

PRELIMINARY STUDY OF ONLINE TRAINING IMPLEMENTATION FROM MULTIPLE PERSPECTIVES IN MALAYSIAN PUBLIC SECTORS

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ABSTRACT

In a constantly changing and evolving global and organizational environment, it is necessary to improve the skills of human resources. The innovation of information technologies nowadays has contributed to the exponential expansion in online training in Malaysia. The number employees attending online training courses have increased tremendously but very low percentage of course completion have been reported, thus raised many questions in the implementation of online training in Malaysian public sectors. This study was conducted to construct a research framework on online training implementation in Malaysian public sectors. The criteria of online training implementation are also being determined through different perception of stakeholders. Based on the literature review, the study posited four constructs adopted from Kirkpatrick's learning theory through Multiple Perspectives Theory. The preliminary study conducted involves 3 set of interviews with respondents involved in providing online training at Malaysia's National Institute of Public Administration (INTAN) as providers or consultants of public sectors online training. The preliminary findings showed that the criteria are applicable with the mentioned criteria in the literature review thus suitable to be mapped into the conceptual framework.

Keywords: *Online Training, Online Training Implementation, Public Sectors, Multiple Perspectives*

1. INTRODUCTION

Online training is essential in distributing learning through electronic medium without physical instructor [1, 2]. Online training has been adopted in Malaysia and used in the training system [3, 4]. Although online training allows employees to easily access the systems and many organisations have pursue an effort to implement online training not to mentioned various attempts made by academicians, there are still lack of information available to identify reasons users' failure in revisiting or reusing online training after their first experience [5]. Little research done to understand online training implementation from multiple perspectives of stakeholders [3, 6-11].

In the study conducted by [8] shows increment in the use of online training in Malaysia either in public or private sectors but no complete study has been made in evaluating the implementation of online training in the public sector and current studies are more focused on specific organisations or mostly in higher education institutions. E-

Pembelajaran Sektor Awam (EPSA) is an initiative of the Malaysian Government mandated to National Institute of Public Administration (INTAN) to promote online training among public sector employees. INTAN is the training provider of the public sectors department in Malaysia. This centre provides training to employees in different level of management in the public sectors. However, as of March 2012, only 10% of the employees registered for EPSATM completed the course [12] thus raising questions on the credibility of online training system provided by INTAN [13, 14].

The number of employees attending online training courses have increased tremendously while very low percentage of course completion by the employees have been reported. This raised many questions as whether the online training implementation reached its goals. Lack of understanding on what happen to the online training after its implementation and use, which can result in employees' acceptance or refusal to continue attending online training. The aim of this study is to understand arising issues on online training



implementation in Malaysian public sectors by viewing the extend of online training implementation based on multiple perspectives of stakeholders possibly by adopting the proposed model extended from existing model and the criteria of online training implementation determined through different perception of stakeholders. The understanding can be achieved through the following objectives, which are; to explore the current status of the online training implementation in the organization based on the multiple perspectives of the stakeholders, to identify the criteria of online training implementation in the organization, to develop a new framework in identifying multiple perspectives of online training implementation in the organization, and to develop a set of guidelines to be used by public sectors in online training implementation.

2. LITERATURE REVIEW

2.1 Online Training Implementation

Being in an electronic format does not ensure that training is effective and for this type of training to be effective, an online training course must be interactive and can help learners to understand the content easily. The course material and its interface should be streamlined with interactive simulations because if it does not add to the real content of the course and increase the knowledge of the trainees, then all of the interactive multimedia elements will be distracting. The technical design and format will impact how easily learners can learn such as inserting elements of good quality graphic and multimedia system with an appropriate music and sound system [9]. When designing materials for online training, designer needs to consider the constraints of the employees who have employment, family commitment, and other responsibilities, which may limit their time to learn and finish courses. If the learning system cannot be used easily and efficiently and learners have to spend much time locating information, users become easily frustrated or lose their interest in the material [11]. The self-paced flexibility of online training can also be a negative as well as a positive impact to an organization. Although employees have their own flexibility to take the training when it fits their own schedule, but some online training have sets of schedule, with duration and a start to end date or time. There is an assumption that because staff have access to training materials they

can make use of this in their own time. Such assumptions provide justification for Bandopadhyay and Kumar [15] concerns that proper materials need to be developed to ensure that online training does not unpleasantly affect employees' work-life balance. Most organisations keen to expect that online training provided to employees will be able to deliver training more efficiently. However, many arguments have been addressed with organisation intentions as to whether efficient online training that were aimed or simply cost savings matters. In some respects, many researchers found that online training providers view the need to deliver training more efficiently as almost synonymous with cost savings rather than as a matter of addressing issues of quality [2]. Nevertheless, research and evaluation of online training is still limited and does not provide indefensible evidence of its superiority over traditional educational and training delivery methods.

