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Migrating Vs. Decentralizing MOOC-based e-content to Teaching MA Language and Communication Students

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Abstract
Never before has education been more tech-oriented, cloud-based, and online-driven, especially with this new pandemic-altered educational environment. However, new regulations worldwide limit physical interaction inside the bounds of educational institutions, which pushed Algerian university teachers to operate mainly online under unsuitable conditions. Therefore, our prime objective is to devise a MOOC-based teaching modal that primarily palliates the current dire problems regarding students' equity. One of the solutions proposed in this paper is two equitable, to some extent, tech-enabled modalities of instruction that leverage the available first-rate Massive Open Online Courses (MOOC) e-content to teach Master of Arts (MA) students: language and communication students of English department at Mostaganem University in Algeria. There were two online groups, the first one regards migrating to the MOOC itself and letting students operate on the MOOC provider. The second e-group decentralizes the e-content to a closed Facebook group where students can access the e-pedagogical materials directly from the social-media-mediated landscape. To this end, a pedagogical action research based on the comparative approach is used to undertake this study that comprehended 44 students to compare the two e-groups through different working situations. Findings revealed the difference between the two e-modes of teaching. They presented a framework enabling instructors to choose which one to leverage according to students' digital skills and access to internet bandwidth, thus serving as a guideline for any instructor wishing to participate in such an educational endeavor. Finally, implications of these two technologized modes of instruction on the teaching profession overall are set forth.

Keywords: digital skills, MOOC e-content, social media, Algerian university teachers

Introduction

Framed upon the various consequential effects that the global outbreak dropped on different sectors, in general, and academia, in particular, teachers and educators delved into the process of looking for new educational avenues to e-teach their students. They were required to dig into home-only delivery pedagogy. By it, teacher- and/or institutions-led initiatives attempted to plot, devise and deploy e-instructional modalities to ensure educational continuity despite all the wide range of challenges they faced and are, in fact, still facing thus far, in particular during the Covid-19 Pandemic.

As a case in point, the Algerian ministry of higher education imposed Moodle as a common platform – that is neither well-adopted nor well-adapted - to be leveraged by students and teachers (Ghounane, 2020 ; Sarnou & Sarnou, 2021) or alternative ones like Facebook, Zoom, Google classroom and so on (Chelghoum & Chelghoum, 2020 ; Ghobrini, 2020 ; Ghounane, 2021) . They have fallen back to the de-multimediatized asynchronous e-mode of teaching (Lassoued et al., 2020). Students were overloaded with text-, pdf- or ppt-format above and beyond the absence of synchronous contact between these two actors (Blizak et al., 2020).

Algerian university instructors had to ache a heavy workload regarding the multi-layered teaching task that considered issues related to the pedagogical material creation, customized delivery, choice of to-be-used technology, e-environment adequacy and internet and tech-device access (Haddad, 2020 ; Asma &Asma, 2021). Therefore, our academic research focused on using Massive Open Online Courses (MOOCs) as an alternative and supportive model for free education worldwide during the COVID 19 pandemic. More specifically, we have focused on the lack of using Massive Online Courses as one of the alternative and challenging forms of open education provided for free through online platforms in Algeria in all sectors, particularly the educational sector. By this, we will refer to the crucial role of MOOC in reducing various obstacles our students and teachers or colleagues faced during the shift of teaching and learning from face-to-face to online.

In this context, researchers attempted to mitigate some of the prominent issues, especially those regarding equity. They thus developed a MOOC-based initiative on social media, particularly Facebook. In addition to unburdening the loads of having to design new e-materials from scratch, this e-pathway can also empower e-instructors with a guideline that could help them overcome the existing and persisting issues. In this regard, we could develop two main research questions about Algerian university teachers' ability to teach students with no internet access and students with limited to no digital skills. To go strictly to the points, we based the study upon the following objectives:

1. Develop a MOOC-based teaching modal that primarily palliates the current dire problems related to students' equity.
2. Deploy and refine two variants of the tailored MOOC-based e-initiative, namely "Decentralizing" and "Migrating."
3. Trace their execution and give a detailed account of their merits and demerits
4. Generate a guideline or a framework that can steer teachers' teaching ship even when operating in minor favorable conditions.

