NEED ANALYSIS OF MULTIMEDIA INSTRUCTIONAL LEARNING MATERIALS TO IMPROVE MALAYSIAN VOCATIONAL COLLEGE STUDENTS' MOTIVATION TO USE ENGLISH FOR COMMUNICATION MATERIALS

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Abstract:

Developing multimedia instructional materials is important to increase motivation to use the materials. This study investigated the need to develop multimedia-based learning media to improve students' motivation to use instructional materials in the English for Communication subject based on the latest syllabus. The participants are year one Diploma in Engineering students. There was a total of about 150 participants, selected using a purposive random sampling technique. A needs analysis questionnaire instrument with 15 closed-ended questions was given to selected vocational college students in Penang. Based on the results of the study, show that there is a need for improved learning instructional materials to be developed for learning the subject. Various forms of online and offline multimedia instructional materials using different learning media are also needed. Overall, this research implies that multimedia-based materials are needed to increase the motivation to use the materials in learning the English for Communication subject.

Keywords:

Engineering Students, Vocational College Students, Multimedia Learning Materials, Instructional Materials, Learning Motivation To Use Instructional Materials, English For Communication

Introduction

The Sustainable Development Goals (SDGs) establish a global agreement to accomplish several goals by 2030. The "Quality Education" target, or SDG 4, seeks to guarantee inclusive and equitable quality education and encourage opportunities for lifelong learning for all (UNESCO, 2023). E-learning is essential since it offers a flexible learning path that accommodates a variety of learners and encourages lifetime learning. When teachers are digitally savvy and know how to incorporate technology into the curriculum, it improves students' learning (UNESCO, 2020).

Malaysia has initiated efforts to incorporate ICT into education much earlier, during the initial ten years following its independence. The usage of CD-ROM, software, and the application of multimedia in teaching and learning started in 1970 when the Ministry of Education implemented the first computer system in 1966. However, learning has evolved over the years. With the rapid development of the internet, the digital world is undergoing fast changes in the way information is disseminated. Thus, it is also important for teachers to know the needs of Generation Z to be accommodated with interesting learning materials to enhance the teaching and learning sessions (Had & Rashid, 2019). Since this generation is a digital native and grows up using technology, their dependence on technology is dominant (Çoklar & Tatli, 2021). Hence, issues like instructional materials, particularly used to increase learning motivation, need to be given due attention as students' way of learning is changing (Fong, 2022).

The selection of learning media is also significant in increasing students' learning motivation as it will not only impact students' understanding of the material presented by the teacher, but also the learning outcome of the students (Fathurohman, Darmuki, Nugraheni, Surachmi, & Nanda, 2020). Online and offline learning materials also need to be varied as students have different learning needs and preferences (Sharma et al., 2022). Thus, this study aims to survey Engineering Diploma students on their responses to the currently used and their desired instructional materials for the subject of English for Communication. This needs analysis reports the outcome of undergraduate students in a selected vocational college in Malaysia, as the responses are presented in terms of the preferred type of learning instructional materials, learning media, and online and offline learning resources in the findings section. These inputs can help design and develop the speaking instructional English for Communication materials that cater to Engineering vocational college students in the Malaysian context.

Research objectives

In this study, there are three objectives:
1. What are the students' perceptions towards the need for English for Communication learning instructional materials that have been improved?
2. What are the students' perceptions towards the need for English for Communication type of learning media to be improved?
3. What are the students' perceptions towards the need for online and offline learning resources in English for Communication learning materials, and media to be improved?

Literature Review

Definition Of Multimedia, Learning Instructional Materials, Types Of Learning Media, And Online And Offline Learning Materials

Multimedia provides students with easy-to-access learning instructional materials and exciting ways to explore and learn the content (Alomari, 2024). It also makes students understand concepts easily, particularly through visual learning (Alabi, 2024). Incorporating multimedia elements in learning helps students to foster a deeper understanding as it enhances engagement with the topic learned (Onyejelem & Andover, 2024). Teachers who know how to use information can increase the learning process. The key terms and their significance are discussed below.

Multimedia

The word 'media' originated from a Latin word (Lubis, Febriani, Yana, Azhar, & Darajat, 2023). Noetel et al. (2021) reiterate the word "Multimedia, which means "many or much," and media, which is the plural form of medium, means "system of communication." The word 'Multimedia', which is often written as multi-media with a hyphen, has been in use since 1962 and is derived from the Latin word multis. Mayer describes Multimedia as a learning method that combines words and visuals (such as videos or animations) and words (e.g., verbal or written text) (Clark & Mayer, 2023).