Kirkpatrick's Learning Theory by is designed with four levels of evaluation; reactions to the training, learning measures, behavior measures, and results (Kirkpatrick, 1998). Previous research done by Kramer [16], Moller, Foshay [17] and Ruiz, Mintzer [18] showed that Kirkpatrick's learning theory originally used to evaluate traditional learning is also applicable for evaluating e-learning programs. Each level has a cause and effect on the next, which will lead to trainee's reaction and then influences the trainee's tendency to study further and becomes learning. The learning effort will then transform trainee's behaviour to the point of improving individual and organisational results, in terms of both quality and quantity [19].

The four-level Kirkpatrick's model is tested to be appropriate for evaluating e-training [7]. Level 1 identifies how the learner personally feels about the training programme. It may include their motivation to learn, in other ways the positive reactions of attending the training programme, or the negative reactions that may discourage the training occurs [20, 21]. In the case of online training, it may identify and understand the participants' impression on the various aspects of the training programme, which may include the course offered, the content provided in the course and so on. In addition to that, this level also will help the researcher to identify the view of the online training provider on their feelings towards implementing the programmes, such as readiness of this group of people in providing the technology. Level 2 of Kirkpatrick's learning theory will be



looked at different aspects of the stakeholders. First, it will be used to identify employees' views of the knowledge and skills acquired from the online training program. Then, the understanding of the learning level will also be identified from the views of the online training providers, for instance, the methods of evaluation used in determining the level of knowledge and skills obtained by the participants of the training programmes. Level 3 is the behavior level that is frequently defined as transferring knowledge, skills, and attitudes trainees learned during the training to the working practices [20, 21], which is normally assessed through performance appraisal. This level supposed to claim that whatever changes in the employee's individual reactions to online training from the first two level are able to be identified by compiling the survey. This level focuses on evaluation attempts to measure the results of training as it directly affects an organisation as a whole. This result may be difficult to evaluate because it attempts to evaluate direct impacts of the training to the organisations, which in this case, this will affect both in traditional face-to-face or in online training programmes.

Multiple Perspective (MP) [22] is a theory of problem-solving methodology, a methodology that presents a different perspective on the relevant changes in technology, the Technical (T), the Community Organisation (O) and personal (P) perspective. Perspectives that represent the system through the lens of a different set of assumptions and values that are found in each of the different perspectives, and each offers a unique insight, which has been used to study Information Systems Quality (ISQ) [23, 24]. Therefore, the Multiple Perspectives theory is a more appropriate theory to be adapted in understanding the complex issues of online training implementation of the organisation. In this context, if equal balance of attention is needed for all the three perspectives, gross imbalances should be avoided to ensure that the technology can be used to deal with issues that are not solely technology [25].

Table 1 shows list of various criteria relevant for each context and level of Multiple Perspectives of online training implementation based on the reviewed literatures. Many of these criteria are extracted from the literature review, while others are indicated as suitable criteria based on personal observations. There are many criteria from the existing models could be applied to Level 1 and 2 of the framework. Many criteria from Level 3 mainly obtained from the studies done towards the personal perspective, who are the learners of the

online training. Meanwhile, the criteria in Level 4 mostly are fulfilled from the organizational aspect of the research. These criteria will then be compared to the criteria to be identified during the actual case study.

3. FRAMEWORK DEVELOPMENT

This study chooses to combine and extend the Kirkpatrick Learning Theory [20] and Multiple Perspectives Theory [22]. This integration results in the development of multiple perspective of online training implementation framework as the theoretical framework to conduct the empirical research for this study. The framework intends to fill the mentioned gap by looking at the implementation of the online training from various different perspectives beyond individual context within the organizations as it is also suitable to be used in studying organizational context. The understanding of the implementation is a mutual concept and therefore involves two-way process of how the technology affects and is being affected by users. Thus, the concept is being applied to the three perspectives and how they iteratively influence and are influenced by the online training implementation process.

