Microlearning: New Learning Model for Buddhist Religious Education

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Abstract. Changes in learning models for Buddhist Religious Education are currently important to address the challenges of new learning models that are increasingly advanced in the digital era. One of them is the Buddhist Religious Education learning model using micro learning. Buddhist education in the learning process is always changing and constantly adapting to remain relevant to the times. Teachers and students are required to be trained in order to have new experiences in the learning process, both online and offline. Some of training hurdles include a lack of time, a lack of resources, and changing learning expectations. The aim of this article is to propose a new learning model for Buddhist Religious Education that integrates micro-learning. Micro learning is an approach that focuses on a single concept, utilizing multisensory and multimodality and short learning durations ranging from 7 to 15 minutes. These can easily be incorporated into learning paths, models, and research for new learning models for future Buddhist Education.

Keywords: Micro learning, new learning models, Buddhist religious education

1 Introduction

Changes in learning models can create changes in the learning process. One such process is the way millennials learn in class about the use of smartphones, social media, and the internet by doing a "Google" search. Conventional learning models face challenges for knowledge creation. Traditional learning activities and theoretical concepts become ineffective [1].

Although there is a lot of activity in creating microlearning and the delivery of microcontent in schools, there is still little research. Current microlearning conducted in various educational settings has little consistency. A conceptual framework for creating educational content through microlearning was created by Skalka and Drlik [2]. Wen and Zhang used technology to implement their research on "micro-learning" [3]. Muhammad discovered that while adopting microlearning as a learning tool, pupils' learning ability rose by 18% when compared to traditional methods [4].

Innovative learning using microlearning in independent curriculum implementation is expected to foster student motivation to play an active role in the learning process. Utilizing microlearning in learning will be effective when applied to a micro-

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learning model for Buddhist religious education that is relevant to the concept and principles of the independent learning curriculum. With charity microlearning in the independent learning curriculum, it can create a more effective learning process. Micro-learning which breaks teaching materials into smaller units allows more control over students and prevents excess information that is not needed by them [5].

This proposed micro-learning model includes previous learning theories and models. However, it was developed to meet the needs of a microlearning model for Buddhist religious education.

2 Literature Review

Historically, learning has been a time-consuming process involving several learning models. Previous models and theoretical frameworks for learning have incorporated a variety of methodologies [6], such as scaffolding concepts [7] and taxonomic development [8]. The ADDIE paradigm, for example, consists of five stages: analysis, design, development, implementation, and evaluation, the content of which can be customized [9]. The framework of each learning model is used by several learning model approaches. The learning model is used to plan lessons in class or for tutorial learning [10].

All educational institutions, including Buddhist religious education, must evolve in order to remain relevant to the times. The learning model utilized in educational institutions has a significant impact on the quality of learning. The capacity to swiftly and effectively develop learning models is critical for quality learning. However, there are other underlying hurdles, such as time limits, a lack of resources, and expectations. Many current learning model approaches employ a single training modality, but the learning process is compressed. For example, in a typical learning session, 3-5 minutes are allotted to achieve specific learning outcomes [11].

These problems are further exacerbated by the increasing prevalence of technology. In the digital era, learning is required to process and understand various textual sources, not only text but also various types of visualization, both static and dynamic [12]. Videos are a great source of information for acquiring knowledge and gaining an in-depth understanding of a topic. Doyle and Zakrajsek argue that multisensory learning provides more than one way to relate to new information, making it an ideal way to learn [13]. Furthermore, Diep found that social and motivational factors play a key role in learning [14]. Microlearning is "a learning approach that conveys information about one specific idea in a compact and focused manner" [15]. In line with what was stated by Defelice, focus microlearning on 1-2 specific goals that are sent through short content to students [16].

Microlearning techniques are effective because they optimally map to the cognitive processing characteristics of the learning system. The creation of a model that exemplifies the application of microlearning will provide a quick overview of how learning materials are delivered. One learning objective is covered in detail in each module through the use of speech, text, graphics, and/or video. This method has the advantage of making learning more concise and targeted. Microlearning's use in rein-

forcement learning is evidenced by several studies [17]. Microlearning can help store information more quickly and effectively, store memory longer, and make learning material easier. Microlearning meets the needs of the generational population of millennials, accompanied by its unique, distinctive character and relatively variable need to acquire feedback that is effective, efficient, and easily accessible in a socially appropriate scheme for all activities [18].

This highlights the importance of quick learning environments in facilitating changes in student behavior. Furthermore, single-topic micro-learning modules can be integrated with full-fledged micro-learning. Microlearning modules have the potential to develop powerful learning environments. Microlearning gives pupils control over what they study. Microlearning is still in its early stages in the educational setting. However, there has been little research on micro-learning in Buddhist religious education. As a result, the goal of this study is to create a new learning model that focuses on micro-learning and how it is implemented during the learning process in the Buddhist education setting.