Li et al. (2021) argue that multimedia is a method of accessing information through a variety of display media elements such as text, graphics (vector), images (bitmap), audio (sound), motion pictures (animation), and video. It can be concluded that multimedia refers to a combination of more than one media type, which includes texts, symbols, pictures, images, audio, and video, and usually comes with the assistance of technology to enhance understanding (Abdulrahman et al., 2020).

Wei and Wang (2025), stress that the impact of multimedia technology can impact the quality of English oral teaching and learning. By integrating multimedia in teaching and learning in English-speaking subjects, the learning environment also encourages students to speak, as it also improves the grammar of the students as a whole (Almashy, Ansari, Jamshed, & Banu, 2025). As a result, the usage of multimedia in teaching and learning English increases the effectiveness of English teaching and learning in class significantly. Not only does it improve students' performance, but it also increases the motivation of students to learn the language and use the materials (Meirbekov et al., 2024).

Learning Instructional Materials

According to Rosenberg (2001, p. 13), 'instruction' is defined as organized content focused on the learning outcome, developed by the instructional designers to meet the needs of the learners based on the knowledge of the discipline. Babayev (2021) pointed out that any developed or authentic learning materials that are in the form of printed or non-printed materials, used by teachers or students to ease the learning process, are referred to as 'instructional materials'. Examples of printed materials that are in the form of offline, are textbooks, activity books, and worksheets. Where else, the non-printed materials are computer-based online materials, like videos, websites, and slides.

Even though 'learning materials' and 'resources' are used interchangeably, Murtini, Zubaidah, and Listyorini (2019) argue they mean the same. It is defined that any collection of content or materials that helps the learning process is referred to as 'learning materials' or 'resources'. On the contrary, Oduma, Igwe, and Idike (2021) defined facilities such as classrooms, such as labs, and any material resources used for effective teaching, including textbooks and audio-visual aids, as 'learning resources'.

Blandy and Bolin (2018) argue that 'learning resource' also refers to tangible materials, which include all senses such as hearing (audio), sight or visual, taste, touch, and smell. The diverse learning resources are said to be more effective when they engage all five senses. Thus, it can be concluded that learning instructional materials can be defined as any learning resource used for the effective teaching and learning process.

The impact of instructional materials used is truly crucial (Chisunum & Nwadiokwu, 2024). Fadhillah, Siregar, Lestari, Rahman, and Khalsiah (2024) further emphasized that instructional materials, particularly digital media, play a great role in giving confidence in speaking English. The significance of instructional materials has not only extended to increasing students' motivation to use the materials but also helps in enhancing their engagement. Thus, it can be concluded that with effective use of instructional materials in the class, particularly multimedia, it can impact students' learning as well as academic performance (Meirbekov et al., 2024).

Type of Learning Media

Learning media refers to tools used to make communication interactive by delivering messages, stimulating thoughts and feelings, and stimulating the learning process to be more effective (Sudarsana, Arini, Mastini, Sukerni, & Pusparini, 2020). Examples of learning media are visual media (e.g., photographs, illustrations, drawings), audio media (e.g., podcasts and audiobooks), audiovisual media (e.g., videos, animated videos), print media (e.g., textbooks or magazines), interactive media (e.g., online courses, simulations, or interactive games), social media (e.g., communication platforms or online forums), instructional media (e.g., whiteboard, LCD, or computers). Lisnawati (2021) claims that learning media is one component that determines the success of learning. Agustina, Ma'arif, Ningrum, and Mufidah (2022) highlighted that the use of learning media made the learning of speaking easier. The impact of learning media has been proven to enhance the learning of language subjects (Muftah, 2024).

Online and Offline Learning Resources

According to Singh and Thurman (2019), the word 'online' has undergone revolutions in 30 years, starting from 1988 to 2018. Out of 46 definitions discussed, all these definitions agree that 'online learning resources' refers to digital materials available online. Examples of online learning resources include text-based materials (e.g., online lecture notes, assignments), multimedia resources (e.g., videos or audio), interactive exercises and exams (e.g., online quizzes), online course platforms (e.g., websites), and learning management systems (e.g., MOOCs).

In contrast, 'offline resources' refers to materials that are available offline. This includes physical materials (e.g., PowerPoint presentations, notes, textbook), in-person instruction (lecture), and hands-on activities (practical exercises, quizzes, and lab experiments). The significance of offline materials is still relevant today. Ferguson, Perryman, and Ball (2024) highlighted that some students still prefer access to printed versions of study materials or

exercises to do the written work. In general, language education scholars largely agree that online and offline learning resources help create a comprehensive and adaptable educational ecosystem connected to the digital world. Thus, designing more effective online and offline learning resources is welcomed (Li, Dai, Li, & Guan, 2025).

