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Ms. Haslinda Noradzan
Ms. Nor Azilah Mohd Asarani
Mr. Fazyudi Ahmad Nadzri
Mr. Zawawi Temyati

Conceptual Framework of Open and Distance Learning (ODL) for Studio-Based Architectural Design Courses

Siti Hasniza Rosman, Suhana Ismail, Abdul Hadi Nawawi
Centre of Studies for Estate Management, Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA,
40450 Shah Alam, Selangor, Malaysia
sitihasniza@uitm.edu.my, suhanaismail@uitm.edu.my, abdul274@uitm.edu.my

Abstract: In March 2020, distance education was enforced as a proactive procedure to diminish the spread of the coronavirus. As a result, instructors of advanced and basic design courses were obligated to teach remotely. The emerging virtual studio culture and the unplanned experience need assessment and evaluation, as they may mark a shifting momentum to develop architecture education in unprecedented ways. A large body of research on online education has paid immense attention to the definition of distance and online learning, their types, and their efficiency. The aim of the research is to propose a conceptual framework of open and distance learning (ODL) for studio-based architectural design courses. This research explores various aspects that contribute to the success factors of ODL for studio-based architectural design courses which then forms the fundamentals to develop the conceptual framework of ODL for studio-based achitectural design courses to improve the quality of teaching and learning process. This research is significant in enhancing the effectiveness of ODL and the teaching and learning of studio-based architectural design courses. This research will use a content analysis method approach from literature review study to identify the important aspects and success factors for studio-based architectural design courses. The research will contribute in developing a model to enhance teaching and learning experience through the ODL approach in the studio-based architectural design courses where high focus interactivity between teachers and learners is inherently unique. Overarchingly, this research provides insights on ODL as a future direction in teaching architecture.
Keywords: Conceptual Framework, Open and Distance Learning, Studio-Based Architectural Design Courses.

INTRODUCTION

By the end of the year 2019, the COVID-19 pandemic attacked the world and significantly impacted all aspects of life such as economic, social and environment, education notwithstanding. Many higher education institutions worldwide switched to open and distance learning (ODL) and put on-campus, or face to face classes, on hold. Despite the presence of distance and online classes before the pandemic, their utilization was marginal compared to the dominant on-campus classes. However, open and distance learning became an ubiquitous approach to address the challenges of the pandemic situation. ODL advantages are mainly related to openness, flexibility, volume, and accessibility.

However, there is a lack of research that address distance education in teaching studio-based architectural design courses. These courses embrace the culture of the architectural design studio which traditionally embeds the inherent unique requirements related to high focus interactivity between the instructors and students, as well as among the respective peers. For its practical nature, the in-studio approach is the most dominant acceptable way of teaching architecture. However, the COVID-19 circumstances have provided evidence of the possibility of teaching architecture in other ways.

PROBLEM STATEMENT

Most of the participants of the architectural design studio (students and instructors) have a broad understanding of the culture of the architectural design studio (Khodeir and Nessim, 2020). Therefore, the perceptions and descriptions that are influenced by the interactions that occur among these participants, the assignments, and the environment have been taken for granted rather than studied. Study is warranted because participants' perceptions have had a strong impact on the discussion surrounding the architectural design studio, and knowledge of students' learning experiences in that setting is important since these experiences contribute to architectural student learning. Without understanding their experiences, it may be difficult to facilitate positive change in the architectural design studio environment (Ozorhon and Lekesiz, 2021). The COVID-19 pandemic which necessitates online teaching and learning further emphasises the need to understand how

these kind of courses can be conducted using the ODL approach to enhance the teaching and learning experience in the studio.
Despite the growing importance of digital applications in studio-based architectural courses (de Araujo Lima, 2018), teaching architecture in an online format is rare due to the nature of the field. Most core courses in studio-based of architecture programs need high interactivity between the instructors and, students' in-presence interaction between the student and the instructor seem naturally suited to this requirement. The extent to which the ODL approach can model the reality of actual physical studio face to face approach to facilitate high interactivity between participants in the studio has not been much researched (Ibrahim et.al, 2021). The appropriate approaches need to be identified to make sure the studio-based architectural design courses do not lag behind on the currently open and distance learning process.Teaching architecture in an online format is rare due to the nature of the field.

Most core courses in architecture programs need in-presence interaction between the student and the instructor. What issues have distance education replacing face-to-face education raised, in terms of the architectural design studio? The major change in the transition to online education is the physical removal of the studio environment and participants (Yorgancıoğlu, 2020). While the physical studio environment is a shared place equipped with social interactions, each student/participant in remote education is available in their personal space (Yorgancıoğlu, 2020). The model is crucial in the light of technical difficulties, lack of training, and the psychological circumstances resulted from the uncertain situation in the ODL teaching process (Ibrahim, 2021).

This research will explore the context of teaching studio-based architectural courses focusing on the unique requirements of high focus and interactivity between instructors and learners and peers. Investigations will then be geared towards investigating how the various aspects of teaching studio-based architectural design courses and their parameters can be modelled into a best practice ODL format taking into consideration, all the unique interactivity requirements of a traditional studio context. The model will then be validated by investigating the inter-relationship among the parameters and their respective variables with actual performance of students in their classworks including the relevant design projects.

LITERATURE REVIEW

The context of teaching studio-based architectural design courses focuses on the unique requirements of high focus and interactivity between instructors and learners and peers. Studio-based architectural design courses form the backbone of architectural education, where students synthesize and use the technical and theoretical knowledge gained in other courses. On the other hand, the traditional design studio is a physical space and has a pedagogical system. This system includes an education model based on learning by doing, in which students take part as reflective practitioners (Ozorhon and Lekesiz, 2021). In terms of recognizing a problem, exploring for an architectural purpose, handling contextual influences, and negotiating programmatic demands, the architectural design studio is the first environment where students are faced with problems of immense complexity (Caglar & Uludag, 2006). The nature of contemporary studio-based architectural design courses is based on students' experience on a given design problem. Because of this nature of the studio, the design-related skills and fundamental inclinations that are acquired in these studios influence the future designing actions of the students (Kararmaz & Civavoğlu, 2017). Design studios are active spaces where students take social and intellectual actions such as drawing, communication and modelling (Saghafi et.al, 2012). Also, design education is a very interactive process (Fleischmann, 2020). Studios are social learning areas where students interact between themselves and with the instructors. The architectural design studio's learning environment is a culture where instructors and students share their experiences (Yurtsever & Polatoğlu, 2020).

Due to its essentiality in preparing qualified architects, the learning and teaching strategies of design are found to be of substantial interest among researchers. For example, Soliman (2017) suggests three strategies for teaching design: group discussion, interdisciplinary teamwork and realistic design problem (Soliman, 2017). McLaughlan et al. (2020) propose five strategies for optimizing student learning within architecture studio (McLaughlan, 2020). In her study of promoting learning urban design through photography, Elshater (2018) proposed six points that can be applied in teaching design: bottom-up teaching strategy, an active participation role of the students, exceeding the theoretical knowledge and emphasizing the psychomotor learning, reflections and implications through a thorough

understanding and analyzing, bridging the gaps to an open end, and finally, the integration of various skills and disciplines (Elshater, 2018). According to the views of the various authors in architectural design courses, good strategies are needed in delivering knowledge to the students. Equally needed are the developing of good strategies and approaches to fulfill the requirements of ODL as well.

ODL is structured learning through synchronous or asynchronous communication. The basis of this learning format as a successful means is largely hinged on effective dialogue and communication between student and instructor and students' peer to peer interaction. ODL occurs for all who desire to learn regardless of time, space and location. Many in the field believe that it takes more self direction, motivation and dedication to be successful in distance or online education. "One common characteristic of the distance learner is an increased commitment to learning. For the most part, these learners are self-starters and appear to be highly motivated" (Simonson et.al, 2009).

