

## **CURATION CONTENTS AS A CORE COMPETENCY IN MOOC LEARNING AMONG STUDENTS USING ENGAGEMENT THEORY FRAMEWORK**

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### **ABSTRACT**

*The purpose: of this paper to identify the curation contents effectiveness on online distance learning and to envision the requirements of the future generation of students on new ways on delivering the knowledge. The objective of this research is to distinguish the curation activity by assembly "knowledge presentations" in a Massive Open Online Courses (MOOCs) courses offered by Universiti Teknologi MARA, Malaysia. The major factor analysis of curator's activities resulted in three factors based on engagement theory related with students work in a collaborative team, students work to develop skills and find a solution to a problem through use of curators' presentation and students make a valuable contribution to the team whilst learning, creating an authentic learning experience where skills learned can be 'adapted' to real life. The theory was adapted from engagement theory with for constructs; behaviour engagement, cognitive engagement, emotional engagement, and agentic engagement that reflect the students' academic achievement. Method: The survey will be distributed to 86 Diploma students from UiTM evaluated one subject HTT167 under Massive Open Online Course (MOOCs), the quantitative will be conducted for the analysis using PLS SEM (Partial Least Squares Structural Equation Modelling) to analyse the data. The proposed study will a taxonomy of components that are included in the curation process, to increase students' engagements in learning. Significant: The curation contents contribute to the students make a valuable contribution to the students' teams whilst learning, creating an authentic learning experience where skills learned can be 'adapted' to real life problems that assist students to make decisions in their daily lives. The finding will improve the 21<sup>st</sup> century students' knowledge and skills which requires personal and social skills, e.g., cognitive, and meta-cognitive skills from an individual and social perspective.*

**Keywords:** *Curation contents, Behaviour engagement, Emotional engagement, Cognitive engagement, Agentic engagement, Student's performance, and Partial Least Square Analysis.*

## KANDUNGAN KURATOR SEBAGAI KOMPETENSI TERAS DALAM PEMBELAJARAN MOOC DI KALANGAN PELAJAR MENGGUNAKAN KERANGKA TEORI PENGLIBATAN

### ABSTRAK

*Objektif: Penyelidikan ini bertujuan untuk menentukan keberkesanan kandungan yang dirancang semasa pembelajaran jarak jauh dalam talian, dan untuk melihat keperluan generasi muda cara baru menyampaikan pengetahuan. Penyelidikan ini bertujuan untuk membezakan aktiviti kurator dengan mengumpul "knowledge display" dalam kursus Mass Open Online Course (MOOC) yang ditawarkan oleh Universiti Teknologi Mara Malaysia. Analisis faktor utama aktiviti kurator menghasilkan tiga faktor berdasarkan teori penyertaan, yang berkaitan dengan pelajar yang bekerja dalam pasukan kolaboratif. Pelajar menggunakan pembentangan berbentuk kurator dalam mengembangkan kemahiran dan mencari penyelesaian kepada masalah semasa pembelajaran secara dalam talian. Pelajar memberi sumbangan bernas dalam pembelajaran berpasukan dan mencipta satu pengalaman baru berbeza dengan pengalaman pembelajaran bersemuka yang sebenar. Kemahiran yang dipelajari di sini boleh "disesuaikan" dengan kehidupan sebenar dan keperluan industri. Teori dalam kajian ini diadaptasi daripada teori penyertaan dengan lima pembolehubah berstruktur; penglibatan dan tingkah laku, penglibatan dan kognitif, penglibatan dan emosi, dan penglibatan berkumpulan yang mempengaruhi prestasi akademik pelajar. Kaedah: Sampel kajian tinjauan diedarkan kepada 86 pelajar di peringkat Diploma di UiTM melalui subjek HTT167 di bawah Massive Open Online Courses (MOOCs), dan kaedah analisis kuantitatif dengan menggunakan perisian statistik PLS SEM (Partial Least Squares Structural Equation Modeling). Penyelidikan yang dicadangkan mengkategorikan beberapa komponen penting yang perlu diambil kira dalam proses pembangunan strategi untuk meningkatkan penglibatan pelajar dalam pembelajaran secara maya. Penemuan kajian: Kandungan perlu ditambahbaik dalam penglibatan taksonami pembelajaran berkumpulan kerana didapati paling tidak signifikan dalam penemuan kajian, penambahbaikan dalam kandungan kurator masih lemah dalam mencipta pengalaman pembelajaran sebenar, tidak membantu "menyesuaikan diri" dengan masalah kehidupan sebenar dan membantu pelajar membuat keputusan dalam kehidupan seharian. Penemuan ini menyumbang pengetahuan baru pembelajaran jarak jauh dan kemahiran peribadi dan sosial pada abad ke-21, seperti kemahiran kognitif dan metakognitif dari perspektif peribadi dan sosial selaras dengan keperluan industri.*

