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Identification of Instructional Design Strategies for an Effective E-learning Experience

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Identification of Instructional Design Strategies for an Effective E-learning Experience

Abstract

The objective of the study is to identify various instructional design strategies used by the instructional designers for effective the E-learning experience. Thematic analysis is used to generate the factors accountable for the successful implementation of E-learning process. To fulfill the purpose of the study, semi-structured in-depth interviews were conducted with the instructional designers, students, and corporate employees, who are associated with E-learning apps. Interviews conducted are broadly classified into three sections. The first section dealt with the personal profiles of the respondents; second part dealt with the discussion on successful instructional strategies adopted by the designers, and the third part dealt with the ease and comfort experienced by the learners while undergoing the E-learning course. Thematic analysis of the interview transcripts generated six themes, namely Technical assistance; Problem based learning, Aesthetics, Gaming, Storytelling, and Social support. This study will help the instructional designers to understand, what kind of expectations the learners have while taking up an E-learning course and how best these expectations can be addressed through design strategies by the instructional designers.

Keywords

E-learning, Instructional Design Strategies, Instructional Designers, Thematic Analysis

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The objective of the study is to identify various instructional design strategies used by the instructional designers for effective the E-learning experience. Thematic analysis is used to generate the factors accountable for the successful implementation of E-learning process. To fulfill the purpose of the study, semi-structured in-depth interviews were conducted with the instructional designers, students, and corporate employees, who are associated with E-learning apps. Interviews conducted are broadly classified into three sections. The first section dealt with the personal profiles of the respondents; second part dealt with the discussion on successful instructional strategies adopted by the designers, and the third part dealt with the ease and comfort experienced by the learners while undergoing the E-learning course. Thematic analysis of the interview transcripts generated six themes, namely Technical assistance; Problem based learning, Aesthetics, Gaming, Storytelling, and Social support. This study will help the instructional designers to understand, what kind of expectations the learners have while taking up an E-learning course and how best these expectations can be addressed through design strategies by the instructional designers. Keywords: E-learning, Instructional Design Strategies, Instructional Designers, Thematic Analysis

In the age of technological advancement, the approach towards teaching and learning needs to be given a new thought and there is a need to bring the old practices on to the technology platform (Beetham & Sharpe, 2013). In the last decade, the learning domain has undergone a drastic change (Adams Becker et al., 2017; Alper & Gulbahar, 2009; Hwang & Tsai, 2011; Wu et al., 2012). On one side, there is a remarkable growth in the usage of learning technologies likewise learning through games (Tobias, Fletcher, & Wind, 2014), MOOCs (Reich, 2015), sign-based learning (Sheu & Chen, 2014), magnified reality (Bower, Howe, McCredie, Robinson, & Grover, 2014) and so on to ensure teaching and learning. On the other hand, there has been a marked decrease in ineffective face-to-face training technology (Bayne, 2015; Bingimlas, 2009; Cuban & Jandric, 2015; Spector, 2013; Spector, Merrill, Elen, & Bishop, 2014; Venkatesh, Croteau, & Rabah, 2014).

E-learning is a fast developing area and is found useful to the learners as they can share the content of learning online without any need of meeting the end-user in person (Area & Adell, 2009; Bates, 2015; Docebo 2014, 2016). There were significant gaps in the study of E-learning, its definition and terminology as observed by Guri-Rosenblit and Gros, (2011).

The reason for such gaps may be attributed to the increased complexity in the technology environment in which the new education system operates and the challenges encountered, even though there are new opportunities (Conole & Alevizou, 2010).

Since, long time, E-learning has been adopted into various areas of the academic arena in different forms. The combination of face-to-face learning and online learning with assignments is generally followed at various levels of the educational system. In the integrated E-learning scenario, online system learning is a core area and face-to-face learning is a complementary approach to maintain a good interaction between the trainer and trainee (Li-Tze & Hung, 2015). E-learning has many advantages like cost-reduction and encourages learners to be self-sustainable as per their choice of learning approaches (Li-Tze & Hung, 2015). The integration of the traditional type of homework exercises and the material in various forms which can be taken home for practice has been transformed into the distance E-learning environment through the internet (Waldner, McGorry, & Widener, 2012). One more form of E-learning can be observed in Electronic Learning Aids (ELA), other equipment which will be helpful for hands-on-training. E-learning is getting very popular due to its potential for the provision of requisite teaching stuff anywhere and at any point in time (Waldner et al., 2012).

The instructional design stems up from the art of creating training experiences which would enable the learning to be more efficient, effective and appealing (Merrill, 2012). Instructional design is a way of systematically developing instructions with the usage of learning theory for ensuring the training quality (Berger & Kam, 1996). The quality of instructional design leads to the quality of training (Carroll, 1963). Instructional design will be effective with the application of the theory of learning (Bednar, Cunningham, Duy, & Perry, 1992).

