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The Integration of CALL, MALL, & DCALL in a Blended Academic Writing Class: Which One Takes the Most Proportion?

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ABSTRACT

Following technological developments from time to time, terms such as Computer Assisted Language Learning (CALL), Mobile Assisted Language Learning (MALL), to Digital Content Assisted Language Learning (DCALL) is still a trend today. They do have their characteristics that can be differentiated theoretically and practically. However, in the current era, where blended learning is increasingly becoming a trend, especially in academic writing classes, these three models have actually been indirectly integrated in the classroom and outside the classroom. Rooted by the fact that there is no previous research that has deeply examined the application of these three models as a possible integrated model in writing class as part of language teaching viewed from the lecturer and students' view, the researchers will fill this gap. In a more specific context, this study will document, observe, question, and interview lecturers and students in academic writing classes who have implemented blended academic writing instruction regarding the extent to which they use laptops as CALL representations, smartphones as MALL representations, and digital content as representatives of DCALL. With these limitations, the researcher will use documentation, non-participant observation, questionnaires, and semi-structured interviews to answer research questions later. It is hoped that the results of this study will be empirical results that can prove the extent to which the three model concepts above can be integrated into academic writing class which is done in a blended learning environment where technology and digital content use are quite inevitable.

Keywords: academic writing, call, mall, dcall

INTRODUCTION

Blended learning has now become a learning model that is often used, especially in higher education. As previously said, blended learning environments that include real and virtual elements are viewed as essential strategies for universities (Cobcroft et al., 2006). In essence, blended learning is an approach to education that combines in-person instruction with technology-assisted instruction (Dangwal, 2017). Furthermore, blended learning incorporates online learning tools to support the teaching and learning process continuously and everywhere, rather than replacing in-person engagement in learning activities (Saritepeci & Çakir, 2015). According to De George-Walker & Keeffe (2010) and Macdonald (2008), blended learning is the combination of in-person instruction and online activities that lets students study at their own pace while still providing a quality education (Osguthorpe & Graham 2003). Hence, it can be concluded that blended learning is strongly connected to the use of online technology in its learning process. Nevertheless, there is a need to make clear how a mixed approach might assist learning, as research indicates that student experiences vary widely and lead to diverse learning experiences (Jeffrey et al., 2006; Zepke et al., 2006). Consequently, the purpose of this present study is to investigate how students learn in blended learning, with a particular emphasis on how technology is used in this process. The reason for this is that technology should not be seen as "a magic bullet to solve educational problems, but rather as a powerful tool that must be carefully exploited as it can have both positive and negative impact." (Warschauer, 2009). The amount of time (or frequency) individuals spend using technology has been the subject of numerous articles (see, for example, Chen et al., 2010; Du et al., 2004; Kuh & Hu, 2001). Under these circumstances, a closer look at the technology's application is required (Goldenberg, 2000). Meaning that the focus is "quality of use." (Lei, 2010; Lei & Zhao, 2007), specifically referring to the application of technology in a subject-specific manner (Lei, 2010). On that note, this present research will emphasise the use of technology in helping students to learn in a blended learning environment, specifically inside academic writing class.

These days, it is crucial for students to use technology in writing classes as it helps them become better writers (Solihati & Mulyono, 2017). In a state university in Central Java, Indonesia, the lecturers of an academic writing course are also aware of this importance. For this reason, in the academic writing classes, blended learning has been used, which combines in-person instruction with online resources (De George-Walker & Keeffe, 2010; Macdonald, 2008). Because of this, it replaces in-person interactions with learning activities with online learning applications that support teaching and learning everywhere, anytime (Saritepeci & Çakir, 2015). In light of this, a

variety of study topics have been inspired by the usage of digital technology and online resources (Kuh & Hu, 2001; Robinson & Hullinger, 2008). Numerous research have examined the efficiency of technology when used to supplement in-person learning in the classroom as well as the factors that determine whether this strategy will be successful or unsuccessful (Tamim et al., 2011). However, only few of these studies have specifically addressed higher education (Carle et al., 2009; Lim & Morris, 2009). ICT use—how much or how often the technologies are used—has been extensively analysed (Chen et al., 2010; Kuh & Hu, 2001), but how and why it is used has received less attention (Lei & Zhao, 2007). Aside from that, few research have been carried out to look at what actually occurs in the synchronous and asynchronous learning settings as there have been discussions on the usefulness and efficacy of online technology used to enhance EFL writing (Lin & Griffith, 2014). (Shintani, 2015). The majority of online writing research (Omar et al., 2012; Miyazoe & Anderson, 2010) look into the use of synchronous and asynchronous learning independently. A number of scholars have looked into synchronous and asynchronous hybrid language learning (Perveen, 2016). Nevertheless, the application of hybrid synchronous and asynchronous learning in EFL writing situations is rarely studied by scholars (Shahabadi & Uplane, 2015). In conclusion, there is a gap to see to what extent technology is used in blended writing class, especially in higher education level. More specifically, how is the use of technology in the hybrid asynchronous and synchronous learning conditions.

Theories on technology to enhance or assist language learning in the classroom has undergone many evolutions. However, according to Frazier & Brown (2001), there is debate over the use of traditional classroom instruction and online instruction in second language classes. In response to these issues, Bahari (2020) stated that Computer Assisted Language Learning (CALL) has evolved throughout time to become a sophisticated instrument with the resources made possible by computer technology (Bahari, 2020). The reason for this is that the majority of the students who attend our sessions are digital natives, having grown up with technology from an early age and being satisfied with their level of computer literacy (Dudeney & Hockley, 2007). Egbert (2005) defines CALL as "learners learning language in any context with, through, and around computer technologies," while Levy (1997) defines CALL as "the search for and study of applications of the computer in language teaching and learning." Numerous studies have examined the efficacy of CALL and technology-enhanced learning; however, more study is particularly needed to understand how CALL learning can be used to improve writing proficiency (Al-haq & Al-Sobh, 2010). On the other hand, according to Prensky (2001), "digital natives" are "technically proficient at using computers and mobile devices for many functions, including internet searches." (Gilbert, 2013). As of right present, a lot of schools use mobile devices (Grigoryan, 2022; Kara & Yildiz, 2022). Mobile Assisted Language Learning (MALL) is a new dimension in language teaching and learning that arose from the transfer of computer functionalities to mobile devices. In summary, MALL emphasises continuity or spontaneity of access across various contexts of use, whereas CALL focuses on using personal, portable devices that facilitate fresh learning opportunities (Kukulska-Hulme & Shields, 2008). Generally speaking, MALL refers to learning through portable electronic devices such as PDAs, iPods, iPads, mobile phones, and other such gadgets that may affect language acquisition (Valarmathi, 2011; Suneetha, 2013; Mohammed, 2014). According to Viberg and Grönlund (2012), laptops should not be used in a MALL setting as only "lightweight" gadgets are being used. Numerous research have examined the use of mobile learning for particular language abilities, such as speaking, listening, reading, grammar, and vocabulary (Guerrero et al., 2010; Suneetha, 2013; Lee & Kim, 2013), despite the drawbacks of mobile learning as compared to computer-based instruction. Studies on the topic of teaching writing skills through mobile learning are not common nonetheless. Burston (2013) conducted a bibliography that includes 345 works on mobile assisted language learning from 1994 to 2012, which makes this evident. Less than 5% of the 345 publications made use of MALL to improve their writing. In summary, the use of technology in learning writing, especially the theory of CALL and MALL need to be emphasised more.

Apart from CALL and MALL, another new term by Fansury et al. (2022) which focuses on digital content to assist the language learning also emerged, DCALL. It is predicated on the idea that integrating technology or digital content into the educational process is a very practical substitute for traditional teaching methods (Alrubaie, 2020). Essentially, a new approach to education in the digital age is called Digital Content Assisted Language Learning (DCALL) (Fansury et al., 2018). To support the teaching and learning process, digital content-based learning, or DCALL, uses writing, photos, videos, and authentic materials from a variety of sources, including the internet, social media, blogs, emails, vlogs, television, and so on (Fansury et al., 2022). Unlike MALL or CALL, Digital Content Assisted Language Learning (DCALL) is distinct. Based on their individual traits, MALL is more likely to use cellphones or other mobile devices in its operations, whereas CALL is more likely to use computers, laptops, or PCs; DCALL uses both media and both computers and mobile devices. Put differently, the reason DCALL has wider coverage is that it offers more alternative learning resources (Fansury et al., 2018). Accordingly, students can engage in active learning using digital content-based learning on computers or cellphones, enabling them to interpret interactions or meet in-person during class (Linder et al., 2001). Additionally, digital content is available online from sites like Facebook, YouTube, and other digital contents source. Hence, it can be said that DCALL is able to encompass the use of CALL and MALL, especially in a blended learning environment. This is because to access digital content, especially online, technology is needed such as a computer or mobile device and the internet. It is further reinforced by the fact that technology can be employed in education in a variety of ways,

including organising and supplying lesson plans, enabling online learning materials retrieval, simulating, visualising, and interacting with scientific structures, processes, and models, and facilitating communication between students, teachers, and parents at any time and place (Bajcys, 2002; Bajcys & Reynolds, 2002). Since the academic writing course at the university which is the setting of the research in this study also uses digital content in its blended learning process, researchers are interested in examining what students' responses will be to the use of digital content in their academic writing classes. This is motivated by the fact that the digital content provided by the lecturer is available in the online student's book and can be accessed by students in a self-paced manner and can be accessed anytime, anywhere. Hence, the lecturer does not really know whether the students access that digital content or whether the digital content helps them in learning academic writing or not.

