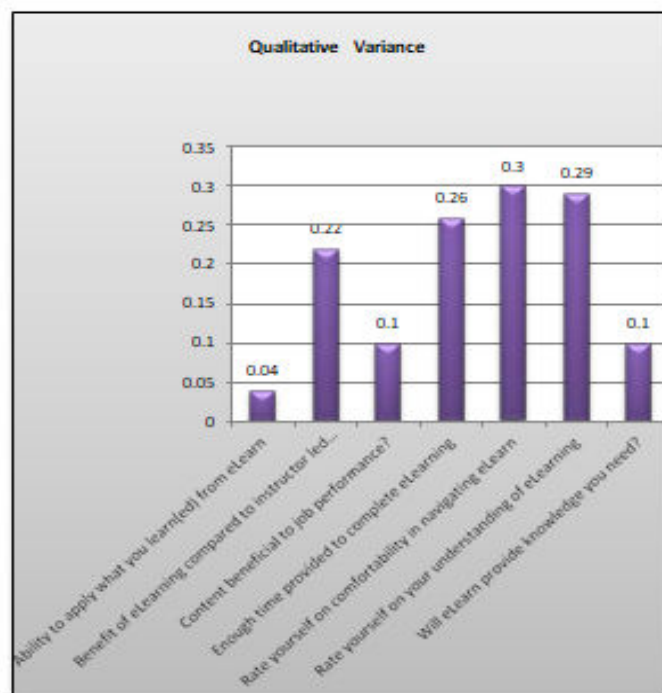

Figure 1: Qualitative variance.

CONCLUSION

In summary, exploring the effectiveness of eLearning training modules with health care administrators was implied to confirm future state of training formats. This may continue to contribute to overall to productivity and patient experience in reaching goals. A modified program will appear current which can attract or encourage top performers. However, the benefits of a blended learning environment appear exponential in positive impacts to the budget and the efficiency of team members while providing skill enhancement to sustain morale, yet conclude application of obtained skills may not be successful. All this is possible while continuing to consider different learning styles to ensure desired learning outcomes are met for traditional as well as new demands of training lessons.

The hypothesis for this study anticipated that eLearning or video based training, would be an acceptable training alternative compared to traditional instructor led forums.

Alternately, participants studied did not reject the proposal of eLearning as an alternate method but, a surprising percentage of the workforce was unable to execute transformations outlined in the content.

ETHICAL CONSIDERATION

Ethics are a critical component to the purity of the research and results. This includes both professional and personal ethical practices. Participants were informed prior, opinions were respected and answers remain anonymous and confident. This was done with a professional attitude following any applicable laws or regulations. Sponsorship was

provided by the director of training, quality manager and both directors of operations.

LIMITATIONS

The findings of this study will be revealed in light of some limitations. Time constraints were of great concern to ensure survey responses were received timely. The lapse in time between surveys was greater than planned by a few weeks. Since this study compares responses pre and post eLearning, response volume could have varied between both surveys. Learning styles and preferences could have impacted responses, especially for those already familiar with the content in the eLearn. This may have influenced responses in a biased form.

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