3 Method

3.1 Model Development

The design model serves as a framework for establishing effective learning. Most learning models start with a needs assessment, then move on to learning design and development, and lastly to implementation and measurement [19]. Current learning model developments emphasize "why learn" and adhere to linear cycles with "component relatedness."

Learning theory is related to student characteristics when building learning models. Individual elements influencing new information, the impact of the macroenvironment on application and knowledge, and the impact of innovation on subsequent learning processes are critical to constructing an effective learning model [20].

Activity theorists argue the importance of considering larger processes, including history, culture, environment, and real-life activities, not just individuals [21]. Expansive learning theory is focused on considerations in the learning process. The process assumes that the subject acquires some identifiable knowledge or skills in such a way that appropriate and relatively long-lasting changes in the subject's behavior can be observed [22].

Five learning domains to consider when developing learning include verbal information, motor skills, intellectual skills, cognitive skills, cognitive strategies, and attitudes [23]. Gagne further stipulates that in learning theory, there are nine learning conditions that must be handled by instructors when planning and designing learning: (1) getting attention, (2) informing students about goals, stimulating remembering previous learning, (4) presenting content, (5) providing learning guidance, (6) eliciting performance and practice, (7) providing feedback, (8) assessing performance, and (9) increasing retention.

3.2 Microlearning Model

The ADDIE model [24] is a learning system design model that demonstrates the fundamental phases of learning system design in a straightforward and understandable manner. There are five stages in this model: analysis, design, development, implementation, and assessment. This model is often discussed with instructional designers [25]. Criticisms of the model include a high time commitment and a focus on designing content to meet a measure rather than identifying behavior change [26].

The microlearning model proposed in this article incorporates many previous learning theories and builds on the strengths of the ADDIE learning model. It incorporates time-tested learning theories about the needs of developing learners. The model can be divided into four stages: (1) pre-learning development; (2) development and delivery of learning content; (3) student participation, practice, and demonstrations; and (4) evaluation.

Stage 1: identify needs and develop learning objectives.

The first stage involves identifying special needs. This is where the learning developer determines the need for micro-learning and then develops goals to meet those needs [27]. Engestrom suggests that there are four questions when considering learning, namely: who is the subject of learning, who is the subject of learning, what is learned and the learning outcomes, and what are the key actions in the learning process [28].

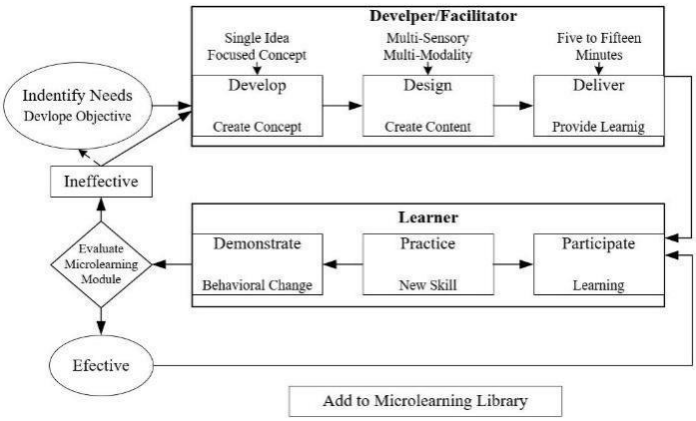

Fig. 1. Micro learning model

Stage 2: development, design, and delivery of learning concepts and content

The next stage uses the objectives identified in the first stage. Concept creation and content development in microlearning involve turning the module content into one

idea. Each topic that is included in the learning aim is created into a separate micro-learning module. Ensuring a single concept for micro-learning modules helps distracted students focus [29]. The basic premise of conceptualizing and designing content is the use of multisensory delivery. Expansive learning theory that is applied must include several learning actions for effective change to occur.

In micro-learning, leveraging multisensory delivery provides opportunities for all types of learners to retain what is learned. Different content must use different media [30]. Find out if student activity and interaction with different platforms are significantly correlated. Mason argues that based on several studies, multisensory learning improves understanding.

Students' capacity for concentration has not decreased. However, the increased distractions and habits brought about by the ease with which one can browse the internet have made it harder to focus. According to Huang, the internet has garnered a lot of interest recently in a variety of disciplines due to its development and applications [31]. The current consensus in instructional design suggests that a microlearning module should last between 5 and 15 minutes, despite the lack of empirical evidence to support this claim.

Stage 3: participate, practice and demonstration

According to learning theory, learning involves multiple forms of memory processing in sensory memory, short-term memory, and long-term memory. If the pupil is paying attention, information is received in sensory memory and transferred to working memory. The capacity of short-term memory is restricted. It is brought on by the learning environment's and the content's constant stimulation. People must consider the significance of stimuli and look for patterns in the information that is offered in order to focus attention and make sure that the information is being retained in long-term memory [32]. In the microlearning model, participation and new learning address limited short-term and long-term memory. It is understood as long-term memory information processing in which knowledge and skills are stored permanently and temporary working memory is responsible for information processing [33].