Based on aforementioned points, there are some issues that construct the background of this present study. First, there is a need to emphasise to what extent the use of technology in helping students to learn in a blended learning environment. Second, the use of technology in a blended environment of writing class needs to be investigated further, especially focusing on the asynchronous and synchronous learning conditions. Third, the use of technology in learning writing, especially the theory of CALL and MALL need to be emphasised more. Fourth, the use of digital content to assist the learning process in blended academic writing class need to be investigated. Hence, the purpose of this present study is to know the proportion of technology in blended academic writing class, especially using the theory of CALL, MALL, and DCALL. More specifically, in helping the students to learn writing inside (offline) and outside (online) classroom, both synchronously and asynchronously. Real-time interactive engagement, including online interactions, is a feature of synchronous learning environments (Salmon, 2013), while asynchronous learning environments allow learners the flexibility to work on projects at their own pace and during their spare time (Tusino et al., 2021). Within this research, an offline classroom is defined as a conventional classroom where students and teachers interact in-person, synchronously, and face-to-face while carrying out the teaching and learning process. However, asynchronous and synchronous learning are the two categories into which the online classroom is separated (Shahabadi & Uplane, 2015). Synchronous online learning offers a highly interactive, real-time learning environment where students and teachers can converse simultaneously and in real-time. They can ask and answer questions directly without getting frustrated, and the instructor facilitates the process, making it an interaction focused on learning (Hrastinski, 2008; Nikmah & Azimah, 2020; Shahabadi & Uplane, 2015; Skylar, 2009). On the other hand, the asynchronous online learning environment gives students the freedom to access and finish assignments using resources such as handouts, articles, powerpoint presentations, audio or video lectures, and other materials that have already been made available by the teacher or instructor and can be accessed at any time (Amiti, 2020; Perveen, 2016). It is expected that this study could provide comprehensive evidence on how the use of different kinds of technologies are applied in these environment and to show their pros and cons.

METHOD

This study used the qualitative research method to uncover students' view on the utilisation of technologies such as laptop as representation of CALL, smartphone as representation of MALL, and digital content as representation of DCALL to assist them in their language learning, specifically learning writing in academic writing class. This research approach is chosen since qualitative research begins with assumptions and the use of interpretive/theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem (Creswell, 2013). Setting of this study happens in one of the state universities in Central Java, Indonesia. Specifically, in Academic Writing course from English Department, Faculty of Education and Teacher Training. This course is taught in the third year of the undergraduate program of that particular university. Hence, the participant in this study were 31 (21 female and 10 male) students that have enrolled this academic writing course, and experience their blended academic writing class. To capture the data needed in this study, data collection methods used in this study was survey using questionnaire, semi-structured interview, documentation, and non-participant observation. The questionnaire was constructed in semi close ended form based on the theory of CALL (Levy, 1997), MALL (Valarmathi, 2011), and DCALL (Fansury et al., 2022) which combined with the theory of blended learning environment (De George-Walker & Keeffe, 2010; Macdonald, 2008) as well as synchronous (Salmon, 2013; Hrastinski, 2008; Nikmah & Azimah, 2020; Shahabadi & Uplane, 2015; Skylar, 2009) and asynchronous (Amiti, 2020; Perveen, 2016) learning. The researcher then formulate 33 items of questionnaire which has been validated by one of the Technology Enhanced Language Learning lecturer as the subject expert matter (SME) from the chosen state university. On the other hand, the semi-structured interview items were basically taken from the questionnaire to get deeper understanding from the students answer in the questionnaire. The questions for the interview are related to the reason behind the students using smartphones and laptops, as well as accessing digital content in their blended learning environment. The semi-structured interview is also conducted to the teacher to get some confirmations related what the researchers have found in the researching process. Finally, the documentation and non-participant observation is to provide real picture that support the result of the questionnaire and the semi-structured interview. After all the data are

collected, the data will be analysed qualitatively based on steps from Miles and Huberman (2014) that consist of data condensation, data display, and drawing as well as verifying conclusion.

RESULTS AND DISCUSSION

This part will begin with some tindings related to students' answers to the questionnaire given by comparing the use of laptop as part of CALL and smartphone as part of MALL in the blended learning environment, both offline and online, as well as synchronous or asynchronous. After that, explanations on how students use the digital content to support their language learning (DCALL) will be presented to enhance the previous explained findings. However, the discussion will connect the three of the findings to answer the research question in this study, along with comprehensive elaboration for each topic and supported by theories and previous studies.

Results

A. CALL vs MALL in Belnded Academic Writing Class

First of all, here are the comparison results of device usage, which are divided into CALL (Laptop) and MALL (Smartphone), and categorised by several aspects which are divided into several tables. This comparison is also divided more by offline class first as traditional classroom where students meet with the teacher inside the classroom, face-to-face, physically, and synchronously doing the teaching and learning process. Then, it is followed by an online synchronous and online asynchronous learning environment. These findings were taken from the results of student questionnaires which were also combined with the results of semi-structured interviews, documentation and non-participant observations to support the data obtained. This kind of division of tables is also made to facilitate the process of condensing, grouping data and drawing conclusions. Not only that, this is because each question item given uses a different scale and type, be it closed ended using Guttman, Four Likert, or even open ended. This is done so that researchers can get diverse but in-depth data, so that a conclusion can be drawn at the end.

Table 1
Devices Ownership

No	Aspect	CALL		MALL	
		Yes	No	Yes	No
1.	The availability of the devices to students.	100%	0%	100%	0%

From table one above, it shows that all students who participated in this study have and can access devices, be it laptops and smartphones or similar. This aptly demonstrates the fact that the majority of students attending our sessions are digital natives, having grown up with technology from an early age and being satisfied with their level of computer literacy (Dudeney & Hockley, 2007). Conversely, Prensky (2001) defined digital natives as those who are technically adept at using mobile devices and computers for a variety of tasks, including searching the internet (Gilbert, 2013). Furthermore, a lot of people use mobile devices in the classroom (Grigoryan, 2022; Kara & Yildiz, 2022). This is also illustrated in academic writing classes, where students are free to use devices, whether laptops or smartphones, both in class and outside of class. The figure below illustrates the conditions for students using these devices according to their learning needs.

Figure 1
Students are Using Smartphone or Laptop in Their Offline Class

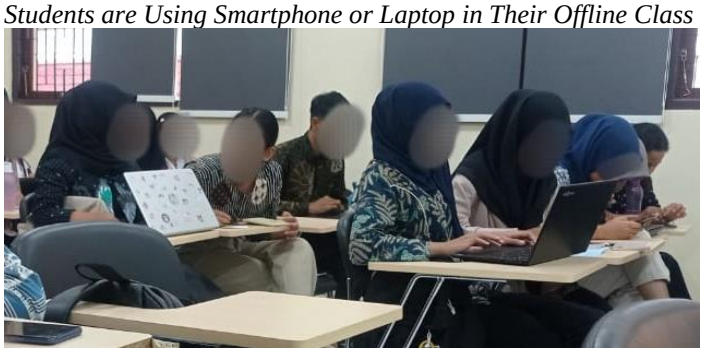


Figure 1 above also shows that there are students who are focusing on their respective devices, there are also those who are discussing with their peers in the academic writing class. Based on the results of non-participant observations carried out directly, in the offline (synchronous) academic writing class, they were given the opportunity to present and consult on their academic writing progress in front of the class, as well as get input

suggestions from the lecturer directly and peers. Therefore, apart from the group of students who are presenting in front, the rest of the students are required to listen via their own devices to create a link to the online stored document used, namely Google Docs. However, it is not uncommon for students to be busy revising their writing during offline classes, especially after receiving feedback from lecturers and peers. Therefore, it is rare to see students who do not touch devices such as laptops or smartphones during this type of class. However, the question that might arise is which one do they feel more comfortable in using these devices, especially not only in offline but also online writing class. This question will be answered by the table below.

Table 2
Comfortability Level of the Devices

No	Aspect	CALL				MALL			
		VC	C	Uc	VUc	VC	C	U	VUc
2.	The comfortability of the devices to be used in blended academic writing class.	71%	29%	0%	0%	58.1%	35.5%	6.5%	0%

The next aspect is to find out how comfortable students are using the devices mentioned above. If you look at the comparison in table 2 above, there are several codes used by researchers to indicate the level of comfort with the four Likert scales. VC is an abbreviation for Very Comfortable, C means Comfortable, Uc means Uncomfortable, and Vuc means Very Uncomfortable. From the existing percentage, it can be seen that 71% or the majority of students feel very comfortable using a laptop compared to a smartphone which is only 58.1%. In other words, in the blended academic writing classroom environment, overall almost all students are more comfortable using laptops to help their learning process, both in class and outside of class, both synchronously and asynchronously too. This is also supported by a comparison of how helpful these devices are for academic writing student.