ODL, sometimes known as e-learning, are two terms used interchangeably. However, ODL is more comprehensive and broader in scope, as it contains two components that are not representative of online learning: correspondence courses and satellite campuses (Sharma, 2004). On the other hand, online learning or e-learning can be defined in several ways. It can be defined in terms of its associated technology used to deliver it, delivery system, and the communication form and pattern (Sangrà et. al, 2012). Other definitions highlight the educational aspect of e-learning, rather than its tools or media. For example, Jereb and Šmitek (Jereb and Šmitek, 2006) emphasize that educational processes which highlight communication, technology, and mediums only mediate learning. As a comprehensive definition, Cidral, Oliveira (Cidral et. al, 2018) defines e-learning as ''a web-based learning ecosystem" with content and communication tools for education and training.

Online learning can happen through the Internet, either asynchronously or synchronously (Mukhopadhyay, 2020). In both types, delivering the content of a course online will enable the students to join and follow the course regardless of geographic restrictions. However, in contrast to the asynchronous type, the synchronous type engages students in real-time face-

to-face online meetings (Mukhopadhyay, 2020). Refering to Fig.1, other types of online learning include blended or hybrid, blended asynchronous or synchronous, and multi-modal. Blended or hybrid has a combination of in-class and asynchronously online delivery with a substantial portion of the course being delivered online. Blended synchronous is a combination of face-to-face and synchronously online classes. Finally, multi-modal combines synchronous and asynchronous online learning in one course. Massive Open Online Courses (MOOCs) is another type of online learning that is open for students regardless of their geographic and cultural background.

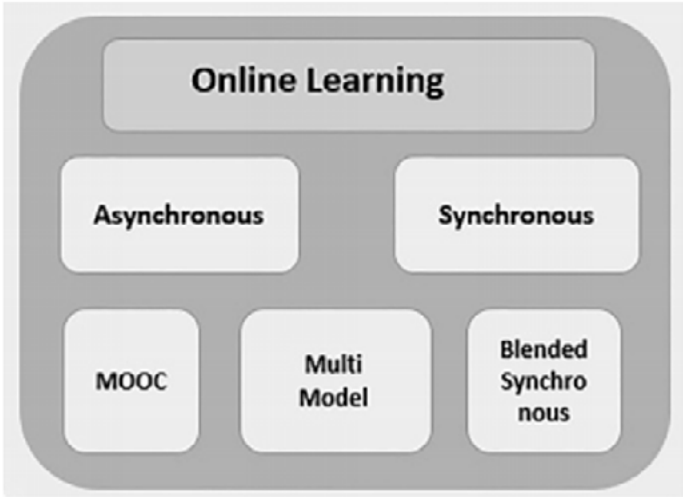

Fig. 1 Online Learning Delivery Method (Ibrahim, 2021)

RESEARCH METHODOLOGY

This research has used a qualitative approach by identifying the concepts used in the context of open and distance learning (ODL) especially for studio-based architectural design courses. The researcher had also conducted the preliminary research on open and distance learning for studio-based architectural design through the literature review study, in order to get the information regarding the teaching and learning approaches of open and distance learning. A content analysis was also conducted to see the main concepts that need to be given attention, to ensure the quality of knowledge

delivery can be improved, subsequently giving a positive effect even if the learning is not done physically and face to face.

CONCEPTUAL FRAMEWORK OF OPEN AND DISTANCE LEARNING (ODL)

The recent years have witnessed a big leap in architecture practices from manual skills towards digital applications (de Araujo Lima, 2018). This shift necessitates updating the curriculum to reduce the load of traditional manual skills courses in favor of extra digital-content courses. It also mandates improving the physical environment of the studio to be technologically oriented.

According to Bender and Vredevoogd (2006), using technology in the studio expands more students to participate in the design discussions and critique and allows teachers to guide students and not repeat information where many students can learn the system. The appropriate approaches need to be identified to make sure the studio-based architectural design courses do not lag behind in the currently open and distance learning process.Teaching architecture in an online format is rare due to the nature of the field. Most of the core courses in architecture programs need in-presence interaction between the student and the instructor. This research explored the various aspects of teaching architecture in distance-learning format due to the COVID-19 pandemic situation (Ibrahim et.al, 2021).

In this context, distance synchronous education programs have been implemented during the country's COVID-19 pandemic. In addition, a comprehensive teaching approach should be carried out so that students get the same benefits as face -to -face learning. This aims to create dynamism by editing a combination of different components in the studio process. Different exercises and methods have been introduced to support students 'intellectual skills, especially in the first module of the two main modules. These methods can be listed as research, reading, writing, concept mapping, seminars, and workshops (Ozorhon and Lekesiz, 2021).

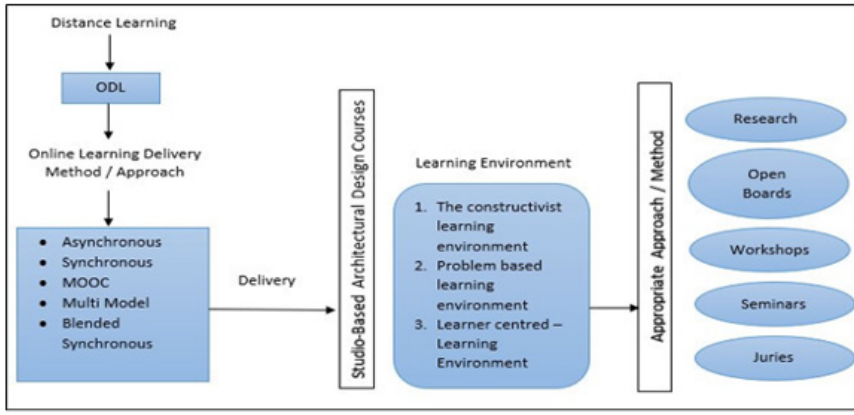

Fig. 2 Conceptual Framework of ODL Approach for (ODL) for Studio-Based Architectural Design Courses

Based on the above Fig. 2, this research have identified and explored the conceptual framework on this context of ODL for studio-based architectural design courses and need to comprehensively focus on the learning environment to make sure the appropriate method used can meet the requirements of both instructor and students.

CONCLUSION

This research have identified and explored the conceptual framework on this context of ODL for studio-based architectural design courses and need to comprehensively focus on the learning environment to make sure the appropriate method used can meet the requirements of both instructor and students. The research will contribute in developing a model to enhance teaching and learning experience through the ODL approach in the studio-based architectural design courses where high focus interactivity between teachers and learners is inherently unique. Overarchingly, this research provides insights on open and distance learning as a future direction in teaching architecture. This study can also help to identify the important components that need to be given attention, in order to ensure the smooth delivery of learning by ODL, especially for studio-based architectural design courses, thus contributing to the quality of national education in Malaysia as a whole.

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Interface Elements of an Online Classroom Platform for Students with Visual Perceptual Disabilities

Zazaleena Zakariah, Nawal Abdul Razak, Khadijah Ahmad Tajuddin
Centre of Foundation Studies, Universiti Teknologi MARA Cawangan Selangor, Kampus Dengkil 43800 Dengkil, Selangor, Malaysia
zazaleena@uitm.edu.my, nawal@uitm.edu.my
Faculty Computer & Mathematical Sciences, UiTM Cawangan Terengganu Kampus Kuala Terengganu, Chendering, 21080 Kuala Terengganu, Terengganu, Malaysia
ijahhmd@gmail.com

Abstract: For a significant amount of time, due to the pandemic of Covid-19, most classes were conducted online through online classroom platforms where students and teachers did not need to physically attend classes. The wide use of online classroom platforms involved all levels of students from preschool to higher education level. These included students with disabilities as well. Most issues arise due to most online classroom platforms not focusing on different types of students, especially students with special needs. Preliminary findings show that most of the platforms designed do not meet the needs of students with disabilities. For this study, the focus is given to students with visual perceptual disabilities. Previous research proved that students with visual perceptual disabilities mostly faced issues that deal with interface elements that include the selection of color, font, size, and design. These issues make their learning process challenging. Hence this study has been carried out with two objectives which are to identify the visibility issues for students with visual perceptual disabilities with the current interface of online learning platforms and to identify the interface elements that suit their needs. Findings from this study can be used as a guideline in developing the interface of an online learning platform for visual perceptual disabilities students. This study will bring a positive change in the life of students with visual perceptual disabilities as they will be able to use the online classroom with ease.
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Keywords: Online classroom, online learning, interface element, visual perceptual disabilities student

INTRODUCTION

In Malaysia, the National Centre on Education Statistics (2020) estimates that up to 11% of students have been diagnosed as learners with disabilities and these numbers keep increasing year by year. Disabilities can vary from hundreds of types. One of the most common disabilities or physical impairments among students is visual or auditive impairment. Visual or auditive impairment is the condition where biological processing issues that impair an individual's ability to handle certain types of information can lead to these disabilities. Visual perceptual disabilities are defined as the disability to recognize, differentiate, and give meaning to visual stimuli, and relating these to previous experiences and inputs to learn new concepts. For students with visual perceptual difficulties, learning to read and write is very challenging, even with it being conducted face to face within a physical classroom setting.