Instructional design strategies are drawn from many disciplines such as behavioral Psychology, systems theory, cognitive sciences and educational psychology (Driscoll, 2005). A well-structured instructional design process stimulates the learner's cognitive structures and makes learning effective (Gagné, 1984). It also facilitates learners' internal cognitive structures at the time of learning and increases the likelihood of successful learning. From this cognitive perspective, when designing instruction, instructional designers must articulate the goals and objectives of instruction, classify goals by the domains and types of learning outcomes, select effective strategies based on the type of learning outcome, logically sequence instructional activities, and assess expected learning outcomes (or goals) to determine the effectiveness of instruction. When implementing instruction, teachers should inform learners about the goals and objectives, assess learning prerequisites, present instructional stimuli, provide learning guidance, elicit performance, provide feedback, and assess learning outcomes (Gagné, 1984). This commonly used process is an objectivist, teacher-centered approach to instructional design and practice. Many instructional design models have been developed based on this approach.

The International Board of Standards for Training, Performance, and Instruction (IBSPI) identified few key competencies like Planning and Analysis, Professional Foundations, Design and Development, Implementation and Management that the instructional designers undertake while working on E-learning projects. The Instructional designers conduct the need assessment analysis of training to understand the needs of the prospective learners and then try to successfully cater to the needs of the target learners. Analyzing the environment and identifying the comfort level of the technology used in the process would be helpful to deliver the curated content. Besides the availability of top quality content and flawless technology, the success of an effective E-learning implementation boils down to the design and structure of the content. The designer in collaboration with the subject expert, technical team, design team, designs a gamut of tools like infographics, links to

sources, mini-videos, graphs, PDF extracts, the context of aesthetics, etc. to ensure effective E-learning experience. There are so many challenges faced by the instructional designers of E-learning apps to create powerful E-Learning experiences. The instructional designers could be experts in their technical domain, but it is very important for them to understand the demanding expectations of the E-learners to make the entire process very conducive for all the players involved in it. As the number of students, enrolling for online courses and the number of corporate employees, undertaking online training programs are increasing rapidly there is a need for the instructional designers to thoroughly understand and address the problems faced by the E-learners. This paper attempted to explore the effective instructional design strategies from different stakeholders of E-Learning to provide an effective E-learning experience.

Literature Review

Learning is an activity through which "knowledge, skills attitudes" are acquired due to an immersing and solid experience of learning (Vignati, Fois, Melazzini, Pei, & Zurlo, 2017). Experiential learning theory assumes learning as a process and not as an outcome. Ideas can change and get shaped and reshaped out of the experience. Concepts of Learning evolve out of the experience and they get modified on a continuous basis (Kolb, 1984). Instructional design is a methodology of the creation of training experiences to enable the learning more efficiently, effectively and highly appealing (Merrill, 2012). Instructional design is a way of systematically developing descriptions of instructions with the use of learning theory for ensuring the training quality (Berger & Kam, 1996).

The online training has become a significant new approach by the twenty-first century. The earlier practices have been made online and various organizations have used the E-learning approach in various areas (Frydenberg, 2002; Graham, Woodfield, & Harrison, 2013; Young, 2002). Unlike classroom teaching, E-learning styles offer the sharing of thoughts through charts, discussion through online forums so that, E-learning enables the opportunity different from traditional training methodologies or take home material approach (Soper, 2017). Earlier the E-learning was referred to a full-fledged distance education system which includes various platforms, classrooms-online, teaching roles, multimedia, interactive tools, and collaboration in learning with the use of computers. At the corporate level, the learning can even be a lifelong process. However, due to the new trends viz., web applications, mobile platforms, wider scope enabled new training & learning styles with integrated surroundings. Resultantly, E-learning has become a part and parcel of all academic systems, overtaking the earlier distance learning system. Four elements are critical to make the E-learning environment more effective by eliminating the distance between the teacher and the student. Use of live discussions, continuously focusing upon the questioning the student and encouraging him for answering, gamification to trigger the skills of the student and awarding them appropriately, brainstorming and posing doubts by the teacher making students to clarify them (Vignati et al., 2017). Nagel and Kotzé (2010) found that the E-learning gives an enhanced experience of quality learning to the student community, especially when they engage themselves in online mode. Information and Communication Technology (ICT) has enhanced the educational system processes and consequently, learners started becoming active participants (Tomte & Sutherland Olsen, 2014). In addition, the digital literacy of teaching personnel becomes critical (Johnson et al., 2015) as the accessibility is now available round the clock in the modern era (Grove, 2017).