Table 3
Level of Helpfulness of the Device

No	Aspect	CALL				MALL			
		VH	H	Uh	VUh	VH	H	Uh	VUh
3.	The helpfulness of the devices to be used to improve academic writing skills in blended academic writing class.	74.2%	25.8%	0%	0%	64.5%	29%	6.5%	0%

Apart from being comfortable, the data in table 3 above also shows that according to the majority of students, laptops are more helpful for them to improve academic writing skills in blended academic writing classes. This is obtained from a scale in a four Likert scale with the choice of VH as Very Helpful, H meaning Helpful, and vice versa, Unhelpful is indicated by Uh, and Very Unhelpful by Vuh. The percentage of students who agree that laptops really help them to improve their academic writing skills is quite far apart from students who think smartphones are more helpful to them, namely only 64.5% in the MALL column compared to 74.2% in the CALL column. So, the temporary conclusion that can be drawn is that the majority of students feel that the laptop they have as a device for CALL is more comfortable to use and helps them improve their academic writing skills in blended academic writing classes. However, this is a conclusion that is still on the surface. The tables below will show more in depth the conditions when students prefer to use laptops, and when students prefer to use their smartphones, especially in a blended learning environment.

Table 5
Students Preference in Using the Devices in Offline Academic Writing Class (Synchronous)

No	Aspect	CALL				MALL			
		O	St	Sd	N	O	St	Sd	N
4.	The frequency of the devices to be used for offline academic writing class (Synchronous).	45.2%	45.2%	9.7%	0%	58.1%	32.3%	9.7%	0%
	Platform used	Google Docs, Google Scholar, Google Translate, Mendeley, Ms Word, Research Rabbit, Perplexity, DeepL, Grammarly, etc.				Google Docs, Google Scholar, WhatsApp, Chat GPT, Microsoft Co-Pilot, Canva, Evernote, Google Translate, etc.			

Table 5 above summarises how often students use or access devices in the form of laptops or computers as part of CALL and smartphones or tablets as part of MALL. By employing the Likert scale again, the choice used to measure the frequency is using Often (O), Sometimes (St), Seldom (Sd), and Never (N). When compared with the previous table, where most students felt more comfortable and helped by laptops, the results in table 5 are slightly different. This is shown by the fact that 58.1% of students use smartphones more often in face-to-face offline or synchronous academic writing classes, compared to only 45.2% of students who more often use laptops or computers. This number is slightly different, but it still means that it is good that the two devices are still used in offline academic writing classes. Their uses are varied but also have similarities. Based on existing data, laptops are used by students in offline (synchronous) academic writing classes to access various platforms such as Google Docs or Microsoft Word to type their drafts in document form. Apart from that, since this is an academic writing class, some platforms to help them in writing academically are also used. Mendeley to help them in citing and referencing, Google Scholar to help them find related research articles, it is also enhanced by the use of AI such as Perplexity and Research Rabbit to help them brainstorm ideas and finding topics, Grammarly to check grammatical errors, as well as Google Translate or Deep L to help them in translation.

On the other hand, the use of smartphones by students in offline academic writing classes is actually almost the same, in terms of the platform used. There is still software for creating documents, academic search engines, AI assistants, writing tools, and translating tools. However, there were several differences found. First, smartphones are also used to communicate, discuss, and even as a tool to store information, namely using WhatsApp. Apart from that, smartphones are also used as tools to record and organise important information through note applications that can be accessed offline such as Evernote. Finally, it turns out that students also use smartphones to help them create mind maps to put their writing plans. However, platforms like the ones above can be accessed and can be available both on laptops and smartphones, this depends on the student's preference for use. The overall conclusion that can be drawn is that both laptops and smartphones are used by students in offline classes, but student preferences show that the majority use smartphones more often. However, the platforms they access are almost the same on both devices, only tailored to students' preferences and needs to help their writing learning process. These preferences are also related to the pros and cons of the device used as well. The table below represents the challenges students face when using the computer or smartphone in offline academic writing class (Synchronous).

Table 6
The Challenge Faced by the Students When Using the Devices in Offline Academic Writing Class

No	Aspect	CALL	MALL
5.	The challenge of the devices to be used for offline academic writing class (Synchronous).	a. Distracting b. The dependency on internet connection c. Not portable d. Battery that runs out quickly	a. Distracting b. The dependency on internet connection c. The size is too small d. Lack or limited features e. Insufficient memory or storage

From some of the findings above, it can be seen that there is a certain percentage where students are more comfortable or feel more helped by a laptop or smartphone. As a result, they can choose to frequently use laptops or smartphones in academic writing classes, especially during offline classes. However, the difference in percentage can be influenced by the advantages and disadvantages of the device they use. However, this part of this study will focus on looking at the shortcomings in the form of challenges experienced by students when using these devices, so that the similarities, advantages or disadvantages of each device can be discussed. In terms of using laptops as part of CALL, there were several shortcomings expressed by students. First, it is distracting, as student 11 says, "*In my opinion, challenges such as distractions allow unlimited access to various resources and sources of information, such as web pages, social networks or chats, and therefore, sometimes distract from the subject matter*.". Second issue is related to the dependency on the internet connection. As seen in previous findings, students use many platforms on their laptops, and most of them are online. Hence, even though students such as student 14 feel that laptops are very helpful, however "*The challenge is when I have to connect to the internet when the network is bad*." The next challenge is that sometimes it is not portable, as student 22 says, "*I mean it is more like an external thing like it's kinda uncomfortable to bring a laptop everywhere*.". Related to that, the next challenge was also stated by student 30, as he said "*It's quite big, heavy and sometimes the battery runs so fast, but the electric socket in the classroom sometimes is full*.". However, some of these challenges also happen when they use smartphones as well.

In terms of using smartphones, students also revealed several challenges which were slightly more than when they used laptops in offline classes. However, there are two challenges that also occur on both devices. First,

when using smartphones, students also feel distraction, as student 18 says, "*The biggest challenge is the temptation to open sites other than those needed in class, thereby disrupting learning focus*." Or student 26 who says, "*It's hard to focus because sometimes we get distracted by chat notifications, games, or other features that make us lazy to study*.". Similarly, the next challenge, which is the dependency on the internet connection, is also felt by some students as they say it is the "*Lack of the internet availability*". However, there are also some challenges that only happen when the students use smartphones. First, the lack of size of the screen or the screen is just too small. It is clearly described by student 3, who says, "*When I use a smartphone to make a mind map in Canva or complete a piece of writing part in Google docs, the challenges are not comfortable enough to write or design in a smartphone because of the size , so I should zoom the picture in the screen and something like that makes using a smartphone not as comfortable as using a laptop*.". It is actually also related to the next challenge, which is the limited features of smartphones preventing students from working optimally. It is stated by student 4, "*Of course because the writing features on smartphones are not as complete as those on laptops*." Or student 28 gives another example as "*The accessibility to open multi tabs is just poor*.". The final challenge is, for some smartphones, they might have insufficient memory or storage. It is stated by student 25, as he says, "*It becomes difficult when we want to search for journal articles. It could be because the cell phone memory is full*.". Meaning that the student could not access the open-access journal articles because their phone did not have sufficient storage to download it.

From these findings, it can be concluded that the use of laptops and smartphones in offline academic writing classes, meaning that it is done synchronously and face to face, reveals that smartphones have more challenges to be used. However, this is just the offline academic writing class as part of blended learning. The next finding will focus on the use of laptops and smartphones in online academic writing classes. This online academic writing class is divided into two, namely synchronous and asynchronous. As previously mentioned, the synchronous online learning environment is highly interactive and live, allowing teachers and students to converse in real-time while asking and answering questions directly, all while avoiding frustration. The learning process is thus learning-oriented interaction, as supported by the instructor (Hrastinski, 2008; Nikmah & Azimah, 2020; Shahabadi & Uplane, 2015; Skylar, 2009). On the other hand, the asynchronous online learning environment gives students the freedom to access and finish assignments using resources such as handouts, articles, powerpoint presentations, audio or video lectures, and other materials that have already been made available by the teacher or instructor and can be accessed at any time (Amiti, 2020; Perveen, 2016). A more detailed presentation of the use of laptops and smartphones in this regard starts from the table below.