At the time when the Covid-19 pandemic was at an all time high, most learning sessions were conducted through online classrooms using online learning platforms. However, to cater to different needs from different types of users is not an easy task. The needs of students with visual perceptual disabilities, greatly differ from that of other students' (Muktamath et al., 2021). The use of online classrooms has led to another issue for these groups of students. Besides dealing with difficulties that arose from face to face learning, they are now also faced with issues in dealing with the interface of online learning platforms due to their disability, as the interface design does not meet their needs and capability.

A preliminary study conducted among visual perceptual disabilities students found that students with disabilities are facing difficulties dealing with current interfaces. The difficulties lead to the ineffectiveness of teaching and learning among them. The difficulties that they face are mainly due to the selection of color, font, size, and design, which makes their learning process more challenging. This study further explored the interface elements that suit the needs of these groups of students based on the selection of color, font, style, design and etc. Data for this study were gathered using a set of questionnaires to be answered by visual perceptual students, regarding the selection of interface elements according to their needs.

ONLINE CLASSROOM

Nowadays, modern technologies have influenced all aspects of human life including both the learning and teaching processes (Lepičnik-Vodopivec et al., 2020). One of the most acknowledged today is the usage of online classrooms in teaching and learning processes for all levels of students from preschool to higher education. An online classroom is an environment created by means of a learning management system that allows students and teachers to connect synchronously. This can be done in real-time, with teachers and students meeting simultaneously or asynchronously, with recurrent interactions between the teacher and students (Jeffrey et al, 2022; Tomasz & Katarzyna, 2022; Xu Du et al, 2022).

There are advantages and disadvantages in using an online classroom. Some of the advantages are self-paced study, time and space flexibility, time-saving (no commute between home and school), and the fact that an online learning course often costs less. Disadvantages include a sense of isolation, the struggle with staying motivated, lack of face-to-face interaction, difficulty in getting immediate feedback, the need for constant and reliable access to technology, and occasionally some difficulty with accreditation ((Fidalgo et al, 2020; De Paepe, Zhu, & Depryck, 2018; Lei & Gupta, 2010; Venter, 2003; Zuhairi, Wahyono, & Suratinah, 2006).

An online classroom is like a physical classroom in several respects. In a traditional classroom, students must be able to see and hear the instructor, as well as see and hear the other students, the whiteboard, and their own learning materials. A student in an online classroom can see and hear the instructor via a video/audio stream. Teachers will use the online whiteboard to visually illustrate concepts and collaborate on activities. An online classroom tends to have the important features of a video conferencing tool but with additional features important for teachers. Almost all online classroom platforms offer equitable use because they can be accessed at home, in a hospital, or elsewhere for students who are unable to physically attend class. Some online classroom platform has gone the extra mile for students with low vision, reading difficulties, or other auditory preferences by allowing access to speech-to-text capabilities.

Due to the wide use of online classrooms in teaching and learning processes

nowadays, a proper and appropriate online classroom platform should be developed and provided for these students with visual perceptual disabilities. This to ensure that they are not left behind in the learning process.

VIRTUAL PERCEPTUAL DISABILITIES

Visual perceptual is the brain's ability to make sense of what the eyes see (A Valarmathi et al., 2022; Duke et al, 2022). It is required for daily tasks such as dressing, eating, writing, and playing. Visual perceptual skills are classified into seven categories as shown in Figure 1.0.

Visual perceptual skill	Symptoms
Visual Discrimination	Difficulty processing details
	Confusing similar words or objects
Visual Memory	Difficulty remembering people
	Poor reading comprehension
	Difficulty visualizing from memory
Visual-Spatial Relations	Confusion of left/right
	Disorientation in space, getting lost
	Poor visual organization
Visual Sequential Memory	Difficulty remembering words, spelling
	Confusing sequence of tasks or directions
	Difficulty remembering phone numbers or addresses
Visual Figure Ground	Difficulty locating objects in crowded environment
	Overwhelmed with busy environment
Visual Closure	Substituting one word for another
	Difficulty completing tasks
Visual-Motor Integration	Difficulty with writing
	Poor coordination

Fig. 1 Visual Perceptual Skill (Ripley & Politzer, 2010)

The first visual category is visual-spatial relations. Visual-spatial relations are the ability to determine one form or part of a form that is turned in a different direction than the others (Ripley & Politzer, 2010). Therefore, some people have difficulty distinguishing between b and d or p and q. They do not realize that just because the letter is rotated, it is a different letter. They also struggle to distinguish between in and out, over and under, and left and right because these are spatial skills concepts.

Next, sequential memory where the ability to remember a series of forms and find it among other forms (Ripley & Politzer, 2010). If the student is

having difficulty sequencing the alphabet or copying from one location to another, students may be suffering from a problem with sequential memory. Even older elementary students will occasionally skip words when copying sentences from the board. When a student copies a sentence, they copy one letter at a time. Students with these disabilities do not see it as a whole word to write, but rather as individual letters. This is a problem with sequential memory.

Third, visual discrimination where the ability to differentiate between objects and forms. This includes abilities such as the ability to identify money and sort coins or other objects (Ripley & Politzer, 2010). They will have difficulty distinguishing between n and m, b and d, and p and q if students are unable to discriminate the differences or similarities between objects or pictures.
Fourth, form constancy is the ability to see and locate a form among others, even if it is sized differently or rotated (Ripley & Politzer, 2010). Again, this will be one of the reasons why some students will struggle to recognize letters and numbers. For example, recognizing that 6 and 9 are two different numbers.

Next is visual memory. This is not the same as visual sequential memory. The ability to store visual details in short-term memory, such as recalling a phone number, is referred to as visual memory (Ripley & Politzer, 2010). When one's visual memory is impaired, one's reading comprehension suffers. Consider showing someone a photograph, then taking it away and asking them questions about it. A student with poor visual memory will have difficulty remembering details about the picture.

The ability to fill in the missing details in an incomplete shape is referred to as visual closure (Ripley & Politzer, 2010). This necessitates the solution of abstract problems. Working on puzzles is a good example of this; being able to mentally put a picture together and correctly piece it together. This will also cause issues with writing and spelling. When it comes to spelling, students with visual closure deficits will not be able to tell the difference between the ends of the word and the middle of the word. A child with visual closure deficits will not be able to tell if a word is complete when writing. Ground for visual figures. This is the ability to attend to one object without being distracted by an irrelevant background object. For instance, ask a

student to locate the blue crayon in their pencil box. Visual figure-ground is the ability to filter out all the other crayons to find that blue crayon (Ripley & Politzer, 2010).

Academic performance is a major problem for students with visual perceptual disabilities. Students are not able to complete academic work easily (A Valarmathi et al, 2022; Zahida et al, 2021; Maria et al, 2021). The use of online classrooms nowadays has made the learning process more challenging for them. Hence, providing a suitable online classroom platform that satisfies their needs are very crucial in order to help them.

