Humanizing Online Activities: Lessons Learned from Digitizing Work-the-Walk (WTW) Approach

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***Abstract*—Work-the-Walk (WTW) is a teaching and learning approach that uses a type of blended learning model, which is flipped classroom, as its basis. The philosophy lies in the absence of lectures during face-to-face sessions, and the approach relies heavily on Socratic Dialogues and classroom activities to enhance the understanding of lessons of the day. With the outbreak of COVID-19, education at all levels must continue. Often, the challenge is on ensuring that students, who must attend remote learning are able to own their learning process, and that they are also able to relate to their environment. The objective of this paper is to discuss how to humanize students' learning experience and environment by observing how digitization of WTW promotes the sense of ownership through active learning. This paper addresses two questions, including the implementation of WTW during remote learning (Digital WTW or D-WTW), and students' understanding on the lessons of the day when D-WTW is used. The methodology adopted for this research was qualitative by means of observations of students' participation during online synchronous activities. Two important findings are evident when D-WTW is used. The first one is that students become more confident in their articulation of ideas, and second, they become more engaged during the remote learning sessions. These could be contributed to the concept of humanizing online activities and the learning environment that allow them to explore and tap into their potential, and ultimately, these strengthen their learning experience.**

***Index Terms*—Blended learning, D-WTW, flipped classroom, learning environment, learning experience, WTW.**

I. Introduction

This paper focuses on exploring a transformative teaching and learning approach, Work-the-Walk (WTW). WTW uses a type of blended learning model, which is flipped classroom [1]–[3] as its basis. The philosophy lies in the absence of lectures during face-to-face sessions, and the approach relies heavily on Socratic Dialogues [4] and classroom activities to enhance the understanding of lessons of the day.

The author argues that students attending higher education today require different approaches to teaching and learning. Their early exposure to digital technologies and their familiarity with various gadgets have formed their expectations of what learning in higher education should be. After several years of observing students' behaviors and reactions, the author started to design transformative approaches to teaching and learning to improve students' engagement during classroom learning. WTW is one of the approaches that is engaging because it promotes active and collaborative learning. As the pandemic forces education to be conducted online abruptly, the author turns to available approaches to be digitalized.

Before moving further, the motivations for adopting WTW during face-to-face sessions, and later D-WTW during synchronous remote learning are explained. There are two motivations. First, given that the future graduates of higher education must be able to face the unknown and Industrial Revolution 4.0, these graduates need to be effective critical thinkers and problem solvers [5]. It is argued that WTW could train students to be effective future leaders because the approach pushes students to collaborate, communicate and come up with suitable solutions. Second, the Ministry of Higher Education, Malaysia encourages all education providers to expose students to be more active and collaborative, and thus, students must be trained using various types of pedagogy, including heutagogy (self-determined learning) and paragogy (peer-oriented learning). Further, learning experience and environment, according to Higher Education 4.0 [6], should be without lectures, and rely on conducive learning spaces and learning without examinations.

A. Work-the-Walk (WTW)

WTW was designed by the author in 2016 for her classroom teaching and learning. At present, only students from one academic program at the National Defence University of Malaysia (NDUM) have had the benefits of this teaching and learning approach. These students are the students of Bachelor of Social Sciences (Languages and Cross-Cultural Communication), who are military cadets, Reserve Officers Training Unit (ROTU) students as well as civilian students. Located inside a military camp, the NDUM houses almost 2,800 undergraduate students from 16 other academic programs. About 65 percent of the future graduates of the Defence University will serve the Malaysian Armed Forces (MAF) upon graduation and commissioning.

Over the period of five years, WTW has been expanded into four types. Each type can stand on its own or each type can be used in a combination of any two. Provided that students in smaller groups have brainstormed, discussed, and put their concepts on the white boards, these four types of WTW include,

1) 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. The author offers feedback on what has been explained and asks questions or adds, when appropriate. Students are encouraged to ask questions.
2) WTW (Rotation): All small groups move from one white

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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. About five to seven minutes are spent per white board before they rotate to other boards. The author visits randomly any board, and listens to the discussions, adding where necessary, and correcting when needed.