Table 7
Students Preference in Using the Devices in Online Academic Writing Class (Synchronous)

No	Aspect	CALL				MALL			
		O	St	Sd	N	O	St	Sd	N
6.	The frequency of the devices to be used for online academic writing class (Synchronous).	71%	16.1%	9.7%	3.2%	58.1%	32.3%	6.5%	3.2%
	Platform used	Zoom, Google Meet, WhatsApp				Zoom, Google Meet, WhatsApp			

In contrast to previous findings where students tend to use smartphones more often in offline academic writing classes, it turns out that students more often use laptops in academic writing classes which are held online synchronously. This is proven by table 7 above which shows that 71% of students stated that they often used laptops as part of CALL, while only 58.1% of students used smartphones as part of MALL. As has been touched upon, online synchronous learning occurs when students and teachers carry out the teaching and learning process live from their respective devices from anywhere, without having to physically come to meet in class. However, according to the lecturer semi-structured interview and the non-participant observation, the academic writing course in this study implements the enriched virtual model of blended learning by (Godwin-Jones, 2018). This model places a strong focus on student autonomy because it allows them to interact primarily with digital learning resources while yet having the option to ask for help when needed. Meaning that apart from offline class, the online synchronous class can be done when students are outside the classroom and do their writing projects collaboratively. When they experience difficulties or need help from the teacher as a facilitator, they will ask the teacher for an online meeting schedule to hold a live discussion from their respective places.

This is the reason why the platforms mentioned by students, whether accessed via laptop or smartphone, in the table above can be utilised to hold such meetings. It is proven by some words from one student who often uses a laptop, "*If it's online then I usually use the online meeting platform to have a meeting*." (Student 22). To support this, student 30 also mentioned some of the platforms such as, "*Zoom, Google Meet, or WhatsApp call to have a live discussion with my friends or lecturers when we can't meet in person*." (Student 30). Another student said, "*Zoom and google meet, because it helps me to discuss with my friends easily*." However, students who frequently

use smartphones also express almost the same thing. Student 1 says, "*Gmeet, it's very helpful when we are in an online synchronous class because our school already provided the premium one if we use the school email*.". More specifically, "*I use my phone to open google meet or zoom for online academic writing class*." (Student 7) or "*WhatsApp because when I discuss it with my partner, we use WhatsApp to put the information*." (Student 14). So, it can be concluded that even though most students admit that they more often use laptops in online synchronous academic writing courses, the platforms they use are almost the same and can be accessed via laptop or smartphone. This goes back to the preferences and needs of each student to choose which device is suitable for their conditions for using these platforms. However, it turns out that the frequent use of laptops for online academic writing classes is not only for a synchronous type of class, but also an asynchronous one, as evidenced by table 8.

Table 8

Students Preference in Using the Devices in Online Academic Writing Class (Asynchronous)

No	Aspect	CALL				MALL			
		O	St	Sd	N	O	St	Sd	N
7.	The frequency of the devices to be used for online academic writing class (Asynchronous).	77.4%	19.4%	3.2%	0%	58.1%	32.3%	6.5%	3.2%
	Platform used	Google Docs, Google Drive, Google Scholar, Google Translate, DeepL, YouTube, Miscrosoft Word, Microsoft Co-Pilot, Chat GPT, etc.				Google Docs, Google Drive, Google Scholar, Google Translate, DeepL, Research Rabbit, Microsoft Co-Pilot, WhatsApp, Learning Management System, etc.			

In contrast to online synchronous academic writing classes, online asynchronous academic writing classes emphasise student autonomy, where students learn independently, at their own pace, and are more flexible in accessing material content or assignments given by the lecturer. Almost the same as the previous results, it turns out that in the online asynchronous academic writing class students also used laptops more often than using smartphones. This is proven by the percentage of 77.4% of students who often choose to use laptops, while only 58.1% often use smartphones for this online asynchronous academic writing class. However, because in this kind of class students do not have scheduled live interactions with the lecturer, students more often tend to access the content or material provided by the lecturer, or even work to continue on their writing projects as well. This is proven by the various platforms used by students. In terms of laptop use in online asynchronous academic writing classes, the platform used is almost the same as what students use when they are in offline synchronous academic writing classes. Meaning that students also use platforms related to software for creating documents, academic search engines, AI assistants, writing tools, and translating tools. However, one thing that is quite unique is the use of YouTube. As has been said before, the enriched virtual model of blended learning by (Godwin-Jones, 2018) used in their class emphasises student autonomy, since they primarily engage with digitised learning resources as well. It is proven by the figure below where the lecturer actually provides content in the form of videos related to material for each meeting which is included in the students' digital book.

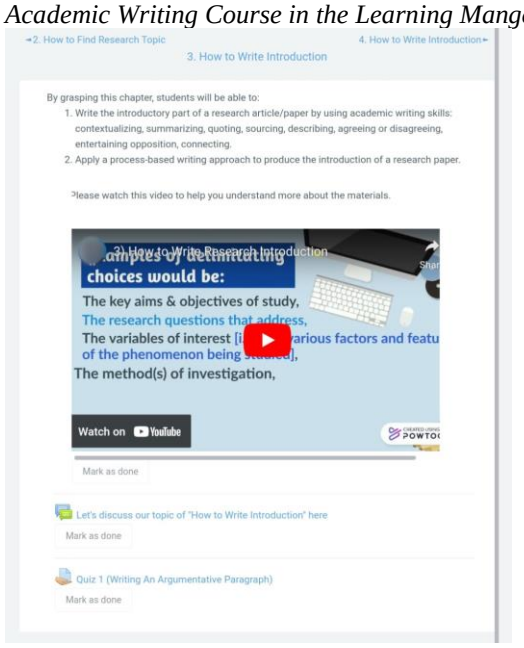
Figure 2

One of the YouTube Content Link Video Facilitated by the Lecturer in Students' Book

Figure 2 above shows one of the videos for the first meeting in the academic writing class, namely about introduction to academic writing, to build the students' knowledge before actually jumping into the writing process. However, the lecturer also has a YouTube account which he uses to upload all videos from the 1st meeting to the last meeting. This is done so that students can freely access videos on the topic of how to write academic writing which they want to watch or rewatch. This is why student 29 says that he used "*YouTube to search the material*.". On the other hand, regarding the use of smartphones in online asynchronous academic writing classes, it can be seen in the table above that the platform used is not much different from when students use laptops. However, it also appears that there are two different platforms that students use. The first is the Learning Management System (LMS) from their campus. This is because the academic writing course is also listed as a compulsory course on the campus where this study was conducted, therefore this course is registered and available on the campus' LMS. The figure below shows a brief overview of the form of this course in the LMS used.

Figure 3

Academic Writing Course in the Learning Mangement System (LMS)



In the picture above it is shown that through classes which are also held asynchronously via the Learning Management System (LMS), students can see the topic of each meeting, what learning objectives students will achieve in each topic, YouTube video content which is also available here, as well as There are also certain assignments given by the teacher and discussion forum facilities for students to discuss asynchronously with their friends and the lecturer. Apart from LMS, one of the students also said that "*In asynchronous learning, I just use a smartphone for communication via WhatsApp. However, sometimes I read material provided in LMS or students' book through my phone as well*." (Student 30). So, it can be concluded that students also use WhatsApp not only to carry out discussions synchronously as in the previous findings but also to communicate asynchronously. Apart from that, the lecturer also deliberately provides YouTube video links not only in the students' book as in figure 2, but also in the LMS as in figure 3, to be able to adapt to the comfort and needs of each student. This demonstrates the features of an asynchronous online learning environment, which gives students the freedom to access the materials and do assignments that have already been given by the instructor at any time they choose (Amiti, 2020; Perveen, 2016). However, the choice of using a laptop or smartphone on each platform, both in online asynchronous and online asynchronous academic writing classes, depends on consideration of what students think is best for them, of course. The table below shows the overall challenges faced by students in online academic writing classes.

Table 9

The Challenge Faced by the Students When Using the Devices in Online Academic Writing Class

No	Aspect	CALL	MALL
8.	The challenge of the devices to be used for online academic writing class (Synchronous and asynchronous).	a. Distracting b. The dependency on internet connection c. Overheat and crashes d. Unfamiliar features	a. Distracting b. The dependency on internet connection c. The size is too small

	e. Lagging	d. Lack or limited features e. Insufficient memory or storage	

From table 9 above, it can be seen that in terms of the challenges presented by each device for use in online academic writing classes, the points expressed by students are not much different from when they use them in offline classes. First, it is still distracting, but "*I think the challenges are almost the same as when learning offline, the difference is that when learning online it will be more free and the level of distraction is greater*." (Student 11). It is more corroborated by student 10, as he said "*The use of a laptop in an online class can lead to distraction. For example, when students are interested in opening other apps or websites that are not related to the material*.". Apart from distracting, the use of laptop in online learning is also related to internet connection issue, it is because a lot of platforms used in online learning need the students to be online and it can affect students' motivation when they could not do so. It is proven by student 17, who says, "*In my opinion the biggest challenge when using a laptop is when we have a bad signal, it can decrease our mood in online academic writing class*.". The next challenge when they use laptops for online academic writing classes is the overheating, crashes, and unfamiliar features. These challenges are summarised by student 26, when she says, "*When my laptop overheats and crashes, when the internet connection is bad, and when suddenly told to use application features or websites that are really unfamiliar and difficult to learn*.". The overheat and crashes issue is also related to the next issue, where a student says, "*Who has a laptop with HDD or previous feature that slowed it down*." Meaning that some students might experience lagging when they use a certain type of laptop device. However, the unfamiliar application features of websites are due to students are sometimes recommended by the lecturer to access certain platforms that some of them may not be really familiar with. Figure 4 shows several platform suggestions from the lecturer that students can use to conduct their discussions.