METHODS

As stated in the previous section, the purpose of this study is to identify the visibility issues for students with visual perceptual disabilities using current online classroom platforms and to identify the interface elements that suit their needs. A quantitative approach has the potential to provide enough understanding for this study. The selection of this method is due to the reason that the quantitative approach is commonly used when the purpose is to test hypotheses and generalize the results (Hair et al., 2015). Quantitative methods are generally concerned with quantifiable data, usually expressed in numbers and statistics, and associated with large samples, high concern for representativeness, and highly structured methods for data collection (Hair et al., 2015). The research approach components involve three phases as shown in Table 1.0 below.

Table 1.0. The research approach adopted for this study

Research Objectives	**1. To identify the visibility issues for students with visual perceptual disabilities using the current online classroom platforms.**	**2. To identify the interface elements of the online classroom platform for students with visual perceptual disabilities.**
Research Approaches	• Theoretical study • Empirical Study	
Research Method	• Literature • Survey questionnaire to students with visual perceptual disabilities (20students)	

In a theoretical study, the main role of the literature review is to show the underlying assumptions behind the research questions, demonstrate the researcher's knowledge within the area, show that the proposed study will fill a gap in previous research, and refine and redefine the research questions

by embedding them in larger empirical traditions. The literature review that was performed in this study is based upon literature related to this study topic. Subsequently, relevant articles were acquired, reference lists were inspected, and additional relevant articles were acquired. A thorough review of the literature yielded descriptions of past studies in online classrooms, and visual perceptual disabilities.

In terms of research, the lack of empirical research in this topic especially in Malaysia, renders an exploratory investigation as the most suitable approach to be conducted. Initial understanding of online classroom, and visual perceptual disabilities are synthesized from the literature to provide an initial research approach.

Taking into consideration those guidelines and to fulfill the study needs, the survey questions are divided into two sections, which are section A and section B. In section A, there are 4 questions related to students' demographics and experience in using online classrooms. Section B contains 12 questions about identifying the appropriate interface elements that suit the students' needs and preferences. In this section, the questions are divided into 6 main categories and each category comprises of subcategories. The main category are color, font, button, navigation, icon and background. The questions developed for this study are based on the conceptual framework presented in Figure 2.0.

Fig. 2.0 Conceptual Framework adopted for this study

Interface elements	**Color**	Background	Cold	
			Hot	
		Text	Cold	
			Hot	
		Title	Cold	
			Hot	
	Font	Type	Serif	
			Sans Serif	
		Size	Title	Above 30 point
				Below 30 point
			Text	Above 14 points
				Below 14 points
		Style (effect)	With style	
			Without Style	
	Button	Type	Radius button	
			Rounded button	
			Squared button	
		Effect	With effect	
			Without effect	
	Navigation	Horizontal		
		Vertical		
	Icon	Size	Large	
			Small	
		Color	Color	
			Black and white	
	Background	Plain color		
		With image		

At the end of the questions, there is open-ended section that asks students' opinions on the current online classroom platforms. This section requires students to answer based on their experience in using current online classroom platforms. The questions were distributed to 20 students with visual perceptual disabilities in selected schools that offer Pendidikan Khas (Special Needs' Education).

RESULT AND DISCUSSION

Based on the data collected, the results have been thoroughly analyzed. As mentioned in the previous section, 20 respondents were involved in the study. Those respondents are prudently selected in order to ensure the data collected are precise and represent the idea of the study. Figure 3.0 represents the gender of students that answer the survey questionnaire. The graph shows that 65% of the respondents are female students and 35% are male students.

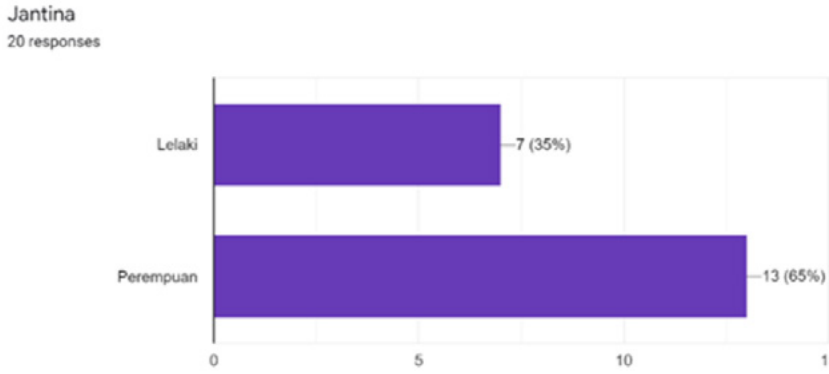

Fig. 3.0 Gender of students

This question was addressed to a group of students from year 4, year 5, and year 6. According to the responses, 15% are students from year three, 45% in year five, and 40% in year six. Figure 4.0 shows the students' year of study.

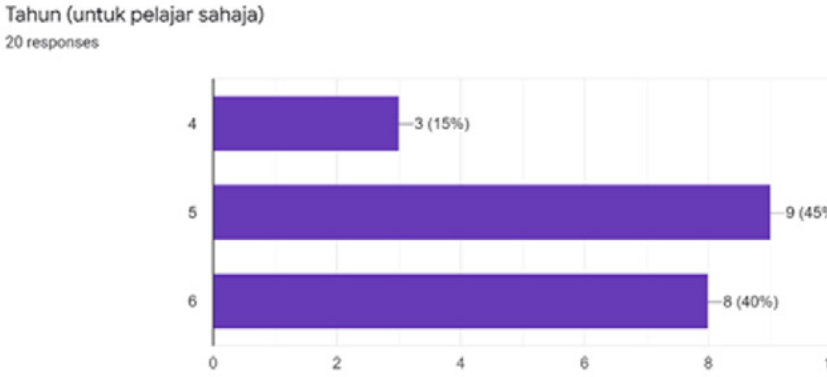

Fig. 4.0 Year of students

This question asked students regarding the application or platform that has been used as their online classrooms. Figure 5.0 shows that 10.5% of students use Webex, 15.8% using Microsoft Teams, 57.9% use Google Meet and 68. 4% use Telegram.

Fig. 5.0 Application or platform that has been used as online classrooms

The next question is an open-ended question that asks students' opinions on online classroom platforms based on their experience. Figure 6.0 shows the answer form filled by students.

Pandangan terhadap tentang *online classroom* yang pernah digunakan:
Tak tahu nak tekan mana sebab tak jumpa button
Gambar belakang bergerak-gerak ganggu saya nak baca
Susah nak baca kerana terlalu banyak benda
Warna tak menyeronokkan
Tajuk tak menarik warna
Susah nak baca
Tidak tahu mana nak mula kerana banyak nak tekan
Tempat tekan kecil sebab guna tulisan tak ada bentuk
Warna belakang terlalu terang
Saya tak pandai guna
Terlalu banyak perkataan
Tulisan kecil
Corak latar ganggu untuk baca
Banyak sangat fail untuk download
Susah guna aplikasi
Tak pandai belajar online
Banyak sangat tempat nak tekan
Selalu salah tekan
Internet lambat

Fig. 6.0 Students' opinion on online classroom platforms

Findings from the open-ended questions found that difficulties faced by students can be divided into 2 main categories which are process and interfaces. In terms of process, students faced difficulties due to a lack of training and exposure to the way of using those online platforms. In terms of interfaces, findings show that students had difficulties due to the selection

of font type, font size, font color, background color, background design, button design, icon, and image used in the current online platform.
The next section discusses the interface elements that have been selected and chosen by students according to their survey questions. This section discusses six main interface elements which are color, font, button, navigation, icon, and background.

5.1 Color

As discussed in the previous section, color selection is divided into three subcategories which are color for background, color for text, and color for title. The color selection is based on two groups of color which are hot color (sejuk) or cold color (dingin). Students were given examples in the process of selection to ensure that they understand their choice. Table 2.0 shows the tabulation of color selection by students according to subcategories. Based on the selection, the majority of students prefer cold colors for all subcategories: the background, text and title.