Multimedia Instructional Materials In English For Communication

Strong English communication skills are necessary in the workplace (Roshid & Kankaanranta, 2025). The inability of most Malaysian vocational college students to speak English during internally held job interviews in the final year of their studies is something to be worried about. Despite these students being trained in their specialized area and the passing rate for the English for Communication subject over the past five years showing a positive trend, however, students are still not able to speak English. The inability to speak English is an indicator that insight from students is needed. Since the purpose of instructional materials is to help students achieve their learning objectives and meet the lesson's learning objectives, this research was carried out to identify the needs of students in terms of preferred learning media and the need for online and offline learning resources (Garcia & Yousef, 2022).

The goal of the instructional materials is to motivate, engage, and contextualize students so that they will utilize them for both independent and autonomous learning outside of the classroom and for face-to-face instruction in the classroom (Rad, Alipour, Jafarpour, & Hashemian, 2024). Multimedia instructional materials also through the combination of various media, can help students develop English skills (Irawan, Marisya, Hatidah, & Purwanto, 2024). Rofi'i and Herdiawan (2024) further added that precise and consistent delivery of instructional learning materials also plays an essential role in determining the utilization of digital learning resources among students to take place.

Even though the use of multimedia is extensively applied in today's education, however, digital learning technologies are significantly changing the nature of learning materials (Wang, Chen, Yu, Liu, & Jing, 2024). In online learning settings, resources based on various content that may be used to meet specific learning objectives can be more engaging and encompass more involvement of students with enhanced learning outcomes (Balalle, 2024).

On the contrary, the offline learning environment also has its role in motivating students to speak face-to-face in class through group activities and direct speaking interactions in the class (Galus, Arifin, & Sulkifly, 2021). Complementing each other, both online and offline learning environments offer flexibility and accessibility for students to choose freely the preferred learning materials to be studied (Dewi, 2024). This changes the classroom dynamics and demands a reshaping in pedagogical approaches of teachers in teaching and learning the subject (Alisoy, 2023).

In terms of types of content, there is a lot of research on the benefits of online and offline learning, which influences learning in various ways (Sharma et al., 2022). Since digital technologies are a powerful instrument that can help improve a learning environment, students would have better educational experiences through these online and offline learning resources (Haleem, Javaid, Qadri, & Suman, 2022).

Rusticus, Pashootan, and Mah (2023) also highlighted that setting a conducive environment for learning helps students to be better engaged in classroom discussions. Qurtubi et al. (2023) further validated that the learning environment was also deemed valid, as it can help the learning process when the students' needs are considered in a learning environment. Hence, the environment of students' learning can motivate teachers to change their teaching approaches (Kallunki et al., 2023).

Considering the rapid advancement of digital technologies, multimedia concepts are now expanded in other many learning environment contexts; such as computer-based learning environments (Kutbay & Akpinar, 2020; Weng & Chiu, 2023), web-based learning environments (Wang, Wang, Yang, & Wang, 2021). Mayer (2024), animated-video-based learning environment (Muftah, 2023), virtual learning environments (Meyer, Coyle, & Schuck, 2018; Naimi-Akbar, Weurlander, & Barman, 2024). Learn scaping–creating next-gen learning environments for pluriliteracies growth. Multilingual computer-assisted language learning, 18-37.), or augmented learning environments (Lai, Chen, & Lee, 2019). However, to have a flexible learning environment, multimedia technologies must be carefully chosen for effective learning to take place (Wu, 2024). Jibililu (2024) stresses that analysis is also important in developing well-designed instructional materials for students to use. Thus, to fill in the void, this study aimed to tap the gap that exists in the currently used instructional teaching and learning materials and their preferences for improvised multimedia instructional learning materials medium to be used in the class. The inputs from the needs analysis will be used by the researcher for the step of designing and development of the materials.

English For Communication In Vocational College
Communication skills are essential for an engineer who wants to pursue their professional practice in the global arena (Ergai, Peterson, Zhan, & Smith, 2022). Successful engineering requires communication skills. Clear communication is necessary for selling ideas, working on teams, reporting results, and negotiating a career. Teaching English to future engineers or technicians is a delicate and challenging matter when it comes to content, methods, and techniques, and deciding which of them is appropriate for this particular field of engineering and English (Pramila et al., 2025).

