Exploring Digital Curation's Role in Enhancing Student Engagement in Open Distance Learning among Gen Z

Nik Rozilaini Wan Mohamed[1], Nurazree Mahmud[2], Ahmad Fadly Arham[3]

[1]Faculty of Hotel and Tourism Management, Universiti Teknologi MARA (UiTM) Cawangan Melaka Bandaraya, Malaysia

[2,3]Faculty of Business & Management, Universiti Teknologi MARA, Cawangan Melaka Kampus Bandaraya Melaka, 110, Off Jalan Hang Tuah, 75350 Melaka, Malaysia
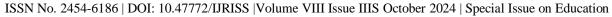
ABSTRACT

This qualitative case study investigates how digital curation impacts student engagement in Open Distance Learning (ODL) environments, focusing on Gen Z learners. Through semi-structured interviews and participant observations, the study explores how behavioral, cognitive, emotional, and agentic engagement patterns are shaped by curated digital content. The findings offer insights into how digital curation supports the unique learning preferences of Gen Z, a generation known for its comfort with technology and need for interactive, engaging content. Recommendations are provided for educators aiming to optimize digital curation strategies to enhance academic engagement and success among Gen Z learners. This qualitative case study examines how digitally curation course materials influences student participation in Open Distance Learning education programs aimed at Generation Z. This study applies semi-structured interviews and observations explored how Gen Z involvement was gathered by curated digital resources. The finding identifies the insights emerged around how digital curation accommodates Generation Z's strengths with technology and necessity for interactive content that maintains focus. The finding recommendations advise educators to maximize digital selection approaches to heighten academic commitment and accomplishment among learners from Generation Z.

Keywords: Digital Curation, Open Distance Learning, Gen Z, Student Engagement, Qualitative Research, Educational Technology

INTRODUCTION

Generation Z, born into a digital world, exhibits distinct learning preferences compared to previous generations. As they enter higher education, particularly in Open Distance Learning (ODL) environments, the role of digital curation becomes critical in shaping their academic engagement. This study examines how curated digital content influences Gen Z's learning experiences in ODL, focusing on behavioral, cognitive, emotional, and agentic engagement dimensions. Given Gen Z's tendency to prefer interactive, multimedia-rich learning materials, digital curation presents a promising approach to meet their expectations and foster engagement [1]. ODL, which stands for Open and Distance Learning, is a mode of education that aims to provide flexible access to learning through leveraging technological innovations that deliver educational opportunities without being confined by temporal or geographic restrictions [2]. Students who engage with ODL have the unique ability to gain scholarly knowledge from any location, allowing one to further their education regardless of physical barriers. This innovative approach removes the traditional requirement of attending in-person lectures, instead permitting learning to occur wherever and whenever suits one's circumstances. By doing so, ODL has the power to broaden participation in educational pursuits to more diverse collectives of scholars, helping those who might otherwise find conventional methods confining due

to scheduling or placement challenges [3]. Overall, the removal of restrictions related to time and place inherent in ODL grants more varied groups of learners the opportunity to advance their scholarly aims and grow in their intellectual endeavors. Gen Z students engaged in Open Distance Learning often face barriers to fully participating in their online educational experience [4, 5]. This study aims to qualitatively examine how digital curation can help or hinder their involvement [6]. By leveraging curated digital resources, how might student's perceptions, exposures, and feelings change for better or worse? To gain a richer understanding, this research explores these crucial questions by hearing directly from those most affected. The insights offer valuable guidance for educators wishing to craft learning environments optimized for maximum student engagement through more use of curated online content. Above are the research questions where formulated:

1. How do Gen Z students perceive the role of digital curation in enhancing their engagement in Open Distance Learning (ODL)?
2. In what ways do digital curation influence the different dimensions of student engagement among Gen Z learners in ODL environments?
3. What features of curated digital content do Gen Z students find most effective in supporting their learning and maintaining engagement in ODL?

