Assessing Active Participation in Evaluation Phase of ADDIE Model in Massive Open Online Courses

Fairus Hamdan, Norazah Nordin, Fariza Khalid, Helmi Norman, Hafiz Zaini, Ruslina Ibrahim

Faculty of Education, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia
Corresponding Author Email: mhz@ukm.edu.my

Abstract
Online learning has motivated by the need to enhance the accessible the quality education especially by employees who further their study in the higher learning program. This article focuses on evaluating the active participation of the online training based on the elements of Kirkpatrick training evaluation model that posits a relationship between the elements of satisfaction, learning, behavior, and impact. Data in Evaluation phase of the fourth ADDIE model phase; presented through the engagement measurement, intrinsic levels of effectiveness together with sample testimonies from the participants using focus group reflection were presented. Our finding provides the evidence that online training has a positive reaction lead on satisfaction towards the training where participant benefited the animated & recording video and also the aspect of the user-friendly platform. Participant seems having a positive behavioral change towards the online training due to gaining new knowledge that can apply in their daily working activity. Study also suggest the percentage of completion for reporting. Result considered being useful to measure the active participant engagement within the online employees training context via Massive Open Online Courses (MOOC).
Keywords: Online Training Platform, Kirkpatric Model, Short Term Evaluation

Introduction
The rapidly expanding online education innovation has transformed the current landscape of teaching and learning into a more efficient online learning environment. This online technology development impacts the education and training practices in developing professionalism for the working group (Calvo et al., 2019; Canou et al., 2017; Nor Hafizah & Ritshaupt, 2018). The need to empower individuals and the development of an organization through online training in the corporate and commercial sectors is often addressed today. Hence, the need to increase the level of competence and skills of the employees in finance managerial incorporate is important (Authur et al., 2003; Ramdhani et al., 2017; Abdul Rahim

et al., 2016; Knight, 2017; Carruci & Hansen, 2014). The failure of respective employees especially in executive level in conducting the task was a negative impact of their achievement in their tertiary education i.e. in college or university level. The weaknesses in financial management are the major causes of organizational failures if not managed strategically (Altman et al., 2019; Shaista & Nabila, 2019). One of the impacts of poor financial management practices among executives resulted on their achievement in finance courses or subject (Solsma et al., 2018; Grover et al., 2011; Merriot et al., 2015; Cornally, 2013; Carruci, 2017).

Poor achievement in the financial subject not only experienced by the majority students in developed countries especially in Malaysia (Zuaini et al., 2008; Pitt Kuan, 2014; Faoziah et al., 2017; Hamdan et al., 2019) but this also experienced by students in the United Kingdom (Marriott et al., 2015) and in the United States (Grover et al., 2011). This subject requires students to have some abstract and complex mathematical skills (Marriott et al., 2015). Unfortunately, the majority of the respective students merely failed to have it. As a result, the low achievement rate was increased. In improvising the ability of abstraction skill issue and motivation of the students towards the subject, a study on developing the online learning environment via MOOC was conducted. With the understanding that there is limited learning design can be suggested as an optimal to improve the obstacle, thus this study was conducted to suggest the online training design, even though there was research that positively impacted either in the lesson conducted wih-in a traditional instructional design (Vihtelic, 1996; Rahmah et al., 2012), or using the education-based technology (Merriot et al., 2015; Grover et al., 2011). The debating issue of engagement still in the area of the study with unclear guidance to the design of the engagement in online learning or training. In addressing this gap, a further study on a concept suggested by Kirkpatrick training evaluation model was conducted as a basis for assessing the engagement of employees in online training design via a MOOC.

Background

The Kirkpatrick evaluation model is an established model for evaluating the effectiveness of human resource program development. The model suggests explaining the condition of the educational and training program based on the perspective of the level of reaction, learning, behaviour, and result (Kirkpatrick, 1994). The model also can be used as a basis to measure the engagement in online training environment. The application of evaluation level from the Kirkpatrick model has been shown to lead to increasing the effectiveness of developed training evaluation (Wang & Chang, 2019; Paull et al., 2016; Baecher & Kung, 2014). However, minimal work has yet to be done in applying the model to the design for the short-term evaluation of active participation in online training via MOOC.

In this article, we offer an angel of how the application of these four levels of evaluation by Kirkpatrick training evaluation model that maybe benefited to learning designer. The evaluation phase of fourth's ADDIE was applied in MOOC design is described and assessed through the design, development, implementation, and evaluation of online training in the subject of basic managerial finance. With the title 'Managerial Finance for Executive: for finance and non-finance personnel'. The Kirkpatrick training evaluation model was chosen because the aspects of the model have a focus on the effectiveness of the training in meeting the internal of individual self-congruent in the self-pace learning environment. With the

assumption, the person who enrolled for MOOC has a minimum interest in engaging the learning process, and therefore the online training developer tries to foster the motivated engagement in an online learning environment.

Kirkpatrick evaluation training model has been applied in a wide range of educational context for assessing the level of training effectiveness. Several past researchers had conducted research on measuring the effectiveness of simulation education programme in workplace (Holtschneider & Park, 2019), assessing the student learning outcome (Wang & Chang, 2019), designing professional development program (Hopkins et al., 2018), effectiveness of an online information literacy class (Paull et al., 2016), and assessing the effectiveness of designed online training in collaboration between institutions (Calvo et al., 2019).