In a Malaysian vocational college, the English for Communication subject aims at improving not only communication skills but also in other areas such as preparing for job interviews, improving presentation, and improving English language ability when there is an abroad meeting. Hence, knowing the importance of this, the study intends to identify the gap that exists in learning English for Communication using the existing materials. The need for improvised learning instructional materials, types of learning media, and online and offline learning resources to use instructional materials to learn English for the Communication subject is essential to understand the wants of the students in learning the subject. Since the curriculum is in module form, this study includes all three modules. Module 1 is on Speech Organization, Module 2: Oral Presentation Skills, and Module 3: Oral Communication in the Workplace are involved in this needs analysis study.

Research Method
The purpose of this study is to find out the perceptions of vocational engineering students on the currently used learning instructional materials and the desired learning media and online and offline learning resources for the subject of English for Communication.

Participants

The study was conducted at the undergraduate level of English for Communication Vocational College Engineering first-year Diploma students in Penang. The sample consisted of 150 students: 120 male and 30 female students. Students are of range 18 years old. The participants are native speakers of the Malay language. Their interaction in English outside of class is low and, in most cases, not at all. Most of the students' mother tongue is either Malay, Chinese, or Indian. The requirement courses to participate in this survey are that students have passed the SVM English subject and have also enrolled in the English for Communication subject. The following Figure 1 shows the percentage of students according to gender.
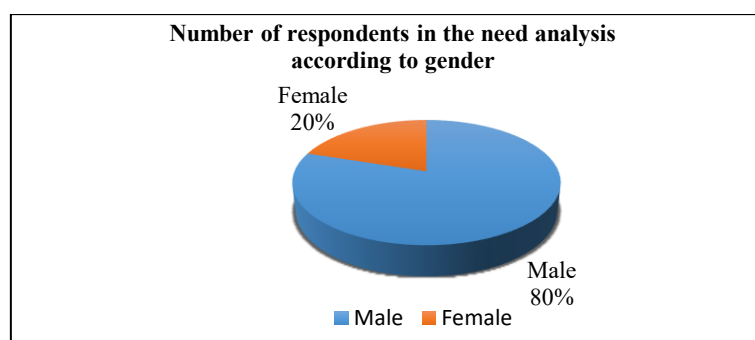

Figure 1: Number Of Students According To Gender In The Needs Analysis

Research Instrument

The method chosen for this study is quantitative. The quantitative questionnaire was administered to 150 English for Communication students. This survey-based questionnaire was conducted using purposive sampling. The rationale for using purposive sampling, a non-probabilistic sampling, is to suit the characteristics of students of the selected vocational college, which has a 100 percent pass rate in SVM English. This survey-based questionnaire consists of two sections; the first part is demographic information, and the second part includes a Likert scale closed-ended survey question on students' preferences in currently used instructional materials for learning, preferences of learning media, and preferred type of online and offline platform. A Likert scale of 1 to 4 was used, was used in this section, with the representation of: 1= Strongly Disagree, 2= Disagree, 3= Agree, and 4= Strongly Agree; to ask responses of students for 15 questions. The items in the section are summarized in Table 1 below and have references to figures used in the findings section for easy reference. The questionnaire was also checked for validity and reliability.

Table 1: List Of Items In Section B About The Figure Numbers In The Findings

Figures	Items	Statements of the items
Dimension 1: Perceptions on currently used learning instructional materials		
Figure 2	Item 1	The available instructional materials make it easier for me to understand the subject.
Figure 3	Item 2	The available instructional materials for this subject are engaging
Figure 4	Item 3	The available instructional materials can be studied independently
Figure 5	Item 4	There are a lot of illustrations included in the currently used instructional materials.
Dimension 2: Perceptions on the need for English for Communication type of learning media to be improved		

Figure 6	Item 5	I am interested in learning English for Communication materials from the web.
Figure 7	Item 6	I am interested in learning English for Communication materials from slides.
Figure 8	Item 7	I prefer to have compiled printed exercises during writing activities in the class.
Figure 9	Item 8	English for Communication instructional materials presented in the form of animated videos are more interesting than those presented in text materials.
Figure 10	Item 9	I prefer material that is presented in the form of lecture videos online.
Dimension 3: Need for online and offline learning resources, English for Communication learning materials, and media to be improved		
Figure 11	Item 10	I enjoy face-to-face learning.
Figure 12	Item 11	I enjoy any speaking activities when it is carried out in the class.
Figure 13	Item 12	I enjoy online-based learning that can make it easier for me to learn anywhere and anytime.
Figure 14	Item 13	Online learning can increase my motivation to study English as a communication subject.
Figure 15	Item 14	An online learning platform allows me to repeat the learning.
Figure 16	Item 15	I prefer having an online learning platform to access all the instructional materials for this course.