Figure 4

Platforms that Can be Used by Student to Do Online Meeting

On the other hand, the use of smartphones for online academic writing classes is not free from the many challenges felt by students. In fact, all the challenges found were almost exactly the same as when they used smartphones for offline classes. Firstly, distraction is still something to be emphasised, as one of the students said, "*Sometimes I'm more interested in playing social media when I'm holding my smartphone. So, I can't focus on finding the articles I want with Microsoft Copilot*." (Student 21). The second challenge also still occurs, namely the dependency on the internet connection. It is proven by a lot of students saying, "*When connection is bad*." (Student 60), "*Connection error*." (Student 12), as well as "*I think the biggest challenge is on the signal*." (Student 18). Another challenge related to the limited size of the smartphone screen was also proven by student 3, who said "*The challenge is not comfortable enough to read on a smartphone because of the size, so I should zoom the screen to make it clear*." It is also stated by student 22, "*It's uncomfortable to write in a small space, I mean the size of a phone*.". Apart from that, the limited features of smartphones are also revealed again, as one of the students saying "*Using smartphones in online classes is also practical but access is very limited to be able to use other applications or websites*." (Student 11). For example, it is added by student 27, as he says, "*The first is the limited tools that are available on smartphones. If I use a laptop, then it's better because I can use something like Microsoft Word to help edit my writing text.*" The final issue was, one of the students experienced a challenge in the form of insufficient memory or storage in their phone. The student who said this challenge was Student 6, as he said, "*When the connection is bad and the smartphone memory is full*.". Hence, it can be concluded that in its use, laptop

devices have several different challenges when used for offline and online academic wiring classes. On the other hand, using a smartphone for both learning modes has almost the same challenges.

B. DCALL in Blended Academic Writing Class

This section will focus on elaborating findings from the use of digital content for language learning, or Digital Content Assisted Language Learning (DCALL). Specifically, in learning and teaching writing in blended academic writing courses. However, below there will also be a connection regarding the proportion of students accessing digital content (DCALL), whether via laptop (CALL) or smartphone (MALL) and the reasons that accompany it. Almost the same, the findings which are divided into several tables below are also compiled mainly from the results of student questionnaires which are divided into several aspects as well, then combined with semi-structured interview results and documentation to support each other's findings.

Table 10

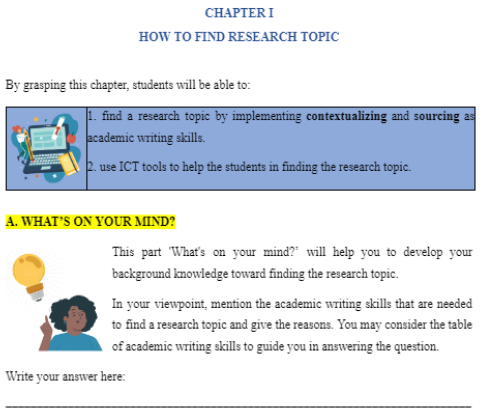
The Existence of the Digital Content

No	Aspect	Scale	
		Yes	No
1.	The availability of the digital content to the academic writing students.	100%	0%
	Kind of digital content provided	Students' book, online material, and YouTube videos	

In relation to the existence of digital content in the academic writing course which is the setting for this study, coincidentally the lecturer facilitates students with some digital content which students can access flexibly. This has actually been confirmed by previous findings, especially in figures 2, 3, and 4. That is why in table 10, it can be seen that all students agree that their lecturers do give them access to digital content created by the lecturer to support them. the learning process of academic writing. Most of these students also mentioned that the digital content in question was students' books in digital form, online materials, and YouTube videos as discussed previously. Based on the results of non-participant observations and documentation, it was found that the students' book here consisted of learning material, YouTube video links (which were also uploaded to the LMS), as well as instructions for each chapter in each academic writing class meeting. The figures below show a sneak peek of the students' book used.

Figure 5

The Instruction in the Students' Book


CHAPTER I

HOW TO FIND RESEARCH TOPIC

By grasping this chapter, students will be able to:

1. find a research topic by implementing **contextualizing** and **sourcing** as academic writing skills.
2. use ICT tools to help the students in finding the research topic.

A. WHAT'S ON YOUR MIND?

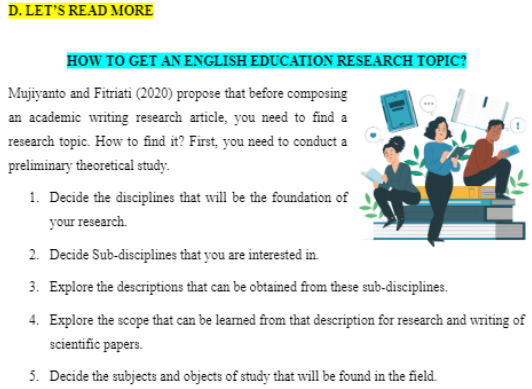
This part 'What's on your mind?' will help you to develop your background knowledge toward finding the research topic.

In your viewpoint, mention the academic writing skills that are needed to find a research topic and give the reasons. You may consider the table of academic writing skills to guide you in answering the question.

Write your answer here:

Figure 5 shows one of the beginnings of students' book chapter 1, where students are required to be able to find research topics. In fact, there are many instructions given by lecturers, where the lecturer adapts the teaching and learning cycle of genre based approach by (Triastuti et al., 2021). This teaching and learning cycles is integrated with the principle of eclecticism and that classifies the stages into: 1) Building knowledge of the field; 2) Supported reading, listening and viewing; 3) Modelling/deconstruction of texts; 4) Joint construction of texts; and 5) Independent use of texts. Among all of those stages, figure 5 only shows a small part of the building knowledge of the field section, where students are asked to brainstorm with peers regarding how to find a research topic, before moving on to the next stages. In conclusion, it is in line with what student 21 says, "*Online student books consist of explanations of how to write articles as well as several related questions that we have to work on*.". Apart from that, the lecturer also "*Provide student book chapters as a means of guidance and evaluation*.". Another example related to what is inside the students' book also presented in figure below.

Figure 6
Reading Material Example in the Students' Book



D. LET'S READ MORE

HOW TO GET AN ENGLISH EDUCATION RESEARCH TOPIC?

Mujiyanto and Fitriati (2020) propose that before composing an academic writing research article, you need to find a research topic. How to find it? First, you need to conduct a preliminary theoretical study.

1. Decide the disciplines that will be the foundation of your research.
2. Decide Sub-disciplines that you are interested in.
3. Explore the descriptions that can be obtained from these sub-disciplines.
4. Explore the scope that can be learned from that description for research and writing of scientific papers.
5. Decide the subjects and objects of study that will be found in the field.

If figure 5 shows how the digital students' book contains instructions for students in one of the stages of building knowledge of the field, then figure 6 shows one of the stages in supported reading, listening and viewing. This is because in this section students are given online material in textual form which they can read in a self-paced manner before moving on to the next stage. However, before the Let's Read More in figure 6, above it is the Let's Watch More which was previously explained in figure 2, which also contains YouTube video content related to the explanation of the material in audiovisual form. There are many other parts of the students' book that are used by lecturers in the academic writing course where this study was conducted, but they are not the focus of this study. What is clear is that the instructions and content used by lecturers in this study have gone through a validation and testing process by experts through previous comprehensive research by Indriani (2024). This study, apart from what has been mentioned above on CALL and MALL, focuses on unrevealing students' preferences in using the digital content for assisting the learning process (DCALL) of academic writing.

Table 7
Comfortability Level of the Digital Content

No	Aspect	Scale			
		VC	C	Uc	VUc
2.	The comfortability of the digital content to be used for learning in blended academic writing class.	51.6%	48.4%	0%	0%

Using a Likert scale with options consisting of Very Comfortable (VC), Comfortable (C), Uncomfortable (Uc), Very Uncomfortable (Vuc), it can be seen from table 7 above that there are no students who are uncomfortable using digital content for learning in blended academic writing class. Meaning that more than half of the participants felt very comfortable and the rest felt comfortable when using digital content provided by their lecturers. Their comfort in using digital content is also followed by the digital content helping them to improve their academic writing skills in blended academic writing classes. This is shown in table number 8 below.

Table 8
Level of Helpfulness of the Digital Content

No	Aspect	Scale			
		VH	H	Uh	VUh
3.	The helpfulness of the digital content to be used to improve academic writing skills in blended academic writing class.	54.8%	45.2%	0%	0%
	Reason	It provides everything students need for academic writing, starting from material explanations, examples, tasks, steps, and evaluations, and others which easy to understand and flexible.			