A better E-learning application involves the mix of online and offline content at reasonable proportions. As per Graham, Cagiltay, Lim, Craner, & Duffy (2001), a well designed and good E-learning platform should encourage the trainer-trainee interaction and

also mutual understanding among the learners. There has been a significant shift in the direction of E-learning from the management of E-learning logistics to content management, whereas earlier the public internet was the focal point (Govindasamy, 2001). There is a considerable recognition for the "interactive and constructive potential of E-learning" which was in contrast with the earlier approach of teaching and learning. However, still, E-learning has to prove itself as a much better way to disseminate the content to the learners than those of earlier practices (Garrison & Anderson, 2011, p. 54).

E-learning has become increasingly important in public as well as private sector organizations, with the advent of the online environment, with the scope of teaching and learning getting extended beyond classroom learning. The studies done in different E-learning scenarios have been mainly about the processes of comprehensive learning contents in a self-directed manner (Jung & Rha, 2004). In this scenario, the training content includes animation materials, charts prepared, pictorial representations, photographs, and literature, and all this depends on the presentation of content (Schnotz, 2005). Some are of the view that the visuals in the content will effectively improve the learning (Anglin, Vaez, & Cunningham, 2004; Mayer, 2005; Rieber, 1994). The visuals will definitely enable the desired output in a learner (Krippendorff, 2004). On the contrary, many others argued that the visuals in the content will not improve the learning always and depends on the arguments and various techniques applied by the designer of the visuals (Harp & Mayer, 1998; Levie & Lentz, 1982; Mayer, 1997, 2005). Hence, it will be worthwhile to probe into the effect of visuals on learners during a learning program. Though there is a lot of research on visuals in E-learning, these studies do not guide those who are into such designing. The designers of the visuals invest a lot of time and effort and expect trainees to grasp the purpose of visuals. However, some studies reveal the contrary that, the purpose may not be achieved (Boling, Eccarius, Smith, & Frick, 2004; Kosslyn, 1994; Schriver, 1997; Stern & Robinson, 1994; Watkins, Miller, & Brubaker, 2004).

Past research has been able to identify clearly the critical success factors of E-learning. There is a need felt to reduce the dependent and independent variables and the measures while building up a good E-learning model. The said model should include the interdependence of processes which are critical for the success of E-learning process (Eom & Ashill, 2018). The Babson survey research group of United States of America in their 13th survey on online education proved that, the E-learning is the main delivering medium and enables three vital factors of distance education viz., enrolling, believing it as a very important strategy, rating of E-learning as a better medium than face-to-face classroom learning (Allen, Seaman, Poulin, & Straut, 2016; Eom & Arbaugh, 2011b). The studies on E-learning focus on the performance of learner when compared to classroom courses. As per the meta-analytical studies the E-learning outcomes are superior or equal to the classroom learning (Means, Toyama, Murphy, Bakia, & Jones, 2009; Sitzmann, Kraiger, Stewart, & Wisher, 2006). At the same time, many researchers felt the concern for ensuring the effectiveness in E-learning approach (Kellogg & Smith, 2009; Morgan & Adams, 2009). Friday, Friday-Stroud, Green, & Hill (2006) even felt that there is not much difference between E-learning and traditional systems. As a corollary, studies started identifying the factors which are critical for ensuring the effectiveness of E-learning. As per Moore (1993), E-learning is different from classroom learning, with regard to lag in communication between the trainer and trainee. The lag in E-learning can lessen through different types of interactions between - trainee-content, trainee-trainer, trainee-trainee and trainee-technological interaction (Hillman, Willis, & Gunawardena, 1994; Moore, 1989). Trainee-technology interface allows the trainee interaction with the content, and interaction of trainer and peers.

Mainly, there are two distinct groups of empirical studies focusing on the critical success factors for E-learning. One group examines the relationship between each CSF and