Data Analysis Procedure

In this study, a quantitative approach to data collection has been employed. A descriptive analysis was used to analyse the findings of the study by counting the answers for each question presented in percentage form. The items in Section B consist of 15 closed-ended questionnaire questions. The thick description has been used to analyse and interpret the data. The findings were debated in the discussion part.

Findings and Interpretations

The results of the study were presented according to the items in the closed-ended questionnaire. Here are the findings of the needs analysis, presented below.

Item 1

Figure 2 displays the results of students' responses on the currently used instructional materials, making it easier for them to understand the subject. The results indicate that a sizable majority of respondents—69 percent—strongly disagreed that the existing instructional materials in the class improve their comprehension, while 20 percent just agreed. This distribution shows that participants' general opinion of the currently used instructional materials is one of disappointment. Only 19 percent of respondents strongly agreed and 1 percent agreed with the statement that they find it easier to understand the existing instructional material in the class, making up a very small minority.
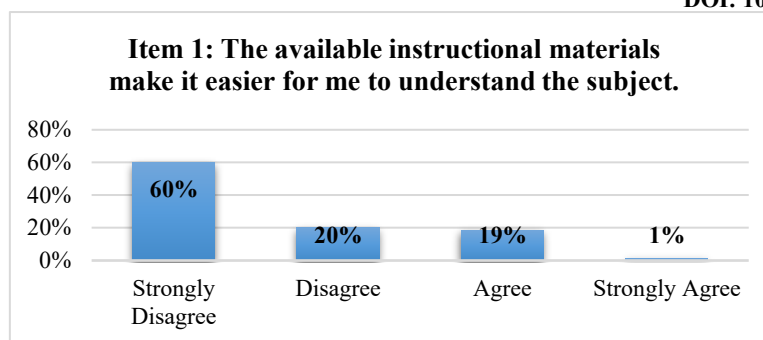
Figure 2: Item 1-The Available Instructional Materials Make It Easier For Me To Understand The Subject

Item 2

As for how engaging the available teaching resources used in English for Communication, Figure 3 shows that 65 percent of respondents strongly disagreed, as compared to only 2 percent who strongly agreed. The remaining 8 percent of respondents who just agreed as compared to 25 percent of respondents who disagreed.
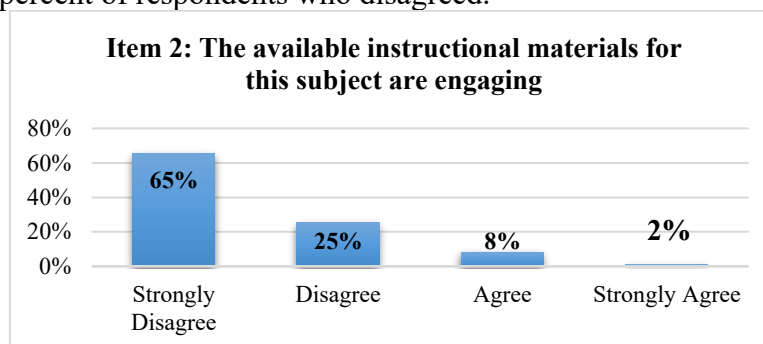

Figure 3: Item 2-The Available Instructional Materials For This Subject Are Engaging

Item 3

Concerning opinions on whether the existing instructional materials could be studied independently, Figure 4 shows that 61 percent of the respondents strongly disagreed with the statement. Likewise, 25 percent of the students disagreed, while only 9 percent agreed and 1 percent strongly agreed. This suggests that most students believed that the currently used instructional materials were inappropriate.
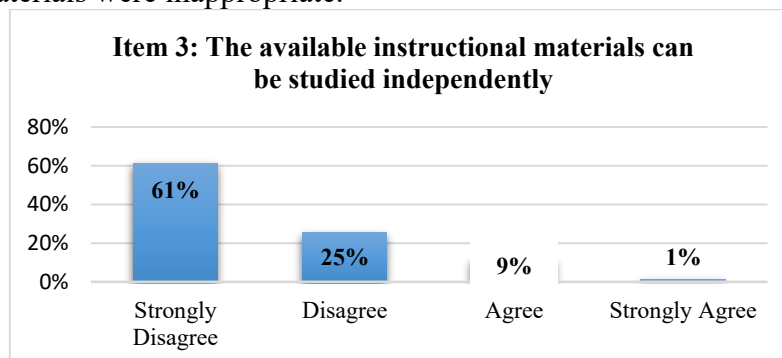