4. METHODOLOGY

Too few studies were conducted qualitatively in studying the implementation of online training. Thus, it becomes the motivation of the researchers to seek the understanding to the phenomenon through qualitative research. This is because an online training implementation in organisation will usually raise various issues that are much more complex to be explored or measured only with quantitative methods. A profound data collection and analysis with qualitative methods would allow better understanding of the phenomenon. The researchers has chosen case study method for this study as the focus of this study is on online training implementation, which concur with statement made by Benbasat, Goldstein [26] which concluded that "the case strategy is particularly well-suited to IS research because the technology is relatively new and interest has shifted to organisational rather than technical issues". Therefore, since online training implementation and has rarely been analysed qualitatively in the literature, especially in the case of Malaysian public sectors, multiple case studies are useful to understand the process, context, and specific phenomena in this issue. This will allow the cases to be compared and contrasted in order to gain richer understanding of the phenomenon. The



variety of methods and perspectives are the means to multiple source of evidence which is one of the major strengths of case study research [26, 27]. This fits the context of this research as one of the objectives of the research is to understand the multiple perspectives of the stakeholders within the organisation and it could be achieved through the multiple methods of data collection.

This integration results in the development of multiple perspective of online training implementation framework is illustrated in Figure-1 as the conceptual framework to conduct the study. The framework intends to fill the mentioned gap by looking at the implementation of the online training from various different perspectives beyond individual context within the organizations as it is also suitable to be used in studying organizational context. The understanding of the implementation is a mutual concept and therefore involves two-way process of how the technology affects and is being affected by users. Thus, the concept is being applied to the three perspectives and how they iteratively influence and are influenced by the online training implementation process.

The chosen research design for this study comprises of semi-structured interview. The population framework consist of all employees who are involved in online training either at the ministry, department or government agency in the public sector of Malaysia. The sampling framework for this study consist of selected employees in public sector who are involved in online training either at the ministry, department or government agency at Putrajaya and Klang Valley specify training conducted by INTAN. The sample of the survey for this study will involve 20 ministries, departments or agencies who had used or currently using online training, which will involve 25 employees at the targeted ministries, departments or agencies from the top middle management level.

5. PRELIMINARY FINDINGS

The preliminary study involves set of interviews with respondents involved in providing online training at INTAN as providers or consultants that was conducted based on the interview protocol generated as illustrated in Table 2.

5.1 Interview 1

First interview was conducted with the Head of Online Training Centre, Institute I in Kuala Lumpur. This division is responsible for the managing the online training platform for employees in Malaysian Public Sectors. R1 is

responsible in ensuring each of the elements of the online training platform provided to employees in public sectors are well-managed and smoothly operated for employees' benefits. The first question asked during the interview process with R1 was "Why introduce online training?" The respond from the questions obtained from R1 was face-to-face training not may not always be practical and cost effective. According to R1, from face-to-face training, sufficient number of participants could not always be fulfilled in a specific training since many employees do not necessarily want to take that time away from the office for traditional face-to-face training, especially when the duration of the training is long. R1 also responded that the cost will be higher for outstation employees to attend face-to-face training considering they need to spend on traveling.

The interview continues with the next question on "How online training is implemented?" For this question, the researchers expects the respondents to provide responds on "How does learner's acceptance towards online training implementation identified?" Additionally, R1 also asked whether support systems available if learners have questions or something is not working correctly and lastly questions on the ways used to promote online learning to employees in Public Sectors. R1 answered that a voluntary approach is used to encourage employees to use online training. Learners can take the courses at their own time and convenience. However, employees are given guidelines on the suitable courses offered in online training suits the needs for their career development. In terms of the support given to learners during online training process, here are the responds given by R1:

"...employees can go into the learning management system, to see the course catalog and their development plans, which will automatically provide them with their learning history. It will list the history of courses that they have taken throughout their careers. They can search for different functional areas such as leadership, foreign languages, and public policies and a few more... and can take courses on flexible time either during the weekend, after working hour or during holidays where they can manage their own time to do it..."

In answering questions on how online training is promoted to the employees, R1 explains on the function of learning management system platform that is used to provide employees with one platform for scheduling, managing and online training



activities. The portal can be used to manage certification training and provide ongoing education required by Malaysian government. The next question asked to R1 is “How is implementation determined?” Along with this question, the researchers also asked follow up questions to assist the respondents to answer the main questions. The questions that came along with the main question were “How do you keep track of the learners’ progress?”; “Is the training evaluated on an individual level?” and “How do you track the connections between training and employee performance?” The respondent answered that one of the most important way to determine online training implementation is by making sure that there are no technical difficulties.

