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Promoting an E-Learning Culture: Exploratory Study of Different Organizational Approaches

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ABSTRACT

Objective - In the digital age, e-learning is increasingly being introduced into human resources training practices in Moroccan organization. This study aims to understand the practices that can help promote an e-learning culture in Moroccan organizations.

Methodology/Technique – We collected data through 12 semi-structured interviews with human resources and training managers in Moroccan organizations that have introduced e-learning as a training practice. We used NVivo software to analyze the empirical data.

Findings and Novelty – Our exploratory approach enabled us to identify practices related to a proactive organizational approach and others associated with a reactive approach. Similarly, a culture of openness to change is a support measure for an e-learning culture. The practices identified offer levers for action that can be exploited by human resources and training managers to increase the chances of success in implementing this project.

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1. Introduction

Investment in human capital is an important lever for meeting the challenges facing organizations. (Baujard, 2006). Consequently, the implementation of training programs enables organizations to develop the potential of their human capital and engage in a dynamic of innovation (El Yaacoubi & Bennani, 2022). However, the advent of information and communication technologies has completely overturned organizations' training practices (Niniss, 2022). Thus, organizations have been encouraged to use new tools and methods for training and e-learning. (Ennadi & Yassafi, 2021). The health crisis has accelerated this e-learning trend (Song et al., 2023). E-learning has been the subject of several studies. These have paid particular attention to factors influencing satisfaction with the e-learning system (Lee et al., 2011); (Ali & Ahmad, 2011); (Mohammadi, 2015) and (Mtebe& Raphael, 2018).

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Others have focused more on the relationship between e-learning quality factors and system use (Selim, 2003); (Liaw et al., 2007); (Özkan & Koseler, 2009). Recently, research has focused on evaluating the success of e-learning systems (Al-Fraihat et al., 2020); (Kornpitack & Sawmong, 2022) and (Alharthi & Elsigini, 2023). In addition, these studies have focused on e-learning as a technology and a system (Al-Fraihat et al., 2020). Similarly, they have focused on assessing learner satisfaction (Ikkou & Berdi, 2020). Nevertheless, no empirical studies have yet been carried out (at least in Morocco) to investigate the practices and measures to be implemented to promote e-learning as an organizational culture. On the other hand, like many countries worldwide, Morocco has adopted numerous digital plans that aim to make the country a regional and continental technology hub (Gmira &Elharissi, 2021). This ambition requires a profound cultural change.

However, according to the results of the latest e-learning barometer of 2012 in Morocco, the level of e-learning integration by Moroccan organizations is low, representing only 18% of professional training practices. Therefore, the e-learning culture should be inculcated as a training method in Moroccan organizations (Ajhoun & Daoudi, 2018). This research addresses this gap by investigating practices that can help embed the e-learning culture in Moroccan organizations. Our research question proposes: How can an e-learning culture be promoted in Moroccan organizations? The study's results should help human resources managers understand the practices that foster an e-learning culture and encourage organizations to opt for this training method. This article presents the conceptual and theoretical elements. It then presents the methodology used. Finally, it analyzes the results of the study.

2. Literature Review

2.1 E-learning: Conceptual and theoretical framework

The rapid evolution of technology does not allow for a consensual definition of e-learning (Chaubey & Bhattacharya, 2015); (Yawson & Yamoah, 2020). Electronic learning involves information and communication technologies to facilitate access to electronic resources, improve the quality of learning, and develop skills (Frank et al., 2005); (Liaw et al., 2007). Furthermore, e-learning is often associated with the education and training sector. It refers to using new technologies in learning situations (Basque & Brangier, 2005). Some consider it a form of learning that goes beyond traditional logic towards modern logic that overcomes time and space constraints (Favier et al., 2004). For some authors, in this case, Lewandowski, the concept of e-learning should not be limited to the technological element or to distance learning. Instead, in the broadest sense, it involves enabling learners to be in contact with a database and synchronous or asynchronous communication with others (Lewandowski, 2003); (Alhabeeb & Rowley, 2018).

The forms of e-learning are very varied and depend on several characteristics, such as the needs of employees, the company's activity, and its resources. However, we will focus on the two forms most frequently cited in the literature:

- The first typology distinguishes between asynchronous training (entirely off-line), synchronous training (virtual classroom), offered remotely in real-time, and hybrid training combining presence and distance. Today, training combining presence and distance is the preferred training modality for companies (D'Halluin et al., 2003).
- The second classification proposed by Mingasson et al., (2002) considers the presence or absence of a face-to-face component, the presence or absence of a tutor or trainer, and the presence or absence of group work. Companies opt for tutored training rather than online-only self-training programs (Marchand, 2003).