These questions explore from researcher's personal experiences and perspectives of Generation Z students regarding the curated digital materials, permitting insights into students interact with and react to the curated content in an online distance learning environment. This investigation explores the distinct impact of digital curation on the diverse types of involvement that learners encounter, offering an intricate comprehension of how each measurement is influenced by digital curation. This question strives to recognize the unique qualities of digital curation that Generation Z students most important, helping educators to grasp what succeeds most effectively in maintaining their participation and improving their educational results. Furthermore, this question allows Generation Z students the opportunity to provide useful feedback on how curated digital materials can be enhanced to optimize engagement and learning outcomes given their preferred learning styles and habits when interacting with online content.

LITERATURE REVIEW

A. Conceptualizing Digital Curation in Education

Digital curation involves online and offline delivering information purposefully choosing and involve electronic records to fulfill targeted instructional goals. The digital curation has since expanded to encompass education, where it serves as a tool to systematically compile and exhibit applicable learning materials. The process involves various stages, namely compiling content with precision, logically ordering information, situating data in context, and exhibiting customized material to students [6]. On digital curation require reformatting material for distinct student populations or reorganizing archives to new and old connections. In digital curation involves human resources, curation supports customized, engaging presentations of knowledge tailored to meet students' diverse needs, whether brief or extensive [7].

B. Student Engagement in Open Distance Learning

Student involvement and students' participation is an important aspect of higher education scholarly achievement, has been extensively studied in education. Engagement can be classified into areas including students' behavioral, cognitive and emotional. In open and distance learning environments, digital curation boosts involvement by making material more accessible, applicable, and interactive [8]. The engagement principle applied in this study is how these four dimensions interconnect within the Gen Z of electronically curated content in an open and distance learning setting. Some students thrived on the interactivity while others preferred a mix of complex independent study and engaging class discussions. The diversified experience enhanced learning for all through varied pathways that cultivated both focus and collaboration [8].

C. Theoretical in Digital Curation

This study explores upon involvement principle, which puts forward that Gen Z behavioral, mentally, emotionally, and involvement to accomplish good academic results. Behaviorally participation refers to the measure to which Gen Z participate in studying activities; cognitive participation concerns profound learning and crucial thinking, emotional participation has to do with learners' subjective reactions to studying, and agentic participation involves learners taking effort and contributing to their studying atmosphere. Moreover, the deeper the cognitive and emotional participation, the greater the likelihood of achieving higher academic outcomes. Long-term agentic participation is likewise key, as learners who keep contributing to shaping their learning over an extended period tend to benefit the most. The above table 1 identify some of the theories apply in measuring students learning output or performance.

TABLE 1 Font Sizes for Papers

Theories	Scope of Studies
Engagement Theory in Learning. [9, 10]	Involve Behavioral Engagement, Participation in activities, attendance, and involvement in digital learning tasks. Cognitive Engagement, Mental investment, critical thinking, and reflective learning fostered by curated content that challenges the learner. Emotional Engagement, Positive feelings of interest, enthusiasm, and emotional connection to learning materials, promoted through engaging and interactive digital content.
The theory of connectivism.[11-13]	Gen Z prefers networked and collaborative learning, often using social media and digital platforms to access and share information. Digital curation aligns with the connectivity learning model, where students navigate through curated resources, connect knowledge, and construct meaning from various sources.
Multimedia Learning Theory.[13, 14]	Cognitive load is managed more effectively when digital content is curated to integrate multimedia that supports both visual and auditory channels. Gen Z, being more visually oriented, benefits from curated materials that incorporate dual coding, enhancing their ability to retain and apply information
Self-Determination Theory (SDT).[15-18]	Digital curation allows for autonomy by giving learners control over what and how they engage with content. The curated materials can enhance a student's sense of competence when the content is organized progressively to build skills and knowledge.
Situated Learning Theory.[19, 20]	Content is curated to reflect real-world applications relevant to students' academic and professional lives, particularly important for Gen Z, who value learning that connects with real-world issues.

METHODOLOGY

This qualitative case analysis profoundly explores how digital preservation impacts student engagement. A qualitative method is especially suited for comprehending complex educational phenomena, as it allows a rich, in-depth examination of participants' experiences [21]. This study enabled the researcher to gather insights through interviews and observations, providing a comprehensive perspective on student involvement [22]. Furthermore, the complexity of digital curation presents both opportunities and challenges for affecting student collaboration. While technology can energize learners by opening new pathways to information, it also introduces difficulties such as distraction and overload of information [23]. However, through wise design and implementation, digital preservation holds promise for enhancing student connection with learning. Additionally, the researcher involves deeply into a specific situation to uncover about how digital curation can engage differently among diverse individuals. With awareness of these complex influences and careful development focused on supporting objectives, digital preservation shows potential for cultivating meaningful association with education [24].