“...providing 24-hour access also helps gain acceptance by the learners...” is also another respond given by R1. When asked about the tracking measures used to track employees training and performance, R1 responded that the online training system has tracking module to track usage rate of the employees. The tracking usage report can be generated either by organisation or individual level. The report generated can provide information on which individual has taken what course at what time and how many hours they have spent and which courses are accessed most frequently. Then the respondent was asked on the respondent opinion on whether online training is more effective than face-to-face training, According to R1, online training is the most efficient way to convey and disseminate information, but not necessarily more effective than traditional training method. Sometimes, face-to-face training can be more effective for those who wants to get hands-on experience.

The researchers then asked open-ended type of question to obtain respondent’s opinion on online training implementation. The purpose is to get more personal opinion on whether the online training provided to employees is effective as well as to get some insights on problems or issues faced in measuring the implementation. R1 said,

“...I consider online training as a source for distributing information the employees...I also believe that training should be interactive...which means that content development is very important to make the implementation a success...”

The last part of the question was on the opinion on user continuance intention of online training learners. When question about difficulties encountered in identifying implementation

measurement process applied by the online training system, the respondent respond that the learners will be assessed with post-test examination upon completion of the course. However, since this online training course may be taken at any pace or duration by the learners, the result of the test may not be as good as they may forget the learning content and therefore are not able to do the test well. When asked whether retention rates are observed and whether cost are effective, here are some of the answers conveyed by R1:

“...Personally, I have seen an increase in retention rates, but we do have reports to prove the percentage of employees who completed the course...”

5.2 Interview 2

Interview number two was conducted with the Senior Training Consultant of Online Training Centre (R2), Institute I in Kuala Lumpur. R2 responsibilities are to manage technical aspects of online training implementation for employees in Malaysian Public Sectors. R2 was asked the same first question asked to R1 during the first interview, which is “Why introduce online training?” R2 answered that the main reason why online training is introduced in public sectors is almost the same as R1 responds. R2 added that online training is introduced to complement face-to-face training where learners can attend online training first to learn the fundamental part of the course then the face-to-face learning will take place after or vice versa. R2 remarked that some learners may already know so much about the topic, but some may know very little and are completely lost. For these learners, the online training is an excellent way to establish a fundamental knowledge requirement for the class.

Questions on “How online training is implemented?” was asked to R2 and along this the question, another question was also asked on how to identify learner’s acceptance towards online training implementation. According to R2, in order for online training to be accepted by the employees was by not making it compulsory for the employees but to make it all voluntary and then communicate success stories to other employees. Learners are informed that there are no strings attached and the online training is provided to give the convenience for them to improve themselves. The course developed first as voluntary participation to encourage employees to go through the experience. When the voluntary approach reached certain penetration percentage, then they started to conduct



training that is mandatory to be taken online. The respondent that added by saying:

“...the online training portal provides sufficient information to see the course offered. ...employees can choose to take any of the courses for example, if they want to take English proficiency course, they just need to enroll for the course and start learning online at their own time, since there is no course duration they need to follow to complete the course...”

After enough information obtained from the previous question, the researchers then proceeds with the next question on “How is implementation determined?” Along with this question, the researchers also asked follow up questions to assist the respondents to answer the main question. The questions were “How do you keep track of the learners’ progress?”; “Is the training evaluated on an individual level?” and “How do you track the connections between training and employee performance?” The summary of the answers provided by R2 is as follows:

“...by ensuring no problems encountered in the system especially the network connection...server must be up 24-hours per day...internet connections are fast greater bandwidth...”

Through this answer, R2 believes that implementation are achieved because most important aspect is to gain acceptance and therefore retain employees to keep using the online training system. When asked about the tracking measures used to track employees training and performance, the respond given by R2 was:

“...we have a system where it can track user progress and usage rate...example, how many time users log in to the system and be inside the online training course, how many time they access materials provided for the course...how long they spend to go through the course and etc...”

The online training system has tracking module to track usage rate of the employees that can be upon manager’s or organisation’s request. This report is an indicator or proved that the employees taking the course, and whether they have completed the course or not. R2 is expected to provide opinion in the question on “In your opinion, is online training more effective than traditional training?” According to R2, online training is more effective in some ways than traditional face-to-face training in terms of time, cost saving and information sharing. However, it will be ineffective if any of the benefits are not being properly used.

As an example, user failed to complete the course even after the freedom of time is given for them to complete the course.

“...in some situations, traditional training is more effective if you need to have trainer or instructor to assist in the learning process, especially when it involves practical aspects...”

