

# Supporting Military Pedagogy with the Work-the-Walk (WTW) and Digital WTW (D-WTW) Approach to Teaching and Learning

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**Abstract**—This paper answers the question of how a transformative approach to teaching and learning, the Work-the-Walk (WTW) approach and its digital counterpart, Digital WTW (D-WTW) support military pedagogy. Military pedagogy is a term used to explain a learning environment relevant to military cadets and military institutions. It has a long history in European military institutions and can be considered at its infancy in the Asian region. Research on military pedagogy is limited in this region, and in Malaysia perhaps the educational institutions to employ military pedagogy include the National Defense University of Malaysia (NDUM), Kuala Lumpur, and the military training centers in the country. The aims of this paper include investigating how the WTW approach, together with its digital form D-WTW, enhance military pedagogy and providing solutions or alternatives to adopt both WTW and D-WTW during teaching and learning post the COVID-19 pandemic. This paper adopts a qualitative approach to research, where observations of classes were performed for a total of 40 hours. The classes involved the students that the author taught for two semesters of 28 weeks. Given the observation list used by the author, it can be preliminarily concluded that the WTW approach to teaching and learning and its digital counterpart complement military pedagogy in their activities and assessments. Further, there are two main solutions on how academics can use WTW and D-WTW post pandemic. In short, the transformative approaches to teaching and learning, WTW and D-WTW, can enrich the implementation of military pedagogy; ultimately both physical and online approaches can help shape the desired character of Malaysian military personnel.

**Keywords**—*defense university, Digital Work-the-Walk, military pedagogy, teaching and learning, Work-the-Walk*

## I. INTRODUCTION

This paper begins with the concern for educating future defenders of the nation post COVID-19. What strategies and methods were used during the pandemic to educate these defenders? How were they educated and trained during those challenging times? As any other educational institutions, the National Defense University of Malaysia (NDUM) was also affected by COVID-19 and had to enter the emergency remote teaching phase from March 2020 until March 2021, followed by the remote teaching phase in April 2021 until the defense university opened its door to all students to attend physical

classes fully. This paper answers the question of how a transformative approach to teaching and learning, the Work-the-Walk (WTW) approach and its digital counterpart, Digital WTW (D-WTW) support military pedagogy. Military pedagogy is a term used to explain a learning environment relevant to military cadets and military institutions. Given this, the NDUM can be *arguably* adopting military pedagogy for its teaching and learning.

Military pedagogy has a long history in European military institutions and can be considered at its infancy in the Asian region. Research on military pedagogy is limited in this region, and in Malaysia perhaps the educational institutions to employ military pedagogy include the NDUM, and the military training centers in the country. The NDUM was previously a military academy for about 12 years before it became a full-fledged university. As the youngest public university in Malaysia, it houses civilian students too; currently the percentage of civilian students is around 40 percent and of this, 25 percent of the civilian students is enrolled as Reserved Officers.

The aims of this paper include investigating how the WTW approach, together with its digital form D-WTW, enhance military pedagogy and providing solutions or alternatives to adopt both WTW and D-WTW during teaching and learning post the COVID-19 pandemic. An overview of the paper is given before further discussion is held. This paper is divided into four main sections including this introduction. Following this introduction, selected literature is presented, and then the methodology adopted in this paper is discussed. Lastly, the findings of this paper together with the recommendations and conclusions close the paper.

## II. SELECTED LITERATURE

### A. Military Pedagogy

According to Falk [1], the term military pedagogy can be explained in two segments: (1) teaching and learning is conducted in a military learning environment, and (2) teaching and learning is for military related purposes. This simply defines military pedagogy as pedagogy used in a military setting for educating those defending the country. Other scholars, including Paile [2] and Caforio [3] put forth that the understanding of

military education systems and military training is crucial in order to define and thus, further understand what military pedagogy is.

Anttila [4] argued that to better understand military pedagogy, a relevant concept known as action competence must be first understood. Action competence considers a comprehensive approach combining “physical, psychological, social and ethical dimensions” of personnel “to act and react in purposeful ways.” According to Toiskallio [5], action competence has been widely used in military pedagogy in Finland. In addition, two models for understanding how military pedagogy can be implemented effectively were introduced by Caforio [3]. These models are the divergent and convergent classification of military education. It must be emphasized that they do not contradict each another; rather both complement the existence of military education. The divergent model equips the personnel with the military skills and the convergent model allows for these personnel to be equipped ‘academically,’ following a certain curriculum to enable them to function better as officers and blend well in societies. The education can be received in public institutions too.

Military pedagogy is also linked to professional mastery as it can be embedded into training that cultivates skills and knowledge in unknown and changing circumstances [6]. With the six characteristics unique to military pedagogy [7], the morality, motivation and loyalty of military personnel are important to all serving men and women of any country.

To sum up this subsection, military pedagogy has its position in military institutions for various functions. These functions may vary depending on the national security interest and policies. The next subsection looks at how military pedagogy can work using transformative approaches to teaching and learning, WTW and D-WTW.