**Kata kunci:** Kandungan kurasi, Penglibatan dan Tingkah Laku, Penglibatan dan Emosi, Penglibatan dan Kognitif, Penglibatan Berkumpulan, Prestasi Akademi Pelajar dan Analisis PLS.

### INTRODUCTION

The ideology of learning in Islam is often highlighted in the Quran. Adding to this, number of hadiths and proverbs of the associates that are associated to learning. The principles of Islam, the objectives at educating human to be civically, morally, emotionally, and sensibly to accomplish full submission to Allah. In Islam has honoured the teacher and placed him/her on a higher level. This imply that Islam frames knowledge as to praise attributes to educators, the same reward to the learner who positions his understanding into practice. The Prophet (ﷺ) said: "He who teaches knowledge will have the same reward as he who puts the knowledge into practice without any reduction in the reward of the one who practices it" (Al Bukhari). The Prophet also said: "Seeking knowledge is obligatory upon every Muslim." (Al-Haythami), some teaching approaches are used by the Prophet (ﷺ) for his community and society). It is Prophet's (ﷺ) support on information and his motivation about the pursuit and spreading of it, pursuit the approach of tackling of questions and answers. During the Prophet (ﷺ) in teaching was uncomplicated and simple, and distress or burden while associates with learning choose appropriate times for learning. Islam has placed a very definite connection between the educator and the learner supported on deep respect and consideration from the student to the teacher. The emphasis of disciplined and behaviours to respect the teachers. The element of the important of behaviour engagement has been taught in learning and the learner

must tolerant and patient to wait his/her teacher permit to ask questions. The term of connection with learning contents, learners' behaviour, cognitive thinking, emotional with terms of learning determine the quality of thinking. Clearly in Al-Quran, the regular of terms such as tafakkur (contemplating), tadabbur (pondering), tabassur (understanding), tawassum (reflecting), nazar (considering), i'tibar (take a lesson), tadhakkur (taking advice to heart) indicate the significance of learning with proper contents and lead to the way of learners' thinking (Mohd Nuri Al-Amin *et.al.*, 2014). Moreover, Islam takes attention of the person, and attempt to establish aqeeda (creed) to enhance the connection between him and his Creator (Allah). Additionally, Islam aims to liven up the person's to goodness, morality, and good social behaviours. One of the key rising problems in higher education is how to encourage coefficient and convincing learning in an online during move control order (MCO) due to the COVID-19 pandemic. This is particularly demanding for local universities in Malaysia and often lack access to specific context-dependent resources for sharing knowledge. The use of technologies are alternative to improve student learning experiences, and at the same time both culturally and technologically is synonym in the 21st century students. The issue of information overload has been expressed by students and a filter failure and the search engine become so complicated and complex in this online environment. The previous studies shown that key factors including learning style affects students' learning outcomes. Definitely the lectures cannot simply concluded that technology approach is straight forward like face to face learning and not all learning media are equally effective for encouraging and desirable on learning engagement.

## **A DIGITAL CURATION**

The curation is a range of effort involved with aggregation, guiding, managing and presenting the collection information with a storyline. The history of curators derived from museum art galleries when the collection of history research and every single pieces were manage, interpretation, demonstrates and exhibits to visitors with guarded or not guarded. The definition of curation derived from the verb curare with the meaning to care for and the contemporary study turn to curationism. The general process of curation include concept of presentation, preparing for dialogue or scripts, sorting, editing, composing, evaluating and recommending the problem of COVID-19 pandemic makes the curation presentation is essential to increase the education barriers and multiform and strengthen in delivering knowledge. According to Khazem, D. (2018), the curators benefits the viewers by decreasing the complexity of searching information. In education it is very useful for the students and the content curation is one of the goal to increase students learning process. The curation process has been enhance in the late 2000's by the growth of digital technology and the sparked of YouTube which include the raise of music industry, economical in education barriers and multiform and strengthen in delivering knowledge.