Table 2.0. Color selection based on subcategories

Category	**Background**		**Text**		**Title**	
Subcategory	Hot (*panas*)	Cold (*dingin*)	Hot (*panas*)	Cold (*dingin*)	Hot (*panas*)	Cold (*dingin*)
Percentage	40%	60%	30%	70%	35%	65%

5.2 Font

Font selection is divided into three subcategories which are font type, font size, and font style (effect). Font type is divided into two types which are serif and sans serif. For font size, multiple sizes of font were given as examples to students, and for them to choose. Font size is divided into other subcategories which are title and, text. And lastly, for style (effect), students were given a choice between texts with effects and texts without. Style (effect) includes shadow, reflection and other types of effect. Students were given examples in the process of selection to ensure they understood their choice. Table 3.0 shows that students prefer to use serif font type in an online classroom platform. In terms of font size, a majority of the students chose above 30 point for title and above 14 point for text. For style, students prefer fonts

without style.

Table 3.0. Font selection based on subcategories

Category	Type		Size (minimum size)				Style	
			Title		Text			
Subcategory	Serif	Sans serifs	Below 30 point	Above 30 point	Below 14 point	Above 14 point	With style	Without style
Percentage	90%	10%	30%	70%	25%	75%	20%	80%

5.3 Button

Button selection is divided into two subcategories which are shape and effect. For button shape, students were given three types of button shapes which are radius button (butang jejari), rounded button (butang bulat), and squared button (butang segi empat). Button effects include shadow, reflection, and other types of effect. Students were given choices to choose whether they wanted the button with effect or without effect. Students were given examples in the process of selection to ensure they understood their choice. Based on table 4.0, 45% chose the squared button as button shape, 35% chose the rounded button and 20% chose the radius button. For button effects, 65% chose buttons with effect and 35% chose buttons without effect.

Table 4.0. Button selection based on subcategories

Category	Shape			Effect	
Subcategory	Radius button (*butang jejari*)	Rounded button (*butang bulat*)	Squared button (*butang segi empat*)	With effect	Without effect
Percentage	20%	35%	45%	65%	35%

5.4 Navigation

Navigation selection is based on two selections which are vertical and horizontal navigation menus. Students were given examples in the process of selection to ensure students understood their choice. Based on table 5.0, 90% of students chose horizontal and 10% chose vertical as navigation style.

Table 5.0. Navigation selection

Category	Navigation	
Subcategory	Horizontal	Vertical
Percentage	90%	10%

5.5 Icon

Icon is divided into two subcategories which are icon size and icon color. For icon size, students were given choices between large or small sizes. For colour, students were given a choice between the colours black and white. Students were given examples in the process of selection to ensure students understood their choice. Based on table 6.0, 85% chose large size as for icon size. For icon color, 70% chose a color icon and 30% chose black and white.

Table 6.0. Icon selection based on subcategories

Category	Size		Color	
Subcategory	Large	Small	Color	Black and white
Percentage	85%	15%	70%	30%

5.6 Background

Background selection is based on two selections which are plain color background or image as background. Students were given examples in the process of selection to ensure students understand their choice. Based on table 7.0, 85% of students chose the plain color background and 15% chose an image as background.

Table 7.0. Background selection

Category	Background	
Subcategory	Plain color	Image as background
Percentage	85%	15%

CONCLUSION

This study is carried out with two main objectives which are to identify the visibility issues for students with visual perceptual disabilities with the current interface of online learning platforms and to identify the interface elements that suit their needs. The study was carried out by distributing survey questions to 20 students diagnosed with visual perceptual disabilities. For this study, students selected are from primary school from years 4 to 6. Survey questions were constructed using a conceptual framework that was designed specifically for this study. The conceptual framework consists of six interface elements which are color, font, button, navigation, icon, and

background. Each question had undergone detailed analysis and had been discussed in the findings and discussion section. Findings from this study can be used as a guideline in developing the interface of an online learning platform for visual perceptual disabilities students. This is very crucial in ensuring that this group of students are not left behind in their studies. This study will bring positive change in the life of students with visual perceptual disabilities as they will be able to use the online classroom with ease.

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Students' Perception And Challenges Of Learning The English Subjects Through Online Classes

Sitti Hawa Sheikh Mohammad1, Stefanie Natasha Rich ak. Joseph
Academy of Language Studies, UiTM Sarawak Branch, Mukah Campus, KM 7.5, Jln Oya, 96400, Mukah, Sarawak, Malaysia
sitti5421@uitm.edu.my, stefanierich@uitm.edu.my

Abstract
The COVID-19 pandemic has resulted in schools and universities worldwide shifting from face-to-face learning (F2F) to Online Distance Learning (ODL), and Malaysia is no exception. However, ODL has resulted in many challenges that students and lecturers have had to go through, and teaching English is no exception. This study has three aims; to analyse the student's perception of learning the English language subjects through online classes, to identify the student's challenges in learning the English subjects, and to discuss what can be improved, as well as the directions of improvement to make learning the English language subjects through online classes easier and more accessible to all. The ninety-nine respondents in this study are students taking pre-diploma and diploma courses in UiTM Sarawak. The study implements the survey research method whereby questionnaires were distributed to pre-diploma and diploma students during week 13 and week 14 of the March-August 2021 semester via Google Form. The findings were extracted, and results were analysed. The study revealed key differences in students' perception, challenges, and improvement in making learning English language subjects through online classes easier, bearable, and accessible to all. Implications of the study are also presented and discussed.

Keywords: English language learning; Open-Distance Learning (ODL); English Language; Education

INTRODUCTION

The recent outbreak of the novel human coronavirus disease 2019 (COVID-19) has had a global impact on society. COVID-19 is the fifth pandemic to be documented since the 1918 influenza pandemic. The virus is believed to be from an animal coronavirus that later acquired the ability to transmit human to human, making it highly contagious and rapidly spreading in the human population (Liu, Kuo, & Shih, 2020). As of July 29, 2021, the World Health Organisation (WHO) reported 195,886,929 confirmed cases of COVID-19, with a staggering number of 4,189,148 deaths globally (WHO, 2021). The data shows dire implications of the virus's high contagiousness among the population of humans; therefore, drastic measurements, in particular of physical distancing, are needed to curb and mitigate the rapid infections of COVID-19 (Bavel et al., 2020). As a result, global quarantine was necessary, but it had disrupted and crippled major sectors worldwide, such as the economy, social, health, and education, to name a few. In a short time, all significant sectors needed drastic adjustments to accommodate the critical measurements in response to the COVID-19 outbreak, forcing all social and physical interactions to switch to digital social interaction.

The implementation of the Malaysian Government Movement Control Order, commonly known as the MCO, on March 18, 2020, was the starting point of a series of national quarantines and cordon sanitaire as measures to curb the COVID-19 pandemic in Malaysia after the first reported case in Malaysia on January 25, 2020 (Sufian, Nordin, Tauji, & Nasir, 2020). The global pandemic has created bubbled communities in Malaysia whereby these major sectors shifted into relying entirely upon modern technology and the internet to maintain business normalcy. It is undeniable that vital measures such as these are to prevent economic collapse, and at the same time, maintain the healthcare system to accommodate the proliferating demand of mitigating nation catastrophe. Unfortunately, the education prospect is one of the sectors that received a heavy penalty because of the pandemic disruption:

An estimated 90 percent of the world's school-aged children have had their education disrupted by the pandemic… At the peak of Covid-19 related school closures in April 2020, these measures disrupted the lives of 1.4 billion pre-primary, primary, and secondary students—or 90 percent of

all students in the world—when schools in more than 190 countries were closed… The closing of schools was stressful and uncertain for students, parents, teachers, and school staff. A common description was "chaos." (Human Rights Watch, 2021)

With all educational institutions being forced to close their doors, teaching and learning had to be made with limited social face-to-face interaction and online and distance learning. However, despite the circumstances, a shifted paradigm which relies almost entirely on the internet has accelerated the Industrial Revelation 4.0 in the education sector. Therefore, this becomes an opportunity to incorporate digital learning (Dhawan, 2020).