The literature states that training policies at organizational level aim to reconcile two major intentions, namely, optimizing the training budget and rapidly developing employee skills (Boboc & Metzger, 2019). These two intentions represent the main reasons for adopting e-learning at the organizational level. Indeed, (Bernadin & Krohmer, 2009) defends this logic, considering that the introduction of e-learning is justified by the benefits in terms of rationalization of training costs, speed, and skills development thanks to

individualized and flexible training. However,(Lauzon, 2003) considers that the potential offered by information and communication technologies is the main reason organizations are adopting e-learning since it frees employees from spatio-temporal constraints and enables them to learn at their own pace.

When we talk about learning, we often refer to organizational learning theory. Recognize that, within an organization, everyone contributes to developing organizational knowledge. In this sense, individual learning forms the basis of organizational learning (Argyris & Schön, 1978). Learning is a process of acquiring knowledge that impacts individual and organizational behavior (Levitt &March 1988). Other authors, such as (King, 1993) and Mack (1995), believe that individuals are the foundation of collective learning. As a result, we can only speak of a learning organization when it ensures a synergy effect between its staff and the organization itself. It enables the organization to acquire skills over the long term (Kœnig, 2015). Consequently, the integration of e-learning as a training device could turn the company into a veritable learning organization (Depover & Marchand, 2002).

Piaget (1975) proposed three individual learning models (behaviorist, cognitivist, and constructivist), which focus on the actions of an actor in an environment to develop learning. The behaviorist model is based on the memorization of information through overexposure. The cognitivist model advocates adapting information to each individual's processing capacity. Then, the constructivist model recognizes that the learner's actions play an essential role in learning development. However, the rise of new technologies has encouraged the development of connectivism, which considers that learning is a function of the environment and the communication tools available (Duplàa & Talaat, 2011).

Moreover, e-learning is an electronic mode of learning (using technological devices). It calls into question the principles of the Technology Acceptance Model (TAM) as a fundamental theory for studies on e-learning. Davis, (1989) introduced the TAM to predict user behavior when using a computer system. The TAM, which evolved from the Theory of Reasoned Action (TRA) concept, presents perceived usefulness and ease of use to predict individual computer behavior. In other words, perceived ease of use and usefulness determine the individual's intention to use a system (Arning & Ziefle, 2007), (Djamasbi et al., 2010), and (Agrebi & Jallais, 2014).

Furthermore, this logic of e-learning acceptability by human resources has been widely defended by researchers such as Venkatesh & Davis, (2000); (Lee et al., 2011); (Selim, 2003); (Roca & Gagné, 2008)by conducting studies in different contexts and methodologies. These studies demonstrate the positive effect of perceived usefulness and ease of use on the intention to use technologies such as e-learning. However, other studies such as those by (Lu et al., 2009), (Mohammadi, 2015), contradict this assumption by questioning the existence of a significant relationship between perceived usefulness and ease of use and intention to use e-learning.

Hayashi et al., (2004), (Jawadi & El Akremi, 2006) and (Ong & Lai, 2006) have emphasized the importance of mastering computer technologies as a necessary condition for the acceptance of e-learning. Added to this is the importance of the availability of technological resources to promote the acceptability of e-learning as a new training practice in organizations (Selim, 2003) ; (Ayadi & Kamoun, 2009). Other researchers (Andersson, 2006); (Lu et al., 2009); (Franklin, 2007) and (Hayes, 2007) have supported the positive social influence of the reference group (work colleagues, managers, and line managers) on acceptance of e-learning use.

From this perspective, perceived usefulness is the degree to which an individual believes technology would increase their job performance. Perceived ease of use is the effort required to use a technology. Perceived usefulness and ease of use, determining the degree of effort required to use the technology. These attitudes determine behavioral intentions, leading to the actual use of technologies. E-learning also involves the notion of appropriation. The sociotechnical school has analyzed this, which links technological, social, and organizational parameters. In this respect, the e-learning mode is influenced by the environment (both internal and external) and by the interactions between the players involved. Appropriation thus depends on

the knowledge held by the players and their ability to improve their knowledge to exploit and integrate the new techniques (Polanyi, 1966); (Dosi, 1988).