In the context of online employees learning environment, Chen & Kao (2012) investigated employee training to enhance employees' performance in the organization. The study statistically shows that the factors affecting the employees' reaction were associated with learning motivational, perceived usefulness, quality of the system and information that lead to user satisfaction to enhance their performance. They concluded that the e-learning has the potential to stimulus approach in kindling learner in acquiring the respective knowledge and skills. While, in the investigation on the effectiveness of professional development trajectory for educator, Peerear & Petegem (2012) noted that the learner among the educator was satisfied on e-learning especially in learning something new with attractive and reflective platform in developing knowledge. The successful aspect came from the professional culture nurturing in the virtual environment facilitate them to actively participate and fostering them to involve their colleagues in e-learning platform to experience the quality input from the expert and specialist.

The second factor of the Kirkpatrick evaluation-training model is measuring the level of learning. This factor measuring the level to which participants have acquired in the intended knowledge, skills, expertise, attitude or mindset based on their engagement in the training. In the context of assessing the acceptance of massive open online courses as a training platform, Sinclair et al., (2015) indicate that the process of knowledge transfer through online massive platform was self-pace which give a convenient to the learner who cannot handle with fast learning. Thus, Ayub et al., (2017) denoted that the benefit of fun learning with participating with activities and exercise given by reflecting and watching videos that enhance their knowledge. Unfortunately, the learner guidance is essential to ensure the learning process smoothly followed by the learner especially for those who are not technology savvy. Recently, while highlighted the challenge of teaching the subject that needs the to apply abstract skill, Rahimi et al., (2018) found that the changes of delivering style with giving the concrete example followed with teaching the abstract are the suggested strategy of teaching in fun-learning activities.

The most highlighted changes in the Kirkpatrick evaluation-training model is behavior. In the recent study, Gandomkar (2018) indicated that the changes in behavior included that process to enable the employees to hinder the application of learned knowledge or skill. Hammond (1999) stated that among the aspect that can be measured on the changes of behavior is based on learner confidence and commitment to apply the knowledge or skill gain from the training. The vast body of past study on professional development has demonstrated that,

when this behavior factor is satisfied, the list of positive functional outcomes such enhance the performance, motivation, self-regulated on performing task and reduction of anxiety towards the subject.

Methodology
The Kirkpatrick evaluation model proposes four measure the level of effectiveness, which consist *reaction* level that measures on satisfaction and usability of participants on the training, *learning* level that measure training activities enhance knowledge and skills, *behavioural* level that measure of applying the knowledge and skills and result factor measuring the *impact* towards individual, society or organization has taken into the consideration in design phase.

Firstly, the model measures the respondents' perspective on the training is considered effective when the process of training meets the participant's reactions that lead to satisfaction. Thus, we propose MOOC evaluation of active participation phase was designed for satisfied reaction by creating the conducive learning environment covering the delivery strategies used by training developers and facilitators through design from the study of Fischer (2016); Muslimin et al., (2018); Paull et al., (2016); Baecher & Kung, (2014) that:

- Platform is friendly to not savvy technology learner
- Newly develop or/and reuse social media, videos, and multimedia
- Allow self-pace learning
- Provide positive and constructive facilitator

Secondly, evaluation phase was designed based on the learning aspect. The design features support the learner to develop an understanding of the subject and mastering the application. Thus, we proposed the learning design features as suggested by Norazah et al., (2015), Meldovan (2016); Bauer et al., (2018); Elke Lackner et al., (2014); Raposo-Rivas et al., (2015) that consist of:

- Provide learning objective to be achieved
- Provide content and activity meet the standard
- Offer the conducive engagement environment
- Gives the assessment that needs to be done

Thirdly, the evaluation phase was designed to measure the behavior; develops through the understanding that online training may change the learner ability to apply the knowledge and skills. The measurement differs from the first and second by measuring the level of learner confidence and commitment to apply the knowledge and skills gained. Thus, we proposed that the online training design in fostering the changes of behavior from the study of Hammond (1999); Gandomkar (2018) and Chiu & Hew (2018) that:

- Provide the environment that learner confidence developed, and
- Provide the platform that encourages the learner to commit to applying with respective knowledge and skills

Finally, the evaluation phase was design based on result aspect - measuring the level of impact on respondent, community or organization. Thus, we proposed that the online training design in result consideration from the study of Kourieos (2016); Baecher & Kung (2014); and Kirkpatrik (2016) that online training:

- Platform of training complies the normal practice
- Strategically learn through connecting
- The platform provides the engagement evidence for evaluation

The respective aspects are not new for learning designer, unfortunately, the unique design suggests the original contribution on how we relate the principles for universal learner and how this study applies the respective principles to meet the levels of effectiveness within the open online training and learning environment.