3) 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. The author allows for a 10-minute discussion before inviting representatives from each group to explain other groups' critical concepts. Missing or incorrect information is added on the relevant white boards.
4) 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. The author then asks questions when the groups have returned to their own white boards. Changes to the visuals will be done based on the discussions.

B. Objectives and Research Questions

The objective of this paper is to discuss how to humanize students' learning experience and environment by observing how Digital WTW or D-WTW promotes ownership of remote learning through active learning. There are two research questions addressed in this paper. The first one is how best to implement D-WTW during remote learning, and to gauge students' understanding on the lessons of the day when D-WTW is used.

It is appropriate that an overview of the paper is given. This paper has five main sections including this introduction. Next, selected literature on humanizing education, tools and applications for online teaching and learning as well as relevant pedagogies for addressing online teaching and learning will be explored. The third section presents the research design of this paper, followed by the fourth section that deals with the findings and discussions. The paper closes with three recommendations on humanizing online activities.

II. Understanding the Issues

A. Humanizing Online Activities

Humanizing education for many educators is not a new term or concept. It requires educators to support and acknowledge all learners that come from various cultural backgrounds consistently. At the same time, education becomes inclusive and welcomes those with learning difficulties. This, arguably, could be done effectively during face-to-face sessions. Further, humanizing, according to Pacansky-Brock *et al*. [7], is "a pedagogical strategy that seeks to improve equity gaps by acknowledging the fact that learning environments are not neutral; rather, they often operate to reinforce a worldview that minoritizes some students." Nonetheless, can online teaching and learning activities be humanized?

Clark and Mayer [8] proposed that the critical component that makes online teaching and learning effective is the human factor; this refers to the educators, who prepare the learning materials and activities as well as the students, who are attending and participating in online classes. Other scholars discussed the challenges in humanizing all stakeholders in teaching and learning, including macro-, meso- and micro-level challenges [9]. There are various ways in achieving human factor; one of them is educators' presence in online classes, including the use of audio and video instructional tools to increase student success and focus during online sessions [10]. Asking the students to switch on the camera, or to prepare videos for answering questions can be among the ways to demonstrate human factor, thus humanizing online teaching and learning.

Weiss [11] argued that for online teaching and learning to be as effective as face-to-face sessions is to ensure that elements found during physical sessions must also be present online. She proposed six ways to humanize online teaching and learning sessions, including using expressive language and creating biographies. Expressive language promotes confidence and opens opportunities to obtain full engagement during learning online; creating biographies that are posted in an online forum introduces members of the class to each other and thus building rapport during teaching and learning sessions.

It needs to be highlighted that while educators are trying to humanize their teaching activities, some students with physical disabilities such as deafness may find difficulties to participate in online activities. In a reflective study by Mehta and Aguilera [12], they concluded that humanizing pedagogies for online teaching and learning must have a) methods that can promote autonomous models of humanizing pedagogy; these methods often become massive challenges for inclusive design; b) participatory media production activities that can resolve issues of racialization, and c) humanizing pedagogical attempts by individual instructors, who can be "constrained by material, structural, and institutional realities."

B. Applications and Tools for Online Teaching and Learning

According to Sneed [13] and as exemplified in Fig. 1, students learning remotely require authentic learning experiences. As part of the teaching and learning framework in Malaysian Higher Learning Institutions (HLIs), among the well-adapted learning taxonomy is Bloom's Taxonomy; it has been used extensively to design and develop teaching and learning activities. Fig. 1 illustrates, as Sneed promoted, how each level of Bloom's Taxonomy can be matched to online applications and tools. The NDUM too adopts Bloom's Taxonomy, and the development of the course learning outcomes will be based on these levels of taxonomy.

Some educators maybe challenged by the varieties of applications and tools available for use. Apart from the

various options, some maybe taken aback by the lack of training in using these applications and tools. Together with other challenges such as creating meaningful learning engagements and selecting appropriate materials [14], adapting the right applications and tools for remote content delivery can become a daunting task. A group of researchers in China [15] come out with a quick response to ensure learning continues in effected areas in China due to COVID-19. According to these researchers, online education or flexible education should always support learning using seven elements, including a) reliable communication infrastructure, b) suitable digital learning resources, c) friendly learning tools, d) effective learning methods, e) instructional organizations, f) effective support services for teachers and learners, and g) close co-operation between Governments, Enterprises and Schools (G-E-S cooperation).