#### *B. Work-The-Walk (WTW) and Digital Work-The Walk (D-WTW)*

The author designed and developed WTW in 2016 for her classroom teaching and learning [8]. The philosophy for WTW is student-centered learning, where collaborative and active learning is encouraged. The author becomes facilitator to allow for character building such as critical thinking, quick decision making and independent learning. There are four types of WTW and they can stand on their own or be used in combinations. The conditions to use WTW include students working in smaller groups, brainstorming, discussing and putting their work on the white boards. The four types of WTW are,

- WTW (Free Flow): One student from each small group presents the critical concepts to the rest of the class. The presentation is conducted at the white board, where all students will gather.
- WTW (Rotation): All small groups move from one white board to the other, which surround the class. All groups can read the critical concepts mapped by the other groups. They are also encouraged to add any missing information on other groups’ mind map.
- WTW (Concurrent): A representative from each group visits white boards of other groups; at a time concurrently,

if there are five groups, this suggests that four group members will be visiting the other four groups’ boards. Then the host of the white boards explains to the ‘visitors’ the critical concepts of his/her group. After question-and-answer sessions, ‘visiting’ members return to their groups, and explain what they learn from the other four boards.

- WTW (Visual): Students in smaller groups are to draw pictures or sketches to demonstrate their critical concepts. No texts are allowed on the board. Similar to WTW (Rotation), students will shift from one white board to the other and discuss the visual.

During the pandemic, the author resorted to the digital form of WTW. Known as D-WTW, not all four types were able to be used due to technical difficulties. Currently, only D-WTW (Free Flow) and D-WTW (Visual) can be implemented successfully online [8]. Since all students have now returned to face-to-face sessions, opportunities to explore the other types of D-WTW are slimmer.

The platforms used for D-WTW include mainly MS Teams by Microsoft and Padlet. The students were put into breakout rooms available on MS Teams and then they have to share their mind maps on Padlet. At times, students were allowed to share their mind maps from their own digital boards. Nevertheless, two main challenges are identified when using D-WTW: speed and access to the Internet and monitoring of students’ participation in their breakout rooms. The first challenge cannot be overcome alone by the author, but for the second one, the author is trying to configure ways to ensure students’ active participation; these are yet to be tested as students are now on campus learning physically.

To conclude this subsection, WTW and D-WTW are two approaches used for face-to-face sessions and online sessions, respectively. WTW and D-WTW has been effective for the author’s students in ensuring that they achieve richer and meaningful learning engagement. As this paper is looking at how WTW and D-WTW support military pedagogy, the method applied to achieve the aims of this paper will be discussed next.

### III. METHODOLOGY

This paper adopts a qualitative approach to research. Observations of students during their classes were done in two semesters. Three classes were involved for the observation procedures. One class was observed in Semester 2, Academic Session 2021/2022 and two classes were involved in Semester 1, Academic Session 2022/2023. A total of 40 hours of observation time was recorded. These classes were taught by the author herself.

The observation items consist of students’ demonstration of deep and surface learning during the execution of WTW and D-WTW. Items for observations were adopted from Murphy [9]. Four observation notes were employed, Not Exhibited (NE); Sometimes Exhibited (SE); Frequently Exhibited (FE); and Always Exhibited (AE). The author defines NE as none of the students exhibit the behaviors; SE as 25 percent of the students exhibits the behaviors; FE as 50 percent and AE as 75% or more of the students exhibit the behaviors, respectively. WTW was used during Semester 1, Academic Session 2022/2023 that

started in October 2022 and ended at the end of January 2023, and D-WTW was used during Semester 2, Academic Session 2021/2022 that ran from March to July 2022.

Observations were performed when the teaching and learning sessions employed WTW and D-WTW (for 40 hours). The author also employed other teaching and learning approaches such as case study, problem-based learning, and seminar. About 12 hours were used to observe students on D-WTW and 28 hours spent on observing students participating in WTW.

#### IV. FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

This final section has three subsections that form the most important part of this paper.

##### A. Findings

There are 20 observation records as one session was for two hours. Six observation records were for D-WTW and 14 for WTW. Of these, only one observation record for D-WTW and two records for WTW will be discussed in this paper. These can be the representative of all the items on the observation records. The chosen records have one common similarity: the WTW and D-WTW type used was Visual. This subsection will present the data from three records first and then answer the research questions, which are converted from the aims, of this paper.

1) *The general findings based on the observation records:* The main findings are presented in the table below.