Reaction (Usability & Satisfaction)
The aim of open online training was to facilitate the learner in emergence connectives learning environment. The training to help participants develop a basic understanding of managerial finance knowledge and skill. Features of reaction to assess participants' usability and satisfaction created the optimal open online training for finance course were as follows:

The online platform is friendly to not savvy technology learner
The information about the course and user guidance was essential for the learner who has low technology competency. The learning needs has made them shift their digital literacy grows and expecting more interactive platform up to meet their desire for the borderless classroom. Even though the learner over the past decade has exponential increase towards technology savvy, but the minimum number used their technology device for educational purposes due to interest and policies regulated (Pettersson, 2018; McGarr & McDonagh, 2019; Hanell, 2018). In the context of digital competence of educator towards MOOC, Ramírez-Montoya, et al., (2017) underlined that the thread of the incompetence in the virtual environment due to learners' not mastering with ICT, lack of commitment, and platform not properly informed what should participant to do in the MOOC course.
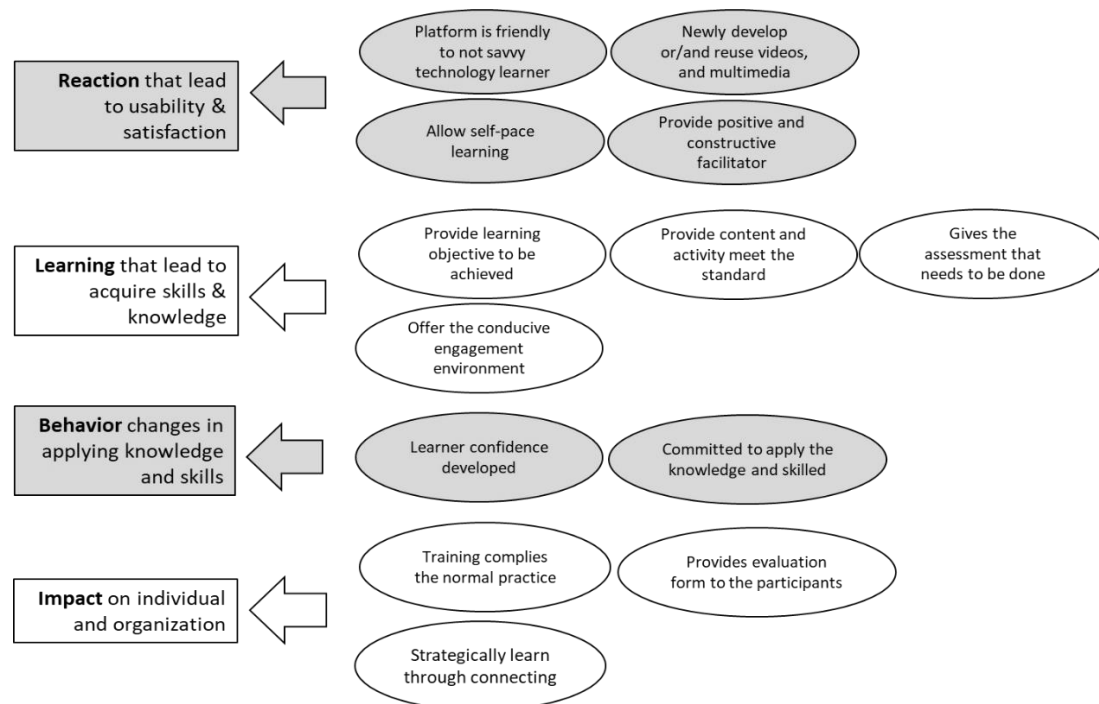
Figure 1. Proposed evaluation phase framework-based Kirkpatrick Training Evaluation Model for online training via MOOC

Newly develop or/and reuse social media, videos, and multimedia
In a study of reusable learning object for meaningful learning, Koh (2017) had defined that to produce the learning material as adaptable, reusable, accessible and exchangeable of information which subjects to cost-saving. The idea of reuse learning material is to avoid the development of redundant learning material activities that lead to saving the time, technical and financial (Grunwald & Reddy, 2007). The features of accessibility and reusability of the learning material are the main ideas that promote single learning object may be used in a different or multiple context of a lesson as an outcome to a new learning environment (Rufer, 2013). Several studies focus on reusable activities such as the study by Chenail (2008) using existing online video in Youtube as learning material. The existing learning material should be validated against the standard and learning objective that suited with virtual learning environment (Jesse, 2013). In this study, the newly develop video-based animated and talking-head-video based existing Youtube video was utilized to optimize the learning activities process. Illustrated in Figure 2 provide the screenshot of an example topic regarding the topic in basic finance. It is shown that learner is provided with a brief explanation regarding the topic, include with animation-video and dialogue text that requires learners to develop understanding via concrete examples activity through video prior to developing the understanding on the concept of the topic. The traditional teaching approach enhances through online technology media improvise the application of the abstract and mathematical skill. To complete the task, the learner needs to answer the connectives-based-instruction given and reflect on the forum platform.