According to Khazem, D. (2018), the curators benefits the viewers by decreasing the complexity of searching information . In education it is very useful for the students and the content curation is one of the goal to increase students learning process. The curation process has been enhance in the late 2000's by the growth of digital technology and the sparked of YouTube which include the raise of music industry, economical gadgets and softwares have changed curation performance by enabling transcription, editing, blending and mastering by special softwares. The curation is a helpful instrument to students in learning because it provides the chance to filter the learning information in accordance to the students wisdom and learning capabilities and involvement about the courses.

Table 1: Range of Curation Content Taxonomy in Education

ADD VALUE	CLASSIFY	CURATE	FILTER	OUTCOMES
ADVISING	CREATE	DECIDE	FIND	LEARN
ANALYZE	CONNECT	DETERMINE	FRAME	LINK
APPROPRIATE	CONTRAST	DIFFERENCIATE	GUIDE	MANAGE
ARCHIVE	CONSTRUCT	DISCOVER	IDENTIFY	ORGANIZE
CATEGORIZE	CONTROL	DISPALY	INFLUENCE	POSITION
CHANNEL	COORDINATE	EDIT	INTEGRATE	PRESENT
CHOOSE	CULTIVATE	EXPLAIN	INTERPRETE	MATCH
CIRCULATE	CRITIQUE	EVALUATE	GATE WATCH	RESOLVE

Source: KHAZEM (2018).

## THE ADVANTAGES OF CURATION IN A MASSIVE OPEN ONLINE COURSE (MOOC)

Nowadays, in the realm of transmission capacity and technology, students are overload with data and the waves of the web are just too tremendous. The Universiti Teknologi MARA, introduce a massive open online course or (MOOC) to their students and MOOC is a sort of data system (DS), particularly a learning platform podium that offers an option to students to explore subjects of interest during online distance learning. During movement control order due to spreading of pandemic the demand for MOOCs increasing learning available without restrictions and accessible in terms of site and timetable. Therefore, it is critical to examine interpretation and the curation contents in MOOC selection based on students different background to encourage the utilization of MOOCs (al-Adwan, A.S 2020; Zhao *et al.* 2020). It is therefore needed to identify the major factors curation contents to attract students to motivate to use MOOCs. The content of curation is the new approach that makes the MOOCs work. It is important to bring the engagement and interest to students and passion to learn and students get the information and clearly the contents process is essential to take actionable decision based on high quality information. As teachers or educators, the skill of how to find, make sense of and share content that we need to be effective in teaching work is critical. According to YongqiangSun *et al.* (2020), there are laws of the curation economy, the first law, students do not desire on more content, they want less, learners are overwhelmed in raw information, unfiltered, context-free data, the second law the curation contents derived from three perspective the curation experts – people whose background and depth of understanding makes their curatorial choices valid, for example for medical advice, the learners want the video viewing curated by a doctor, not a patient. The third law the curation is not a simple hobby is a career and need to be paid and skills depends on the curation outputs. The curation demands a technology and tools to find, filter and validate content, focused, high-quality categories will emerge to compete with the mass media and the copyright issues.

### ENGAGEMENT THEORY

The study framework for this research implemented experiences online curation and perceptions of the term “engagement,” as conceptual framework. According to a model’s Reeve and Tseng’s (2011) the undergraduate engagement is established by four components,

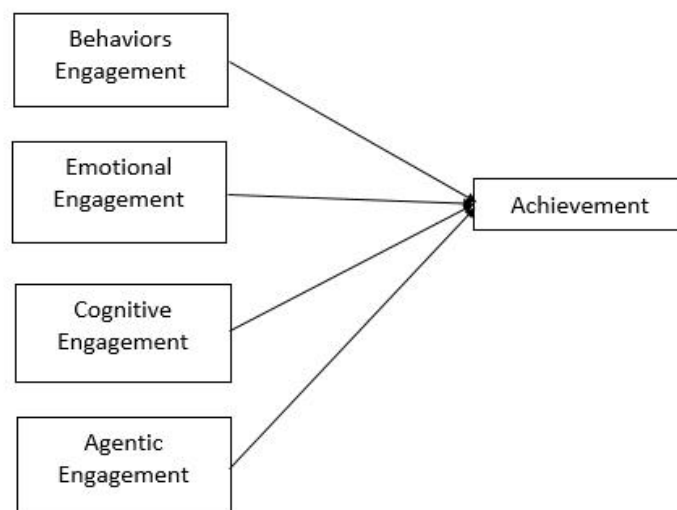


FIGURE 1.0 : THE THEORY OF ENGAGEMENT (REEVE & TSENG, 2011).

