



HRDF HUMAN CAPITAL REPORT

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ADOPTION OF E-LEARNING



INTRODUCTION

This issue of human capital reports aims to discuss the adoption of e-learning in Malaysia. Training for upskilling and reskilling is vital to ensure Malaysia's workforce is well-equipped with necessary skills and knowledge. As times are changing, the method we ingest information also changes accordingly, and therefore training methods must also evolve overtime and in line with technological development.

There are numerous training delivery methods, e.g. on-the-job training, lectures, one-to-one coaching/mentoring, etc. The tools used also vary according to the types of training: e.g. video, case studies, simulators and computer based learning are among the commonly used tools in an organisation. As of now, most organisations remain with on-the-job or classroom training. This is unsurprising as there are clear observable advantages using such methods.

Strengths of On-the-Job and Classroom Training

Training in the workplace	Training in the classroom
Opportunity to learn in workplace setting, with up-to-date equipment and trainers	General skills (e.g. literacy, numeracy) and theoretical knowledge, more suited to classroom context
Gives employers good information on trainees for making recruitment and promotion decisions	No disruptions for firm's operations; off-the-job training can accommodate slower production pace of new learners
Productive contribution of trainees at least partially offsets costs of training	Certain skills better taught in simulated conditions (e.g., for safety purposes)
Clear signal that training is of value to firm	Economies of scale where trainees work for multiple firms or are with pre-employment status

Source: OECD, 2009

LEARNING USING TECHNOLOGY HELPS WITH TRAINING

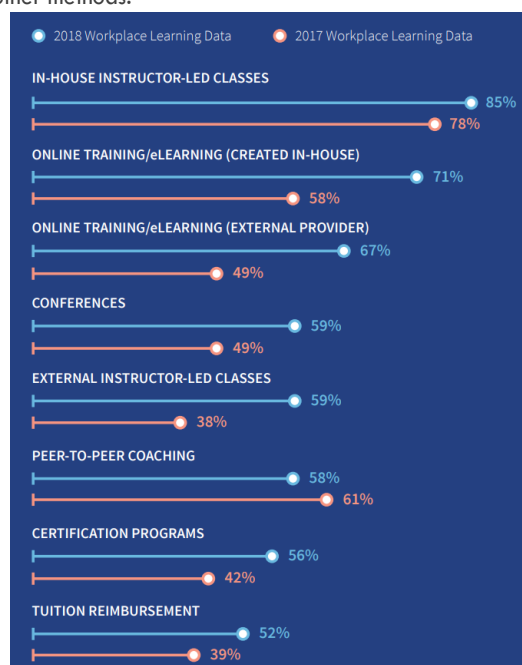
Deciding how to provide training is particularly challenging for Small and Medium Enterprises (SMEs). The difficult delivery challenges for SMEs are one reason why smaller firms have lower training rates overall as well as in HRDF (OECD, 2017; HRDF Internal Database). Even where smaller firms have skill development needs, they usually do not have the scale to provide training in their own workplace and tend not to have the human resource capabilities to effectively source training outside (World Bank Group, 2017).

This is where the importance of learning using technology and e-learning should be emphasised and encouraged to be adopted by employers or firms of all sizes. The benefits of learning using technology include:



Source: Adopted and modified from ILO, 2019

Another survey has also indicated that there is increasing adoption of learning using technology. Majority of the firms surveyed adopted the blended learning approach where learning technology is partly used together with other methods.



Source: 2018 Workplace Learning Report, LinkedIn

QUICK TAKEAWAYS AND HIGHLIGHTS

Most of the organisations remain with on-the-job or classroom training.

Source: OECD, 2009

Even where smaller firms have skill development needs, they usually do not have the scale to provide training in their own workplace and tend not to have the human resource capabilities to effectively source training outside.

Source: OECD, 2017; HRDF Internal Database

Learning using technology helps:

- Training anytime, anywhere
- Accessible to all
- Cost saving
- Interaction and peer review of work from around the world
- Access to training available internationally

Source: Adopted and modified from ILO, 2019

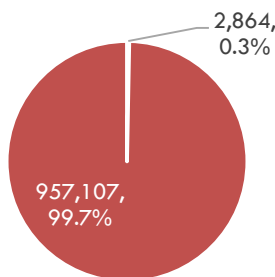
ADOPTION OF E-LEARNING



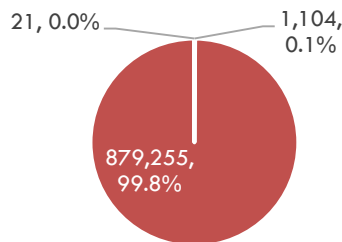
ADOPTION OF LEARNING USING TECHNOLOGY AMONG HRDF REGISTERED EMPLOYERS

HRDF internal data has shown a discouraging trend in skill learning using technology. Both in 2017 and 2018 the adoption rate of e-learning and mobile learning constituted less than even 0.5% of the overall training places. There may have been use of technology in schemes such as SBL-Khas or other Strategic Initiatives which may have included some forms of blended learning, where trainers used online resources or other web-based technology to be included in the training. The overall adoption of full-scale web-based learning/ e-learning/ mobile learning remains indiscernible among the HRDF registered employers.