the "outcome of learning" or "learner's satisfaction." But, this group ignored the interactive influences of CSFs which synergise with each other (Arbaugh, 2005; Barbera, Clara, & Linder-Vanberschot, 2013; Eom & Ashill, 2016; Eom, Ashill, & Wen, 2006; Johnson, Hornik, & Salas, 2008; Kim, Kwon, & Cho, 2011; Mashaw, 2012; Peltier, Drago, & Schibrowsky, 2003; Sun, Tsai, Finger, Chen, & Yeh, 2008). The other group of study deals with the interdependency of Critical success factors which influences the outcomes of E-learning (LaPointe & Gunawardena, 2004; Peltier, Schibrowsky, & Drago, 2007; Wan, 2010; Wan, Wang, & Haggerty, 2008; Wilson, 2007; Young, 2005). However, these researches have utilized only a few key predictors of outcomes of E-learning. Eom & Ashill, (2016) focused on the trainer-centric aspect of E-learning processes, wherein various E-learning critical success factors consisting of either trainer-centric constructs viz., trainer, the quality of the course design, or the variables which increase the effectiveness viz., inputs given by the trainer, trainee motivation. In the learning designs which followed constructivism, the initial role of a trainer will become "guide on the side" and he will support the trainee centered active learning, instead of acting as "sage on the stage" (Collison, Elbaum, Haavind, & Tinker, 2000; Heuer & King, 2004). The learners learn through the shared knowledge of a team of people learning. Resultantly, teaching becomes communication oriented and the trainer will become the leader for discussion.

Further, from the point of view of the Instructional designers' preparation and dissemination of E-material is not expensive. They can train a number of students, apart from maintaining quality on par with classroom training (Waldner et al., 2012). Due to the adaption of new technologies and new training methods, organizations adapted new methods of training (Abdelaziz, Kamel, Karam, & Abdelrahman, 2011). Learner-centered instruction enables trainees with a flexible type of training, wherein the trainer takes up the supporting role for the learner (Disch, 2012). When compared to younger learners, adult learners can acquire and retain knowledge at a higher level in an active learner-centered participation methodology (Disch, 2012). Resultantly, the trainer cannot be continued as an expert for a longer period in the changing environments. After inclusion of learner-centered teaching methods and the technological induction, E-learning has become the latest teaching model. So many organizations have started resorting to hybrid training models which include face-to-face, as well as an online electronic mode of learning (E-learning; Dianati & Adib-Hajbaghery, 2012). One type of E-learning is the trainer-guided approach. In this form, the trainer will pay personal attention to the trainee while teaching. This training method enables trainers to have an interaction with trainees through online, apart from providing of training content to the trainees. This mixture of teaching techniques enables the learners to go in the right approach of learning by using the training content well (Gagnon, Gagnon, Desmartis, & Njoya, 2013). Due to the emergence of the internet, the course material is available round the clock which can be accessed from anywhere. The organizations which offer corporate training were fast in adopting online learning. New technology interventions helped in developing various approaches effectively. Newly emerging teaching methods are adopted in all levels of the curriculum of education. With the help of mobile-based game-oriented learning, flipped classrooms and learning analytics which is assuming a lot of significance nowadays (Gros, 2016).

Instructional design strategies can be defined as the science of developing structured instructions and specifications in designing the teaching material to instruct learners (Martin, 2011). Learning theories define learning as a changing process which evolves as a result of the trainee's experience and their communication with others (Driscoll, 2005, p. 9). There is evidence in the literature on the learning behavior, but various observations are there about the learning flow that results and the inherent psychological factors influence them (Driscoll, 2005; Lowyck, 2014). Accordingly, there are three theories on learning which observed

various epistemological perceptions duly mapped with the area of learning and teaching. Such theories are "behaviorism, cognitivism, and constructivist learning theory" (Driscoll, 2005). The design of the training is a basic foundation for the teaching technologies for the facilitation of learning and teaching based on pedagogical crutches. However, most of the teaching technologies face two types of challenges viz., (i) Non-availability of training design base (ii) Non-availability of support for various training designs. To overcome this, a systematic approach is proposed for the designing of learning technologies (Chimalakonda & Nori, 2018). Instructional design assumed a very important aspect in the segment of learning which is enhanced by Technology, and Learning is an important area with many aspects and implications (Reigeluth, 2013a, 2013b; Reigeluth & Carr-Chelman, 2009).

Martinez (2003) reported high attrition rates in E-learning, the reasons ranged from E-learning is boring to a mismatch between E-learning orientation and instructional design. The present study attempted to address the gap of matching E-learners expectations and the instructional design strategies to provide an excellent E-learning experience. The authors of the present study are a scholar doing research in Europe, an industry expert from the public sector with rich experience in handling executive education at an international level, and two faculty members from a reputed business school in southern India. They all noticed a common phenomenon, i.e., substantial increase in the number of individuals enrolling for online/e-learning programs and most of them are not able to complete their courses successfully.

The primary reason for the high attrition of online courses can be attributed to the lack of instructional design strategies to provide a conducive E-learning experience. This motivated the authors to understand the key instructional design strategies for effective E-learning process.

Research Design

In order to address the research gaps which is to identify the key instructional design strategies which will enable an effective E-learning experience, it is appropriate to gather information directly from the E-learners and Instructional designers to know about the expectations and identifying the strategies to successfully implement the E-learning programs. Thematic Analysis seems to an appropriate analytic tool as it helps to generate related themes from the gathered information. As the research problem was revolving around the students of a business school who has enrolled for E-learning programs, data was collected from the key players like students with no experience, students who have corporate experience and the instructional designers of the E-learning programs.