Figure 2. Example video assisting the self-pace learning process that scaffold the abstract and complex mathematical skills in topic of *Time Value of Money: Net Present Value*

Allow self-pace learning with intensive active participation
The course was open for the unlimited duration with the suggestion of intensive active participation in first 4-weeks especially for the employees who are willing to have knowledge of basic financial management. The suggested intensive active participation was advised for suggested time is to increase active participation and reduce the risk of lack of motivation that leads to the withdrawal. This online training was design with no time-restricted activities that promote flexibility to the learner personal time. With the targeted of most employees who pursuing the undergraduate program, learners are offered with an educational video on selected finance topic. Through the development of basic understanding on subject matters, students are required to participate by watching the videos, compute some finance mathematical problem, they need to upload related material, criticize, and critically comments on the topics.

Provide positive and constructive facilitator
The supportive online facilitator is necessary for effective online education and training environment. This will lead to positive learning outcome by facilitator lead the connection or relationship with the participant. In considering the participant among the employees cum undergraduate students who are enrolled for virtual learning on managerial finance, this online learning development must take highly consideration on active facilitation especially in mitigate the issue of low active participation in MOOC. Figure 3 suggests the facilitator explanation on learner role as consider active participation in an online learning environment.

Figure 3. Example of learner role explained by the facilitator

Learning (acquire knowledge & skills)
The idea to have quality education among global society is to ensure equitable and inclusive a standard knowledge and skills that promote lifelong learning through massive enrolment platform (Nordin et al., 2018). This online training enhances the learning process to reduce abstract issues in teaching and learning of finance subject (Marriot et al., 2015; Grover et al., 2009; Hamdan et al., 2019). The second aspects of Kirkpatrick Training Evaluation Model suggest to measure the 'learning aspect' in virtual learning environment that offered an online learning experience in training and re-training the employees to mastery the principles of managerial finance. Then we compile the explanation as the following:

Provide Learning Objective
In addressing the issue low of online retention rate and active participation, the clear learning objective should encompass. This will help the learner to focus on what knowledge or skills to be developed. The learning objective for this online training serves as a guideline for the material, content and sets the behavior is to be changed at the end of the course. The contents were managed accordance to learning objectives ease the systematic learning inaccessible way, supports with instruction from start until the end of receiving the e-certificate.

Provide Standard Learning Content and Activities
The requisite of instructional shift for a virtual learner is to have the standard learning material and constructive activities (Yang 2004). In this study, standard learning content about the outcome that the online learning developer considers valuable to the participant to exhibit in their learning or career. The standard content was based on the basic managerial finance topics proposed by Gitman et al., (2015). Thus, it is essential to provide content and activities in an organized and meaningful approach. The content should enable online training developer to tailor their instruction to fit participant need of diverse learners. Through this our facilitator may guide the selected content and activities by clarifying the goals of

instruction; where students are required to actively participate in learning process including watching educational videos, explore, articulate and reflect on the respective topic discussed.

Provide Assessment Task
The asynchronous online discussion via MOOC forum platform is to be tailored with the approach of assessment as learning in enhancing participant understanding towards basic finance. The assessment as learning requires students to exercise self-pace learning (Earl & Katz, 2006; Khan & Khan, 2019). Students are encouraged to monitor their learning process, to ask and online surfing for develop understanding and creatively use a wide range of strategies in deciding what they have to know and to do, and benefited assessment information for gain new knowledge and skills. This online training designed to encourage students to respond to their learning process. They need to ask question and answer that lead to creating the formal and informal learning environment in helping them understand the respective topic. They are encouraged to reflect on the forums in exercise the assessment as a learning approach.

Offer the Conducive Learning Environment for Engagement
Conducive environment via an online platform is through a reflective environment that supports teaching and learning activities. Enhancing the understanding of certain issue or knowledge within the discussion forum seen has embarked a new dimension of the learning process (Seethamraju, 2014). MOOC platform offers open asynchronous discussion activities in developing participant understanding and knowledge as it leads from students participating in the online learning environment (Chui & Hew, 2018). The course designer can develop instruction on how reflective activity should be conducted. Active engagement in this online training occurs through reflective activities occur by requested the students to reflect on past learning experience towards present implication and let reflection guide future action and activities. Through critical reflection, participants can construct and ratify the meaningful learning through sustained reflective activities in a massive community in the learning environment.

Behavior (applying knowledge and skills)
The scene setting of online training is to help the trainee to reach the expected behavior change by paying due attention to the design content. The design content of the training is to focus on developing confidence toward the finance topics and their commitment to applying the lesson gains.

Learner Confidence Develop
In developing the confidence on the issues of why finance does is so hard to the learners requires a proper pedagogical design. In discussing the issue Carrick (2018) has mentioned that the poor achievement on managing the finance is due to financial management is a kind compact, turgid, and complex that need a readable and analyzing skills on financial literacy. The inability to communicate the plain language with hard-to-understand the jargon terms, lack of experience, complex-lead-confusing worsen the situation. Thus, this study will benefit the educational video approach i.e. animation or recording to visualize the merely actual lead scenario in applying the finance decision-making in improving motivation that leads to developing the learner's confidence. The design must incorporate online media in improving the traditional teaching approach. In effect, the learners were developed basic understanding

through actively watching and reflecting before they may further to the more complex situation in respective finance topics. Furthermore, it is hypothesized that anxiety may reduce on finance subject after actively participating in the proper pedagogical training design by watching the video and animated digital, reading the material, and critically reflecting on the forum. These seem to increase the intrinsic motivational aspect that leads to confidence development in this learning context after.