behavioral engagement, emotional engagement, cognitive engagement, and agentic engagement. The constituents of behavioral engagement explains the students’ effort, determination, contribution, and compliance with the syllabus (Wentzel, 2003; Reeve & Tseng, 2011).The effort normally measured based on cognitive in motion between low and high effort thinking. According to (Deci & Ryan, 1985,

2002), the determination normally clarify the human needs, inspiration, stimulation within the social context. The quality of individual performance involve the decision of choice and then lead to one's action. The determination, is a sense of control of behavior, the competency is sense of feeling which relates with class assignments and the competence to complete the task given on time or before time and the component is relatedness the sense of been attached, affiliated and connected with other students in the group. The emotional engagement as mentioned by Wentzel, (2003), Reeve & Tseng, (2011), as the point to which students believe a sense of affiliation and "the point to which attention and concern reached" and other author defined emotional engagement as ones' sensitivities of wonder, delight, concern, and annoyance during their endeavors towards achievement. Approximately, cognitive engagement incorporates with students' encouragement, talents, and methods to improve their assignments and tasks (Metallidou & Viachou, 2007; Reeve & Tseng, 2011).

The agentic engagement can be defined as students' productive, advantageous, practical contribution into the stream of the instruction given by lecturers suggests correlations between different ways of engagement drives to student achievement of learning results. For this research one syllabus HTT167 has been selected for students to evaluate the curation contents and the subject was offered under MOOCs web and the MOOC platform provides introductory courses and new knowledge and insight as part of for students' personal development and enlightenment with 166,409 students enrolments. The MOOC categories in Uitm based on for cluster science and technology, social science and humanities, business and management and education. The objective of the data analysis was to determine the effect of curation contents under on of the MOOCs categories on the target construct, the students academic achievement output.

## **METHOD**

For this research data analysis, the PLS SEM method has been selected and this analysis allows researcher to test the framework model, at the same time estimate the theory with empirical data. The research is hypothesized cause-effect relationships between variables. In the structural equation model in engagement theory the exogenous latent variables are behavior engagement, emotional engagement, cognitive and agentic engagement and the variables that explain the endogenous the curation contents the final target construct students achievement. The value of  $r^2$  of endogenous latent variables reveals how well other constructs in the model explain these constructs. The latent variables must be measured by observed variables and measurement theory determines the relationships between the latent variables and their indicators. The survey was collected among 86 Diploma students first years from Universiti Teknologi MARA. Suggest that the formatively measured construct should explain at least 65% of the variance of the reflectively measured item(s), which is indicated by a path coefficient of approximately 0.80. In most cases, however, a path coefficient of 0.70 (which translates into a shared variance of about 50%) would also be considered acceptable. Accordingly, researchers must plan for the assessment of convergent validity in the research design stage by including a reflectively measured construct or single-item measure of the formatively measured construct in the final questionnaires.

## **RESULTS**

This study, the validity is the measure of the accuracy of an instrument used in a study (Linn, R.L., 2000). There are three types of validity which is convergent, discriminant, and construct validity. The discriminability analysis was conducted to avoid redundant, all the correlation between these construct should below 0.85. According to Zainudin Awang, (2010), unidimensionality procedure is achieved when the measuring items have acceptable factor loadings for the respective latent constructs. To ensure unidimensionality of a measurement model, any items with a low factor loading should be deleted. The measurement model of PLS-SEM after unidimensionality is shown below in figure 1.0.