Literature Review
Merging MOOCs with Social Media

Massive Open Online Courses (MOOCs) witnessed an unprecedented proliferation in the educational realm (Ghemmour & Sarnou, 2016), that is why scholars, educators, and researchers became optimistically quite vocal about the potential impact it can yield for life-long learners anywhere in the world. However, due to the newness of MOOCs, different educational experts and scholars defined MOOCs differently. For example, Kesim and Altınpulluk (2015) portray MOOCs as:

> internet-based educational environments that provide the opportunity to take classes from elite universities and instructors through environments, such as videos and presentations through open and free courses and course schedules with no formal degrees, certification, or accreditation for the self-development of knowledge and competencies by individuals. (p.16)

According to them, students are offered the chance to learn and expand their knowledge virtually on educational platforms that draw content from prestigious universities with no formal accreditation whatsoever. As a result, not only students but teachers can also benefit from the broad spectrum of high-quality learning materials (Bicen, 2017, p.173; Mattes, 2017) that can be leveraged in their teaching trajectory, especially in this dicey period of Covid-19 juncture.

Through a more focused-lenses on MOOCs affordances, Ghobrini (2021) draws attention to the untapped benefit of offline-MOOC-based content, which means that "each available e-course is the related offline materials for it. That is to say that each video can be downloaded; even better, students can download the transcript of that very video" (p. 5). This feature of diversifying the format of the same material can be the first part of the puzzle related to the new e-mode of instruction this research seeks to devise; this is one of the many reasons MOOCs became popular amongst students of different socio-economic backgrounds. In the same vein, social media are gaining ground at an exponential rate in comparison with educational-only platforms due to the persistent interest of millennials and their constant presence in the virtual world (Yurder&Akdol, 2021).

From a stance that converges these two trends (social media and MOOC), a survey conducted by Bicen (2017) indicates that a significant number of students took part in an e-course hosted by the Near East University "would like to access to MOOCs programs through social media" (p. 175).In the same vein, he echoed that it is preferred to operate and view educational-based content on these socially-enabled platforms rather than educational only platforms. Along the same line of thought, Zheng, Han, Rosson, and Carroll's (2016) study demonstrates that social media - specifically Facebook- groups enhanced students' engagement (2016) than MOOC forums and retention. Likewise, Lucas and Moreira (2009) revealed that utilizing informal social network outlets positively impacts students' formal learning outcomes. Finally, an initial tentative to blend MOOCs with social media is portrayed in the study that was carried out by Ostashewski and Reid (2012) in which the e-course was delivered within a university social networking site group, and the "learning activities utilized social media tools for content delivery and student engagement" (p. 217). This socially-network teaching practice is referred to as the educationalization process of the social platform (Ghobrini, Benzert, &Balas,

2022) or, more precisely, educationalizing features of it by "adding on an educational perspective whilst preserving the social characteristic and that is what sets this instructional mode apart from educational-only platforms" (p. 11). It entails a synergy of the educational and the social aspect that offers students a wide pallet of functionalities that ranges from posting, sharing, commenting, video-conferencing, sending text-based and voice-based messages to collaborating and cooperating (Das & Mahapatra, 2018). In a context-driven perspective, many Algerian studies have mined social media in general(Sahraoui & Chaibendraa, 2020; Sarnou, 2021; Ghobrini et al., 2022) and Facebook (Blizak et al., 2020; Ghounane, 2020; Ghounane, 2021) in particular for educational purposes, especially in these tumultuous times, but studies that blended MOOC and social media are significantly scarce, and this is the reason that motivated us to undertake this study on a MOOC-based initiative on social outlets.