From table 8, it can be concluded that there are no students who do not feel helped by the presence of digital content provided by the lecturer. This is evidenced by the fact that 54.8% of students felt that digital content was very helpful, while 45.2% of students felt only helped. However, the main reason was found which underlies students to conclude that they were helped by the digital content they accessed. From the collection of students' answers, it can be concluded that the digital content they access helps them because the digital content is designed

to help them with academic writing. That is why the digital content provided has many things in it that are understandable and flexible, of course to achieve learning goals. These things include explanations of material, examples, steps, tasks, reflection, and other things that are needed. This was proven by several students who expressed their opinions, as follows:

Sudent 7: "*Through digital books I can take a look for **the example, the style, the way, and the place** that I might use in my own writing.*"
Student 8: "*With this content, I can learn how to write articles because it contains **explanations and examples** too.*"
Student 9: "*YouTube because it contain the video material that **easy to understand**.*"
Student 15: "*The e-books help me to read and trying to understand the material **everywhere I want or need**.*"
Student 18: "*The digital students book, cause it basically consist of online learning materials that we have to read and some task that we have to do. However, sometime I also watch the YouTube videos provided by the lecturers as well. Both of them provide me **quite comprehensive explanation** related to how to write academically.*"
Student 19: "*By using the learning video and also doing the student's book chapter, our progress in doing assignment is improving. In the media there are **steps and also explanation** that helps us.*"
Student 21: "*We accessed the digital module provided by the lecturer, it was very helpful for us because it contained **material and tasks** that had to be done based on the research we did.*"
Student 22: "*This digital content is in the form of material that contains the material we learn and also how my process of writing articles. This really helps me with the **explanation of the material** in it and also I can **reflect on my performance** in it so that the power writing process is more directional and organized.*"
Student 28: "*The digital content is very helpful to understand the material because there are so many step like **material related the meeting, the example, our planning to do the task**, etc.*"

From the many things contained in digital content, it is not surprising that students spend a lot of time dwelling on the students' book. This is because based on non-participant observations, digital students' books are an important part that students must access and fill in both before and after offline classes. This is because the self-paced material and instructions in it are one of the important aspects in blended academic writing learning, where there is important material and instructions which become the basis for discussion material and students' writing processes, both in offline and online classes. The importance of accessing the digital content supports what is shown in table 9 below.

Table 9
Students Preferences in Accessing the Digital Content

No	Aspect	Scale			
		O	St	Sd	N
4.	The frequency of the digital content to be accessed for blended academic writing class.	67.7%	29%	3.2%	0%

From what has been explained previously, there are many things that students can do when they access the digital content provided. Therefore, most students with 67.7% of the total participants admitted that they often access the digital content provided, the remaining 29% admitted that they sometimes access it, there was only one student who admitted that they rarely, but there were no students who had never or never accessed digital content. the. Therefore, it can be said that in the blended academic writing class in this study, almost all students admitted to having accessed digital content provided by their lecturers, and more than half felt that they often accessed it. However, this finding is still too general. The following table will see which is more frequent, whether students access existing digital content more often in offline classes, or outside of class, namely online academic writing classes and the reasons behind it.

Table 10
Comparison in Accessing the Digital Content between Offline and Online Class

No	Aspect	Blended Learning	
		Offline (Inside) Classroom	Online (Outside) Classroom
5.	Students' preference in acessing the digital content in blended academic writing class.	25.8%	74.2%
	Reason	a. More motivation b. Easier to understand	a. Less distraction b. More concentration

	c. Could interact with friends and lectures directly.	c. More comfortable or convenient d. Students need background knowledge before entering the offline class.

In the context of blended academic writing, students are actually allowed to access digital content in both offline and online classes. This is based on the results of non-participant observations made by researchers, where the flexible content is sometimes discussed by the lecturer in class and discussed together with the students. However, sometimes, students must at least have accessed the content before entering the offline class so that they already have background knowledge on what things need to be discussed later in the offline meeting class. However, it is not uncommon for teachers to only open offline academic writing classes to select students to present and consult on their writing progress, so that digital content is not emphasised too much in class. However, students still have the freedom to access existing digital content anytime and anywhere, namely the students' book which contains materials, YouTube videos and other links as stated previously. Surprisingly, based on table 10 above, almost all students access digital content more often outside of class or online classes. This is evidenced by only 25.8% who admitted to accessing digital content more often in class or offline classes. However, there are several reasons behind this revealed by the students.

For students who access digital content more often in class (offline), there are at least three main reasons. First, they feel more motivation in class. It is proven by the saying, "*Because I get motivated if the lecture order is ignored*." (Student 6). This external motivation is also stated by student 10, "*While offline class, the lecture always inspires us to continue the project so I often access digital content when the class is held*.". The next reason is that when the students access the digital content in the classroom, it is easier for them to understand sometimes. As student 3 says, "*Because when I access it in the class, my lectures also give the explanation, so I think it makes it easier for me to understand the materials*." It is supported also by student 15, as he says "*Offline class will really make me understand better. I mean we can share our thoughts, give suggestions or maybe do some collaboration to write something*.". The fourth reason is that if the students access the digital content inside the class, they can interact with friends and lecturers directly to discuss it. It is stated by Student 12, "*I can reach out to my lecturers directly and have an organised discussion with my friends at hand*.". It is supported by student 30, as she says, "*Carried out offline to be more effective because it can interact directly with friends and lecturers*.". So, it can be concluded that the reason students access digital content in class is because motivation, especially external motivation, makes it easier for them to understand the content, because they can meet and discuss directly with the lecturer or their friends.

Meanwhile, there are several more reasons why students prefer to frequently access digital content outside of class (online). First, students feel distracted when they access the digital content outside of the class. It is proven by one of the students saying, "*Because it's more comfortable outside class when we are not distracted by anything*." (Student 4). As a result, the students also felt that they could be more concentrated, as student 9 said, "*Because when I access it online or outside of class, I can find a quieter place than in class which can help me to concentrate better*." . In other words, they also feel more comfortable, this is because "*Working on digital content in class is more often disturbed by signals and noise so it is more comfortable to do at home or during an online classroom*." (Student 18). It is also supported by student 24, as she says, "*Accessing digital content outside the classroom is more convenient for me because I can understand it with focus*.". The last reason is that students need to read or watch the digital content to have the background knowledge before joining the offline class. This is done to make it easier for them to have a discussion in the classroom later. It is clearly stated by student 22, as he says, "*Well, in an offline classroom we basically have a full discussion with the class and the lecturer related to our writing project. Hence, I need to read or watch the contents or material provided before joining the offline class so that I have prior knowledge*." It is also supported by student 28, "*Because we have an assignment to do the task, so before starting the class we read the book at a glance rather than doing the task. Then when in an offline classroom we also open the book, but focus more with the lecture explanation*." So, it can be concluded that students are more comfortable accessing digital content outside the classroom because distractions are minimised, students are more able to focus, concentrate, and are more comfortable watching or reading it, especially this can be used as a provision before they enter discussion in the offline classroom.

Table 11

Comparison in Accessing the Digital Content between Computer and Smartphone

No	Aspect	Assisting Devices	
		Computer (Laptop or its kind)	**Mobile (Smartphone or its kind)**
6.	Students' preference in acessing the digital content through their devices.	67.7%	32.3%

Reason	a.	Wider screen	a.	Simple
	b.	More comfortable	b.	Portable
	c.	A lot of features	c.	Faster
	d.	Support multitasking		

After knowing the comparison between accessing digital content in academic writing courses, in terms of its blended learning, now table 11 will show a comparison of how students access digital content, especially regarding the devices used. Actually, this is the researcher's way of linking the CALL and MALL theories that were previously explained, with the DCALL that is being discussed. Based on what is seen in the table, a complete conclusion can be drawn that most students prefer to access digital content via laptop (67.7%), rather than accessing digital content only via smartphone (32.3%). There are several reasons underlying this. In relation to students who prefer to access digital content via laptop, there are at least four reasons that can be concluded. First of all, laptops have larger screens, making students more comfortable reading or watching existing content. This was stated directly by student 3, "*Because when I'm using a laptop, it feels like it's comfortable because the screen is big, so it helps me to read the materials*." Apart from the large screen having an impact on comfort, laptops also have many features compared to smartphones. As student 8 says, "*The laptop screen display is wider and the features are more complete than the smartphone.*". It is also supported by student 11, as she says, "*I prefer to use a laptop to access digital content because the laptop has a lot of tools and supported screen size*.". In relation to that, it also supports multitasking, as one of the students says, "*Laptops allow students to work on several assignments at one time and can access several pages on a larger screen than on cell phones, besides laptop access is faster*." . The conclusion is that laptops are preferred by students in this case because of their large screens, supported by quite complete features such as being able to multitask, resulting in a more comfortable learning experience.