Research to date provides a minimal reference on students' perspective towards online classes in the context of the COVID-19 pandemic, especially on remote Malaysian public universities campuses like UiTM Mukah itself. Therefore, this article aims to highlight and provide a holistic view of the predicament in online and distance learning (ODL), especially towards the English Language subjects faced by the students in UiTM Sarawak Branch, Mukah Campus. It evaluates the impact of the COVID-19 pandemic on the learning process from the students' perspectives and underlines the challenges faced by the students in learning the English Language subjects. Subsequently, the challenges measured from the data collected could add value to the existing body of literature by providing comprehensive awareness and opportunity for improvement in the learning aspect of the English language subjects through online classes.

LITERATURE REVIEW

Higher education in the digital era sees acceleration into Industrial Revolution 4.0 with demand for modernising the educational system. However, this transition came into disruption when the 2019 coronavirus impacted the education sector. Students, parents, and educators worldwide felt the unanticipated rippling impact of the COVID-19 pandemic since educational institutions have had to close their doors, as part of the catastrophe mitigation that the governments, frontline workers, and health authorities have had to grapple with, to slow the spread of the coronavirus. The massive disruption of the education system witnessed the intensity of needs from the authorities to ensure that all students receive a quality

education during these challenging times. Nationwide lockdowns and the implementation of social distancing measures in response to the COVID-19 outbreak have resulted in the closure of educational premises, both learning and training. As a result, teaching pedagogy and methodology of a high-quality education is undergoing a fundamental shift through various online platforms. Not surprisingly, educators, parents, and students face significant setbacks in providing and altering the normalcy of a traditional approach to education pedagogy into a fully digitalised platform.

As a developing country, Malaysia struggles to cope with the digital transformation and modernisation in the educational sector. Integrating traditional with modern teaching pedagogy is slow progress. The latter is more challenging as digital application lacks even the most basic infrastructure and skills needed for adaptation. The usage of digital technology in the educational sector during the pre-COVID-19 pandemic time was merely as a teaching aid to make the learning process impactful, interactive, and versatile. Most of the time, teaching methodology integrates technology infrastructure provided by the learning institution and is accessible to anyone at any given time. Instructors are also available to guide the students in facilitating meaningful synchronous and student-centred learning. However, with the abrupt shift into a fully digitalised, online and distance learning through virtual platforms such as Zoom, Google Meet and Kumospace, students and educators have difficulties coping with the content delivery without proper guidelines and hands-on facilitators. In this situation, as explained by Subedi et al. (2020), E-learning tools have come into a crucial role during this pandemic, aiding educational institutions to facilitate students' learning during the closure of the institutions. Within a short time, educators and students are now coping with the demand of costly ICT requirements. Once, smartphones and tablets are deemed as luxury. Now, those luxuries have turned into necessities when it becomes compulsory for everyone to own a device- even the most basic, in order to access education content:

After schools closed, hundreds of millions of students experienced a dramatic shift to distance learning, with physical classrooms being replaced by radios, televisions, cell-phones, tablets, and computers. This resulted in an overwhelming dependence and need for affordable, reliable connectivity, adequate devices that met learning needs, and the capability to use these

technologies safely and confidently. (Human Rights Watch, 2021)

The sudden transitions exposed insufficient basic modernisation infrastructure and access that Malaysian students and educators need to face. The everyday setbacks that students need to endure during online and distance learning range from limited access to a stable internet connection to owning the most economical yet questionable sustainable gadgets. Worse, these are a far cry from the actual problems faced by higher education students in Malaysia. Even with access to the said tools, most students lack digital literacies in using e-learning tools such as Microsoft Office, Google Classroom, or manoeuvre video platforms such as Zoom and Microsoft Team: Digital transformation of Higher Education institutions is a topical issue that several stakeholders of education must feel concerned about-abilities to apply ICT in every spheres of life are on incremental level, thus universities must be up to the task of preparing potential professional to be able to face challenges and provide solutions. (Bond et al., in Adedoyin & Soykan, 2020)

Research duo Hiltz and Turoff (2005) argued that online learning is a novel social activity gaining traction as a substitute for the traditional face-to-face classroom but from the standpoint of disruptive processes (Adedoyin & Soykan, 2020). Technologies are indeed a great aid in the teaching and learning process. The internet is the prerequisite for education, yet not everyone has equal access to it. However, it cannot replace human social interaction, and it comes with an economic burden, especially to both students and parents. Indeed, the closure of educational institutions is a must to curb the widespread coronavirus, and this decision comes with a grave price. It resulted in inequality in education as it is now more difficult for students to access primary education, including those in the higher learning institutions: But many children were not given the opportunity, tools, or access needed to keep on learning during the pandemic. As a result, school closures did not affect all children equally. Throughout this pandemic, students, parents, and teachers have been frustrated by the direct impact of governments' long-term lack of commitment to remedying discrimination and inequalities in their education systems, and their failure to ensure basic government services…Lack of access to affordable, reliable internet connection was another key problem…In many countries, the heavy reliance on online learning and connectivity technologies to deliver education

exacerbated learning inequalities because many governments did not have the policies, resources, or infrastructure to roll out online learning in a fully inclusive manner. (Human Rights Watch, 2021)

One particular case of such circumstances in Malaysia was reported by the British Broadcasting Corporation News (BBC) on June 18, 2020. Eighteen-year-old Veveonah Mosibin, a Sabahan student at University Malaysia Sabah (USM), was forced to build a treetop hut in her family farm to sit for two university exams because of limited internet coverage, electricity and running water in her family's residence. Hence, this exemplified the inability by both the government and educational institutions to offer adequate internet or equipment was more likely to exclude students from low-income households and rural areas from accessing online and distance learning. Inequality and discrimination in education directly result from the governance of critical aspects in socio-economic and demographic factors. It is reflected in the students' capability to cope with online and distance learning. Students from sustainable family economic backgrounds may not be feeling the impact of shifting into digital learning. However, it is reversed for students who come from a disadvantaged economic stand front. Accessibility, cost, flexibility in teaching pedagogy and educational policy are among issues that have been recognised as problems with online and distance learning (Murgatrotd, 2020). Economically disadvantaged students in many developing nations cannot afford online learning gears, primarily when a progressive country such as Malaysia could not provide primary necessities for online learning. A significant dependence on online education and connection technologies to deliver education worsened learning disparities in many countries. Many governments lacked the regulations, resources, and infrastructure necessary to properly implement online learning (Human Rights Watch, 2021). Tertiary-level students from rural communities have difficulties getting a decent internet connection. Poor basic infrastructures such as electricity and a non-conducive environment halt the educational progress of these affected students, compared with students from urban and suburban communities.

In compliance with the Malaysian Government Movement Control Order (MCO), Universiti Teknologi MARA (UiTM) embarked on the transition into virtual learning, noting the journey to be perilous with limited skilful educators in engaging virtual learning within a limited time. With the

progressive transition of traditional classrooms to an entirely virtual learning environment at local educational institutions, teachers and students have resorted to online or distance learning to comply with campus-enforced social distancing. Apart from basic tools such as laptops or personal computers, the availability of resources such as complex Instructional Technology (IT) platforms and fast internet connections was deemed critical in this unprecedented situation. Bozkurt and Sharma (2020) illustrated that educational transitions during the COVID-19 crisis came with logistic challenges affecting students' academic performance. Firstly, there is growing concern about pandemic-related anxiety. Then, socio-economic factor differences related to the students' ability to access tools and logistics required for online and distance learning are also a concern. Finally, most instructors were not prepared to give high-quality training remotely in an effective manner (Adedoyin & Soykan, 2020).