2.2 E-learning: Cultural dimension

A literature study on e-learning highlights a cultural dimension, which attests to the importance of the individual's beliefs and values. In this sense, the organizational learning culture is based on three main pillars, namely the influence of experience on behavior, the difficulty of questioning individual actions, and the need for collective objectives (Fillol, 2006) :

- The first pillar addresses the idea of adaptive learning, which assumes that previous experience prevails and that resistance to change is seen as a barrier to learning (Cangelosi & Dill, 1965); (Shrivastava, 1983); (Levitt & March 1988).
- The second pillar states that the company is characterized by conflicts and coalitions, which lead to difficult situations (Argyris & Schön, 1978); (Argyris, 1993).
- The last pillar considers that the shared vision supports the adhesion and commitment of employees (Baumard & Starbuck, 2002). To this end, the corporate culture, based on a shared vision, is a crucial vector of adherence (Schein, 1996).

Consequently, a shared mindset and a culture of change are essential to convince both managers and employees of the benefits of using e-learning. To achieve this, the adoption of e-learning requires communication to promote this new training mode and highlight the benefits of e-learning (Lassoued & Hofaidhllaoui, 2019).The cultural dimension can be both an obstacle and a catalyst to learning. On the one hand, it acts as a brake because of individuals' defensive behaviors and habits. On the other, it is a catalyst if there is a shared vision. In the context of our research, e-learning culture is understood in the sense of Viens & Renaud, (2001), which refers to the actors' representations, skills, resources, attitudes, and practices about e-learning. These elements are presented in the literature as fundamental determinants of adopting e-learning technologies and culture at an organizational level (Viens & Bertrand, 2007).

3. Research Methodology

Our work aims to understand the practices and systems or other procedures that can facilitate and encourage the introduction of an e-learning culture in organizations through an interpretive posture. In other words, it involves interpreting the specific experiences associated with this social reality. Moreover, it is essential when the researcher seeks to understand human motives, motivations and experiences in a specific context (Neuman, 2007). Similarly, it offers the possibility of addressing more freely questions of influence and the lived experiences of actors (Deetz, 1996). Our research path is embodied in an inductive mode of reasoning that promotes the understanding of knowledge, taking empirical findings as a reference (Gavard-Perret et al., 2012).

A qualitative study collects materials in the field via semi-directive individual interviews to identify the testimonies and experiences of human resources managers of 12 Moroccan organizations that have introduced e-learning to train their human resources. These interviews, lasting an average of 1h30, took place by videoconference via the Zoom application between May and June. The semantic saturation criterion determined the number of respondents (Strauss & Corbin, 1998). At this stage, we drew up an interview guide based on four themes to be explored and discussed with the interviewees: What are the reasons that prompted this organization to use e-learning? What difficulties are encountered with e-learning in this organization? What practices and measures are in place to inculcate an e-learning culture in this organization? What complementary practices and devices should be suggested? The guide aims to structure the interview and bring out the answers without influencing the discourse. (Desmet & Guillemette, 2022). The 12 interviews were fully recorded and transcribed, and the thematic content analysis was conducted using NVivo software, facilitating data processing and management. The dictionary of themes used to code

the interviews was constructed by going back and forth between theory and the field. In addition, the approach taken to analyzing the data collected from the stakeholders began with coding the interviews conducted and then dividing the discourse into units of analysis to create a categorization and define the universe of reference of the discourse (Glaser & Strauss, 1967).

4. Results

4.1 The reasons for using e-learning as a training method

Our empirical study identified that the main reasons the organizations studied use e-learning are the optimization of the training budget, flexibility, adaptability of training to the needs of employees, modernization of the training structure's image, and the need to cope with training constraints during a health crisis.

Table 1: The reasons for using e-learning in the organizations studied.

I.D.	Reasons for using e-learning
1	"We opted for e-learning to meet the needs of our employees, who have repeatedly expressed their expectations regarding training flexibility."
2	"Initially, we used e-learning to optimize the training budget and to reduce the logistical costs of training."
3	"The primary reason was to address training constraints in the context of COVID-19, and it was an optimal training solution."
4	"Keeping pace with the digitization of our human resources function."
5	"To modernize our training structure's image and reduce the ancillary costs associated with training."
6	"It is a rational training method for controlling logistical costs. It also enabled us to tailor training to the specific needs of our employees."
7	" The search for training efficiency was our main reason since we were looking for a solution that would enable us to schedule training sessions."
8	" There are two reasons for using e-learning: flexibility of training implementation and minimizing training costs."
9	" E-learning met our need to digitalize certain training topics related to our company's business challenges."
10	" The search for flexibility of training according to employees' needs, and the optimization of the costs associated with training"
11	"Two objectives can be put forward: to generalize and decentralize access to training, and to save time and money."
12	"E-learning represents an optimal training solution in terms of time and money, ensuring accessibility and modernizing the training structure."