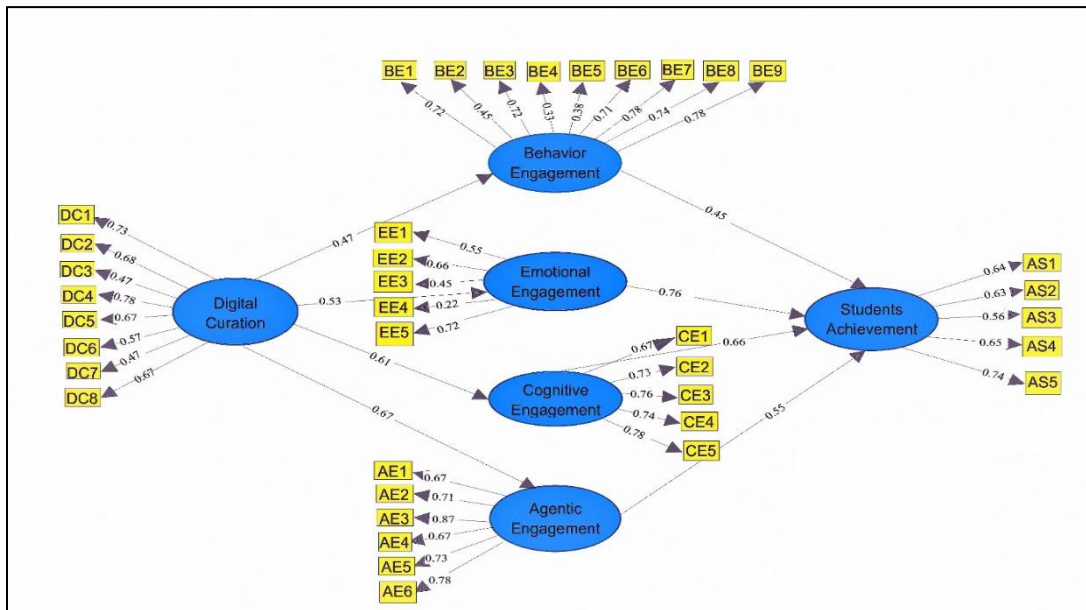


FIGURE 2: OUTER LOADINGS AFTER UNIDIMENSIONALITY PROCEDURE

The figure 2.0 and table 1.0 above presented the measurement model from the output of SMARTPLS. This value can be obtained from the outer loading indicates the factor loading for each indicator included. Early, author has suggested to use the new developed scales which is 0.50 or higher should be retain in the measurement model. Thus, the outer loadings below 0.50 should be removed from the measurement models since its indicates this indicator have less contribution towards these factors. In this case, 2 items from latent emotional engagement, agentic engagement, behaviour engagement have been removed from these latents. Otherwise, all indicator in challenge latent are accepted while curation contents have removed three items. This procedure can be known as unidimensionality procedure. After the researchers have done this process, the model assessment should be applied in order to improve their reliability and validity. Thus, convergent and discriminant validity employed in this process. Other than that, the construct reliability or composite reliability also be tested.

TABLE 1.0 PROPERTIES OF CONSTRUCTS

CONSTRUCT	ITEMS	LOADINGS	CONSTRUCT	ITEMS	LOADINGS
Digital Curation $\alpha = 0.89$ CR=0.84: AVE=0.79	DC1	0.756	Cognitive Engagement $\alpha = 0.77$ CR=0.77: AVE=0.83	CE1	0.718
	DC2	0.752		CE2	0.738
	DC3	0.830		CE3	0.802
	DC4	0.810		CE4	0.755
	DC5	0.659		CE5	0.785
	DC6	0.709	Agentic Engagement $\alpha = 0.70$ CR=0.68: AVE=0.69	AE1	0.521
	DC7	0.712		AE2	0.512
	DC8	0.678		AE3	0.503
Behaviour Engagement $\alpha = 0.83$ CR=0.82: AVE=0.81	BE1	0.744	AE4	0.578	
	BE2	0.800	AE5	0.502	
	BE3	0.815	AE6	0.500	
	BE4	0.707			
Emotional Engagement $\alpha = 0.74$ CR=0.73: AVE=0.82	EE1	0.553	Students Achievement $\alpha = 0.74$ CR=0.79: AVE=0.66	AS1	0.634
	EE2	0.766		AS2	0.735
	EE3	0.500		AS3	0.742
	EE4	0.821		AS4	0.756
	EE5	0.742		AS5	0.765

$\alpha$ = Crobach's Alpha; CR= Composite Reliability; AVE= Avarage Variance Extracted;  
 \* All item loadings were singlarntic  $p < 0.001$

In accordance with the result Table 1.0 above the convergent, validity result was measured by examining loadings, average variance extracted (AVE), and composite reliability (CR). As mentioned by Hair Jr. et al. (2014) the acceptable result for loading factors should be  $>0.70$ ,  $CR > 0.7$ , and  $AVE > 0.5$  and as shown the values of AVE and CR exceeded these criteria and the loading. The next stage the discriminant validity was evaluated as mentioned by Fornell and Larcker (1981), advisable to analyse the AVE values with squared correlations or the square root of AVE with the correlations. As indicated in Table 2.0, the values square roots of AVE are sufficient or higher that correlation values and this indicate that the discriminant analysis indicate a validity. The research model has five exogenous (DC, BE, EE, CE, and AE) and one endogenous construct (SA). The bootstrapping procedure with a resample of 1000, as recommended by Hair Jr. et al. (2014), the  $R^2$  values for DC, BE, EE, CE, and AE were 0.678, 0.609, 0.801, 0.69, and 0.871, respectively refer to figure 1.0.