Fig. 1. Suggested online activities according to Bloom's Taxonomy.

Accordingly, for synchronous live teaching and asynchronous teaching, educators in China are provided with various options that include Rain-classroom, Tencent Ketang Chaoxing Learning APP, ClassIn, CCtalk, UMU, and for social communication, they can choose between QQ Group and WeChat. For meeting, they utilize Welink, Dingtalk, ZOOM, FEISHU, TED Conversations, icourse, edX, Coursera and Udacity together with regional MOOC platform, CNMOOC; local university MOOC platform, UOOC; Tsinghua University MOOC platform, XuetangX; and Peking University MOOC platform, CHINESE MOOCS, respectively.

More advanced educators rely on augmented reality for facilitating their remote teaching. Eldokhny and Drwish [16] argued that augmented reality is more effective in delivering and supporting course delivery. In addition, some applications and tools must be hosted on Learning Management Systems (LMSs). There are various types of LMSs; some are free, and some require fees. According to Liu, Lomovtseva, and Korobeynikova [17], these LMSs or platforms are important in becoming the center of remote learning. Their studies found that academic achievement of the students improve because Moodle, a free LMS used in their studies, makes education more accessible and convenient. In fact, CHINESE MOOCS and UOOC, among others mentioned previously function as LMSs. What could be concluded from the above explanation is that learning will not stop unless educators and students refuse to continue with teaching and learning, respectively.

C. Strategies for Online Teaching and Learning

As much as scholars differ in their perceptions on pedagogy and its branches, this debate is critical in understanding what constitutes teaching and learning remotely. This sub section begins with heutagogy, paragogy and cybergogy. These three pedagogies are highly relevant for the educational landscape in the world today.

Firstly, heutagogy, a form of self-determined learning with practices and principles rooted in andragogy, has recently resurfaced as a learning approach after a decade of limited attention [18]. In a heutagogical approach to teaching and learning, learners are highly self-directed and self-determined. Importance is put on the development of learner capacity and capability with the goal of producing future workforce, who is well-prepared for the challenges and complexities of the 21st century's workplace. To ensure successful implementation of heutagogical approaches to teaching and learning, a few design principles for learning can be applied, no matter what the context is [19]-[22]. These include,

1) learners need to be involved in negotiating what and how they learn throughout the design and learning process;
2) curricula should be flexible and consider learners' questions and motivations and how thinking shifts as a result of things they have learned;
3) learners and the educator need to work together to negotiate how learning outcomes will be assessed. Evaluation could also include forms of participative (self- and peer) evaluation, allowing learners to learn from each other and through self-reflection;
4) the role of the educator is to guide the learner, providing formative feedback that is personalized according to the needs of the learners; and
5) the learning environment needs to incorporate opportunities for learners to explore and reflect on what they have learned and how this new knowledge can be optimally utilized.

Because self-determination is the driver for learning, heutagogy is best reinforced with digital technologies. There are six elements in the heutagogical approach that are well-suited to be supported with technologies (see Fig. 2).

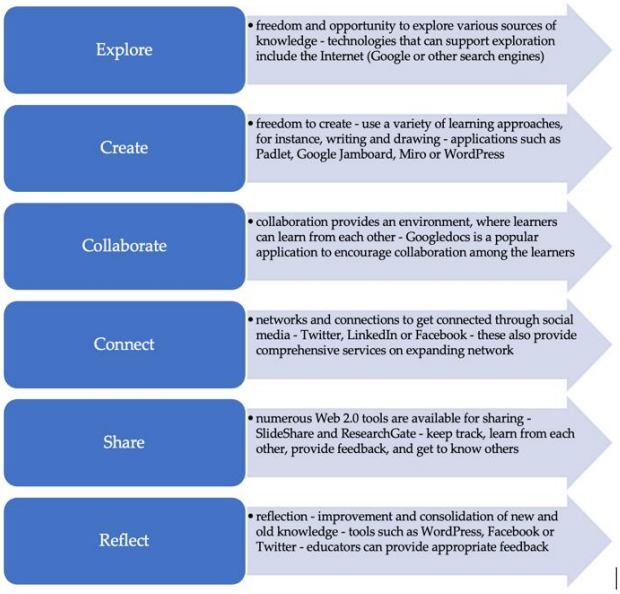

Fig. 2. Six elements in heutagogical approach [23].