Notes: ID – Interview code *Source:* Authors

4.2 The difficulties encountered in using e-learning

Indeed, some of the Human Resources managers interviewed stated that the introduction of e-learning in their organizations had occurred under favorable circumstances and without significant difficulties. Others, however, pointed to a few technical problems. However, the predominant problem is the refusal to embrace this training method and internal resistance.

Table 2: The difficulties of introducing e-learning in the organizations studied.

I.D.	Difficulties encountered
1	"We did not encounter any major difficulties in introducing this training practice, apart from a few technical problems initially."
2	"The refusal to adhere to new training methods by senior employees who were frustrated with the use of digital tools"
3	"Some employees had problems handling computerized tools, which made them reluctant to use this training method."
4	"The reluctance and fear felt by some employees convinced that mastering certain missions requires a physical demonstration."
5	"We encountered strong internal resistance and a lack of interest on the part of employees."
6	"We encountered some hesitation on the part of employees to commit to e-learning training."
7	"Reluctance of some employees to change their usual training methods"
8	"E-learning represented a new situation that led to a lack of acceptance and resistance."
9	"There was strong internal resistance to this change in training methods."
10	"Some employees found it difficult to reconcile work and training."
11	"The e-learning project for our administration ran smoothly.
12	"The introduction of e-learning was gradual and prepared to avoid potential problems."

Notes: ID – Interview code *Source:* Authors

4.3 The practices deployed to inculcate an e-learning culture

In addition, the practices and systems deployed to inculcate an e-learning culture in the organizations studied involve preparing employees by communicating the usefulness and benefits of e-learning as a personal and professional training method. It also involves planning the e-learning project to develop and enhance human capital rather than as an obligation. Providing the right conditions for mastering the I.T. tool and ensuring the availability of technological resources. Some managers stressed the need for top management involvement, human support, and leadership to reduce uncertainty and ambiguity. Similarly, human resources managers also proposed practices relating to selecting sponsoring managers as a reference group for e-learning training and introducing incentives to increase the value of this training by awarding training certificates and recognizing these certificates for internal promotion.

Table 3: Practices deployed to promote e-learning culture in the organizations studied

I.D.	Practices deployed
1	"We have communicated the usefulness of e-learning as an engine of self-development, and we have planned e-learning training courses and a team of technicians to resolve technical bottlenecks."
2	"A reference group has been set up to support employees experiencing difficulties and to communicate on the effort to be saved by employees thanks to the ease of use of e-learning."
3	"Accompanying and appointing sponsors to instill confidence and responsibility in employees."
4	"Hybrid training courses were proposed, depending on the training content. Support for managers to reduce uncertainty and communicate the benefits of e-learning."
5	"Information meetings were organized to communicate with employees about the benefits of e-learning."

6	"We ensured that employees had the conditions to facilitate e-learning (mastery of the I.T. tool and availability of technological resources)."
7	“We have strengthened formal communication with top management and informal communication with colleagues to exchange experiences and create a relationship of trust.”
8	“The involvement of top management was necessary to reassure and support employees.”
9	“We have focused our efforts on communication and reference groups to support and raise awareness among employees of the ease and advantages of e-learning.”
10	“We offered tailor-made training with appropriate time management and post-training follow-up.”
11	“Buy-in from decision-makers and incentives such as the award of certificates and recognition of these certificates for internal staff promotion”
12	“Management of this change through the implementation of a post-implementation study to mitigate the effects of this change in training mode”

Notes: ID – Interview code *Source:* Authors

4.4 Complementary practices suggest embodying the e-learning culture

Some human resources managers should have put forward complementary practices to those already in place in their organizations. However, other managers did suggest as a complementary practice to permanently build a corporate culture based on openness to innovation and change, as this will save time by building trust and avoiding the constant questioning of innovative organizational behaviors and practices. Indeed, they explained that corporate culture helps influence individual employees' beliefs and behaviors, making them available for action. It also encourages them to take shared, sustainable action. Corporate culture saves time by building trust and facilitates the implementation of e-learning.

Table 4: Complementary practices suggested

I.D.	Complementary practices
1	“A culture of openness to new ideas facilitates acceptance of change in training practices.”
4	“A strong culture of change is necessary to facilitate the implementation of e-learning.”
6	“A deep-rooted relationship with the corporate culture is desirable for anchoring the e-learning culture.”
10	“Corporate culture has an essential role in supporting the implementation of e-learning.”
12	“A corporate culture based on a shared vision is an essential measure of success.”