A. Sampling and Participants

The researchers deliberately recruited a diverse array of participants from varying backgrounds for investigation, carefully selecting individuals whose unique perspectives would provide ideas and views on the pressing issues under examination. This purposive sampling used recruiting students those taking subject under MOOC subjects offered by Universiti Teknologi MARA Malaysia, gained from their direct experiences with UiTM's groundbreaking distance learning programs. The students chosen at random, the in-depth interviews and focus groups with these purposely selected Gen Z (those born between 1995 and 2010) profound insights into both the transformative opportunities and remaining impediments associated with UiTM's efforts to expand access to education beyond physical place or time. The cohort consisted of pupils enrolled in the Degree in Tourism Management who incorporated digital platforms extensively in their coursework. Choosing these candidates ensured they possessed suitable experience with curation technologies and remote learning systems, making them qualified to fulfill the research's objectives. In contrast, an abbreviated yet more convoluted sentence followed by an expanded and elaborate one communicated similar information through variations in intricacy and form. A diverse array of 7 students volunteered to contribute their experiences and perspectives to the research endeavor. The designated sample size was premeditated to allow for profound qualitative insight rather than generalized statistics. Investigations of this nature typically feature smaller test groups to facilitate intensive analysis of each participant's experiences through comprehensive interviews. This scope was judged sufficient to achieve data saturation as no new concepts or understandings emerged from additional collected accounts. All members of the study fell within Generation Z, eighteen to twenty-five years of age as current undergraduate students. Some interviews uncovered novel viewpoints through in-depth discussions that plumbed deeper reflections, while several brief yet still informative conversations addressed major themes. Overall, the range of responses captured a diversity of opinions on the topic under examination.

B. Data Collection Methods

Semi-structured interviews provide researchers a rich information straight from those interviewed. While maintaining direction from prepared open-ended questions, interviewers can adjust lines of inquiry and obtain a deeper dependent on responses. This adaptable yet focused approach proves ideal for uncovering how Generation Z students individually experience and perceive digital curation in remote learning [24]. The semi-structured interviews amplify participants' voices, allowing them to freely express views as interviewers prove more impactful comments. Preparation for thought and ideas the interviewer organized open-ended topics centred on students' standpoints regarding digital curation's effects, involvement influences, and preferred content. The interview last for between 30 to 45 minutes. Interviews are recorded (with consent) and transcribed for analysis. These are the list of semi-structured questionnaires for interviews.

1. How familiar are you with the concept of digital curation in learning?
2. In your opinion, what does digital curation mean in the context of your ODL courses?
3. Can you describe how curated digital materials (e.g., videos, articles) have been used in your ODL classes?
4. How does curated digital content affect your participation in ODL activities?
5. How does curated content influence your ability to think critically or understand the material better?
6. How do you feel about the curated digital content? Does it make you more interested in the subject matter?
7. How much control do you feel you have over the curated digital content? Are you able to contribute to curation?

Participant observation in another qualitative method where the researchers observed on Gen Z learners' engagement with digital curation on open distance learning platforms. By observing students in their natural online environment, the researcher can comprehend engagement contextualized within actual ODL sessions [21]. Permission is obtained to monitor classes integrating curated digital resources. The learners navigate

and interact with assorted curated materials like exploration videos, articles or interactive tools. Participation in discussions, responses to quizzes and involvement with activities are also documented. The observant researcher chronicles telling particulars like behavioral patterns, fluctuating engagement levels and any challenges faced interacting with curated content. This qualitative method allows a firsthand view of precisely how students interface with curated [22].

The researcher may observe participation in class discussions, as some students would eagerly answer questions to further their understanding, while others held back, perhaps intimidated by their more vocal peers. All their behavior would be recorded, and observational notes taken, focusing on aspects such as levels of engagement fluctuating throughout the lesson, with certain concepts captivating various students. The volunteers' names have been removed to ensure confidentiality, though notes on challenges surfaced for individuals when grappling with content. Body language also revealed hints about how material was landing for those who seldom voiced their thoughts.