The review of difficulties confronted by students in learning the English language subjects among UiTM Mukah students during ODL is computer literacies and learning styles and preferences. Indeed, distance language learning has progressed from traditional print-based correspondence classes to fully online courses that can provide ample chances for contact, feedback, and support between educators and students, as well as among students themselves (White in Teoh, Liau, & Belaja, 2013). However, Seetha Kuama's (2016) research indicates that students faced with computer anxiety display drawbacks on their academic performances because of limited access to instructors that can guide them in completing tasks using ICT (Aydin in Kuama, 2016). In addition, psychological impact ensued as the students felt left behind by their peers, resulting in a loss of interest in learning English language subjects. Kuama further argued that students require time to adapt to new learning environments and difficulties concerning learning style and preferences. These difficulties may develop for some students due to the requirement to use a different learning style. This deficiency may present a challenge for learners who are less proficient in technology (Kuama 2016). Therefore, the purpose of this study was to ascertain UiTM Mukah distance learners' perceptions of the difficulties they encountered while learning the English language. Collecting data and identifying the students' perspectives would be the best barometer in helping enhance their learning experiences and capabilities in ODL during COVID-19 pandemic. Therefore, the following research question was addressed: what are the

students' perceptions and challenges students face in learning English language subjects via ODL during the COVID-19 global pandemic?

RESEARCH METHOD

The research is conducted using both quantitative and qualitative method. This research was conducted during the March- August 2021 semester. The research adopts a survey method whereby a questionnaire adapted from Zboun & Farrah (2011), was designed. The researchers prefer the use of a questionnaire because it is a quick and reliable way to collect information from respondents in an efficient and timely manner. The questionnaire was designed using Google Form and distributed to students via group Whatsapp.

A total of 132 respondents participated in this study. All of the participants were pre-diploma and diploma students who were taking English language subjects. As for the diploma students, the students were from semester one until semester three. The questionnaire was distributed for two weeks, which were weeks 13 and 14 of the semester.

The questionnaire is divided into four parts; general information, which consists of student ID, level, programme, part, and gender, students' perception in learning the English language subjects through online classes, students' challenges in learning the English language subjects through online classes, and ways to improve and make learning English subjects through online classes easier and more accessible to all. On the first three parts of the questionnaire, students were asked to choose one of the 5 items included; strongly disagree, disagree, neutral, agree, and strongly agree. This is the quantitative part of the study, where the questionnaire is constructed in 5-Point Likert scale. The last part was a question, whereby respondents need to give suggestions on ways to improve and make learning English subjects through online classes easier and more accessible to all. The results of the study are then collected and analysed.

RESULTS

4.1 Background Information

Figure 1: Level

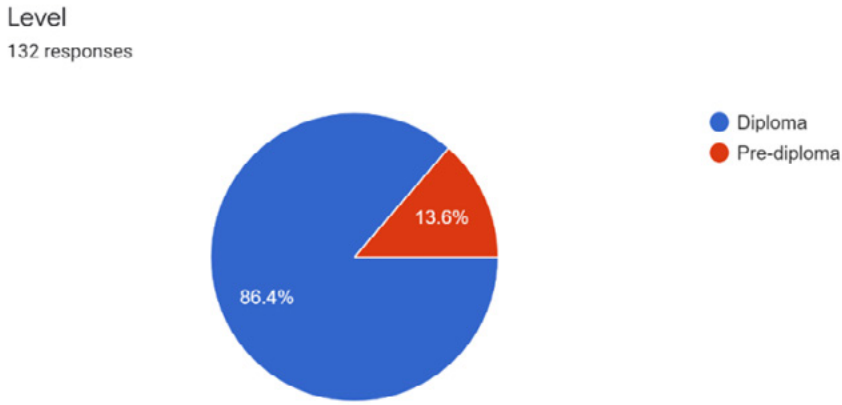


Figure 1 shows respondents' level. 84.5% of the respondents are diploma students, while 13.8% are from pre-diploma students.

Figure 2: Programme

Programme	Percentage
AT117	13.63%
AT112	11.36%
AT110	25.75%
BA111	15.9%
BA118	9.09%
BA119	5.30%
HS110	3.78%
BA002	11.36%
BA003	3.03%

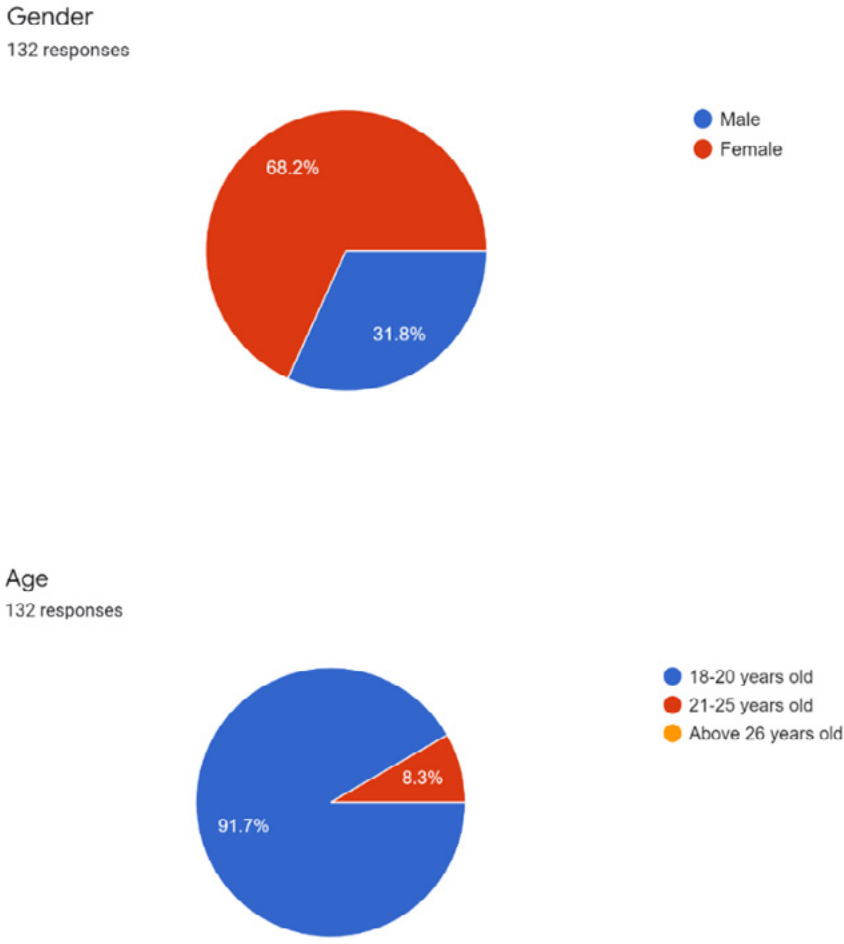
From this figure, 25.75% of 132 of the respondents are from AT110, which is Diploma in Planting Industry Management. Moreover, students from AT112 (Diploma in Herbal Production) and BA002 (Pre-commerce; PPPT intake) share the same percentage of respondents, which is 11.36% each. The least respondents who partook in this study was from BA003 (Pre-commerce), which was 3.03%

Figure 3: Parts

PARTS	PERCENTAGE
1	6.2%
2	64.62%
3	15%
4	0.9%
5	0%

From this figure, only students from part 1, 2, 3, and 4 took part in the survey, and none from part 5. A majority of the respondents are from Part 2 (64.62%), followed by part 3 (15%), part 1 (6.2%) and part 4 (0.9%).

Figure 4: Gender and age of the respondents



From figure 4, most of the respondents are female (68.2%), followed by male (31.8%). A majority of the respondents' age are 18-20 years old (91.7%) and only 8.3% of the respondents are from the age of 21-25 years old.