The initial phase of sampling involved categorizing the significant players in the instructional design strategies of E-learning apps. Using snowball sampling technique (Noy, 2008), a list of 25 potential respondents who were stakeholders of instructional design strategies in various capacities was created. All these prospective respondents were requested to take part in the interview process through formal emails. After repeated follow-ups, 21 respondents agreed to participate in the study. Finally, 18 prospective respondents were selected by using purposeful intensity sampling technique, wherein only information-rich cases were selected (Patton, 2002). Few respondents who have less than 6 months of experience in formulating instructional design strategies and few respondents who have left the E-learning platforms were not considered in the final sample. Of the final selected pool of participants, 8 were instructional designers for student learning apps, 4 were instructional designers for corporate training apps, 3 participants were students of a college subscribed to the learning app, and 3 participants were employees of IT companies subscribed to the learning app. Twelve interviews were conducted by telephone and six interviews were

conducted in person. All the interviews were conducted with the permission of the participants, participation in the study is completely voluntary and participants can withdraw from the study at any point of time. All the participants were assured about the confidentiality of the data; information provided by them was solely used for the purpose of research only. Semi-structured interviews were conducted; broader questions were designed well in advance on the basis of a knowledge-driven literature review on instructional design strategies. Data were collected until saturation of information occurred and no new information obtained from respondents. Interviews were analyzed one by one before proceeding to the next interview, to identify data saturation. The questions presented for the students and corporate employees focused on their expectations while taking E-learning courses. The questions for the instructional designers focused mainly on the anticipations of the E-learners' demands and trying to understand what strategies they follow to address them. The sample questions put for the E-learners' are: "When do you feel helpless when you take online courses? Whom do you consult when you are not able to proceed further in your learning module?" The sample questions put for the designers are: "Whom do you approach before designing the online course? What assumptions and anticipations do you make while designing an online course?" The above-mentioned sample questions were asked to bring out the problems faced by the E-learners and their expectations while undertaking online courses. On the other hand, what strategies the instructional designers are following and how are they channelizing the strategies to address the problems faced the learners in order to provide an excellent E-learning experience.

Sample Profile

Data were collected by interviewing instructional designers, students and corporate employees, who are actively involved in the E-learning process. The ages of the respondents range from 23 years to 45 years, total work experience ranges from 0 to 25 years. 5 female employees and 13 male employees participated in the present study.

Analysis

Thematic analysis was used with the help of NVivo10 software to analyze the data. All the interviews were conducted and recorded with the permission of the respondents and transcribed manually. Transcriptions were analyzed with the help of Braun and Clarke (2006) method of thematic analysis. Braun and Clarke (2006) recommended six phases to conduct the thematic analysis. Phase 1 was about acquainting oneself with data, so read all the 18 transcripts of the respondents. The second phase was to create initial codes and, in this stage, NVivo 10 software had coded the transcription into forty-three initial codes, most of which were data driven. The third phase was to investigate for themes; in this phase assembled codes were converted into distinctive themes. These were the potential themes which were generated from the initial codes. The initial themes were technology, tools, convenience, frequently asked questions, narration. The fourth phase was to review the themes, we have requested three experts, one from industry and two from academics to review and refine the themes. The fifth phase was to define and name the themes. We have defined the themes after reviewing relevant articles from the literature. After reviewing and refining the themes we came up with six themes. The final phase is to produce the report which we did in the following section of the paper.