FINDINGS

Data exploration in qualitative studies applying stages and multiple structuring, decoding, and making sense of information gathered from interviews, viewpoints, and documents. The aim is to pinpoint examples, themes, and insights that solve the research questions. In this analysis of Generation Z students' perceptions of digital curation in Open Distance Learning (ODL), a detailed and organized approach is essential to investigate how digital curation impacts student engagement. The transcribed interviews were fully converted into text to ensure accuracy in capturing students' actual words and phrases. The notes from participant viewpoints are reviewed and cleaned, focusing on key behaviors and interactions with digital curation during ODL classes. The digital materials, like multimedia content and resources used in the courses, are gathered and organized for analysis. Varied sentence lengths and structures were used to provide greater complexity and flow.

1. Perception of Digital Curation

The following perspectives highlights four students' experience with digital curation in the scope of Open Distance Learning at Universiti Teknologi MARA. As diploma candidates, their engagement with organized online materials provides meaningful understanding of how structured digital resources aid in remote education. The diplomatic respondents were diverse in viewpoints regarding curated digital content supporting their virtual pedagogy. Meanwhile, one expatriate saw curation as a collaborative base for transnational discussions among dispersed learners. Overall, mining organized online materials cultivates rewarding learning beyond brick-and-mortar despite geographical barriers according to these UiTM scholars. Above were some of the findings on perception on the digital curation for one of the subject tourism managements offered by the university. According to author [25] the perception was the main criterial that need to investigate in conducting curation content effectiveness.

TABLE 2 Font Sizes for Papers

Coding	Sub-Coding	Example Quotes
Perceptions of Digital Curation	Organization and Structure	"It brings all the learning materials together in one place." – *Respondent 3*
	Relevance to Course Content	"The content speaks directly to what I need to learn." – *Respondent 3*
	Simplification of Content	"Sometimes it feels like we are getting only the surface of things." – *Respondent 5*
	Accessibility of Learning	"Curated content is like a path that makes learning easier and more manageable." – *Respondent 3*

	Preference for Visual Learning	"I'm not a big reader, so having videos that explain everything clearly was really helpful." – *Respondent 3*
	Need for Flexibility	"Feel like the curated materials are sometimes too narrow in scope." – *Respondent 2*
	Limitation of Content	"Curated materials only cover what the lecturer thinks is important." – *Respondent 2*

Respondent 3 believed that digital curation focused on the organization and structure of content which helped her learning remain targeted and productive. She elaborated on how having all materials arranged assisted her in "remaining on course." Respondent 3 noted how videos and interactive elements maintained her participation and interest, a defining characteristic of multi-media involvement. Alternatively, Respondent 5 saw digital curation as helpful but occasionally deficient in thoroughness. He was expecting more difficult subject matters and chances for students to customize their content selection. To support the statement according to authors, [26, 27] hedonic value and readability significantly enhance luxury perception and balances university identity with functionality and digital pleasure.

2. Behavioral Engagement

Behavioral engagement refers to the active participation of students in learning activities. In the context of digital curation in ODL, behavioral engagement can be observed in how students interact with the curated content, participate in class discussions, complete assignments, and manage their time. Here is a narrative description of four respondents' behavioral engagement, followed by coding and sub-coding to analyze their responses.

According to respondent no. 3 clearly gained significant benefits from the curated materials provided for her open and distance learning, others may find more variety in their educational experiences aids focus and engagement. She highlighted how the well-organized digital content allowed disciplined study and simplified locating needed resources. However, for some learners changing tasks or exploring beyond set materials helps maintain interest and persistence. The prescribed selection helped her efficiently complete assignments by laying out clear expectations, though more flexible access to information could inspire deeper reflection for others. While respondent 2 actively get involvement extended past assignments through online discussions, her behavioral participation was clearly affected by organized and comprehensible curated content. She declared her engagement in class conversations when subject matter was conveyed through appealing formations such as videos or interactive quizzes. The transparency and structure offered by the preselected content boosted her concentration and interaction, rendering her more proactive in both accomplishing tasks and contributing to class discussions. The convenient access to applicable materials amplified her initiative to finish assignments and speak in conversations. Overall, the formatted content helped guide her participation by maintaining focus and appeal that prompted her involvement throughout our engaged dialogue. Respondent no 5 involvement with the course materials fluctuated considerably depending on their complexity and applicability. He was highly engaged when content incorporated interactivity, directly connecting to his assessments, but less inspired by content that seemed too elementary or isolated from his academic goals. Respondent 1, participation was tied to the visual appeal and dynamics of the curated materials. Having the flexibility to strategize her study time around these resources further strengthened her proactive involvement in both online discussions and independent study sessions. The varied collection of sophisticated and fundamental materials maintained his interest throughout, while the organizational tools aided her self-directed study habits. This statement also supported by author, [28] Students presenting externalizing behaviors often exhibit reduced levels of student engagement, posing academic and well-being challenges i.e., expectations, communication, homework support, and school-based involvement on behavioral, cognitive, and affective engagement