TABLE 2.0: AVE VALUE BASED ON FORNELL-LARCKER TEST OF DISCRIMINANT VALIDITY

Variables	Curation contents	Behavior Engagement	Cognitive engagement	Emotional engagement	Agentic engagement	Students Achievement
Curation contents	0.791					
Behavior Engagement	0.690	0.812				
Cognitive engagement	0.258	0.229	0.831			
Emotional engagement	0.253	0.297	0.390	0.821		
Agentic engagement	0.478	0.237	0.231	0.261	0.691	
Students Achievement	0.030	0.447	0.251	0.211	0.251	0.662

Note: AVE values are in bold

These  $r^2$  values shown that a large variance between construct as acceptable value of  $> .35$  suggested by Cohen (1988). In addition, in Table 3.0, listing beta coefficients, t-values and p values, reveals that 6 of the hypotheses in the research model were supported while 2 were not supported.

TABLE 3.0 : HYPOTHESES, PATH COEFFICIENTS, AND RESULTS

	PATH	PATH	T-STAT	P-VALUE	RESULTS
H1	Curation Contents engagement > Behavior	0.39	7.24***	0.001	H1 is supported
H2	Behaviour engagement > Students' achievement	0.29	4.12***	0.001	H2 is supported
H3	Curation Contents engagement > Emotional engagement	0.54	8.35***	0.001	H3 is supported
H4	Emotional engagement > Students' achievement	0.25	2.80**	0.01	H4 is supported
H5	Curation contents engagement > Cognitive engagement	0.30	5.66***	0.001	H5 is supported
H6	Cognitive engagement > Students' achievement	0.19	3.46**	0.01	H6 is supported
H7	Curation contents engagement > Agentic engagement	0.07	0.17	<0.001	H7 is not supported
H8	Agentic engagement > Students' achievement	0.09	0.12	<0.001	H8 is not supported

\*Significant at  $p>0.05$ , \*\* $p>0.01$ , \*\*\* $p>0.001$

The hypothesis that supported were the effects on curation contents on behavioural engagement directly influencing the behavioural engagement to use MOOCs ( $\beta = 0.39, t > 7.24, p < 0.001$ ), behaviour engagement directly influencing students achievement ( $\beta = 0.29, t > 4.12, p < 0.001$ ), curation contents directly influence emotional engagement ( $\beta = 0.54, t > 8.35, p < 0.001$ ), the emotional engagement directly influence students' achievement ( $\beta = 0.25, t > 2.80, p < 0.01$ ), the Curation contents directly influence Cognitive engagement ( $\beta = 0.30, t > 5.66, p < 0.001$ ), Cognitive engagement directly influence Students' achievement ( $\beta = 0.25, t > 2.80, p < 0.01$ ). Those hypotheses that were not supported were of relationships between Curation contents directly influence Agentic engagement ( $\beta = 0.07, t < 0.17, p > 0.001$ ), between Agentic engagement directly influence Students' achievement ( $\beta = 0.09, t < 0.12, p > 0.001$ ).

## **DISCUSSION**

The proposed engagement model which involves psychological perception and validates the positive relationships of the engagement theory between curation contents, behaviour engagement, emotional engagement, agentic engagement, and students achievement. This study revealed a positive relationship on the curation contents, behaviour engagement, emotional engagement. The distance learning syllabus need to set new policies and procedures on designing the curation contents on MOOCs. Now the contents are still not clear, and it was done without a proper taxonomy that can encourage and engage the students in learning. It is important to understand the level of students understanding on the contents based on their intelligent skills and it is essential to design courses that create opportunities for engagement to happen. The key is for instructional designers or the lecturers to have additional knowledge to help faculty learn how to make their courses more engaging for the students who will participate in them. These schemes need to blend cognitive engagement moves with emotional engagement and motivation in ways that will guide students to engaged behaviours. From the findings, few strategies are suggested for engaging students online.