Design for Learner Committed in Apply the Knowledge
Designing to make people aware that they need to apply the skills and knowledge gain. Using the real example in the video. The approach of animated digital or talking head recording to be used in delivering the finance topics, but it is important to this online training to use as many real financial local context example and situational experience as possible (Huang et al., 2015). These basic explanations on several topics of finance may lead them to deeper learning in corporate finance and will commit to applying in their learning process or preparing financial decision-making process.

Figure 4. Eliminate the anxiety on finance topic with actively watching the educational video by non-finance personnel

Impact (towards individual and organization)
Measuring after the training session is important to ensure there is a positive change in the performance of the trainee that lead to positive impact to the organization or the community as the result of the completed the online training. Underlying structures in designing to meet the impact for this online finance course were as follows:

Complies with normal practice
It is important to integrate various learning in managerial finance that aligns with normal practice, this online training has been adapting the topics that many antecedents in the course and proven effective for giving basic understanding in managerial of finance. For some specific features, the design needs the learner to pay attention to the learning objectives that will lead the learner to demonstrate the concept and technique in financial decision-making.

Provide the engagement evidence for evaluation
The reflection in an online training forum platform will assist facilitator to assess the learner either their reflection is critical enough that show that they are understood on the topic discussed. The reflection will act as evidence for facilitator evaluates their learning performance. Learners need to critically reflect after watching the educational video, read the downloadable material or sharing an external source of understanding pertaining topics. The online training allows students to practice correlated to the video and received the auto-generated completed result of participation. Leaner will be evaluated based on their answer, either it will help others who trailing the reflection for understanding. Thus, the facilitator needs to guide how to 'like', 'share' or 'reflect' that lead increase their kudos value. This value will be as evidence for the facilitator evaluation process. The auto-generated with the active participation criteria through watching educational videos, download and upload related material, and reflect on the forum (alDahdouh et al., 2015; Kop 2011; Kourieos 2016) were auto measured in the platform.

Strategically learn through connecting
This study needs to measure that the developed online training is strategical could be used for scaffolding the employees through the learning method suggested. Learners in a virtual learning environment are encouraged to develop understanding and skills through various learning activities approach such as cooperative with-in the team members, collaborate with other teams from different department or organization, and by connecting materials, computers or people in the world of Internet (Norman et al., 2018). But, for this research, we only focus on measuring the connectives approaches that improve the learning process. In applying the assessment as learning in self-pace learning mode, this study sees the connective approach is suitable as a learning tool for employees.

Enrolment
The developed online training was open to the public for the enrolment. An aggressive promotion to use MOOC was conducted to the students who were pursuing the degree of business and administration in a public university in Malaysia. The total of 134 participants were enrolled and they are needed to be actively participate the learning activities by watching the educational videos, performing the social learning activities such as – share the learning material, upload or download the learning materials, commenting, like on that relate to the respective finance topic. The completion rate will be auto-grading by the MOOC

platform i.e. Openlearning.com; that requires participants to perform all stated action that considered as active participation.

Finding

The study's focus is to suggest a preliminary finding from the proposed evaluation framework. Besides, this MOOC offers the connective learning environment in developing the knowledge and skills in basic managerial finance. The learner perspectives through the survey were measured in term of their active participation. These acts of learner are associated with the design but cannot necessarily be the attribute to it. We present the data to supports our study that may elaborate on the suggested factors underlying in the framework.

Result from participation

At the official closure of the online training, a total of 134 participants had registered and 77 students were willing to participate with the survey on the online training via MOOC. A demographic survey is summarized in Table 1.

Table 1
Online Training via MOOC Participant Profile (N=134)

Source	Group	N	%
Gender	Male	40	29.9
	Female	94	70.1
Learner Category	Non-Finance Learner	92	68.7
	Finance Learner	37	27.6
	Facilitator	5	3.7

Non-finance learner in Table 1 is considered as a participant who doesn't have basic or past knowledge in finance subject. They might come from HR Department, or Operational Dept. or those are taking the paper as an elective course to fulfil the requirement of the degree. Whilst, the finance learner is considered as a participant who are has an experience and knowledge in managerial finance. They could be experienced from previous class in diploma or working life.

Table 2 provides data of progress data by presenting the percentage of student's completion rate. The 134 participants were enrolled for the training with 5-research team members were facilitate the course and conduct research activities. The course representing the completion of the rate of 70.63% and the computational completion rate was based on the percentage of completion rate derived from Table 2.