TABLE 3 Font Sizes for Papers

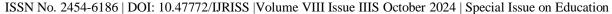| Coding	Sub-Coding	Example Quotes
Behavior Engagement	Time Management	"Complete my assignments faster because everything is laid out clearly." – *Respondent 3*
	Class Participation	"Participate more in class when we're working with curated materials like quizzes or discussions." – *Respondent 3*
	Engagement with Multimedia	" Feel more focused when the content is curated because I know exactly what I need to do." – *Respondent 5*
	Skimming Content	"When the content is too basic, I feel like I don't need to put in much effort." – *Respondent 1*
	Study Schedule Management	" Set time aside to watch videos or complete tasks, and it fits into my schedule easily." – *Respondent 4*
	Use of Curated Content for Organization	"Curated content helps me stay organized, especially for exams." – *Respondent 1*
	Positive Anticipation of Learning	"I even look forward to the next lessons." – *Respondent 4*

3. Cognitive Engagement

TABLE 4 Font Sizes for Papers

Coding	Sub-Coding	Example Quotes
Cognitive Engagement	Clear Structure and Focus	"The way the content is structured makes it easier for me to focus on the important points." *Respondent 4*
	Critical Thinking	I can spend more time understanding the material deeply." *Respondent 3*
	Real-World Application	It helps when the content includes real-life examples." *Respondent 1*
	Basic Understanding	"The curated content is useful for understanding the basics- *Respondent 1*
	Desire for Depth	"I want to explore more complex ideas, and that's not always available. *Respondent 4*

Respondent 4 found the curated materials to be highly cognitively engaging due to clear structure and real-world relevance. The incorporation of practical examples augmented her capacity for critical thinking and application of the learned concepts. While Respondent 3 values the rudimentary comprehension afforded by the curated content, he felt the simplification of ideas limited opportunities for reflective analysis and thorough involvement. The narrow focus, he expressed, failed to provide stimulating substance for profound cognitive engagement. Respondent 3's point that curated materials facilitate basic knowledge but restrict further examination desired. With more complex content presenting more challenging notions, deeper cognitive engagement could be achieved through questions invited and viewpoint inspired.

While curated content benefits those acquiring basic facts, others crave greater challenges that stimulate advanced thought. A few students hunger for material stretching their abilities. Pictures and hands-on elements boost engagement by simplifying intricacies and encouraging practical tests of lessons, as complex subjects unfold through varied experiences. Authors [29, 30] supporting the above statement as individual-level knowledge processing and proposing, the peer-level social interactions and knowledge exchanges.

4. Emotional Engagement

TABLE 5

Coding	Sub-Coding	Example Quotes
Emotional Engagement	Stress Reduction	"I feel less stressed because everything is clear and easy to follow." *Respondent 6*
	Enjoyment of Learning	"I actually enjoy learning more when the content is interesting, like videos or animations. *Respondent 3*
	Frustration with Simplicity	I feel frustrated because the curated content is too basic." Respondent 5
	Loss of Interest	"When it's too simple, I lose interest quickly." *Respondent 7*
	Reduced Motivation	"I don't feel like putting in as much effort because it's not challenging. *Respondent 5*
	Boredom with Narrow Content	I feel a bit bored when the content doesn't cover enough." *Respondent 6*