On the other hand, several reasons were also found for using smartphones to access digital content in academic writing classes, although fewer than laptops. First, some students think that because smartphones are simpler. This is like what some students said, "*It's a simple thing to carry anywhere.*" *(Student 29), and "Because it is simpler*" (Student 31), that is why they "*Always carry cell phones, but laptops, we don't necessarily carry them every day*." (Student 9). In line with that, the smartphone is also more portable, as one of the students said, "*It's portable and can be carried around, and it's not heavy either*." (Student 27). It is also supported by student 6, "*Because it is easy to bring, and the table of the class is too small and risky for the laptop*." (Student 6). The last one is, one of the students said, "*Smartphones are more efficient and faster*." (Student 18). Hence, it can be concluded that this is because the smartphone is smaller in size, so it is easy to carry anywhere, and indeed students often carry it every day, supported by its efficiency, students can easily access existing digital content. When compared with the perceived advantages of students who use laptops more often, it is not surprising that students prefer using them over smartphones. However, not all students may experience these experiences, but here the researcher only provides what students really feel, according to what they say.

Table 12
The Challenge Faced by Students when Using the Digital Content

No	Aspect	DCALL
7.	The challenge of using digital content for learning academic writing in a blended class environment.	a. Ensuring equal access online and offline. b. Maintaining engagement. c. Less self awareness. d. Dependency on internet connection. e. Less motivation. f. Students' ability in understanding the content.

This is the last part of the findings, which will be talking about the challenges faced by the students when using the digital content to assist them in learning academic writing in a blended class environment. Based on table 12, it could be seen that there are five challenges faced by the students. First of all, a student says "*The challenges of using digital content for learning academic writing in a blended class include ensuring equal access online and offline, maintaining engagement*." (Student 4). As has been said before based on the results of non-participant observations, there are no definite rules regarding the distribution of schedules regarding when students must access digital content, whether in offline or online classes. So students are confused about when they should access the content. Based on table 10, actually both students accessing digital content inside and outside the classroom have their own reasons and advantages. This is of course tailored to the needs of each student. In fact, the lecturer's aim in doing this is because in blended learning, students are required to be autonomous learners and the existing

digital content is flexible and self-paced. However, if you look again at what student 4 said, maintaining engagement is also another challenge. This is also related to what is shown in table 20, where some students may be more motivated to access digital content in class because there are direct orders from the teacher, there are also those who are more comfortable outside of class because they can focus more. So, it is important for the lecturer to be able to maintain engagement with each student with different needs.

The second challenge is related to the students' self-awareness. It is proven by Student 12, which says, "*I suppose it's the self awareness or the willingness to look back (studying) what has been discussed in the class*." As has been touched upon, sometimes the teacher explains the material that is presented in the students book or the digital content, and the challenge here is that the students sometimes just rely on that. Meaning that they do not reopen the content to make further understanding related to what they have studied. The next two challenges are related to the internet dependency which also affects the students' motivation. It is stated by student 20, "*Apart from internet connection dependency, sometimes I have less motivation to access content. I mean like I prefer to have a real discussion with my friends and the lecturer*." The students' book provided in this academic wiring course can be accessed through online Google Docs, that's why the internet connectivity is needed to access the contents. That is why student 1 says "*Of course the internet connection*." as one of the challenges, causes "*a bad signal because it can interfere with the learning process*." (Student 30). As for the motivation issue, it is related to the "*Feeling lazy*." (Student 6) That some students might feel. Hence, it is important for the lecturer to make the content more engaging and motivating them to learn. Apart from that form, it is also important for the lecturer to make it easier for all of the students to understand what's inside the content, by providing clear explanations, demonstrations, etc. This is because it is related to the last challenge, which is students' ability to understand the content might be different from one to another. This challenge was stated by some students such as, "*I think it is about how we can analyse the content in it*." (Student 7), "*It might be the students' level of understanding.*" *(Student 21)*, "*Sometimes we don't understand the meaning given.*" (Student 22).

Discussion

As a reminder, this study focuses on seeing how to integrate the use of laptops as part of CALL, smartphones as part of MALL, and digital content as part of DCALL, to assist students of academic writing courses in learning. Findings found that all students who participated in this study had access to all of the things mentioned above, namely that they at least had their own laptop and smartphone as well as access to digital content facilitated by the lecturer of academic writing. This aptly demonstrates the fact that the majority of students attending our sessions are digital natives, having grown up with technology from an early age and being satisfied with their level of computer literacy (Dudeney & Hockley, 2007). Conversely, Prensky (2001) defined digital natives as those who are technically adept at using mobile devices and computers for a variety of tasks, including searching the internet (Gilbert, 2013). From a digital perspective, it stems from the reality that integrating technology or digital content into the educational process is a very practical substitute for traditional teaching methods (Alrubaie, 2020). In addition, students can actively engage in class using digital content-based learning through laptops and smartphones, enabling them to interpret and discuss interactions in person (Linder et al., 2001). From this, it can be seen that both CALL, MALL and DCALL have a connection where it is very possible for all three to be used simultaneously, and can be an alternative to conventional learning. In the case study, these three theories are integrated in a blended learning environment. However, if you look at the comparison of the findings that have been presented, the use of laptops to assist students in learning (CALL) dominates students' favour.

In its general application in academic blended learning environments, most of the students tend to feel very comfortable and very helpful when they use laptops, when it is compared to the use of smartphones. This is consistent with the findings of the Alharby (2018) study, which showed that the majority of educators and learners reported that CALL had a positive impact on them, inspired them to learn ESL/EFL writing, and enhanced their proficiency in writing English. Additionally, it has been found that this approach to teaching writing enhances students' knowledge and is crucial to the development of their academic skills. However, when looking at further investigation into the division of blended learning into offline and online learning, most of the students prefer to use smartphones in offline academic writing classes rather than laptops. This supports the findings of Zaki and Yunus (2015), which stated the potential of mobile learning or MALL in teaching academic writing is high. In terms of the platform used, both when students use laptops and smartphones, it is basically almost the same. However, the unique thing is that even though students feel more comfortable using smartphones for offline (synchronous) academic writing classes, this does not rule out the possibility that this device has challenges when used by students. In fact, there were more challenges found than when students used laptops in offline classes. According to students, at least the challenges they encountered when using smartphones in offline classes were distracting, the dependency on internet connection, the size is too small, lack or limited features, and insufficient memory or storage. A number of earlier studies also identified some of these challenges, stating that MALL has drawbacks like technological issues (Chartrand, 2016), distractions (Chartrand, 2016; Al-Okaily, 2013; Honarzad, 2019; Lai & Zheng, 2018), and internet access and connection (Lindaman & Nolan, 2017; Kacetl & Klímová, 2019). Maniar et al. (2008) also noted that the physical screen size of a mobile device does affect the learning

process, even the screens on smartphones are too small to make a their learning environment comfortable (Wang & Shen, 2012). Some of these challenges also appear to occur when using laptops in offline classes.

On the other hand, the challenges of using a laptop itself are almost the same, namely distracting, the dependency on internet connection, not portable, and a battery that runs out quickly. These results are related to the results of the following previous studies. First of all, distraction has indeed been a scourge when it comes to using laptops in class, even for a long time. Four studies found that students were significantly distracted by other students using laptops in class (Barak et al., 2006; Fried, 2008; Kay & Lauricella, 2011; McCreary, 2009). However, in a large classroom setting, one study found no discernible academic differences between students in the laptop-free and laptop-only groups (Aguilar-Roca et al., 2012). According to another study, restricting or outlawing laptop use had both beneficial and bad effects on note-taking, focus, and discussion (McCreary, 2009). Regarding social networking, numerous studies reported that students distracted themselves with instant-messaging (Fried, 2008; Hembrooke & Gay, 2003; Kay & Lauricella, 2011; Kraushaar & Novak, 2010; Mackinnon, 2002; McCreary, 2009) and personal emails (Barak et al., 2006; Fried, 2008; Gaudreau et al., 2014; Hembrooke & Gay, 2003; Kay & Lauricella, 2011; McCreary, 2009; Skolnik & Puzo, 2008). In addition, entertainment specific distractions included playing games (Barak et al., 2006; Fried, 2008; Hembrooke & Gay, 2003; Kay & Lauricella, 2011; McCreary, 2009; Skolnik & Puzo, 2008), watching movies, podcasts, and pornography (Barak et al., 2006; Gaudreau et al., 2014; Kay & Lauricella, 2011), listening to music (Barak et al., 2006), and surfing the web (Barak et al., 2006; Fried, 2008; Gaudreau et al., 2014; Grace-Martin & Gay, 2001; Hembrooke & Gay, 2003; Kay & Lauricella, 2011; McCreary, 2009; Skolnik & Puzo, 2008). However, depending on the availability of wireless Internet connectivity, a large number of schools and institutions allow students to conduct research, work together, and gather data whenever and wherever they choose (McCrea, 2010). However, sometimes a weak signal hinders the students from doing their work through the laptop as well. This is exacerbated by other challenges that students have mentioned above.