Figure 4: Item 3-The Available Instructional Materials Can Be Studied Independently

Item 4

In Figure 5, which assessed whether there are a lot of illustrations used in the currently used instructional material, the findings indicate that only 3 percent of respondents disagreed with the statement, and most respondents, 80 percent, strongly disagreed. Only a small percentage, 17 percent of the respondents, agreed, and 1 percent strongly disagreed. This item suggests that 97 percent of the students evaluated that there were not enough illustrations in the currently used learning materials.
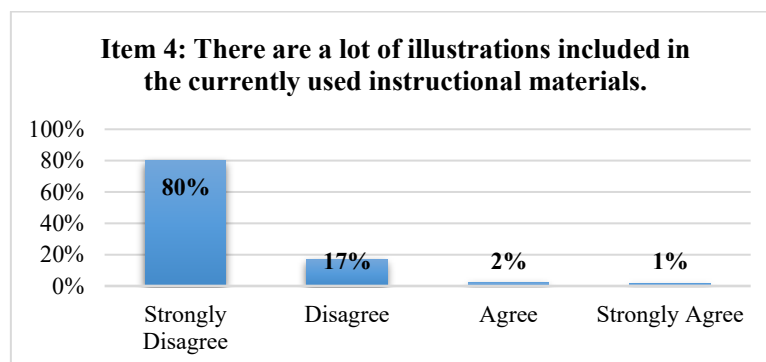

Figure 5: Item 4-There Are A Lot Of Illustrations Included In The Currently Used Instructional Materials.

Item 5

As for the interest of students in using web-based resources to learn English for Communication, 61 percent of respondents strongly agreed, likewise, 23 percent of respondents agreed, as opposed to 13 percent of students who disagreed, and another 3 percent of the students strongly disagreed. From this item, it was discovered that a total of 84 percent of the respondents were interested in learning English for communication through web-based resources. This information is summarized in Figure 6 below.
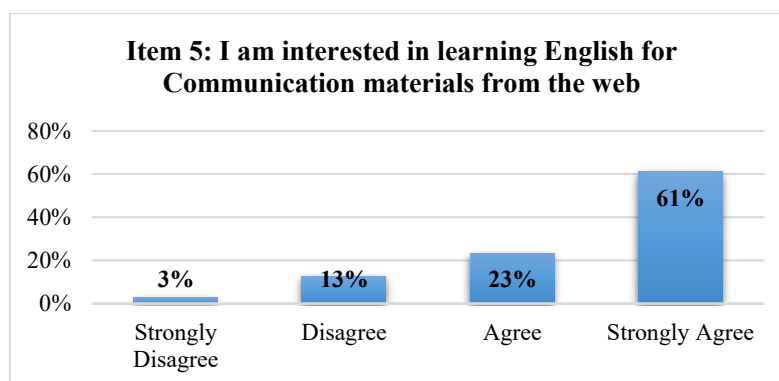

Figure 6: Item 5- I Am Interested In Learning English For Communication Materials From The Web

Item 6

A summary of responses to Item 7, which gauged participants' interest in using slides to learn English for communication, is shown in Figure 7. With 49 percent of the strongly agreeing and 38 percent of respondents agreeing with the statement, the data shows a significant degree of interest. Only a total of 13 percent of the respondents disagreed with the statement.
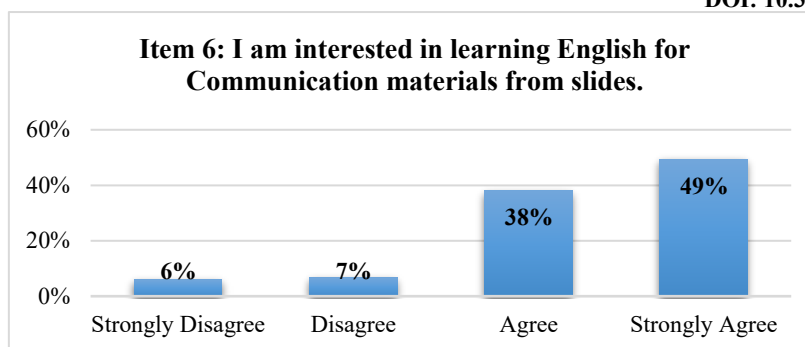
Item 6: I am interested in learning English for Communication materials from slides.