No. of Training Places in e-learning among HRDF registered employers, 2017



No. of Training Places in e-learning among HRDF registered employers, 2018



■ E-Learning ■ Other training method
■ Mobile learning

QUICK TAKEAWAYS AND HIGHLIGHTS

Less encouraging trend in learning using technology among HRDF registered employers in 2017 and 2018.

That being said, the current measurement of e-learning adoption being used in HRDF may not fully reflect the actual scenario. The measurement should not be on scheme basis but should be on the percent e-learning element in the training content instead, this will reflect the adoption of e-learning more accurately across all schemes in HRDF. In addition, this will promote awareness among the training providers and trainer and encourage them to use technology, with the right policy, guidelines or incentives.

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FACTORS LIMITING THE ADOPTION OF E-LEARNING IN MALAYSIA

It is premature to assume that adoption of e-learning will bring learning results immediately. The effectiveness derived from e-learning is only possible when certain conditions are met. As of now, Malaysia continues to face challenges from the factors below:

- **Level of Connectivity:** While the overall Level of Connectivity in ICT development in Malaysia is above average compared to the world, we are lagging behind compared to developed countries/cities even in the Asia Pacific region like Singapore, New Zealand, Hong Kong etc. (International Telecommunication Union, 2017). Another challenge indicated by the Malaysian Communications and Multimedia Commission (MCMC) is to rollout broadband infrastructure, including fibre to increase internet coverage and speed with cooperation from all state authorities.
- **Technology adoption and usage:** Even though Malaysia has relatively fair access to the internet, the usage seems to remain largely in social network participation, email, entertainment (downloading images, videos, gaming etc.), software and application download and information search about goods and services (DOSM, 2017). E-learning seems not to be the priority of internet users in Malaysia.
- **Human factors:** It is important to note that technology is merely a tool that enable learning, the tool itself is a means to an end. The outcomes of learning through technology can be best achieved when learners/ students adopt self-efficacy, the learning platforms has user friendly interface, there exist a community of learners, there is perceived usefulness of learning technology by learners, and students have satisfaction and intention to use e-learning (Al-rahmi, Othman, and Yusuf, 2015; Olasina, 2019).



Factors limiting the adoption of e-learning in Malaysia:

- Level of Connectivity
- Technology adoption and usage
- Human factors

Sources: ITU, 2017; MCMC; DOSM, 2017; Al-rahmi, Othman, and Yusuf, 2015; Olasina, 2019

ADOPTION OF E-LEARNING



MOVING FORWARD FOR HRDF

While e-learning is one of the good tools to enhance learning experience and reduce cost of training, HRDF must realise that this method is not a one-size fits all solution to all types of training. Certain strengths in On-the-job Training and Classroom Training methods cannot be totally replaced by e-learning as mentioned earlier. However, HRDF still can play its role in strengthening the culture of e-learning through:

- **Strengthening the pillar of LEARNING ECOSYSTEM AND LANDSCAPE:**

While the Ministry of Communications and Multimedia is strengthening the infrastructure and internet coverage and quality for the nation, HRDF can support via purchase of learning tools and equipment. According to Department of Statistics Malaysia, Malaysia household access to computers remained at 74% as of 2017, there remained gaps to be filled on learning tools, be it hardware or software.



- **Strengthening Train-the-Trainer (TTT) Programmes:** As pointed out previously, the perceived usefulness of e-learning and satisfaction by the learners are important to achieve effective learning outcome. Adoption of e-learning will not be effective if the trainers are not adept in it. Modules of e-learning related lessons or pedagogy must be included as part of the TTT programme to ensure trainers develop useful content on a user-friendly platform (with easy to use interface), in order to ensure learners have the best learning outcome with the best cost efficiency.



- **Studying the right usage of e-learning:** Adoption of e-learning is beyond measuring how many training places are conducted online, but should be blended as part of learning in other training methods when applicable. Instead of focusing on the number of trainings using e-learning as a benchmark of outcomes, the attention should be given to comparison study on how different ratio/types of e-learning contributed to the effectiveness of different types of training, as well as its achievement of cost efficiency.



QUICK TAKEAWAYS AND HIGHLIGHTS

E-learning is not a one-size fits all solution to all types of training.

Moving forward, HRDF needs to:

- Strengthen the pillar of LEARNING ECOSYSTEM AND LANDSCAPE
- Strengthen Train-the-Trainer (TTT) Programme
- Study the right usage of e-learning

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