Questions about problems raised with implementation measurement process, was answered by the respondent by saying they have a simple test, usually in an objective questions to test learners’ understanding and knowledge about the course taken. It shows that there is measurement process to identify implementation although the result may not be solid. This is the part where research can play role to improve measurement process so that online training implementation can really be measured and identified.

The last questions asked before concluding the interview were on respondent’s opinion, on learners’ continuance intention to use online training, retention rates and whether online training give return on investments in terms of cost. When asked whether retention rates are observed and whether cost are effective, here are some of the answers conveyed by R2:

“...we do have reports on number of learners who completed the course, but as to date, we do not provide report on come back learners, who came back and attend another course...but the report can be generated as per request to identify whether learners come back and continue their pending lesson ...and as for the cost benefit analysis, I am not sure since my job functions are more on the technical aspects of the online training...”

5.3 Interview 3

The third interview was held with another Training Consultant (R3) at Institute A, Kuala Lumpur. The answer given by R3 on the first question “Why introduce online training?” was pretty much the same as the other two respondents. However, R3 added up the respond by saying that using online training, the curriculum can be standardized. According to R3, traditional face-to-face training methods have a great deal of variance in the way the content is delivered. Even though the same application software such as Power Point are used, instructors will have their own experiences and will teach the curriculum differently. R3 remarked, “...generally, when you have an instructor to lead the class, he/she will spend a lot of time on what he/she knows well, which is not



necessarily achieving the main objective of the course”. With online training, the course materials can be standardized and thus will eliminate variations of curriculum content.

Then R3 was asked on online training implementation in agency A. The question on “How online training is implemented?” Not much inputs obtained from R3 since the respondent is knowledge and experience in online training is relatively new. However, the respondent managed to give some useful inputs for the questions. According to R3, online training is provided for free for all employees in Malaysian public sector and that is one of the main important reason to encourage employees to enroll for online training course. The course provided also is not made compulsory for the employees. That means they can attend the course whenever and wherever they want to.

After enough information obtained from the previous question, the researchers then proceeds with the next question on “How is implementation determined?” The question then be divided into sub questions which will help the respondents to answer the questions all at once, if needed. These sub questions were asked together with the main questions but maybe repeated on respondent’s request. The sub questions were “How do you keep track of the learners’ progress?”; “Is the training evaluated on an individual level?” and “How do you track the connections between training and employee performance?”

As mentioned earlier, respondent’s knowledge is not as much as the other earlier respondents considering the number of year R3 serves the agency. However, here are the summary of the answers provided by R3 is as follows:

“...make sure system is up and running all the time so that the participants of online training will not complaint on the network connection when they need to log on to the online training system...”

Through this answer, R3 believes that implementation are achieved because most important aspect is to gain acceptance and therefore retain employees to keep using the online training system. When asked about the tracking measures used to track employees training and performance, the respond given by R3 was:

“...tracking system is available but not accessible by everybody. Mostly this tracking system will generate report that can be used by managers in the organization to identify employees

progress in their online training course...how long they spend to go through the course and etc.. and through this tracking system, we are able to improve learning programs through lesson learned from the existing programs...”

The next questions asked to R3 respondent were on an opinion basis. R3 is expected to provide opinion in the question on “In your opinion, is online training more effective than traditional training?” The respond by R3 is as follows:

“...personally, I would prefer traditional in-class training because from there, I will be able to get many benefits...which are, trainer-led instruction, print-out materials, more 2-way training communication that this cannot be done in online training. So, my opinion is traditional training is more effective than online training... where I can directly ask question for further understanding on the course...”

R3 also added that in order to attend an online training course, computers with Internet connection must be present. If the employees are given freedom of doing the training at their own place and time, it will be difficult for those who does not have these equipment, which will bring another issue of cost to be spent for purchasing the equipment. Questions about problems raised with implementation measurement process, was answered by the respondent by saying they do have a post-assessment test to test learners’ knowledge and understanding of the course, but R3 does not sure how the result of the test will be able to assist in identifying online training implementation.

For the last part of the question on learners’ continuance intention to use online training, retention rates and whether online training give return on investments in terms of cost, the respond is very much like R2 responses where the reports are available to track usage rate, course completion rate and course pending rate, and when asked whether online training give cost-benefit return, R3 mentioned that it is not part of the duty to determine this analysis.