Angled Lenses on Students' Equity

Distance education does often equates with social equity (Willems, 2013) in terms of "access, participation, and outcomes across a broad spectrum of formal learning contexts"(Willems & Bossu, 2012, p.185). From a MOOC-guided stance, Inamorato dos Santos, Punie, and Scheller (2017) probe MOOCs and highlight their "potential means of achieving social inclusion and equal opportunities" (p. 6). In the same token, different scholarship tackled "students equity" from various aspects, which can refer to "widening participation" in higher education (Bennett, Southgate, & Shah, 2016), the underlying policies and strategies to do so (Burke, 2012), educational- and governmental-led initiatives alongside the funding affecting it (Naylor & James, 2016), the excluded social minorities like "prisoners, indigenous people, and immigrants from around the world" (Silver, 2010, p.183), marginalized racial groups (Bennett et al., 2016) disabled and aged learners (Sanchez-Gordon & Luján-Mora, 2018; Park, So & Cha, 2019), or more recently, socio-cultural, linguistic, and economic skill-based barriers (Lambert, 2020).

In our case, for the sake of clarity and analytic precision, "students equity" regards, on the one hand, the ability to access synchronously or asynchronously the same e-content for all students, even if it is not framed in the same format, and on the other hand, being able to access that very pedagogical material regardless of their internet bandwidth especially if it is non-existent. This predicament is often coined as the digital divide, which is "the absence or limitation of access to the Internet for certain people or groups based on affordability, knowledge, or motivation"(Adams, Ernstes & Lucey, 2015, p.641). As for the necessary e-skills, allow them to operate effectively and efficiently on a wide variety of web-based outlets, be it educational (e.g., MOOC providers) or social (e.g., Facebook).

Therefore, along with the same perspective of the four-fold ICT engagement principles mentioned by Dray, Lowenthal, Miszkiewicz, Ruiz-Primo and Marczynski (2011), basic technology skills and access to tech apparatus remains a priority when dealing with matters that seek to address students' equity. For instructors to provide any help, they need a specific e-skills categorization to pinpoint students' digital literacy better. Upon this reflection, Ghobrini (2021) gave an initial tentative categorization of students who struggled, partly or entirely, to get into the online landscape. He, therefore, contends that:

this category of non-digitally fluent students has gained, to a large extent, a new trait during the critical pandemic period of being partly-digitally-tethered as they are present on social media through a tech device, be it their own or one of their close relatives- as an attempt to acclimate to the new normal. (p.7)

A considerable variety of studies backed this claim that a significant increase of active social media users has been noticed during the lockdown both on the national (Kemp, 2020a; *Social Media Stats Algeria*, 2021) and international level (Bruns, Harrington, & Hurcombe, 2020; Kemp, 2020b; Tsao, Chen, Tisseverasinghe, Yang, Li & Butt, 2021; Volkmer, 2021). In this light, Kemp (2020b) asserts that a total increase of more than 10.5% of social media users was observed during the period of the first lockdown, which amounts to more than 376 million users worldwide, and 99% of these very users accessed their social media accounts via mobile phones. From a local context-bound context, 80% of the Algerian population was on Facebook in the first lockdown caused by the global pandemic (Social Media Stats Algeria, 2021), and this hints at the fact that Algerians in general and youth, in particular, are fond of and inclined to this social-media medium of communication. Another fact worth mentioning is that the dominant communication provider (Djezzy) in Algeria offers a free service called "Djezzy Flex" that enables Facebook users to operate with text-only features like viewing and sending text messages. However, it does not allow videos or picture viewing(Facebook Flex, 2021).In conjunction with the first piece of the puzzle related to offline MOOC-based attributes discussed above, this feature holds the potential of addressing the second part of the problem regarding student equity. Hence, it will be the second piece of the puzzle that substantiates, to a large extent, the e-solution that this study attempts to elaborate.

Methods

The undertaken study is a pedagogical action research with an aspect of a comparative approach to develop and compare two MOOC-based instructional modes to e-teach students during the second wave of the global COVID-19 pandemic and, in all likelihood, generate practical guidelines for tertiary level teachers to be able to leverage in this abruptly metamorphosed educational conditions. The fundamental purpose of pedagogical action research is to systematically investigate our own teaching-learning facilitation practice with the dual aim of modifying practice and contributing to theoretical knowledge (Norton, 2018).