In order to facilitate knowledge transfer from short-term memory to long-term memory for long-term retention, learning content should follow the appropriate patterns. The process by which learning occurs when "understanding, insight, and explanation are linked to action" [34]. Learning theory includes experiential opportunities because these opportunities assist learning in being transferred to long-term memory. Feedback has long been acknowledged as a crucial mechanism for adaptive behavior, according to Gaba and Joseph [35]. Feedback from students is an important component of microlearning in the learning process.

The measurement of behavior changes as a result of experience is the main goal of the microlearning model. Measurement is done by employing instruments to watch demonstrated behavior. The needs identification step defines the intended behavior change, which is then incorporated into the development, design, and delivery phases and reinforced using the practice model step.

Stage 4: evaluating the content of learning

Instructional design and learning design are more systematic, effective, and efficient in developing learning [36]. In the learning needs analysis stage it is used to measure the effectiveness of the learning design. For the microlearning model, student data was analyzed, including the length of time the learning process was delivered, the effective use of new skills, learning feedback, and learning materials. The data was taken from the facilitator's observations, participant feedback, and observations during the learning process.

The microlearning model proposed in this article is for each Buddhist education learning module as a complete and systematic learning activity but can also consider the urgent needs of students. The microlearning module consists of a microlearning library. Students can access each micro learning module when needed. Having one-site, short multisensory modules also provides support for learner engagement [37].

4 Discussion

The use of the microlearning model in learning Buddhist education will help reduce the barriers of being left behind by trending learning models. Using a microlearning strategy has many important advantages, such as being efficient, quick to supply content, and affordable. Due to single content, it can be used anytime and anywhere. This is very important in learning Buddhist education because it is practical and has many advantages.

The advantages of microlearning are as follows: first, appropriate and appropriate content. Main concept in microlearning is breaking learning content into small content (micro content), so that learning can be more targeted on the required learning content [38]. Second, the learning time is relatively shorter. Micro learning content must be packaged in a concise and efficient manner. This causes microlearning can be done in a short time. Microlearning is ideal for students with shorter attention spans and appealing to students millennials [39]. Third, convenience accessibility learning. *Microlearning* can be designed for multi-device delivery, from desktops and laptops. Thus providing greater flexibility for students to study when needed and on the device of their choice. Fourth, control of student-based learning. Microlearning allows students to have control over the micro content they want to learn. Micro learning can also allow students to feel in control, giving them the opportunity to sort and choose the desired lessons [40]. Fifth, speed in updating content. With the application of the right technology then microlearning can bring fast content updates [41]. Sixth, superior in cognitive abilities. Helps reduce cognitive overload by delivering information in a concise, easy to understand and granular manner. Microlearning adapt and meet the needs of students by using small content, so it is quickly and easily absorbed. Because it is fast and easy, students are more receptive to learning [42].

A study by Mohammed in 2018 concluded that using microlearning can improve short learning abilities by up to 18% improvement over traditional types of learning methods. In line with research by Fiedler under the title “Nurse Educators’ Experi-

ences Using Microlearning Strategies: A Basic Qualitative Study "Micro learning units are single learning that is used independently or combined into learning objects about complex concepts to be more focused and concise [43]. Microlearning can be used as short, focused lessons to achieve learning objectives, and reinforce concepts. Focus microlearning namely to 1-2 specific goals that are sent through short content to students [44].

Microlearning can be applied to many areas of Buddhist education. In the conventional learning process takes hours. A more feasible approach could be taken by creating several short one-topic learning interventions (micro learning modules), which combine to create a library. But each microlearning learning module can be completed quickly. Another example of the application of microlearning in learning using moodle, which is integrated into e-learning. Some short content can be shared via short video clips, which students can view from anywhere.

There are countless opportunities for microlearning in Buddhist education. Models can be created using learning studies from the past. The model's efficacy hasn't been examined in a Buddhist educational context, though. The field of study on Buddhist education research is extremely expansive. We restricted the queries to earlier, learning-specific studies.

5 Conclusion

Further research is required to demonstrate the effectiveness of microlearning in Buddhist religious education. Testing the proposed model and microlearning in Buddhist education is recommended. Because more reports in Buddhist education have less time and resources to create new models. Interventions to create new, easily accessible, and inexpensive Buddhist religious education learning models will be the future of a better learning process.

The internet and technological advances have changed the dynamic learning process of Buddhist religious education. Rapid changes in the field of Buddhist religious education demand to be followed so as not to be out of date. The success of creating a new learning model in the field of Buddhist learning is very important in response to the growing progress. Consider traditional instructional modes of learning to be ineffective and inflexible. Responding to the changing needs for the development of Buddhist religious education learning models, it is important to establish effective learning strategies and foster a learning culture to maintain sustainability.

This is especially true in education, such as Buddhist religious education, where students and teachers interact with ever-changing and new teaching materials. Brief interventions are the future of learning models, and implementing the proposed models will support progress in the development and implementation of learning.

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