Strongly Disagree 6%
Disagree 7%
Agree 38%
Strongly Agree 49%

Figure 7: Item 6- I Am Interested In Learning English For Communication Materials From Slides

Item 7

Figure 8 shows an inclination towards using compiled printed writing exercises in the classroom. With 40 percent highly agreeing and 35 percent agreeing with the statement, it shows a range of preferences in using printed materials. In contrast, 12 percent and 13 percent disagreed and strongly disagreed with the statements. It can be interpreted that 75 percent of the students were interested in having printed exercises during writing tasks after speaking activities in the classroom.
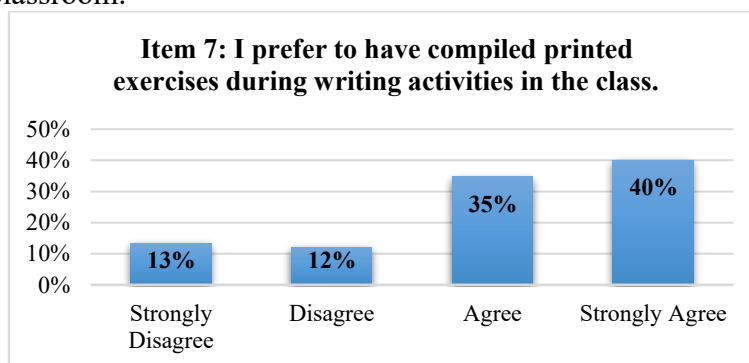
Item 7: I prefer to have compiled printed exercises during writing activities in the class.

Strongly Disagree 13%
Disagree 12%
Agree 35%
Strongly Agree 40%

Figure 8: Item 7- I Prefer To Have Compiled Printed Exercises During Writing Activities In The Class.

Item 8

Regarding the rate of interest in animated videos versus textbooks as instructional materials for English for Communication, 60 percent of respondents strongly believed that animated videos are more engaging, as compared to 38 percent of respondents who simply agreed. A very small percentage of 2 percent of the respondents prefer the materials to be presented in text form. Remarkably, not a single responder expressed total disagreement with the statement, suggesting that participants generally believed that animated videos are a more engaging way to learn English for communication than those presented in text materials. This information is summarized in Figure 9 below.
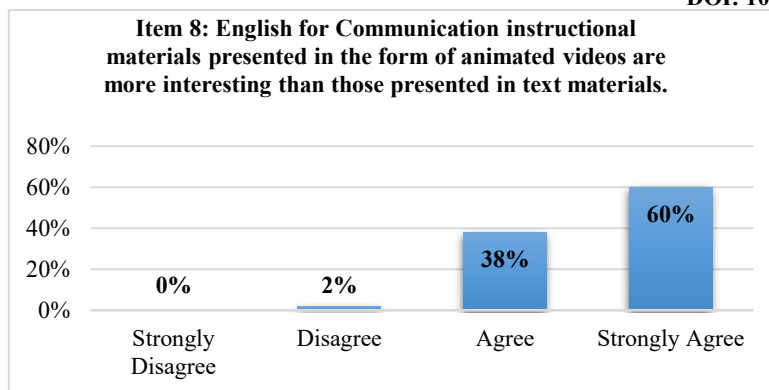
Figure 9: Item 8- English For Communication Instructional Materials Presented In The Form Of Animated Videos Are More Interesting Than Those Presented In Text Materials.

Item 9

Figure 10 focused on respondent preferences for materials to be in the form of videos. Delivered as online videos. 51 percent of the students strongly agreed with the statement, and only 37 percent of respondents just agreed with the usage. Showing that 88 percent of the respondents significantly preferred the materials delivered in this format highlights how popular internet videos are as a learning tool. On the contrary, 8 percent of the students merely disagreed, and 3 percent of students strongly disagreed with a form of online lecture video presentation of materials.
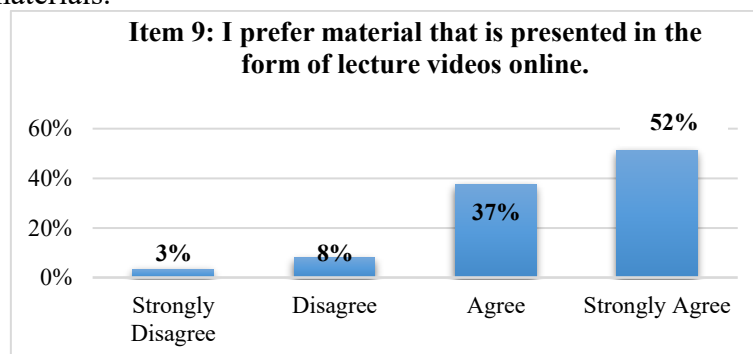