The researchers were required to reflect and recalibrate their instruction to suit the current conditions through an iterative process of planning, acting, observing, collecting feedback, and reflecting until attaining a favorable outcome. It would, hence, enrich the existing body of literature in this niche as well as serve educational practicians worldwide generally and low-to-intermediate income countries specifically. Along these lines, Kemmis (2009) argues that action research is regarded as a "practice-based practice" which goes hand in hand with what was intended from this study as the main aim is to develop and devise through two variants equitable, to varying degrees, of MOOC-based modes of instruction that tentatively oust the prominent barriers that obstructed the learning-teaching dive in this turbulent time.

Context and Participants

The research is conducted at the University of Abdelhamid Ibn Badis, in the department of English language, with 44 first-year master students of the language and communication

discipline, aged between 20 and 26 years old (52% males and 47% females) primarily took part in the study and were randomly assigned to two different Facebook groups through an online website, "randomlists.com." However, there is no experimental control group. It was merely done to augment the validity of the research. Students who did not complete or dropped out of the course were removed from both groups leaving 19 students in each one. The sampling technique used in the study is convenience sampling since students were not randomly selected and thus have been all included in it as this technique "constitutes a non-random (non-probability) sampling" (Sedgwick, 2013, p.1).

Research Instruments

This action-research process was undertaken using three different data collection tools: post and pre-questionnaire, online and offline observation, and students' continuous feedback. These qualitative and quantitative data were gathered at different stages of the study. First, the pre-questionnaire was administered to the target population to gauge students' needs and fixate the first pillars of the context-informed problems. Then, at a later stage, build upon it an adequate theory- and terrain grounded panacea that is likely to yield a successful learning-teaching endeavor. Finally, the implementation of this quite novel instructional approach data was gathered through two channels: face-to-face class observation and online observation in the Facebook private group alongside the continuous students' feedback to draw a detailed portrait of the students' learning experience and thus re-calibrate instruction. Finally, after completing the course, the post questionnaire is administered to capture, holistically, how students have experienced this learning venture and, in the same token, delineate both the positive and negative aspects of these MOOC-enabled instructional modes and how we can re-adjust them for future usage.

Research Procedures

All students of the same class had the same face-to-face instruction, but once online, students are separated into two different private Facebook groups -considered an online class. To avoid random posts, each week's posts, be they assignment, announcement or documents, were grouped in a guide - a new feature of Facebook's social learning that allows the administrator of the group to "organize posts into guides and change the order in which they appear" (social learning group) so that students can have a structured and organized view of the posts once they log in to access the e-group. For example, the first post in each group was a screen-recorded video illustrating how to create an account to access the MOOC provider "Coursera", which online course to enroll in and how to do it.

Because this platform has a monetized system of their courses but, at the same time, offers an audit-free version to anyone who cannot pay and wishes to take part in these courses, it was necessary to give students a simple step-by-step procedure on how to do it. For this reason, students were required to access Coursera as "auditors"- users who view the content but do not complete any assessment (Coffrin, Corrin, Barba, & Kennedy, 2014). For them to access the e-content without paying any fee entrance as opposed to another type of "the active" learners who completed at least one assessment; or "qualified" learners who watched content, completed the assessment, and scored well.

It is noteworthy that it was mandatory for the first group (migrating) to create an account on Coursera. After all, it was the only way they could have gotten access to the video-based e-materials instead of the second group (decentralizing), which was optional because the e-content was already posted on the group. Students had three minor assignments and a major one that encompasses what they have learnt throughout this contracted period of time. For their assignment to come to fruition, students need to view the MOOC-based pedagogical material as it was the core of the course.

Results and Discussion

The researchers designed a MOOC-based instructional mode to acclimate to the new normal. They managed to deploy two variants, namely "decentralizing" and "migrating," mainly differentiated regarding how students access the MOOC-format pedagogical materials. Overall, with a problem-solving mindset, the e-solution is based upon three prongs; 1. alternative e-space, 2. multimedia-based content, 3. a sense of equity. These three prominent elements are alternative avenues that seek to address the currently existing challenges that we are confronted with in our context. The result is exhibited herein and related to the state-of-the-art literature to situate our study in worldwide scholarly discourse.