Note: I.D. – Interview code *Source:* Authors

4.5 The organizational approach to promoting e-learning culture

Furthermore, two organizational approaches to implementing an e-learning culture have been identified: proactive and reactive. The first concerns organizations that have anticipated the risks and planned the introduction of e-learning, with practices in place to avoid the shock. The second is for organizations that introduced e-learning without prior measures and only reacted after the difficulties had arisen. Thus, according to the interviewees, this early proactive intervention is more likely to succeed than a reactive action, as it is easier to provide an appropriate solution to a situation still in its infancy. As a result, we found that human resources managers who had prepared for and anticipated future risks associated with the introduction of e-learning could avoid the risk of resistance and effectively lead this change in training mode.

5. Discussion and implications

Summary of main results

Our empirical study has shown that the main reasons for the use of e-learning by the organizations studied are optimizing the training budget, flexibility, and modernizing the image of the training structure. However, the main difficulty encountered is the solid internal resistance. Furthermore, the practices implemented to promote an e-learning culture in organizations consist of preparing employees by communicating the usefulness and benefits of e-learning and involving top management to reduce uncertainty. The same applies to the selection of mentor managers and incentives. However, one of the support practices managers suggest is building a corporate culture based on openness to change continually. Furthermore, based on the practices implemented, two organizational approaches were identified to embody an e-learning culture: proactive and reactive.

Indeed, the results of our study are similar to those found in other North African countries such as Tunisia and Algeria. To illustrate our point, we can refer to the results of semi-structured interviews conducted by Lassoued & Hofaidhllaoui, (2019) with training managers in three Tunisian companies that have experimented with e-learning. The analysis deduced that the adoption of e-learning depends on perceived benefits in terms of skills acquisition, career enhancement and flexibility in time and space. However, they showed that the success of such a project depends on the involvement of managers and employees, (Kessira & Kechad, 2017)an appropriate communication strategy and the IT structure, i.e. prior preparation to overcome psychological and technological barriers. We can also add the results of work by (Kessira & Kechad, 2017)on the case of the Renault group's subsidiary in Algeria. The subsidiary implemented several measures to inculcate this new e-learning culture in the minds of human resources by communicating its benefits in terms of flexibility, cost reduction and skills development. At the same time, it has ensured that employees are supported and involved to avoid resistance.

Theoretical and managerial implications

This research helps to shed light on the analysis of the practices to be adopted to foster an e-learning culture in Moroccan organizations. Consequently, the focus should be on promoting the ease of use of e-learning and on employees' perception of its usefulness. These results align with the principles of Davis (1989) technology acceptance model, which states that perceived ease of use and perceived usefulness specify an individual's intention to use a system. In addition, communication is crucial in preparing employees for this change in training methods. Preparing employees through communication has been advocated by researchers such as (Balogun, 2003), (Autissier & Vandangeon-Derumez, 2007) and, (Shrivastava et al., 2022), who have suggested the development of both formal communication with top management and informal communication with peers to drive any organizational change. Furthermore, it has been found that introducing e-learning as a new training method requires employees to be prepared for the change beforehand to reduce resistance and avoid shock (Armenakis et al., 1993).

The study contributes to a better understanding of approaches to promoting an e-learning culture in private and public organizations. The results provide empirical implications for practices that could encourage human resources and training managers to implement e-learning as a training method. Similarly, the results of this study motivate human resources and training managers in Moroccan organizations to show ambition in modernizing their training methods and taking advantage of e-learning. They should draw inspiration from the practices implemented by organizations that have succeeded in embodying an e-learning culture and overcoming the risks of reluctance. In addition, corporate culture supports e-learning as a new training method in an organizational context. In other words, the company's ability to successfully introduce or apply new ideas, processes, or technologies (Ahmed, 1998); (Alosani & Al-Dhaafri, 2023). The Organizational managers must understand that the embodiment of an e-learning culture is based on the

company's culture. It is a question of the ability of members of the organization to absorb this new training method (Cohen & Levinthal, 1990).

6. Conclusion

Finally, our research aimed to discover the practices introduced by Moroccan organizations to promote an e-learning culture. To this end, we conducted 12 semi-structured interviews with human resources managers in the private and public sectors. As a result, we identified practices relating to preparation, communication, leadership, and support for promoting this training method among employees. In addition, we could understand their approaches to embodying the e-learning culture, particularly reactive approaches. Our research therefore suggests that the introduction of e-learning into training practices depends on certain conditions inherent in the organization's culture, technology, and management. However, our study raises an initial objection concerning the representativeness of the sample surveyed, which was limited to 12 human resources and training managers from Moroccan organizations. Our research could therefore be extended to a larger sample to generalize the results observed. Our research focuses primarily on practices and approaches that could positively impact the promotion of an e-learning culture in Moroccan organizations. To this end, a longitudinal study would enable us to observe in depth and measure the effectiveness of the practices implemented and their specific challenges.