Table 2
Course Participation Progress by Percentage of Completion

Expected % of student's completion	MOOC Page	Actual % of students completed
100%	*Overview on Finance*	50%
100%	*Course Feed*	3%
100%	*Let we know you*	5%

100%	*Introduction*	90%
100%	*Course Objective*	90%
100%	*Time Value of Money*	89%
100%	*Net Present Value*	82%
100%	*Net Future Value*	84%
100%	*Annuity*	85%
100%	*Financial Table*	83%
100%	*How to get the best EIR*	83%
100%	*Capital Budgeting*	84%
100%	*Balance Sheet*	0%
100%	*Profitability Ratio*	84%
100%	*Cash Flow Statement*	80%
100%	*Liquidity Ratio*	84%
100%	*Activity Ratio*	84%
100%	*Debt Ratio*	84%
100%	*Profit and Loss*	84%
100%	*MOOC Evaluation*	85%
2000%	**Total**	**1413%**

The use of formula percentage of completion portrays a realistic view where the computation of students' enrolment is based on actual completion rate over the expected completion rate (Wilkinson, 2018, Scott, 2005). Thus, based on Table 2 the percentage of final progress of active participation for the trainees were as follows:

$$\text{Active participation rate} \qquad A = \frac{C_a}{C_e}$$

$$A \ = \ \text{online educational active participation rate}$$
$$C_a = \ \text{total actual percentage of students completed}$$
$$C_e = \ \text{total expected percentage of completion}$$

Thus,

$$= 1413\% / 2000\%$$
$$= 70.63\%$$

In establishing a 'successful' completion rate is problematic (Martin et al., 2018). Although we managed to derive the reported rate of 70.63% based on data provided in Openlearning.com, (Wilkinson, 2018; Scott, 2005) had suggested the way to compute the completion rate and gives the measurement that the online training had a good-than-expected on students' active participation.

Post-Training Evaluation Data
The post-training evaluation survey was administered to the participants once they were finished with all topics and as a result the auto-generated e-certificate issues to them. The survey received 77 responses, using Kirkpatrick's evaluation survey to assess the level of effectiveness on participant's reaction on the training, the effectiveness of learning process via MOOC platform, the level of positive changes in behavior and the level of impact to the organization once the respective employee cum students completed the training course. The

survey includes the 5 linguistic scales with the mean consistency coefficient (Cronbach's alpha) of .946 and prior had validated by experts both in the field of instructional technology and finance.

Table 3
Mean items for reaction, learning, behavior and impact (N=77)

Scale	Measure	Item	M	SD
Reaction	Satisfaction	The animated video approach is suitable for this training.	4.55	0.59
		The video recording approach is suitable this training.	4.45	0.59
		The platform is user friendly.	4.34	0.68
	Usefulness	The menu in the platform makes it easy for me to learn.	4.27	0.85
		Learning environment assisted by facilitator.	4.25	0.58
Learning	Acquiring Knowledge	The activities provided meet the learning objectives.	4.27	0.62
		Able to answer questions after participate the MOOC.	4.14	0.67
		The training given was in line with my study.	4.11	0.72
		Learned a new thing in the training.	4.11	0.69
Behaviour	Application to Practice	Often use the knowledge gained in the training.	4.41	0.66
		Manage to apply the training knowledge in my daily work.	4.34	0.68
Impact	Individual	Participate in MOOC has reduced my anxiety on topics.	4.09	0.52
		I can accept MOOC as a learning approach.	4.18	0.69
	Organization	Improve understanding from other participant comments or conversation on several topics.	4.16	0.68
		The online training approach is capable of changing the outlook on teaching and learning	4.25	0.65

Most of the respondent had limited experience in participating in online training, thus Table 4 is portrayed the sample testimonials, which is offered evidence that they satisfied with the training.

Table 4
Respondents on online training

Scope	Learner response
How MOOC provides the latest online learning experience	S124: *'Many thanks to MOOC team. This platform giving me some learning experience, which is gain, my knowledge about finance. The exercise given was improved my calculation skills.* S112: *'Thank you for welcome me to this platform and giving me the opportunity to gain more knowledge about basic managerial of finance. Many thanks to MOOC and Sir!'* S125: *'I hope this open learning can improve my skill'.*
How videos in MOOC boost motivation and interest	E6: *'This is a great video :) Learning is much more fun'…* E21: *'This video content helps me to recap the things that I have learnt in class in a brief, and creative way. To learn more about time value of money is essential in our daily lives'.* E103: *'Yes, I really enjoy this course'.* E104: *'I really enjoyed this course in this MOOC platform. It easily accesses and knowing how far I must finish this course based on monitoring the task given. The video for every chapter is very useful & helpful for better understanding compare to notes only.*
How a video approach in MOOC can enhance your understanding	E7: *'This chapter helps me to understand finance more and give me more knowledge about financial. I hope I can practice more and improve my financial skills'.* E32: *'This animated video content really helps me in understanding the importance of financial skills in our daily lives'.*
How MOOCs reduce student anxiety on related topics	E102: *'The videos, information from author and participants helps me to improve my understanding in this subject. From zero now I have some knowledge on this. Thank you so much sir!'.* E37: *'I have a clearer idea on what I will be learning'.* E51: *'To be honest, being a part time student is quite hard. We are struggling in our study as we can meet our lecturers in limited time only, which is 2 times per month compared to full time students. We are rushing to complete the syllabus but sadly we do not get a clear picture on what we have learnt. It is a sort of dissatisfaction when you do not understand the subject in whole. To have the experience in joining MOOC is such a good opportunity for me to further my understanding in*

> *finance course. I also able to relate with what I have learnt before in class and get a clear picture as MOOC provide interactive learning tools and effective ways of delivering the information. The video helps me a lot to understand on how the equation and calculation works. Congratulations to all MOOC team! I really hope that in future your team will provide more MOOC in finance. Thank you so much!'*

Discussion

The data on evaluation data of the online training 'Managerial Finance for Executive: for finance and non-finance personnel' provides the evidence of active participation. Most of the participants were among the non-finance personnel who further their study requires additional supports in their learning process. The survey from the participants provides evidence that the degree of satisfaction and usefulness, acquiring knowledge, applying the knowledge and impact of the practice towards the course were expressed positively.