Secondly, not much is found about paragogy or the theory of peer learning; at best, most scholars explain it in terms of

how it works, and how it works best [24]. According to Corneli and Danoff, paragogy has five aspects, including,

1) changing context as a decentered center, where educators or students are not merely educators or students but are actually co-creating the learning context as a whole;
2) meta-learning as a font of knowledge both concern with efforts to 'learn how to learn' and efforts to learn how to support others in their learning efforts;
3) peers provide feedback that would not be there otherwise, where students must not simply seek confirmation of what they already know, they must confront and make sense of differences as part of the learning experience;
4) learning is distributed and non-linear simply means that learning does not go in a straight line; and
5) realize the dream if one can, then wake up! This suggests that without clear goals, there will be nothing to realize. Without critical thinking about goals (leading students to change them), learning is a mostly passive process.

Lee and Rofe [25] opined that the prefix 'para,' which literally means 'alongside,' does not position peer learning as secondary within a pedagogical framework. Nonetheless, paragogy is to recognize the key aspects of effective peer learning, such as the distributed and non-linear nature of learning and the importance of peer feedback. In addition, Herlo [26] argued that paragogy is concerned with peers producing a useful and supportive context for self-directed learning. This further suggests that the roles played by peers during classroom learning may have impacts on students' learning.

Because students must rely on each other, this paragogical theory requires online networks to be sufficiently developed to support user-generated content [27]. Bassendowski [28] in her commentary on paragogy summed that, students analyze and co-create the learning environment as they share the learning situations and experiences; all these are done with the aids of information technology.

Thirdly, cybergogy is not a new concept. According to Wang and Kang [29], the need to establish a framework for producing meaningful and engaging learning experiences for distance students with various cultural and linguistic backgrounds is significant due to the changing needs of the students themselves. Together, Wang and Kang coined the term cybergogy as a descriptive label for the strategies for creating engaged learning online. Their model of Cybergogy for Engaged Learning, as illustrated in Fig. 3, has three overlapping domains: cognitive, emotive, and social. This model is an amalgamation of existing thinking, concepts and theoretical frameworks on the magnitude and nature of the three domains in engaging students online. The instructors, therefore, can customize the students' engagement online. As a result, the students will be able to complete their tasks, and become actively involved in the learning process.

Muresan [30] further added that the cybergogy model promotes the importance of three overlapping domains (cognitive, emotive, and social) to produce engaged learning. This suggests that for the students to be successful learners online, they should be able to 'engage' their emotion, cognition, and social self. Students will inevitably feel secure and confident of their own learning because they put their trust on the learning environment.

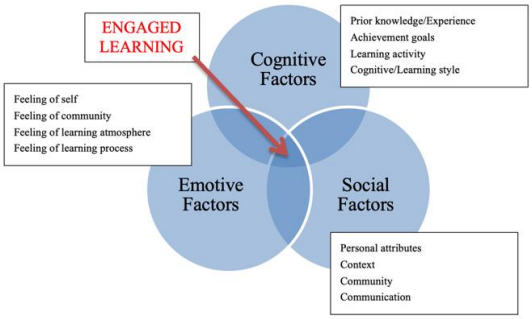

Fig. 3. The model of cybergogy for engaged learning.

III. Methodology

The methodology adopted for this paper is qualitative in nature. There are two important stages to the research design. Firstly, the author used her own classes for implementing D-WTW during the semesters. Due to this, the selection of materials and design of learning activities become a critical part of the whole teaching and learning process and this research. The author must plan and design synchronous face-to-face activities according to the lessons uploaded on the LMS, and then execute D-WTW during the synchronous sessions. The execution of D-WTW is only for at least eight hours per semester; these eight hours were divided into four different slots of two hours each slot. The author used these synchronous sessions to conduct engaging activities to complement the notes uploaded in the LMS. These activities arguably have been a form of transformative learning, which is active and collaborative.