Credit Taxonomy

Conceptualization - Maryeme EL HAMMOUCHI; Methodology -Maryeme EL HAMMOUCHI; Writing - Maryeme EL HAMMOUCHI & Jalila Ait Soudane; Investigation -Maryeme EL HAMMOUCHI; Supervision -Jalila Ait Soudane

References

Agrebi, S., & Jallais, J. (2014). Explain the intention to use smartphones for mobile shopping. *Journal of Retailing and Consumer Services*, *22*,16-23.

Ahmed, P. K. (1998). Culture and climate for innovation. *European Journal of Innovation Management*, *1*(1), 30–43.

Ajhoun, R., & Daoudi, N. (2018). Erratum to: Morocco. In A. S. Weber & S. Hamlaoui, *E-Learning in the Middle East and North Africa (MENA) Region* (pp. E1–E2). Springer International Publishing.

Al-Fraihat, D., Joy, M., Masa'deh, R., & Sinclair, J. (2020). Evaluating E-learning systems success: An empirical study. *Computers in Human Behavior*, *102*, 67–86.

Alhabeeb, A., & Rowley, J. (2018). E-learning critical success factors: Comparing perspectives from academic staff and students. *Computers & Education*, *127*, 1–12.

Alharthi, A. D., & Elsigini, W. T. (2023). Gender Differences and Learner Satisfaction: An evaluation of E-Learning systems at Umm A-Qura University. *Journal of Distance Learning and Open Learning. 9(*17),14-49.

Ali, A., & Ahmad, I. (2011). Key Factors for Determining Student Satisfaction in Distance Learning Courses: A Study of Allama Iqbal Open University. *Contemporary Educational Technology*, *2*(2), 118-134.

Alosani, M., & Al-Dhaafri, H. (2023). Stimulating HRM practices through innovative culture: an empirical study on the UAE's government agencies. *International Journal of Quality and Service Sciences*, *15*(2), 120–135.

Argyris, C. (1993). *Knowledge for Action: A Guide to Overcoming Barriers to Organizational Change*. San Francisco: Jossey-Bass Publishers.

Argyris, C., & Schön, D. A. (1978). *Organizational Learning: A Theory of Action Perspective*. Addison-Wesley Publishing Company.

Armenakis, A. A., Harris, S. G., & Mossholder, K. W. (1993). Creating Readiness for Organizational Change. *Human Relations*, *46*(6), 681–703.

Arning, K., & Ziefle, M. (2007). Understanding age differences in PDA acceptance and performance. *Computers in Human Behavior*, *23*(6), 2904–2927.

Autissier, D., & Vandangeon-Derumez, I. (2007). Front-line managers and change. *French Management Review*, 174,115-130.

Balogun, J. (2003). From Blaming the Middle to Harnessing its Potential: Creating Change Intermediaries. *British Journal of Management*, *14*(1), 69–83.

Basque, J., & Brangier, E. (2005). *How can and should e-learning be developed in companies?* In Lévy-Leboyer, M., Louche, C., & Rolland, J-P (Eds)., Human management. Paris: Éditions d'organisation.433-452.

Baujard, C. (2006). E-learning modes: Towards what kind of co-organizational coherence? *The Journal of Management Sciences*, *220–221*(4), 189.

Baumard, P., & Starbuck, W. H. (2002). *Knowledge in organizations*, in Allouche, J., et Louart, P., Encyclopedia of Human Resources, Paris: Economica.

Bernadin, E., & Krohmer, C. (2009). Importance of manager involvement in e-learning training from the workstation. *Management & Avenir*, *29*(9), 13–30.

Boboc, A., & Metzger, J.-L. (2019). Continuing training put to the test by digitization. *Formation Emploi*,*145*,101–118.

Cangelosi, V. E., & Dill, W. R. (1965).Organizational learning :observations toward a theory. *Administrative Science Quarterly*, *10*, 175.

Chaubey, A., & Bhattacharya, B. (2015). Learning Management System in Higher Education. *IJSTE - International Journal of Science Technology & Engineering*, *2*, 158–162.