Facebook as an Alternative E-space

Due to the myriad problems encountered with Moodle platform, Facebook was primarily chosen by students initially in a class by a show of hands and confirmed later on in the pre-questionnaire, 64,75% of the participants overall chose Facebook as an adequate alternative e-space for them, of course, others opted for other socially-mediated platforms in which they were familiar. Nevertheless, equally important, even those who did not rate Facebook in the first position had an account and could thereupon operate comfortably on it.

A minority (27,2%) opted for Moodle as they became accustomed to the platform. In that sense, students argue that on Facebook, it is easier to "contact teachers and friends"[they mean classmates], "access," "get notified on time"[as opposed to Moodle where the user need to log in and see the notifications], and "interact will all at once." Others are prone to the high degree of familiarity with the app-based platform and that "it extends the classroom in new and interesting ways and encourages collaboration and communication amongst groups of all sizes." This choice was not new, as 73,7% of the respondents certified that they had previously collaborated on Facebook even during the initial lockdown. These claims are reinforced by Ghounane (2020, 2021), as she argues that Facebook was the refuge that sheltered Algerian university learners and their teachers in the unpredictable times of Covid-19. From other lenses, Ghobrini, Benzert, and Balas (2022) certify that this educational-driven utilization of the platform entails that this in-the-cloud outlet was educationalized in that some features -that were inherently devised for social purposes – were maximized for educational ones.

Multimediatizing Content

Multimediatizing content in this study was of eminent prominence as 86,8% of students attested that most of all the e-material they have dealt with during the lockdown period was text-based, 13,2% noted that it was in a PowerPoint format. A slight minority declared that a handful of teachers posted on the university platform YouTube video(s) that are not always from reliable sources since YouTube is not an only-educational-video provider as opposed to MOOC

providers. Participants asserted that these types of content, which are primarily text-based, were "boring and time-consuming," "too long with very complex formal language" and "ambiguous". Therefore, they were qualified as a very "passive way of learning" which, ultimately led to "boredom" and "lack of motivation" and even worse, as one student confessed that he dropped out of university and that this traditional type of instruction was a slight, but the reason for making this drastic decision. Naturally, upon analyzing a 5 point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree that was utilized to gauche students' perceptions toward MOOC-based content, the lion share of the participants, from "agree to strongly agree", in group one (84%), and 83% in group two, affirm that they prefer video-based content instead of text-based ones which corroborated by the huge body of literature (Alario-Hoyos, Estévez-Ayres, Gallego-Romero, Delgado-Kloos, Fernández-Panadero, Crespo-García, & Blasco-Alís, 2018 ; Liang & Chalermnirundorn, 2020) that attests it considerably improves their motivation, regulate their cognitive load (Schneider et al., 2018) self-pace their instruction (Tallent-Runnels et al., 2006) and to the mere fact that a great portion of their life is spent in e-world full of highly and graphically sophisticated 3D videos, images and pictures, so it is only fitting to use these type of multimediatized material to better engage them in the learning-teaching process.

Even more so, each video, be it decentralized in the Facebook group or presented on Coursera, is supplied with English subtitles to grab students' attention and foster their understanding of the content(Osman, 2020). From another perspective, one student, unexpectedly, professed that she does not like the instructor in the video, which can be an influential factor to consider when curating such multimodal content and hence give students an extra-layer of agency by including their voice in the choice of the content.

A Sense of Equity
Of chief importance was to see that the newly designed alternative instructional modality has an aspect of inclusivity that showcases a degree, though limited, of equity of having access to one common platform, namely Facebook, and offering them different formats of the same materials. Otherwise stated, catering an equitable environment according to students' different digital skills ranges from being partly digitally literate to digitally-literate and digitally fluent (Savin-Baden, 2015; Falconer, 2019; Çelik&Kokoç, 2020; Ghobrini, 2021). Furthermore, in tandem with considering students' e-skills, the proposed model of instruction took into heed the internet problems they are facing as 72,2% in group one and 57,9% in group two of the participants assert that they had some internet-related issues. However, all of them attested that, in general, there is a local shortage in high internet quality. That is why 69,2% in group one and 60% in group two of the target population were affected by this technical issue and therefore used some form of pdf and/or text-based format of the videos. More specifically, 91,7% in Group one and 40% in group two opted for the pdf version of the content because students declare that "pdf version doesn't require a high-quality internet bandwidth" and that they "prefer to read slowly" and in other instances, they "watch videos and read the pdf from Coursera to better comprehend" the content at hand. As for the rest of them, they had to work with the text-based format of the content because they argued that they did not "have internet on their phone," "didn't want to consume much of internet" and, says another one "I could read all the transcript posted in the comment section with having only free Facebook." Diversifying the content typology appeared to suit the marginalized students' needs and learning styles overall. This finding is in line with that of Sankey, Birch and Gardiner's (2011) which measured the impact of