The four participants exhibited varying degrees of emotional investment with the curated online distance learning materials, with some prominent themes emerging. Positively, respondents like the third and sixth participant demonstrated emotional engagement when the content was lucid, logically structured, and incorporated interactivity or multimedia elements. This clarity anxiety and satisfaction, resulting in greater inspiration and connection to the topic. Negatively, both the fifth and seventh respondents reported sensations of frustration or tedium when the material was too elementary or narrow in scope. The lack of depth negatively impacted on their emotional involvement, leading to disinterest and decreased motivation to continue. Emotionally, involvement was amplified when the curated content connected to students' interests, academic objectives, or real-world applications, as seen with both the seventh respondent and the sixth participant, whose enthusiasm for the issue emerged through comprehending its applicable value in other contexts. While author [31] Teachers should pay more attention to facilitating learners' enjoyment and relieving their boredom, which would enhance the positive impact of teachers' emotional support on online learning engagement.

CONCLUSIONS

The purpose of this study was to explore how digital curation impacts Gen Z students' engagement in Open Distance Learning environments. Students engaged remotely through a variety of digital tools require curated content presented in a way that increase their interest. Specifically, it aimed to understand how digital curation enhances behavioral, cognitive, and emotional engagement for those learning at a distance. The findings revealed that digital curation plays a role in student involvement. When material was thoughtfully compiled and readily available, students managed their schedules more efficiently and participated to a higher degree in class conversations. Alternately, some students preferred curated collections organized by theme over those arranged by date, becoming cognitively absorbed in subject areas that stimulated their minds. Emotionally, feelings of connectedness grew for remote learners who recognized the care taken to understand their needs through strategically selected, easily navigable content. Cognitive engagement was notably increased when curated materials featured practical uses in genuine situations and multi-sensory components that simplified ideas to grasp. Emotional participation was tightly connected to how visually compelling and applicable the curated substances were, with pupils communicating augmented determination and entertainment considerable energetic lecturers' vocals and educational architects aiming to stimulate learner participation in remotely situated environments. Visual appearance focusses whereas multifaceted sentences foster diversion inspiration. By incorporating multimedia resources, interactive tools, and real-life examples into thoughtfully crafted content, educators have the power to a deeper cognitive engagement.

Additionally, ensuring that material is logically organized and directly pertinent to learners' academic goals can enhance both behavioral and emotional involvement, motivating Generation Z to remain more attached to and invested in their scholarly pursuits. However, it is crucial to note the restrictions of this investigation. The sample was only limited to students enrolled in tourism management program at one institution, which may not fully represent the diverse array of Generation Z learners. Furthermore, the study mainly focused on student perceptions, and potential future research could benefit from exploring long-term academic outcomes pertaining to digital curation. Future studies may expand on this work by looking into how digital curation influences involvement across various disciplines and with more substantial, heterogeneous student bodies. Additionally, further investigations could examine the long-term effect of curated digital material on academic performance and how students' preferences for different types of curated content evolve over time. While educational technologies continue proliferating, engaging digitally native learners demands constant advancement. Insights from investigating this tourism program offer guidance for instructors and designers. Strategically incorporating illustrative multimedia and pertinent case studies within organized structures cultivates richer intellectual involvement. Additionally, clearly communicating applicability to objectives better fosters behavioral and emotional commitment, motivating Gen Z's ongoing connectivity. Nonetheless, limitations endure. A single institution's participants studying one field restricts broader generalization to diverse online audiences. Furthermore, considering self-reported perceptions confined deeper probing into how curation may mold longer-term results. Potential future analyses could broaden viewpoints by surveying participation across disciplines and populations of greater breadth and diversity. Thereafter exploring how delivering customized substances affects performance over the years and how preferences for specific curation styles evolve with time would supplement comprehension.
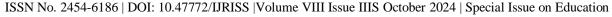
In conclusion, Gen Z learners greatly benefit from digital curation in Open Distance Learning settings. These digital curations engage more when exposed to visual, interactive content tailored to their studies and lives. Educators can apply these findings to craft online experiences optimized for this generation. Lessons should feature varied presentation—from short caps highlighting key ideas to elaborate explanations deeper. Interactives maintain focus, inviting exploration of topics from multiple angles. Relevant real-world connections showcase how coursework applies broadly, diverse interests.

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