Cohen, W., & Levinthal, D. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, *35*, 128–152.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, *13(3)*, 319-340.

Deetz, S. (1996). Crossroads-Describing Differences in Approaches to Organization Science: Rethinking Burrell and Morgan and Their Legacy. *Organization Science*, *7*(2), 191–207.

Depover, C., & Marchand, L. (2002). E-learning et formation des adultes en contexte professionnel. De Boeck Université Bruxelles.

Desmet, H., & Guillemette, F. (2022). Les multiples facettes de l'engagement du chercheur qualitatif. *Recherches Qualitatives*, *29*(2), 1-6.

D'Halluin, C., Boudry, T., Charlet, D., Clavel, D., Desprez, C., Dewulf, B., Le Ven, O., Merveille, S., & Warocquier, A. (2003). Online training. Viewpoints from managers at major companies. *Distances et Savoirs*, *1*(4), 517–531.

Djamasbi, S., Siegel, M., & Tullis, T. (2010). Generation Y, web design, and eye tracking. *International Journal of Human-Computer Studies*, *68*(5), 307–323.

Duplàa, E., & Talaat, N. (2011). Connectivism and online training: A case study of pre-service secondary teacher training in Ontario. *Distances et Savoirs*, *9*(4), 541–564.

El Yaacoubi, Y., & Bennani, H. (2022). From e-learning to digital learning: issues and perspectives in the era of digital transformation. International Review of Management Sciences, 5(1), 164 – 180.

Ennadi, M., & Yassafi, M. (2021). The contribution of e-learning on the performance of companies in a period of crisis. African Scientific Journal, 3(6), 2658–9311.

Favier, M., Kalika, M., & Trahand, J. (2004). E-Learning/E-Formation: Implication for Organizations. *Systèmes d'Information & Management.9(4),55-65.*

Fillol, C. (2006). Hot context for organizational learning. *Colloque de l'EGOS*, Bergen, Norway.

Frank, M. J., Woroch, B. S., & Curran, T. (2005). Error-Related Negativity Predicts Reinforcement Learning and Conflict Biases. *Neuron*, *47*(4), 495–501.

Glaser, B. G., & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Mill Valley, CA: Sociology Press.

Gmira, F., & Elharissi, H. (2021). The Covid-19 and digital transformation of territories: a lever for territorial attractiveness. The Moroccan context, strategies and orientations. *Revue Française d'Economie et de Gestion*, *2*(12), 307-330.

Hayashi, A., Chen, C., Ryan, T., & Wu, J. (2004). The Role of Social Presence and Moderating Role of Computer Self Efficacy in Predicting the Continuance Usage of E-Learning Systems. *Journal of Information Systems Education*,*15*, 139-154.

Hayes, D. N. A. (2007). ICT and learning: Lessons from Australian classrooms. *Computers & Education*, *49*(2), 385–395.

Ikkou, L., & Berdi, A. (2020). The place of technological change in Moroccan banking organizations. *Moroccan Journal of Entrepreneurship, Innovation and Management,5(1), 97-106.*

Jawadi, N., & El Akremi, A. (2006). E-Learning Adoption Determinants: A Modified Technology Acceptance Model. *Communications of the Association for Information Systems*, *18*(1), 24-43.

Kessira, M., & Kechad, R. (2017). E-learning for better skills management: The case of Renault Algérie SPA. Revue des Reformes Economiques & Intégration dans l'Economie Mondiale,*12*(24),20-33.

King, M. C. (1993). Academic advising, retention, and transfer. *New Directions for Community Colleges*,*1993*(82), 21-31.

Kœnig, G. (2015). Organizational learning. *Revue Française de Gestion*, *41*(253), 83–95.

Kornpitack, P., & Sawmong, S. (2022). Empirical analysis of factors influencing student satisfaction with online learning systems during the COVID-19 pandemic in Thailand. *Heliyon*, *8*(3), e09183.

Lassoued, T., & Hofaidhllaoui, M. (2019). E-learning: innovation at the service of learning in Human Resources. *Recherches En Sciences de Gestion*, *132*(3), 259–288.

Lauzon, N. (2003). e-learning, corporate practices, and organizational policies. *Distances & Savoirs*, *1*(4), 471–488.

Lee, Y.-H., Hsieh, Y.-C., & Hsu, C.-N. (2011). Adding Innovation Diffusion Theory to the Technology Acceptance Model: Supporting Employees' Intentions to use E-Learning Systems. *International Forum of Educational Technology & Society*, *14*, 124–137.

Levitt, B., & March, J. G. (1988). Organizational learning. *Annual review of sociology*, *14*(1), 319-338.