TABLE 1. THE MAIN FINDINGS FROM THE OBSERVATION RECORDS

Deep/Surface Approach	Observation Records		
	Observation 1 – D-WTW	Observation 2 – WTW	Observation 3 – WTW
Students try to relate what they have learned in one course to what they learned in the other (Deep)	SE	AE	AE
Students work hard to participate during class sessions because they find the activities and materials interesting (Deep)	FE	AE	AE
Students come to most classes with questions in mind that they want answers (Deep)	SE	SE	FE
Students treat nearly any topic as a highly interesting one (Deep)	SE	FE	FE
Students like to be told precisely what to do during the WTW/D-WTW sessions (Surface)	NE	NE	NE
Students restrict their participation to what is specifically set as there is no need to do extra (Surface)	SE	NE	NE
Students prefer courses in which there are facts only compared to them require to read to	SE	SE	SE

Deep/Surface Approach	Observation Records		
	Observation 1 – D-WTW	Observation 2 – WTW	Observation 3 – WTW
understand materials (Surface)			
Students see no point in learning materials which are not likely to be in the examination (Surface)	NE	NE	NE

Based on Table 1, two conclusions can be drawn. Firstly, both WTW and D-WTW can promote deep learning when appropriate activities and materials are used. The author argues that students were ready to embark on the activities regardless of the members that they had to work with. In addition, they became active participants and collaborative members during the teaching and learning sessions. Secondly, most students were more responsive and creative during WTW rather than D-WTW. Perhaps, the students had access and Internet data issues when D-WTW was employed.

2) *Answering the research questions:* This subsection answers the two research questions posed earlier.

a) *How WTW and D-WTW approaches enhance military pedagogy:* Based on the observation records, the author argues that WTW and D-WTW both have facilitated the execution of military pedagogy during the physical and online classes. This is mainly manifested through the characteristics of military pedagogy as proposed by Schunk and Nielsson [7] and the definition provided by Falk [1]. Military pedagogy is supported at the NDUM by WTW and D-WTW. Particularly for the classes taught by the author, where WTW and D-WTW are employed, it is found that students observed were active, collaborative, and worked well as group members. As future defenders of the nation, the students must be able to work in groups and follow instructions well. The observed students too took all lessons and materials seriously in each session. For example, it was observed that they tried to relate previous lessons to the current lessons and/or courses that they have learned. The NDUM has developed what is known as Intellectual Leaders of Character as part of the requirement for future graduates. Among the attributes that must be achieved by all graduates include an academic degree and becoming officers and gentlemen/ladies. WTW and D-WTW have promoted critical thinkers, problem solvers and effective communicators through the activities conducted and materials used.

b) *What are the solutions or alternatives to adopt both WTW and D-WTW post pandemic:* Based on Table 1, two main solutions or alternatives to use WTW and D-WTW efficiently can be highlighted. Firstly, since some students were not able to participate in D-WTW activities effectively, the activities and materials chosen for D-WTW must be self-exploratory. This suggests that students must be able to perform their tasks without much explanation from the author. This process of choosing activities and materials can be a daunting one. Most of the time, educators need to perform a trial-and-error procedure. This brings to the second alternative, whereby both WTW and D-WTW can be used in a hybrid learning environment. Although the students are now physically

attending classes, some sessions could be conducted online and D-WTW could be then used. This allows for stability of D-WTW since the author can experiment with various materials and procedures to ensure that all students receive similar experience in the same environment.

### B. Recommendations

Two recommendations can be made based on the findings tabulated in Table 1. One is practicing a hybrid teaching and learning environment. As also promoted by the Ministry of Higher Education, Malaysia, all higher learning institutions in the country are encouraged to provide hybrid and/or hybrid flexible (hyflex) teaching and learning [10]. Apart from being a measure to prepare for similar situation such as COVID-19, hybrid and/or hyflex teaching and learning allow for a variety of teaching and learning platforms at higher learning institutions.

Second, as WTW and D-WTW are both able to support military pedagogy, they should be introduced and utilized university wide. This suggests that the author, together with the reports of the efficiency of WTW and D-WTW to facilitate students in their learning, could convince the top management in employing these transformative teaching and learning approaches. The educators do not have to use WTW and D-WTW all the time; 12 hours per semester should be sufficient, where they can choose any four types individually or in a combination. In doing so, all future graduates of the NDUM would have the same learning experience and environment, and that they are trained to become the best defenders of the country.

### C. Conclusions

Given the findings discussed earlier, the author has much to do to ensure that WTW and D-WTW can fully and effectively support military pedagogy. Although other teaching and learning approaches too could have supported military pedagogy, WTW and D-WTW were designed and developed by the author. The author opines that the first step to take is to perform a demonstration of how WTW and D-WTW function to educators at the NDUM, and then to convince the top management how both approaches can also further enhance all-rounder graduates as stipulated in the attributes of the Intellectual Leaders of Character.

To conclude, this paper begins with the questions of how the WTW and D-WTW approaches enhance military pedagogy and what are the solutions or alternatives to adopt both WTW and D-WTW during teaching and learning post pandemic. This paper progresses by discussing and examining the observation

records of 40 hours, but only 6 hours of observations were included for discussions in this paper. The findings reveal that students were active, collaborative, and able to critically think, make decisions and communicate effectively. Molding future defenders of the nation is no easy task, and military pedagogy at the NDUM could have been implemented efficiently with various teaching and learning approaches, including WTW and D-WTW.

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