In contrast to the use of devices in offline (asynchronous) academic writing classes, it was found that most students prefer to use laptops for online academic writing classes, both online synchronous and online asynchronous. In asynchronous online classes, the platforms used are basically for conducting online and live meetings. Not surprisingly, the platforms mentioned by students included Zoom, Google Meet, or WhatsApp. This is due to the fact that synchronous online learning offers a highly interactive, live learning environment where students and teachers can converse in real-time while asking and answering questions directly, all while being facilitated by the instructor. This means that the learning process is learning-oriented interaction (Hrastinski, 2008; Nikmah & Azimah, 2020; Shahabadi & Uplane, 2015; Skylar, 2009). On the other hand, the platform that students use in the online asynchronous academic writing class is somewhat different, this is because the platform used is not live, but students can autonomously access the existing platform flexibly and self-paced according to the student's circumstances. This is consistent with the fact that the asynchronous online learning environment gives students the freedom to access resources and finish assignments in the form of handouts, articles, powerpoint presentations, audio or video lectures, and other materials that have already been made available by the teacher or instructor and are available at any time (Amiti, 2020; Perveen, 2016). Hence, it is not surprising that the platforms used in this fashion class are Google Docs and YouTube. In terms of challenges in using laptops in online classes, there are actually still similarities such as distraction and the dependency on internet connection. However, there are some new challenges found such as overheating and crashes, unfamiliar features, and lagging. Meanwhile, students who prefer using smartphones still face the same challenges they face when using them in offline classes.

In terms of the use of digital content to assist students in language learning (DCALL), specifically in the case of this study academic writing skills, it was found that there are no students who feel that the existing digital content provided by their lecturer does not comfort or help them in learning academic writing. In order to support the teaching and learning process, digital content-based learning, or DCALL, uses writing, photos, videos, and authentic materials from a variety of sources, including the internet, social media, blogs, emails, vlogs, television, and so forth (Fansury et al., 2022). In this regard, the digital content used in the academic writing course in this study is basically just a students' book written by the lecturer, but it also includes online material, and YouTube videos which are also entered into the LMS which has been created in such a way that it can Facilitate students to carry out a meaningful writing process. Because this student book is an important part of the academic writing course learning process, it is not surprising that almost all students often access this digital content. This is due to the fact that the study's academic writing course uses an enriched virtual blended learning model developed by Godwin-Jones (2018). This model places a strong focus on student autonomy because it allows them to interact primarily with digital learning resources while yet having the option to ask for help when needed. Furthermore, according to Wulandari et al. (2023), the student book helps students in EFL writing classes learn autonomously. In terms of what students access most often in terms of blended learning, it was found that most students access digital contents more often outside of offline classes. It is because they feel that it makes less distraction, gives them more concentration, it is more comfortable or convenient, and the students need background knowledge before entering the offline class.

Almost the same as students' preference who more often use laptops in online academic writing classes, students also revealed that most of them access digital content more often using laptop devices (CALL) compared to smartphones (MALL) that they own. This is not without reason, because according to these students, the reason they use laptops more often is because this device has a wider screen, as a result it is more comfortable to be used, it has a lot of features, such as it supports the students to do multitasking. If related to the theory of online asynchronous classes (Amiti, 2020; Perveen, 2016) and the enriched virtual model of blended learning by (Godwin-Jones, 2018), then both are very closely related to student autonomy or self-paced learning. So this can also be related to why laptops are devices that assist students when accessing digital content to help them carry out the learning process in academic writing classes. The advantages of CALL can be summed up as follows: more learner autonomy; omnipresent (ubiquitous) learning; stronger motivation for digital natives; individualised learning; self-paced learning; etc., claimed by Yaman and Ekmekçi (2016). This will certainly be very helpful for students, plus the advantages of laptops as mentioned by the students above. On the other hand, the few students who prefer to use smartphones to access existing digital content also show reasonable reasons. Their reasons are more or less related to the condition of most smartphones, which are simple, portable and fast. It is quite similar to what previous studies have found that the advantages of using MALL in the language learning are in the matter of its accessibility (Honarzad, 2019; Ishaq, et al., 2020), immediacy (Chartrand, 2016), ubiquity (Cheng, et al., 2010), interactivity (Lindaman & Nolan, 2017) and autonomy (Lai & Zheng, 2018), even it gives an easy access and self-study options (Jacob & Issac, 2008). Hence, even though it seems that laptops are students' favourites when it comes to accessing digital content, both laptops and smartphones still have their respective advantages and can be used according to each student's needs.

This present study also found several challenges faced by students when using digital content to assist their process of learning academic writing in a blended learning environment. The challenges found include those related to how to ensure equal access online and offline classes, maintaining students' engagement, less self-awareness of the students, the dependency on internet connection when accessing the online digital content, students' less motivation, and students' ability to understand the content. Evidence of this is outlined in table 12. Therefore, it is important for lecturers to understand the concerns experienced by students of this kind so that digital content that has been designed in such a way can achieve what is expected by minimising the challenges that might arise. This is due to the fact that it is imperative that educators take into account the opinions and preferences of their students (DeMink-Carthew & Olofson, 2020). However, students ought to be able to express their opinions about their education (Hira & Anderson, 2021). Not only in relation to DCALL, but also to the challenges faced by students when applying CALL and MALL. However, not all challenges found in this study, whether in terms of the use of CALL, MALL, or DCALL, are similar to what was found in previous studies. However, it should be remembered that all the challenges and aspects written in this study mainly come from the results of student perceptions. This is because researchers realise that authorising student viewpoints has the potential to significantly enhance instructional practices because it allows teachers to start viewing the world from the perspectives of their students once they have listened to and learned from them (Clark, 1995; Davies, 1982; Finders, 1997; Heshusius, 1995). Beyond just being an intriguing experience, this can assist teachers in improving the accessibility of the material they teach (Commeyras, 1995; Dahl, 1995; Davies, 1982; Lincoln, 1995; Johnston & Nicholls, 1995). It can also help to conceptualise learning and teaching as more collaborative processes, as well as the ways in which we study them (Corbett & Wilson, 1995; Nicholls & Thorkildsen, 1995; Oldfather & Thomas, 1998; Shor, 1992). However, to obtain a more comprehensive understanding, more focused research needs to be carried out in the future on each aspect of this study by carrying out tests, evaluations, etc.

CONCLUSIONS AND SUGGESTIONS

This study highlights that all students as participants in this study have access and use laptops, smartphones, and digital content in their graduate academic writing classes. In other words, the theories of CALL, MALL, and DCALL are indirectly applied in this academic wiring class, even though the theories were not emphasised by the lecturer from the start. In general, students think that they feel very comfortable and very helped by using laptops to assist their academic writing learning process (CALL), compared to smartphones (MALL). If it seen more detail at the distribution of blended classes in this course, most students prefer to use smartphones when in offline (synchronous) classes. However, most students prefer to use laptops for online classes, be it synchronous online classes or asynchronous online classes. In terms of the platforms used when students use laptops or smartphones, they are almost the same in both offline and online classes, namely platforms that can help them with the writing process. Meanwhile, when students use laptops or smartphones for synchronous online classes, the platform used is an online platform that is able to facilitate students and students to conduct live meetings or discussions, be it audio call or video call. Then, in terms of challenges that students encounter, most of them feel challenges related to distractions and internet connection problems when they use laptops or smartphones, both in offline and online classes. On the other hand, the use of digital content to assist students in learning (DCALL) also shows that there are no students who feel that the existing digital content does not comfort or help them in learning academic writing. In accessing digital content in blended learning, students apparently prefer to access digital content outside

of offline classes. Meanwhile, the device they most prefer to use when accessing existing digital content is a laptop, compared to using a smartphone. However, several challenges were found that need to be considered in the use of digital content in blended academic writing classes such as how to ensure equal access online and offline classes, maintaining students' engagement, less self-awareness of the students, the dependency on internet connection when accessing the online digital content, students' less motivation, and students' ability to understand the content.

Based on the findings and conclusions above, this study also has several limitations that can be considered as material for future research. Firstly, this study mainly focuses on the student's point of view or perspective as material for discovery, although it also combines a little with the results of documentation, non-participant observation, as well as lecturer and student semi-structured interviews. However, it would be better if the existing data was also supported by tests, statistical calculations or the like, as well as increasing participation from the lecturer's point of view as well. Second, concrete evidence of how students use laptops or smartphones in online classes, both synchronously and asynchronously, as well as in accessing digital content is not yet available in this study. Therefore, it is important to carry out further investigation into this matter in order to obtain evidence that can support the findings of this research. Third, in terms of the use of the platforms mentioned when they use laptops and smartphones in the academic writing blended learning environment, it cannot be specifically discussed one by one per platform used by the students. Therefore, future research that focuses more on the platforms used by students in blended academic writing classes is also a suggestion from researchers in this study. Fourth, the challenges expressed and identified by the students in this study when using laptops and smartphones are still limited to offline and online classes, while the use of digital content is only in general blended learning environments. It would be better if future research could also touch on the challenges that students encounter when using these things from aspects of synchronous to asynchronous learning as well. Finally, related to the challenges faced by students in using CALL, MALL, and DCALL in their academic learning classes, although this study only comes from the perspective of students whose learning experiences are of course different, it is important for stakeholders and lecturers to can hear the concerns that students experience and provide the best solution to what they feel so that learning goals can be achieved more optimally. All in all, the researchers in this study hopes that the findings presented by this study would be beneficial for future researchers, especially those who are interested in the use of technology in assisting language learning in a blended learning environment.

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