Lewandowski, J.-C. (2003). New ways of training. E-learning, challenges and tools. *Paris. Editions d'Organisation.* .

Liaw, S.-S., Huang, H.-M., & Chen, G.-D. (2007). Surveying instructor and learner attitudes toward e-learning. *Computers & Education*, *49*(4), 1066–1080.

Lu, Y., Zhou, T., & Wang, B. (2009). Exploring Chinese users' acceptance of instant messaging using the theory of planned behavior, the technology acceptance model, and the flow theory. *Computers in Human Behavior*,*25*, 29-39.

Marchand, L. (2003). E-learning in the workplace. An overview of the current situation n in Canada and Quebec.

Distances & Savoirs, *1*(4), 501–516.

Mingasson, M. (2002). The e-learning guide. The learning organization. Paris.*Editions organization.*

Mohammadi, H. (2015). Investigating users' perspectives on e-learning: An integration of TAM and IS success model. *Computers in Human Behavior*, *45*, 359–374

Mtebe, J., & Raphael, C. (2018). Key factors in learners' satisfaction with the e-learning system at the University of Dar es Salaam, Tanzania. *Australasian Journal of Educational Technology*, *34(4)*,107-122.

Neuman, W. (2007). *Basics of Social Research: Qualitative and Quantitative Approaches*. Allyn &Bacon, Boston.

Niniss, Y. (2022). Determinants of e-learning acceptability in Moroccan public administration. *Revue Internationale Des Sciences de Gestion*, *5*(2), 945–970.

Ong, C. S., & Lai, J. Y. (2006). Gender differences in perceptions and relationships among dominants of e-learning acceptance. *Computers in Human Behavior*, *22*(5), 816–829.

Özkan, S., & Koseler, R. (2009). Multi-dimensional students' evaluation of e-learning systems in the higher education context: An empirical investigation. *Computers & Education*, *53*(4), 1285–1296.

Roca, J., & Gagné, M. (2008). Understanding e-learning continuance intention in the workplace: A self-determination theory perspective. *Computers in Human Behavior*, *24*, 1585–1604.

Schein, E. Henry. (1996). Culture: The Missing Concept in Organization Studies. *Administrative Science Quarterly*, *41*, 229–240.

Selim, H. M. (2003). An empirical investigation of student acceptance of course websites. *Computers & Education*, *40*(4), 343–360.

Shrivastava, P. (1983). A typology of organizational learning systems. *Journal of Management Studies*, *20*(1),7-28.

Shrivastava, S., Pazzaglia, F., Sonpar, K., & McLoughlin, D. (2022). Effective communication during organizational change: a cross-cultural perspective. *Cross Cultural & Strategic Management*, *29*(3), 675–697.

Song, Y. A., Zhang, L., Ma, L., & Bose, I. (2023). What shall I learn? Two-stage decision making under social influence on corporate E-learning platforms. *Decision Support Systems*, *171(1)*, 1-35.

Strauss, A. L., & Corbin, J. M. (1998). *Basics of qualitative research: techniques and procedures for developing grounded theory*. Thousand Oaks, Californie: Sage Publications, Inc.

Thiétart, R.-Alain. (2014). *Méthodes de recherche en management*. Paris: Dunod.

Venkatesh, V., & Davis, F. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, *46*(2), 186–204.

Viens, J., & Bertrand, C. (2007). Where is the added value of ICT. *French Québec*, *144*, 109–110.

Viens, J., & Renaud, L. (2001). The Complexity of Implementing the Socio-constructivist Approach and Integrating ICT. *Education Canada*, *41*(3), 20–23.

Yawson, D. E., & Yamoah, F. A. (2020). Understanding satisfaction essentials of E-learning in higher education: A multi-generational cohort perspective. *Heliyon*, *6*(11), e05519.

Appendix 1. Interview guide

Introduction	• Presentation of research objectives • Specify that responses are anonymous
Profile of interviewees	Function / Genre / Age
Presentation of the organization	Public / Private / Activity
Topics for discussion	**Topic 1: The reasons for using e-learning as a training method.** What are the reasons that prompted this organization to use e-learning? **Topic 2: The difficulties encountered in using e-learning.** What difficulties are encountered with e-learning in this organization? **Topic 3: The practices deployed.** What practices and measures are in place to inculcate an e-learning culture in this organization? **Topic 4: The complementary measures** What complementary practices and devices should be suggested?
Conclusion	• Ask if there's anything you'd like to add • Thank you, and remember anonymity