multiple content representations on learning outcomes and thus report that their students were very satisfied "on their use of the multimodal learning elements and perceived that these had assisted comprehension and retention of the material" (p. 18).

After planning and executing the two MOOC-based instructional modes, a detailed account is given on how to utilize them and the main differences that set them apart alongside their pearls and pitfalls. To maximize its use, the researchers devised a Framework for equity (Figure one) that leverages these two tech-driven modes of instruction. This framework can serve as a guideline for any instructor, educator, stakeholder, or decision-maker that faces equity-related problems in e-teaching and thus desires to alleviate such barriers.

Migrating Vs Decentralizing

Upon the three prongs mentioned above, a clear delineation is echoed below to distinguish the "Migrating" mode from the "decentralizing" one. On the one end of the pendulum, "Decentralizing" was the mode of e-instruction where students had to operate solely in the e-group because all the MOOC-based content were either downloaded from the MOOC provider or subsequently uploaded to the online group or a link to the target content is directly posted in the e-group. The former is a tad burdensome for the instructor as it is time-consuming. However, the second is more practical as the teacher chooses the MOOC-based material, copying and pasting the link within the Facebook closed group. On the other end of the pendulum, "Migrating" indicates that students are to migrate to the MOOC provider and operate on it in order for students to access the MOOC-based material. In other words, students will see a post on the e-group instructing them precisely which content to look for, how to locate it, and, afterward, complete the assignment. Any video-based content posted on either group is always accompanied by the corresponding pdf-format docs (shared through a google drive link) to be easily accessed for those who have internet issues. For the minority, who do not have internet, transcripts of the videos are posted in the post's comment section so that they can view , at least, the text-based content of the material at hand.

Pearls and Pitfalls

This section maps out the pearls and pitfalls of the two MOOC-based instructional modalities. As far as the "decentralizing" mode is concerned, the first positive aspect lies in the fact that students are well-acquainted with the platform where MOOC-based content is decentralized, in this case, Facebook. On that account, students will not have any technical problems, and that is why most of the questions that students inquired about, in this modality of instruction, was content-related, i.e., students asked the instructors questions related to the content, which enabled them to receive customized feedback to better fathom the course material, unlike students in group one, in the "Migrating" mode, where most of the inquiries were technical-related. For example, 47,1% of them have never operated on it before. Others could not log in properly, and 50% of the participants found difficulty locating the assigned videos or even accessing the audit version of the MOOC - the free version as it was previously explained. These challenges reflect that the lack of some students' digital skills which can make this mode demanding for both the instructor and the students as it derails their attention from the learning process, which, in turn, can be demotivating. On the flip side of the coin, digitally literate to fluent students, who could access the MOOC platforms, can benefit, in addition to the

assigned content, from new e-doorways of knowledge that can potentially expand their horizons as it offers e-courses in domains other than their own.