5.4 Summary of Interviews

The major perception of online training implementation based on all the three respondents was that online training is effective, with few drawbacks. Online training is considered as a source for providing training to improve knowledge and skills of the employees with a condition that the content of the training is interactive and easy to understand. It is also a convenient way to train



multilevel employees for consistent training content. Another important reason that the respondents conveyed during the interview were the time convenience that online training gives to employees to complete training. The training materials are available online which makes it accessible to be downloaded whenever necessary. All the participants interviewed sharing mixed responses on perceptions and acceptance of online training in the organization. However, all respondents agreed that the online training platform does provide good benefit in the training environment because the availability of the platform to be access at any time and place. The analysis of interviews in the case studies showed the technical perspectives of the stakeholders on online training. The respondents seem to share the same believe of the implementation of online training. This is due to their understanding, knowledge and exposure towards the technology.

Online training implementation criteria identified from the literatures as shown in Table 3 are used to code the response from the preliminary interviews and transcription of data during from the survey. Apart from the existing criteria, the researchers also found that there are other emerging criteria during the preliminary case study which considered relevant to be included in the framework. The criteria highlighted in bold are the existing criteria from the literatures, while the rest of the criteria are the one emerging during the preliminary case study. Based on the criteria derived from the interviews, more in depth studies need to be conducted to ensure that the new criteria can be a contribution to this study, in which will help the researchers in understanding online training implementation among employees in Malaysian public sectors.

6. CONCLUSION

The preliminary findings from the case studies showed that the criteria are applicable with the mentioned criteria in the literature review. Thus, the preliminary criteria are suitable to be mapped into the conceptual framework which has been developed based on the existing theories. The preliminary studies also revealed that there are various perspectives of online training implementation that are able to be captured by the proposed framework. Besides, the experience from the preliminary case studies has guide to revise the methodological issues. This is to ensure a better data collection and analysis can be done during the actual case study. After the preliminary case study,

the researchers identify the need to gather more information from the organization from INTAN as there are emerging issues which require further explanation and validation. Then, the research will proceed with the real case study in the selected public sectors organization.

REFERENCES:

- [1] Boscai, B., D. Danaiata, and D. Abrudan, *E-Training for Entrepreneurship Development in Higher Education Institutions*. Annals of Eftimie Murgu University Resita, Fascicle II, Economic Studies, 2012: p. 371-377.
- [2] Newton, R. and N. Doonga, *Corporate e-learning: Justification for implementation and evaluation of benefits. A study examining the views of training managers and training providers*. Education for Information, 2007. **25**(2): p. 111-130.
- [3] Ramayah, T., N.H. Ahmad, and T.S. Hong, *An Assessment of E-training Effectiveness in Multinational Companies in Malaysia*. Educational Technology & Society, 2012. **15**(2): p. 125-137.
- [4] Hashim, J., *Factors influencing the acceptance of web-based training in Malaysia: applying the technology acceptance model*. International Journal of Training and Development, 2008. **12**(4): p. 253-264.
- [5] Agariya, A.K. and D. Singh, *e-Learning quality: Scale development and validation in Indian context*. Knowledge Management & E-Learning: An International Journal (KM&EL), 2013. **4**(4): p. 500-517.
- [6] George, A., et al., *Assessment of E-Learning Methods in Public Administration. The Case of The Greek National School of Public Administration and Local Government*. International Journal of Human Resource Management, 2013.
- [7] Lanqin, Z., H. Ronghuai, and Y. Junhui. *Evaluation of the Effectiveness of E-Training: A Case Study on In-Service Teachers' Training*. in *Advanced Learning Technologies (ICALT), 2013 IEEE 13th International Conference on*. 2013.
- [8] Yunus, Y. and J. Salim. *Framework for the evaluation of e-learning in Malaysian public sector from the pedagogical perspective*. in *2008 International Symposium on Information Technology*. 2008. Place of Publication: Piscataway, NJ, USA; Kuala Lumpur, Malaysia. Country of Publication: USA.: IEEE.