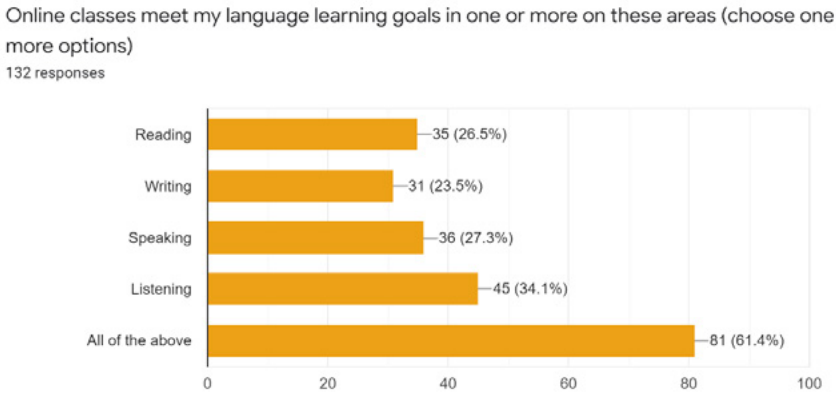
4.2 Students' Perception

Figure 5: Student's perception in learning the English language subjects through online classes

Items/ percentage	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I prefer online classes	5.3%	7.6%	59.8%	19.7%	7.6%
I prefer face-to-face classes	0.8%	0.8%	30.3%	40.2%	28%
I participate more in online class	0.8%	6.8%	47%	31.1%	14.4%
I participate more in face-to-face class	0%	1.5%	32.6%	44.7%	21.2%
I prefer submitting my assignments online	0%	0.8%	27.3%	50.8%	21.2%
I spend less time and efforts in online class	8.3%	22%	48.5%	15.9%	5.3%
I am able to work independently in online class	3%	8.3%	44.7%	30.3%	13.6%
I do not find it difficult to use Google Classroom, Zoom, or any other video chat platforms	0.8%	6.1%	36.4%	40.2%	16.7%

From figure 5, a majority of the students are neutral in 4 items; 'I prefer online classes' (59.8%), 'I participate more in online classes' (47%), 'I spend less time and effort in online classes'(48.5%), and 'I am able to work independently in online classes'(44.7%). Conversely, a majority of the students agree in 4 items; 'I prefer face-to-face classes'(40.2%), 'I participate more in face-to-face classes' (44.7%), 'I prefer submitting my assignments online' (50.8%), and 'I do not find it difficult to use Google Classroom, Zoom, or any other video chat platforms' (40.2%)

Figure 6: Language learning goals



One of the questions asked regarding students' perception is their language learning goals. 61.4% of the respondents viewed that learning English language online fulfils all four skills; listening, speaking, reading, and writing.

4.3 Student's Challenges

Figure 7: Students' challenges in learning the English language subjects through online classes

Items/ percentage	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I do not have good internet connection	5.3%	15.9%	51.5%	18.2%	9.1%
I find it difficult to use Google Classroom, Zoom, or any other applications in online class	13.6%	39.4%	34.8%	12.1%	0%
I am anxious of making mistakes in online classes than face-to-face classes	0.8%	18.9%	47.7%	24.2%	8.3%
Lecturers are not trained enough to teach online classes	29.5%	47.7%	20.5%	1.5%	0.8%
It is very difficult to study through online classes	2.3%	15.9%	43.9%	25%	12.9%
It is frustrating to do online tasks	5.3%	17.4%	52.3%	18.9%	6.1%
I feel less motivated attending online classes than face-to-face classes	5.3%	16.7%	35.6%	31.1%	11.4%
I do not have adequate gadgets to participate in online classes	18.9%	43.2%	30.3%	7.6%	0%
There's too much noise at home/hostel whenever I have to do online presentations or speaking tests	6.1%	15.2%	30.3%	31.3%	17.4%
My teammates are not reachable most of the time.	12.1%	34.8%	37.9%	11.4%	3.8%

In figure 7, a majority of the respondents are being neutral in 6 items; 'I do not have good internet connection'(51.5%), 'I am anxious of making mistakes in online classes than face-to-face classes' (47.7%),

'It is very difficult to study through online classes' (43.9%), 'It is frustrating to do online tasks' (52.3%), 'I feel less motivated attending online classes than face-to-face classes' (35.6%), 'My teammates are not reachable most of the time' (37.9%).

A majority of the respondents disagree with three items; 'I find it difficult to use Google Classroom, Zoom, or any other applications in online class' (39.4%), 'Lecturers are not trained enough to teach online classes' (47.7%),' I do not have adequate gadgets to participate in online classes' (43.2%). Lastly, a majority of the students agree on one item; 'There's too much noise at home/hostel whenever I have to do online presentations or speaking tests' (31.3%)

4.3 Making English learning more accessible

The researchers also asked respondents via open-ended questions; 'What can be improved to make learning English subjects through online classes easier and more accessible to all?' This is done to gather feedback on what can be improved to make English language learning easier and more accessible to all. There were 132 respondents who answered the questions. Out of this 132, 14 students wanted lecturers to infuse more online quizzes and games to make learning more interesting and fun. For example, one respondent said "I think I prefer doing quizzes rather than exercises. English should be fun!". Another respondent also said "have more quizzes to know how we understand the topic- make it way fun like miss always does." Moreover, 10 of the students responded that they prefer lecturers to use platforms that are accessible to all, and pre-recorded lectures are more preferrable. For example, 1 student said "the material used must be fun and interesting but not using the data so much, and arrange these materials in one platform that can be accessed easily". Another student also said "use pre-recorded videos more than live meetings because (pre-recorded videos) use less internet data. Provide some interesting activities so that students feel excited to learn the English subject.'. Lastly, 10 respondents wanted lecturers to give more exercises to them. For example, one of the students said "I guess doing more exercises and watching sample videos (learning from YouTube) are easier. However, this is not an effective way because students may escape during lecture

hours.". Another student also said, "do more exercises, especially past year questions".

DISCUSSION AND CONCLUSION

In terms of background information, it can be said that a majority of the respondents are diploma students than pre-diploma students. This is because there is only one class of pre-diploma students, while the rest are diploma students of two campuses; Samarahan and Mukah. In this study, students from five programmes from UiTM Mukah ; BA111, BA119, AT110, AT112, and AT117; and students of two programmes from UiTM Samarahan -BA118 and HS110 were respondents. To add more, the majority of the respondents are females.

In terms of students' perception of learning English language via online classes, from 8 of the questions asked, the respondents are neutral in the four items mentioned in the result section. This is because they take into account the situation and environment, they are in. For example, in 'I prefer online classes', there are times where the online class is convenient for them, and there are times the online class is not, and it is the same situation with respondents who were neutral with 'It is very difficult to study through online classes'. However, a majority of the respondents agree that they prefer face-to-face classes, as with face-to-face classes, they understand more, and it is easier for them to communicate with lecturers in a straightforward manner. However, most students prefer to submit the assignments online because there are limited facilities for them to go to printing shops and print their assignments, and printing out handouts and assignments is expensive for them. They also agree that they have no problems using platforms like Google Meet, Zoom, Google Classroom, or any other platforms because they have been familiar with these platforms since the 1st MCO up till now.

In terms of students' challenges of learning English language via online classes, out of 10 items asked, 6 of the respondents took the neutral stance. This depends on the situation and the environment that occur at that time. For instance, there is one item where the respondents answered 'I do not have good internet connection', there are times the internet connection is stable, and there are times the internet connection is not stable. Another example, in 'I am anxious of making mistakes in online classes than face-to-face classes',

shows that there are times the students will feel anxious with making the mistakes during assessments, but have no problems making mistakes during non-assessment classes. Meanwhile, the respondents disagree in three of the items asked. This is because there is financial assistance given for them to buy gadgets. Moreover, the lecturers are well-trained in using online platforms because they have attended courses on how to use and handle these online platforms.

In terms of what can be improved in making learning English subjects through online classes easier and more accessible to all, it can be said that students nowadays prefer online quizzes because of their interactive features. Moreover, they also require lecturers to use pre-recorded videos rather than live classes so that it is easier for them to refer to the videos over and over again to make the lessons more interesting.

However, this research has its own limitations. Firstly, the research only focuses on perceptions and challenges students face in one subject only, which is English. This research can be broadened to other subjects, so that other researchers can compare and contrast whether the results produced are the same or different. Next, this study only takes onto account respondents from UiTM Sarawak. It is hoped that this study can be expanded to include students from other campuses.

In conclusion, it is hoped that this research can give an insight of the perceptions and challenges faced by students during ODL, and measures can be taken to make learning the English subject more inclusive, accessible, and engaging.

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