Framework and its Implications

The fruit of our study is translated in this MOOC-based framework that answers the research questions and confirms the ability of e-teachers, to some extent, to e-teach their students regardless of the internet bandwidth flux and students' digital skills. The first addition that the framework brings forth is an extended categorization of students' digital skills that take the e-transformation that students went through during the Covis-19 pandemic into consideration and therefore is better suited to represent students in that same context. This classification stems predominantly from the work of Çelik and Kokoç (2020) with only three categories, namely no digital skills, digitally literate and digitally fluent and, compiling them secondarily with Ghobrini's (2021) new category termed "partly-digitally-tethered" that is labeled in Figure one as partly digitally literate, which points out to the minority who were forced to seek refuge in the social-media realm with " a tech-device, be it their own or one of their close relatives- as an attempt to acclimate to the new normal." (p. 7). It entails that this marginalized category of students has a basic savoir-faire that enables them to navigate the social media landscape. In tandem with this extended categorization, Figure one depicts how instructors, educators, and even policymakers can deploy a "Centralized" or "Migrating" tech-enabled teaching mode according to the students' digital skills and their accessibility to internet bandwidth because these are the two significant challenges that teachers are constantly faced with, most particularly, in middle-to-low income countries. To illustrate the use of the framework, supposing that the instructor is dealing with partly digitally literate students who have a somewhat limited internet bandwidth. Then, upon frame-based reasoning, the instructor had better opt for a decentralized (D in Figure one) modality of instruction to optimize and maximize the learning-teaching process while taking advantage of all the aspects presented in the three-part e- pathway developed in the study. That is, every change in these parameters leads to a scenario that has a "centralized" or "migrating" technology-based online teaching method that adequately corresponds to the setting in which the instructor operates. It, conjointly, implies that the instructor can leverage a mix of the two modes if he has students with a different range of digital skillset. What should be kept in mind is that the choice depends merely on the context-related specifications of the teacher.
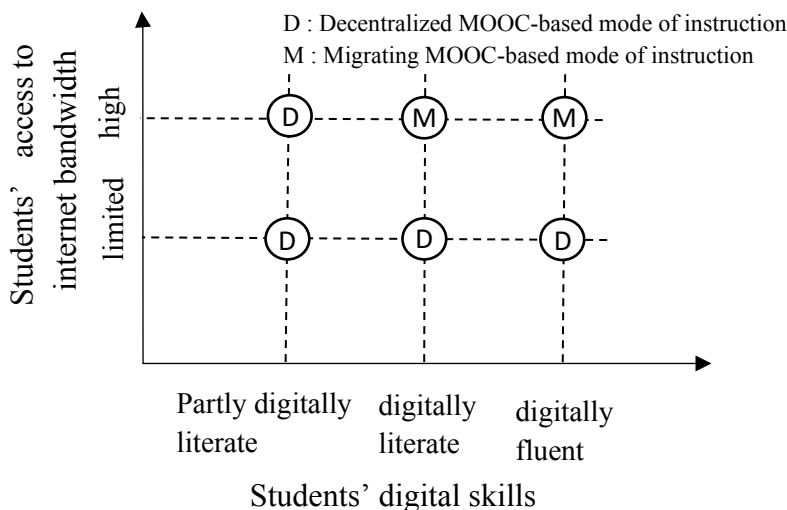

Figure 1. Framework of integrating a "centralized" or "Migrating" teaching mode according to the students' digital skills and their accessibility to internet bandwidth

Educators and teachers nationwide, especially those from intermediate-to-low countries where equity problems are most exhibited, need such tech-enabled and equitable modes of instruction. They unburden instructors from designing the e-content from scratch and help them overcome such hardships. On top of all, these instructors will have a framework that will help them re-adjust their e-practices according to their operating situation.

Conclusion

With the abrupt onset of the covid-19 outbreak, e-instructional challenges have grown multi-fold. Accordingly, teachers and educators nationwide have strained themselves to look forward and beyond to find e-solutions to assist them in navigating the hurdles of emergency remote teaching, especially those related to equity. That is why this study's main objective was to devise technology-enabled modes of teaching that overcome such barriers. In this light, the proposed two MOOC-based teaching modalities offer tutors the possibility of overcoming persisting issues related to students' digital skills and access to internet bandwidth. They empower instructors with alternative avenues that can afford well-rounded and well-balanced teaching-learning experiences like operating on social-media-oriented e-spaces and multimediatizing content. Coupled with these affordances, these two MOOC-based e-modes of instruction are supplied with a framework that can serve as a guideline for researchers, educators, educational institutions instructors, and stakeholders to choose the suitable model according to two parameters as mentioned earlier, even in the minor pleasant conditions like the total absence of internet bandwidth. This scholarly discourse can present a baseline for future research and enrich the escalating body of literature in this niche of modern e-pedagogy.

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