Data from the survey implied that participant reaction in term of satisfaction and usefulness shows that platform is friendly to participant who are not savvy technology. Evaluating the efficiency on the online training via MOOC platform – where participants are not restricted to leave at any time and where dropout is a problematic issue has significant limitation and challenges. The maturity of the learners on finance aspects due to limited experience and exposure in finance real situation should be reduced by actively participating with an activity of related video watching, strolling critical comments on respective topics, and sharing material related content slightly differed with the expected experimental condition due to lack of experience and expectation. A further example of quality comments that improve kudos rate should be utilized as a need to direct measurement of learner meets the learning objectives that in line with design factors with respective learning literature. Perhaps, these will be continuing improves for learners in the future. It seems the responses to the survey proves that enjoyment and motivation towards online training have occurred.

The study also shows that the effective learning improves understanding can be fortified by providing clear learning objectives, task, and assessment, standard learning content and activities. For positive behavior changes can be fortified by learning activities that lead to develop learner confidence towards the critical subject and the fostering skills and knowledge lead them to apply in works or learning activities.

The study also found that most participants had a high level of agreement on the usage of animated and recordings videos in helping them learn the financial management topics. Data shows that they were excited, about the use of animated videos for the title *Time Value of Money* which was creatively developed and had increase their understanding of the topic. The usage of animated video approach in online learning able to change their views on this difficult subject, as it requires metamathematical skills and abstract thinking on corporate management matters. Abstract thought has served the learners a greater power to control over the learning environment that the ability to earn abstract thinking has driven learners to explore further, engaged and experienced the learning.

The issue of *loss in the lecture room* can be overcome by following the animated video shared in the online training developed. Obviously, that online learning developer should meticulously design and develop the content of critical subject creatively and innovatively that can enable self-pace learning activities successfully exercise.

Besides, there are many participants had expressed their rectitude towards the online training in acquiring the quality learning experience at free enrolment cost and express their appreciation to the online training team. For future, it is suggested that the blended approach continuing efforts by online training developers to train the efficient way of the learners to critically and actively engage in a virtual learning environment.

Acknowledgement

Reference

Ayub, E., Wei, G. W., & Yue, W. S. (2017). Exploring Factors Affecting Learners' Acceptance of MOOCs Based on Kirkpatrick's Model. In Proceedings of the 8th International Conference on E-Education, E-Business, E-Management and E-Learning (pp. 34-39). ACM.

AlDahdouh, A., Osorio, A., & Caires, S. (2015). Understanding knowledge network, learning and connectivism. International journal of instructional technology and distance learning, 12(10).

Calvo, S., Morales, A., & Wade, J. (2019). The use of MOOCs in social enterprise education: An evaluation of a North–South collaborative FutureLearn program. Journal of Small Business & Entrepreneurship, 31(3), 201-223.

Carrick, R. (2018, July 09). Why it's not your fault it's so hard to understand investing. Retrieved August 2, 2019, from
https://www.theglobeandmail.com/investing/personal-finance/article-why-its-not-your-fault-its-so-hard-to-understand-investing/

Chen, H. J., & Kao, C. H. (2012). Empirical validation of the importance of employees' learning motivation for workplace e-learning in Taiwanese organisations. Australasian Journal of Educational Technology, 28(4).

Chiu, T. K., & Hew, T. K. (2018). Factors influencing peer learning and performance in MOOC asynchronous online discussion forum. Australasian Journal of Educational Technology, 34(4).

Earl, L., & Katz, S. 2006. Rethinking classroom assessment with purpose in mind. Winnipeg, Manitoba: Western Northern Canadian Protocol 55-60.

Gandomkar, R. (2018). Comparing Kirkpatrick's original and new model with CIPP evaluation model. Journal of advances in medical education & professionalism, 6(2), 94-95.

Gitman, L. J., Juchau, R., & Flanagan, J. 2015. Principles of Managerial Finance. Pearson Higher Education AU

Grohmann, A., & Kauffeld, S. 2013. Evaluating training programs: development and correlates of the Questionnaire for Professional Training Evaluation. International Journal of Training and Development 17(2): 135-155.

Grover, G., Heck, J., & Heck, N. (2009). Pretest in an introductory finance course: Value added?. Journal of Education for Business, 85(2), 64-67.

Grunwald, S., & Reddy, K. R. (2007). Concept guide on reusable learning objects with application to soil, water and environmental sciences. Gainesville.

Hammond, M. (1999). Issues associated with participation in on line forums—the case of the communicative learner. Education and Information Technologies, 4(4), 353-367.

Hamdan, F., Nordin, N., & Khalid, F. (2019). Understanding the Employees Acceptance on Online Training for Basic Managerial Finance. Creative Education, 10(6), 1305-1316.