Students attended synchronous face-to-face remote learning sessions ready to enhance their knowledge with the lessons of the day because they had had accessed to the learning materials uploaded, which include videos, reading materials and pictures or diagrams. All synchronous face-to-face sessions began with questions about previous lessons or students were asked to recapitulate critical concepts previously learned. Socratic Dialogues, a method of questioning and probing for appropriate answers, were used to sharpen students' perspectives on previous, and lessons they were about to explore. D-WTW began when students had no more questions to ask.

To begin D-WTW, students were put into smaller groups. In these groups, students must brainstorm, and discuss the lessons (the critical concepts) of the day; these they must do through the course WhatsApp group. Then, they would share their mind map on Padlet or other online whiteboard that the author had chosen for the day. These brainstorming and mind mapping activities [31], [32] encourage active, collaborative, exploratory learning and increase problem solving and communication skills.

Secondly, the author observed the behaviors of students during synchronous face-to-face sessions. The observations began from students' discussions on the WhatsApp group, or brainstorming activities to the discussions and/or arguments on the online whiteboard. The author prepared an observation checklist to facilitate the observation process for eight hours per semester. The checklist consists of students'

learning behaviors and reactions towards the activities using D-WTW, as a teaching and learning approach. There are only two scales in the observation checklist, Yes and No, responding to the existence or non-existence of the behaviors and reactions. The items in the observation checklist were adopted from various research on classroom teaching and learning [33], [34].

The researcher has been using WTW for seven semesters prior to shifting to emergency remote teaching due to the COVID-19 pandemic in the second semester, the Academic Year 2019/2020. This paper documents the general teaching and learning experience and environment of the three semesters of the implementation of D-WTW (the Academic Year 2019/2020, the second semester only; and the Academic Year 2020/2021, first and second semesters).

Analysis of the data was done based on the frequency of the scales in the observation checklist for three semesters. Discussions and conclusions that follow are based on what the author has observed online and on the WhatsApp group of the course.

IV. Results and Discussions

A. Learning Behaviors and Learning Reactions

The results will be analyzed and discussed based on the observation checklist in the relevant semesters when D-WTW was used (referred to as Semesters 8, 9 and 10: S8, S9 and S10, respectively). It needs to be emphasized that the students for these three semesters were of different cohorts. Therefore, this paper is not to compare the performance of these students in different semesters; rather, the results focus on the learning behaviors and reactions of students when D-WTW was used. At the same time, the research questions posed earlier will also be answered. The two research questions are, (a) how best to implement D-WTW during synchronous face-to-face sessions, and (b) do the students understand the lessons of the day when D-WTW is used.

TABLE I: Findings from the Observation Checklists

Category	Item	Yes/No		
		S8	S9	S10
LB	Are students attentive and interested?	Y	Y	Y
LB	Are students cooperative and responsive?	Y	Y	Y
LR	Do students display understanding of the lessons?	N	Y	Y
LB	Do students follow directions?	N	Y	Y
LR	Do students appear engaged with the lessons?	Y	Y	Y
LB/LR	Are students under control during the lessons?	N	N	Y
LB	Do students demonstrate respect for the educator and peers?	Y	Y	Y
LR	Do students use their mother tongue during brainstorming/small group discussions?	Y	Y	Y
LR	Is student-to-student talk conducted in the native language?	Y	Y	Y
LR	Are students able to communicate ideas and do presentations effectively in English?	Y	Y	Y
LR	Do the students demonstrate systematic questioning types?	N	N	N

Table I illustrates selected items in the observation checklist. There are two categories of 18 items in the checklist. As is evident in the table, observations are categorized into two. Learning behavior or LB refers to how students behaved during the synchronous face-to-face sessions when D-WTW was used. On the other hand, learning reactions or LR refers to how students responded to aspects of synchronous face-to-face activities. Some items overlap; they have both LB and LR.