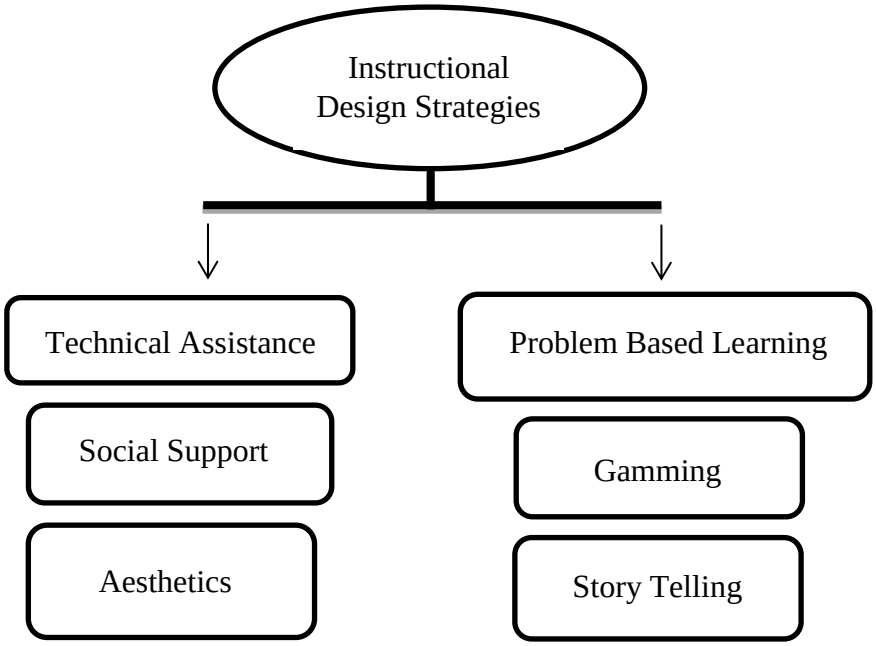

Figure 1. Thematic Map for the Reviewed Themes

Results

Theme 1: Technical Assistance: Assisting the E-learners technically throughout the course by providing additional features in E-learning apps.

Technical assistance is a significant factor in transferring the content of the learning program to the users. Creating technical assistance page in the course website, providing all the possible problems and solutions in Frequently Asked Questions (FAQs), providing online help to solve the learner problems are critical for effective online learning. Enabling the online forums for the prospective learners to share knowledge and exchange ideas, seeking the instructor intervention when needed, will build trust in the learners and increase their engagement with the course and its platform by large. Voogt, Pieters, and Handelzalts (2016) held that Technical support is expected to be in a reactive way, so, as to, address the learner concerns without much time delay. The learner must be enabled with maximum technical support (Debattista, 2018) to keep the user interface accessible. Before taking up the online course students are advised to take the virtual tour of the course environment to understand and solve the technical problems when encountered.

> As the instructor is not physically available to clarify any technical doubts, it would be very frustrating for the learners whenever they encounter any technical problems. They really can't proceed further in training course and there is every possibility for a complete breakdown of the communication. To overcome these problems we as a technical team take utmost care in anticipating and addressing all the possible problems by posting them in, frequently asked questions and creating platforms where the learners can interact among themselves and solve their problems. This will help the learners to become more interactive among them and creates social integration… (Respondent 9)

Most of the respondents and instructional designers mentioned technical assistance as a top priority for an effective E-learning process. Physical absence of the instructor in E-learning process makes it very challenging for the instructional designers to keep the E-learners engaged throughout the process. The instructional designers should anticipate all the possible technical problems that E-learners may come across and address the problems by creating platforms where E-learners can interact actively and solve their problems.

Theme 2: Social Support: Creating a platform in the E-learning apps which would bring the E-learners together to share their ideas, problems, and opinions to fulfill their psycho-emotional needs.

Learning is a collective process. Social support will not only enhance effective learning but also fulfills the Psycho-emotional needs of the learners. Instructors should design the features of the content in the app or website in a way that will bring the heterogeneous learners together to share the knowledge. Peer reviews and feedbacks promote dynamic interactions among the learners. A continuous interaction between instructor–learner, and learner-learner engages them throughout the course completion. It also helps them to improve the understanding about the content. In a qualitative study conducted by Cherrstrom, Zarestky, and Deer, (2017) stated that facilitating and building the community for social support would enable the learner to voice out their concerns and get them addressed at a common platform.

> Corporate training learners form informal groups while learning the course content. They feel energized and motivated to be a part of the group where they can share their knowledge and help each other through peer interactions. It is helpful to create features in the apps which enable the learners to come together and interact with each other. Satisfying psycho-emotional needs through frequent interactions enhance learners' performance… (Respondent 17)

Peer interactions are very important for the learners to be engaged in the learning process. E-learners were satisfied when features in the apps are encouraging them to interact with their peers. Sharing their problems and opinions in the common platform is motivating for the learners to complete the online courses successfully.

Theme 3: Story Telling: Captivating the E-learners through strong narration by weaving a story around the content

Storytelling is a powerful tool to captivate the learners' attention and break the monotony by engaging the learner both perceptually and emotionally. Storytelling creates curiosity and suspense with strong narration and thought-provoking plots. Weaving a story around the content with a conversational narrative tone as if the instructor is speaking to the learner and creating conflict and suspense keeps the learner engaged throughout the course. Employing authentic stories/scenarios in the virtual instructional environments and unraveling the facts about a problem that individuals and organizations face, specifically, making learners carry the feeling that he or she is finding facts themselves on their own (Bowman, 2018). Storytelling instructional strategies were especially useful for leadership training and behavioral training.