Hanell, F. (2018). What is the 'problem'that digital competence in Swedish teacher education is meant to solve?. Nordic Journal of Digital Literacy, 13(03), 137-151.

Holtschneider, M. E., & Park, C. W. (2019). Evaluating Simulation Education in the Workplace: Kirkpatrick's Levels and Beyond. Journal for nurses in professional development, 35(1), 44-45.

Hopkins, J., Fassiotto, M., Ku, M. C., Mammo, D., & Valantine, H. (2018). Designing a physician leadership development program based on effective models of physician education. Health care management review.

Huang, J. L., Blume, B. D., Ford, J. K., & Baldwin, T. T. (2015). A tale of two transfers: Disentangling maximum and typical transfer and their respective predictors. Journal of Business and Psychology, 30(4), 709.

Jesse, R. (2013). Mobile authoring of open educational resources as reusable learning objects. The International Review of Research in Open and Distributed Learning, 14(2), 28-52.

Khan, S., & Khan, R. A. (2019). Online assessments: Exploring perspectives of university students. Education and Information Technologies, 24(1), 661-677.

Kirkpatrick, D. L. (1994). Evaluating training programs. San Francisco, CA: Berrett-Koehler Publishers.

Kop, R. (2011). The challenges to connectivist learning on open online networks: Learning experiences during a massive open online course. The International Review of Research in Open and Distributed Learning, 12(3), 19-38.

Kourieos, S. (2016). Video-mediated microteaching–A stimulus for reflection and teacher growth. Australian Journal of Teacher Education, 41(1), 4.

McGarr, O. & McDonagh, A. (2019) Digital Competence in Teacher Education. Output 1 of the Erasmus+ funded Developing Student Teachers' Digital Competence (DICTE) project. https://dicte.oslomet.no/

Marriott, P., Tan, S. M., & Marriott, N. (2015). Experiential learning–A case study of the use of computerised stock market trading simulation in finance education. Accounting Education, 24(6), 480-497.

Muslimin, M. S., Nordin, N. M., Mansor, A. Z., Ismail, I. M., & Hamdan, F. (2018). Application of Learning Theories in Design and Development of the Mobile Application for Microeconomics Course. Advanced Science Letters, 24(4), 2475-2479.

Nordin, N., Norman, H., & Hamdan, F. (2018). Quality education with instructional design via massive open online courses. Advanced Science Letters, 24(4), 2541-2545.

Norman, H., Nordin, N., Yunus, M. M., & Ally, M. (2018). Instructional Design of Blended Learning with MOOCs and Social Network Analysis. Advanced Science Letters, 24(11), 7952-7955.

Norman, H., Nordin, N., Yunus, M. M., Hashim, H., & Adnan, N. H. (2019). Retention 16 Rates in MOOCs. The Impact of MOOCs on Distance Education in Malaysia and Beyond, 38, 196.

Paull, M., Whitsed, C., & Girardi, A. (2016). Applying the Kirkpatrick model: Evaluating an'interaction for learning framework'curriculum intervention. Issues in Educational Research, 26(3), 490.

Peeraer, J., & Van Petegem, P. (2012). The limits of programmed professional development on integration of information and communication technology in education. Australasian Journal of Educational Technology, 28(6).

Pettersson, F. (2018). On the issues of digital competence in educational contexts–a review of literature. Education and Information Technologies, 23(3), 1005-1021.

Phillips, V. (2003). Keeping e-learning going: Motivating and retaining e-learners. The AMA guide to e-learning, 337-352.

Rahimi, E., Henze, I., Hermans, F., & Barendsen, E. (2018). Investigating the Pedagogical Content Knowledge of Teachers Attending a MOOC on Scratch Programming. In International Conference on Informatics in Schools: Situation, Evolution, and Perspectives (pp. 180-193). Springer, Cham.

Ramirez-Montoya, M. S., Mena, J., & Rodriguez-Arroyo, J. A. (2017). In-service teachers' self-perceptions of digital competence and OER use as determined by a xMOOC training course. Computers in Human Behavior, 77, 356-364.

Rufer, R., & Adams, R. H. (2013). Deep learning through reusable learning objects in an MBA program. Journal of Educational Technology Systems, 42(2), 107-120.

Seethamraju, R. (2014). Effectiveness of using online discussion forum for case study analysis. Education Research International, 2014. http://dx.doi.org/10.1155/2014/589860

Sinclair, J., Boyatt, R., Rocks, C., and Joy, M. (2015). Massive Open Online Courses: A Review of Usage and Evaluation. International Journal Learning Technology, 10(1): 71-93.

Vihtelic, J. L. (1996). Personal finance: An alternative approach to teaching undergraduate finance. Financial Services Review, 5(2), 119-131.

Wilkinson, J. (2018). Percentage Completion (POC) Method: Percentage Completion (POC) Method Formula. Retrieved August 14, 2019, from https://strategiccfo.com/percentage-completion-poc-method/

Yang, Y., & Cornelious, L. (2004). Ensuring Quality in Online Education Instruction: What Instructors Should Know?. Association for Educational Communications and Technology.