It can be discerned from Table I that firstly, students become more confident in their articulation of ideas, and secondly, they become more engaged during the synchronous face-to-face learning sessions. The learning behaviors of students, especially students' attentiveness and interest in learning, as well as their cooperation and responsiveness were observed during three semesters when D-WTW was adopted. The evidence was captured through discussions on chat columns on the Microsoft Teams (MsTeams) and these were reflected on the online whiteboard and presentations done on the day. Further, students were comfortable using their native language, in this case, Malay language during the learning activities and 'small talks.' This is because, it was observed that they used Malay language, which was considered part of their learning reactions during D-WTW. Nonetheless, this use of Malay language did not hamper their use of English for presentations and formal discussions with the whole class during synchronous sessions. It must be emphasized that the medium of instruction for teaching and learning sessions at the NDUM is English. The author argues that these could be contributed to the learning environment that allows them to explore and tap into their potential, and ultimately, this strengthens their learning experience.

B. Answering the Research Questions

In answering the first research question, the author opines that there are three strategies to ensure that D-WTW could be implemented effectively. First, D-WTW must not be used 'all the time.' This suggests that it should be alternately used with other online learning approaches. For the author, she also uses online seminars, problem-based learning approach, online role plays, online treasure hunts and puzzles, among others for the synchronous face-to-face learning activities. This enriches students learning experience and environment. Second, the planning and preparation for D-WTW must be done systematically. The materials selected to be uploaded must be self-explanatory to allow students to absorb and understand them. The execution of D-WTW can be easier once the students attending synchronous sessions have grasped the critical concepts presented online. Third, students must not be rushed into completing tasks. Students must be allowed to explore all possible solutions and ideas, and to argue or debate about those solutions and ideas. This increases their confidence in communicating their thoughts, and most importantly, engages the students meaningfully in their learning process. This is one of the ways how D-WTW has humanized remote learning.

The second research question seeks to determine whether students have understood the lessons when D-WTW was used. From the observation checklist, it can be deduced that students had no problems in understanding lessons and

critical concepts. Three items under the category of learning reactions responded to this issue on understanding. All students appeared (the term appeared is used because the author could not see the students physically) to be engaged during face-to-face activities, and this was evident in all three semesters of observation. The author argues that students 'had' to be engaged because they were actively doing activities during D-WTW, from brainstorming, to mind mapping and lastly, presenting. Further, out of these three semesters, students displayed understanding of the lessons only in the last two semesters observed. This could be contributed to various factors, including students' failure to access the materials uploaded online before coming to the synchronous sessions, and the instructions for activities were difficult to be understood. The last learning reaction that responded to students' understanding was their use of questioning types. It is argued that when students use appropriate questioning types during synchronous face-to-face sessions, they would satisfy their own needs of learning [35], [36]. Nevertheless, the students in the three semesters did not display the ability to appropriately use various types of questioning techniques. This finding alerts the author in terms of students' skills to learn effectively and efficiently, and further actions to rectify this must be taken immediately.

V. Conclusions

In conclusion, the author argues that D-WTW as a teaching and learning approach can improve students' learning experience and environment. WTW was designed by the author about six years ago and has been used in her physical classes ever since; now D-WTW is also used in her remote teaching. It is found that first, students were observed to be more confident in presentations and sharing of opinions, and second, students were more mentally, and emotionally active and collaborative during the synchronous remote learning sessions. Despite this, much is still needed to be done. Three suggestions for strengthening the use of D-WTW are provided next. Formalizing D-WTW as a teaching and learning approach is the first step. This could be done by introducing D-WTW to other educators and academic programs at the NDUM. Then, a collective effort to conduct a bigger scale research on D-WTW follows. Improvements to D-WTW further enrich and benefit students' learning experience and environment. Finally, to optimize the benefit of D-WTW, students must be equipped with the skills to ask various types of questions; this suggests that students need to be (re)introduced to various questioning types and techniques that can be used during learning sessions remotely. In so doing, the online activities through D-WTW are humanized when the students own the remote learning processes!

Conflict of Interest

The author declares no conflict of interest.

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