> To keep the learner attentive throughout the course is the greatest challenge for any instructor. Storytelling is a very effective tool to keep the learner attentive and curious; it generates interest in the learner and keeps him/her captive in front of their mobiles for a quite long time. Learners will learn the content with ease as the story is weaved around the content… (Respondent 4)

To deliver the content of the course to the learners smoothly, storytelling is very effective. Instructional designers should narrate the content in an interesting story form to grab the attention of the learners.

Theme 4: Problem –based Learning: Creating a situation for corporate employees which enable them to think logically to solve their problems.

Problem-based learning or scenario-based learning elicits critical thinking in learners. The learners are put in situations which reflect the actual problems where they have to apply their knowledge and make quality decisions. This kind of strategy is especially useful for providing training employees in the sales department. The employees were asked questions which have multiple solutions; the employees have to choose the best solution to the alternative course of actions available. Problem-based learning should be designed in a way that would trigger the interest in the student to explore the knowledge space gradually and regular feedback from the instructors as well as learners would keep the learning atmosphere more happening (Benjamin & Keenan, 2006).

> Every question is designed with the intention to teach the learner to make the right decisions among the alternatives available. It also provides an opportunity for the learners to get the feedback through every right and wrong answers they choose. All the different scenarios will make the learners to understand the rules and protocols that they should while dealing with their clients…. (Respondent 2)

Creative thinking among the learners makes the learning process effective. Designing different scenarios in the learning apps which enable the learners to solve the problems from different alternatives is crucial for corporate employees' training. The ability to think logically and to solve their own problems will boost the confidence of the employees.

Theme 5: Gamming: Creates a sense of competition and achievement among the E-learners to proceed further in the process

To facilitate effective knowledge transfer, game-based learning is very helpful. Game-based learning creates healthy competition among learners by creating levels, scores, and leaderboards. Gamming is used for especially for a code of conduct training; it teaches how to avoid the grey areas. The retention rate through gamming is very high. It provides a sense of achievement for the learners when they undergo game-based training. Evaluating learning behaviors has caught the attention of scholars in the study of game-based learning. The participant's focus should be kept alive by ensuring the learning theme and game purpose is identical. Keeping the learning and gaming more complimenting, prompting prior to participant gaining knowledge on the agreed theme, and offering guidance along with appropriate hints when conducting game-based learning will add more value to the gamming approach (Hwang, Hsu, Lai, & Hsueh, 2017; Yang, Chu, & Chiang, 2018).

> The key for effective high impact training is gamming. Designing a training module through games is effective to engage the learners and to create a competitive spirit among the learners. The learners can get the feedback instantaneously which motivates them to perform and learn better… (Respondent 12)

One key component which addresses the attrition rate of E-Learners is gamming. Creating a healthy competition among the participants will keep them engaged in the learning process. Instructional designers should find ways to create curiosity by implementing few gamming features in the learning apps.

Theme 6: Aesthetics: Visually attracting and engaging the E-learners for effective learning

Look and feel is the key component to catch the attention of the learner. This component gains significance when the learner pays attention to the content that is being delivered. Thus it is important to design the web page that is visually appealing in terms of content that is being offered. This refers to the Aesthetic component of learner experience. Klein (2018) argued that aesthetic experience can evoke transformative learning. The Aesthetic experience triggers the learner's stimuli, which would, in turn, increase the learners time spent on the content page. Visual engagement of the learner should enrich his/her curiosity to explore and therefore expressly designed. Learners attach a monetary value to the program content but consciously or sub-consciously learner inclination is stimuli driven. On the contrary, opposite version of Aesthetics could be routine, boring and make a learner feel that these versions of experience would not deepen his or her capabilities, therefore, they abstain from spending time and losing his/her interest. Aesthetics at any given time would set the platform, tone, and frame for the learner when it addresses the learners concern at the beginning level, middle level, and end level takeaways. Most of the instructional design strategies are found not addressing these concerns, thus the emphasis on aesthetics cannot be ignored. Mezirow (2018) and Klein (2018) has in their studies has put forth that aesthetics is one of the key filters in interpreting experience and it cannot be ignored.

> In my perspective, I feel that the web-interfaces should be attractive and appealing. I believe that look and feel component would keep the learners' interest alive. Design component cannot be cluttered, which may cease the attention of the participants very quickly… (Respondent 8)

Instructional designers noticed that E-learners are spending more time on E-learning apps if the apps are visually attractive to them. On the other hand, if the look and feel component of the E-learning apps is dull learners are losing interest and abstaining from spending more time. Knowing the importance of aesthetic component, the designers should be keen to provide the content of the course in a visually appealing package.