1. Encourage online MOOCs faculty to utilize student-led pedagogies for agentic engagement and the teaching lecturers guide and lead throughout the process and it was not included in the MOOCs contents. The students as cooperative learning, team-based learning (TBL), and problem-based learning (PBL) tend to be learner led. This approach has worth, the students in the latter group provide opportunities to take role in their own learning instead of so much informing and sharing information. The best approach in MOOCs that should be include in the curation contents is a mixture of instructor-led and student-led approach. Encourage online lecturer to use students empower students in a range of methods, through contributing their own goals to course goals.
2. Inspire online lecturers to include curation contents that allow students to connect student attentiveness to involve the course. Psychological perspective students are potentially to be fascinated in subjects that involve directly to themselves. According to the adult students are more self-motivated, self-directed, experiences and knowledge should be applied when doing works. Most the students prefer a repetition in the instruction and the lecturers of the subject should design the curation contents according to the students abilities and design model based on their competencies.
3. Foster the lecturers to use content curation that that simulate working reality. There are a lot of adjustment in the current syllabus that need to change and more engaged in activities. The taxonomy should be based on experiences to case-based learning that dispose to solve real-working world problems but most of the MOOCs content were on explaining but not on the case studies to game-based approach in the curation contents. The curation contents were direct to multiple concept such as guiding, direct, manage, influence, control, clue, critical thinking that provide a deep learning and higher thinking order based on learning taxonomy.
4. The curation content in the MOOCs should encourage lecturers to oversee the students to create or innovate new products, make engagement and ultimately learning more visible ideas, allow students to show a meaningful task and produce new ideas.
5. The curation contents on MOOCs or short video currently inactive learning, students were no possibility for improvement (such as posting questions, discussion board or comment the content). So far there were no opportunity downloading, sharing, contributing information.



## **CONCLUSION**

As a conclusion, the curation contents and emotional engagement is the most significant in a student's involvement in and enthusiasm for learning. When learners are emotionally engaged, the students willingness is high and influentially to participate in MOOCs online class lesson plan and enjoy that participation. Second significant influence in this research finding was the behaviour engagement in participating, the learners behaviour generally in a way of how the learners interact with the lecturers, level of understanding discusses during tutorial class, the lecturer further explains from the curation contents, the level of curiosity, level of respond based on the contents display and how learners interact with peers, and how learners interact with the content display based on comments column. The behaviour engagement based on the research questions divided into several category the passive engagement, active engagement, optional questions on passive or active engagement, opportunity of students interacting with other students and opportunity student interacting with students and teacher, and student interacting with lecturer alone.

## **RECOMMENDED ON CURATION CONTENTS**

According to Ng'ambi and Bozalek (2013), most of curation contents was based on the lecturer's creativity with no auditing on how it was delivered, indicate the growing concern that present higher learning education exercise does not adequately evolve the relevant skills, capabilities, and attributes that students demand in the place of work. Future research should be the curation contents that connected their graduates with the necessary skills expertise and competencies for employment in a knowledge society (Ghaith, 2010; Peterson, 2016). The curation contents should concern a principal view in the meaning-making procedure and method to propose opportunities for employing internet resources in dynamic supply, student-centred, socially interactive approaches into learning taxonomy to assist an inquiry-based pedagogy intended at improving and strengthen student engagement and multimodal literacy comprehension (Mills, 2013). Both undergraduates and instructors should be promoted to turn into digital curators as well as consume information that figure out from the internet, this promotes, evaluate, and synthesize it to ultimately turn accountable digital citizens. Curation contents acts a vital function in the education process and helps as an important digital literacy demand for knowledge workers (Betts & Payne, 2016). Positioning curation digital in education system as a digital literacy further enhance contemporary discussions, conferences, debates, discourses, consultations, dialogues, chitchats about digital literacy and educational technology (Bhatt, 2015). In future, more research on the demand, employment, implementation, application of digital curation contents in educational settings at universities in Malaysia, however, further discussion on the policies, acts and legacy the issue of copyright demand, curation content patent and ownership, royalties, protection and universities image and branding are needed, particularly its acknowledgement in digital scholarship, grants and innovation wisdom and embedding it in a pedagogy that really deems the principles of a participatory, hands-on, sharing and collaborative culture.

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