- [9] Lim, H., S.-G. Lee, and K. Nam, *Validating E-learning factors affecting training effectiveness*. International Journal of Information Management, 2007. **27**(1): p. 22-35.
- [10] Long, L.K., C.Z. DuBois, and R.H. Faley, *Online training: The value of capturing trainee reactions*. Journal of Workplace Learning, 2008. **20**(1): p. 21-37.
- [11] Park, J.-H. and T. Wentling, *Factors associated with transfer of training in workplace e-learning*. Journal of Workplace Learning, 2007. **19**(5): p. 311-329.
- [12] EPSA. *e-Pembelajaran Sektor Awam*. 2013 June 20, 2014]; Available from: <http://www.epsa.gov.my/>.
- [13] INTAN, *Kajian Penerimaan Pembelajaran Terhadap e-Pembelajaran Sektor Awam (EPSA) di Kalangan Kakitangan Awam Malaysia*. 2010, Institut Tadbiran Awam Negara.
- [14] Saad, M.K.F., *Sistem E-Pembelajaran Sektor Awam @ EPSA* INTAN, Editor. 2012: Bukit Kiara.
- [15] Bhandopadhyay, T. and P. Kumar. *Corporate e-learning: effects on the work-life balance and quality of life of employees*. in *Proceedings of the IASTED Conference on Web Based Education*. 2005.
- [16] Kramer, H., *Measuring the effect of e-learning on job performance*. 2007, Nova Southeastern University: Ann Arbor. p. 148-n/a. [17] J.B. Ekanayake and N. Jenkins, "A Three-Level Advanced Static VAR Compensator", *IEEE Transactions on Power Systems*, Vol. 11, No. 1, January 1996, pp. 540-545.
- [17] Moller, L., W.R. Foshay, and J. Huett, *Implications for Instructional Design on the Potential of the Web*. TechTrends, 2008. **52**(4): p. 67.
- [18] Ruiz, J.G., M.J. Mintzer, and R.M. Leipzig, *The impact of e-learning in medical education*. Academic medicine, 2006. **81**(3): p. 207-212.
- [19] Giangreco, A., A. Sebastiano, and R. Peccei, *Trainees' reactions to training: an analysis of the factors affecting overall satisfaction with training*. The international journal of human resource management, 2009. **20**(1): p. 96-111.
- [20] Kirkpatrick, D., *Evaluating Training Programs.: The Four Levels*. 1998: Berrett-Koehler Store.
- [21] Kirkpatrick, D.L., *Techniques for evaluating training programs*. Classic writings on instructional technology, 1996. **1**(192): p. 119.
- [22] Linstone, H.A., *Multiple perspectives: concept, applications, and user guidelines*. Systems practice, 1989. **2**(3): p. 307-331.
- [23] Alias, R.A. and T. Wood-Harper. *Multiple Perspectives of Information Systems Quality: Case Study of Malaysian University*. in *Malaysian Science and Technology Congress*. 1997.
- [24] Vidgen, R., T. Wood-Harper, and R. Wood, *A soft systems approach to information systems quality*. Scandinavian
- [25] Linstone, H.A., *Decision Making for Technology Executives: Using Multiple Perspectives to Improve Performance*. Artech House, Norwood, MA, 1999.
- [26] Benbasat, I., D.K. Goldstein, and M. Mead, *The case research strategy in studies of information systems*. MIS quarterly, 1987: p. 369-386.
- [27] Yin, R.K., *Case study research: Design and methods*. Vol. 5. 2009: Sage.

Table-1. Criteria from Multiple Perspectives along the Kirkpatrick's Learning Theory

Perspective	Level 1	Level 2	Level 3	Level 4
	Reaction	Learning	Behavior	Result
Technical	<ul style="list-style-type: none"> Standardized course materials (Strother, 2002) Provide effective training plan & design (Giangreco et al., 2009) 	<ul style="list-style-type: none"> Assessment test (Derouin et al., 2005; Steensma & Groeneveld, 2010; Strother, 2002; Tan et al., 2003) Tracking measures to track employees performance (Strother, 2002) 	<ul style="list-style-type: none"> Achieve mission and objectives (Tan et al., 2003) 	<ul style="list-style-type: none"> Increase employees satisfaction (Praslova, 2010)
Organisational	<ul style="list-style-type: none"> Management support (Luor et al., 2009) Provide courses to be offered (Luor et al., 2009) 	<ul style="list-style-type: none"> Feedback survey (Ozturan & Kutlu, 2010) 	<ul style="list-style-type: none"> Increased employees productivity (Strother, 2002) 	<ul style="list-style-type: none"> Increase job performance (Derouin et al., 2005; Lee & Pershing, 2000; Ozturan & Kutlu, 2010; Strother, 2002) Reduce employees turnover (Ozturan & Kutlu, 2010; Steensma & Groeneveld, 2010; Strother, 2002) Reduce cost (Derouin et al., 2005; Ozturan & Kutlu, 2010; Strother, 2002)
Personal	<ul style="list-style-type: none"> Motivation to learn (Tan et al., 2003) Cost effective (Derouin et al., 2005; Tan et al., 2003) Unsuitable for hands on training (Derouin et al., 2005) Freedom of time and convenience (Derouin et al., 2005) No course duration 	<ul style="list-style-type: none"> Employees attitude (Ozturan & Kutlu, 2010) 	<ul style="list-style-type: none"> New skills and knowledge acquired (Lee & Pershing, 2000) Fulfill KPIs (Tan et al., 2003) Self development (Strother, 2002) 	<ul style="list-style-type: none"> Improve employee loyalty (Ozturan & Kutlu, 2010; Praslova, 2010; Steensma & Groeneveld, 2010)