Discussion and Managerial Implications:

On the basis of identified themes, researchers suggest that both the instructional designers and learners should understand the ways in which learning experience is enhanced. There are a number of factors which will influence the process of designing and the final outcome of the process, like the people to whom the content is catering to, the prior experience and knowledge of the designer, the context and the environment of the designing process and the expected learning outcomes. An exhaustive E-learning course provides a very

little scope for trial and error; this can be frustrating for the learners. Thus, providing orientation and feedback by the instructor through instructions is critical for the effective performance of the learners.

The main objective for the instructional designers should be to reduce the turnover intentions for the E-learners and create an excellent E-learning experience. Instructional designers are showing their expertise in formulating the design strategies and learners are continuously demanding more and more features from the instructional designers for effective learning transfer. The most important aspect for the instructional designers is that they should be able to transfer the content smoothly from the subject experts to the learners. This is only possible when they can make things easy for the learners by organizing and presenting the content flawlessly. As the instructors are not physically available to clarify the doubts of the students, the instructional designers should make sure that all such problems can be solved through various techniques like brainstorming all the possible problems and proving solutions to them. Apart from quality content, the learners are seeking user-friendly features and technology while they undergo E-learning. Instructors as co-designers in design team would make the technical support facilitation for the learners and make the learning process more constructive and engaging. Technical glitches would evoke dis-interest in the learners and they would lose interest in furthering with the course being offered. It also, per say, make the learner feel that they are not thoroughly equipped with the technicalities of the web-interface, which is not the actually the essence that they are looking for. The knowledge they are willing to acquire should never be disturbed by the technical glitches, which has a very little count on the over-all learning process. Influential Instructors have the potential to create conducive learning environments by keeping the participants focused. When it comes to virtual learning environments, instructor's potential clubbed with social support will create a more stable learning platform. The participants hailing from diverse background and age groups come to a common platform for exchanging of ideas, sharing of knowledge and forums-for-discussions have a greater impact on the participants learning. Instructional design strategies should also consider providing active platforms for social support for the learners. Instructor's ability to present and deliver digital stories in varying formats and customizing them to the participants learning modules would be a key challenge in the digital age of the 21st century. Digital stories can enhance, evoke the participant's engagement and thought process, as a result, the attachment and stay with the course will increase. Leighton et al., (2018) clarified that the research with a blend of digital technologies and problem-solving approach are still scarce. Instructor's choice of using certain formats of technology may limit the success of instructional design strategies. Therefore equipping instructors with the best available technology in presenting and addressing the problems on the digital platform also plays a key role in defining the success of the instructional design strategies. Digital tools with instructional problem-solving can address the participant's curiosity making it lively. Combining problem-solving with gaming has started to evolve in shifting and transforming learners' experience. As information technology is advancing at a greater pace, gaming and learning have started to complement each other and are becoming increasingly popular and happening. A perfectly organized game-based learning can provide challenging assignments instilling curiosity in the participants. Progressive prompting strategies with faster guiding mechanisms have been confirmed to be very productive in educational settings (Yang, Chu, & Chiang, 2018).

Conclusion

In this modern era, with the advent of E-leaning, instructional design strategies are known to improve the learning experience. E-learning programs cannot be implemented

successfully until and unless they are based on sound instructional design strategies. An E-learning setting is void of an instructor's physical presence. Instructional design strategies fill the void of human interaction in an E-learning platform. Highly effective instructional design strategies incorporate aesthetics, problem-based learning, technical assistance, gamming, storytelling and social support to facilitate result oriented and self-paced learning. There is no hard and fast rule in designing the strategies to present a subject. The same content can be presented in a variety of ways by the instructional designers. The choice of the strategy used by the designer is based on so many factors like knowledge and experience of learners, subject and learning environment. The pre-requisite of any instructional strategy is to have a clear objective and goal. Choosing media elements like, screencasts, videos, avatars, social support, simulations can be effective for corporate E-learning experience. Storytelling, gamming, problem based can be more effective students E-learning experience.

Limitations

This study has few limitations. First, the sample size and the context used for the study is narrow that findings of the study cannot be generalized to other contexts. This study has gathered information from the management students who have enrolled for a few online courses like business analytics through various softwares. The information is also gathered from executive management students who are full-time employees in multinational corporations pursuing management course. This study has largely taken management students and their instructional designers to understand the strategies involved in E-learning experience. Data from other streams of education might have posed a different set of questions and to address these problems slightly different strategies would have emerged than what was identified in the present study. Second, the qualification and technical skills of the E-learners can influence the learning experiences. All the students who are pursuing management course have different undergraduate students hailing from science, commerce and engineering streams, etc. Studying E-learning experiences of students with different backgrounds at one point and comparing their experiences is certainly a limitation of this study.

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