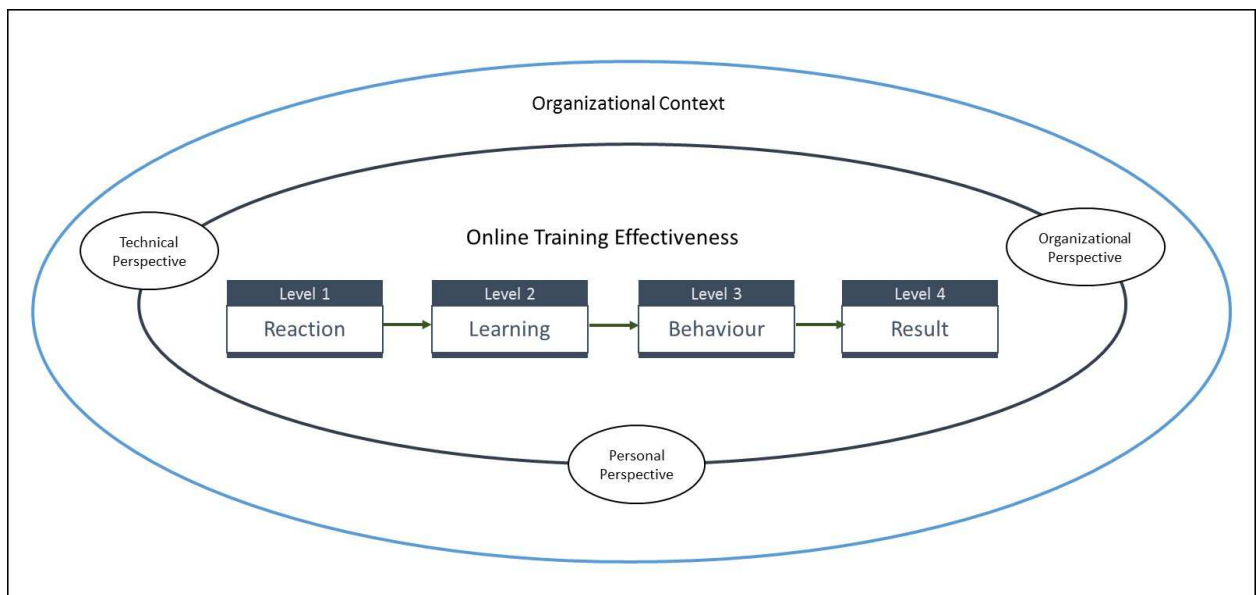


Figure-1. Conceptual Framework on Multiple Perspectives of Online Training Implementation in Malaysian Public Sector



Table-2. Details of respondents for preliminary study interview

Respondent	Designation	Working Experience	No. of interview
R1	Head of Online Training Centre	20 years	1
R2	Senior Training Consultant, Online Training Centre	16 years	1
R3	Training Consultant, Online Training Centre	4 years	1

Table-3. Positioning Criteria (Kirkpatrick Learning Theory & Multiple Perspective Theory) to the Framework

Perspective	Level 1	Level 2	Level 3	Level 4
	Reaction	Learning	Behavior	Result
<i>Technical</i>	<ul style="list-style-type: none"> Minimal participants required Provide effective training plan & design Standardized course materials 	<ul style="list-style-type: none"> Assessment test 24-hour access to system Tracking measures to track usage rate 	<ul style="list-style-type: none"> Achieve mission and objectives 	<ul style="list-style-type: none"> Increase employees satisfaction Low number of course completed by learners
<i>Organisational</i>	<ul style="list-style-type: none"> Management support Provide courses to be offered 	<ul style="list-style-type: none"> Feedback survey 	<ul style="list-style-type: none"> Increased employees productivity 	<ul style="list-style-type: none"> Increase job performance No reports on comeback learners No solid result Outdated knowledge
<i>Personal</i>	<ul style="list-style-type: none"> Motivation to learn Cost effective Unsuitable for hands on training No course duration 	<ul style="list-style-type: none"> Employees attitude 	<ul style="list-style-type: none"> Fulfill KPIs Self development 	<ul style="list-style-type: none"> Forget learning content due to freedom of time