Figure 10: Item 9- I Prefer Material That Is Presented In The Form Of Videos Online

Item 10

As for the number of respondents who are satisfied with face-to-face instruction, the data shows varied degrees of preference. 37 percent of respondents strongly agreed on face-to-face instruction, 29 percent of respondents just agreed, 11 percent disagreed, and 23 percent of the respondents strongly disagreed. The data indicates that a considerable majority of students, 66 percent, enjoy face-to-face learning, while only 34 percent hold conflicting opinions, and face-to-face is less preferred. This information is represented in Figure 11 below.
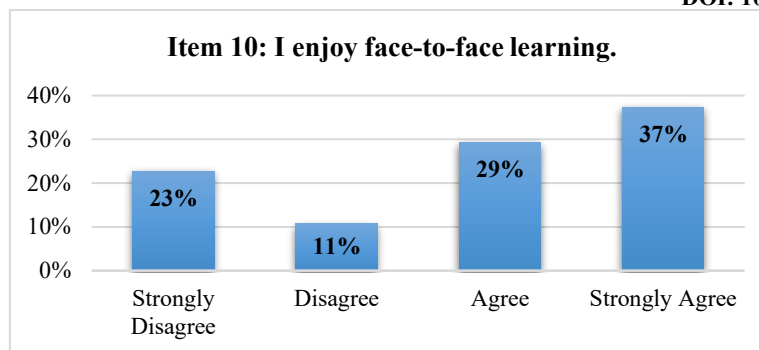
Figure 11: Item 10- I Enjoy Face-To-Face Learning.

Item 11

Figure 12 displays an overview of answers with a particular emphasis on their satisfaction with speaking exercises carried out in class. 40 percent of respondents were in total disagreement, and 39 percent of respondents just disagreed. With a sizable percentage expressing disagreement, the students did not like the speaking activities in the class. Only a total of 21 percent of respondents enjoyed speaking activities in the classroom using current instructional materials. Most students, 79 percent, did not enjoy it.
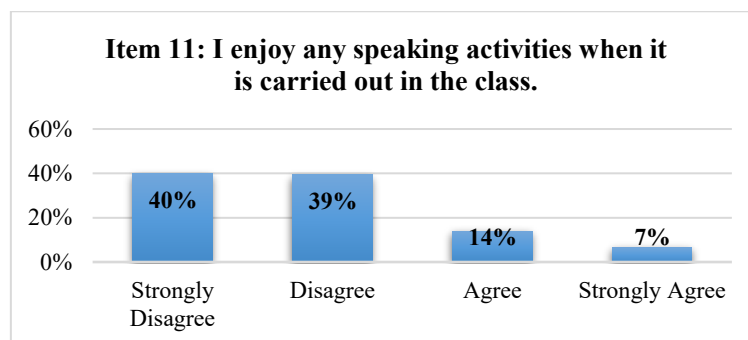

Figure 12: Item 11-I Enjoy Speaking Activities When It Is Carried Out In The Class.

Item 12

In Figure 13, which gauged the satisfaction of students on the flexibility of online learning that can be accessed at anytime and anywhere, the results show that 58 percent of the students show a significant positive response towards online-based learning, Meanwhile, only a small minority with only 2 percent of students strongly disagreed and 4 percent disagreed.
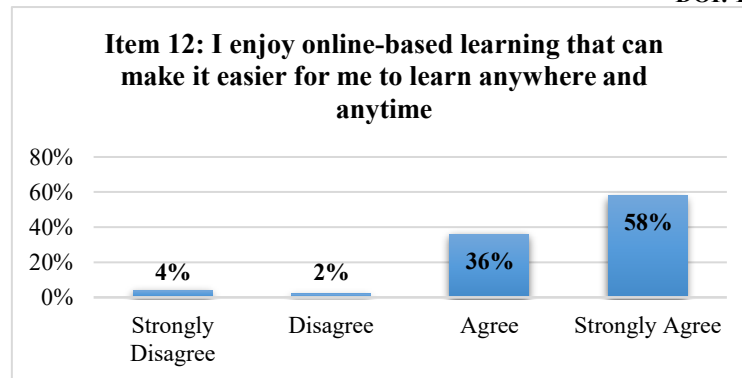
Figure 13: Item 12- I Enjoy Online-Based Learning That Can Make It Easier For Me To Learn Anywhere And Anytime

Item 13

As for responses on the influence of online learning on the students' learning motivation to study English as a communication subject, the results demonstrate a substantial agreement. 46 percent of students strongly agreed, yet 36 percent of the students agreed that online learning enhances motivation. On the other hand, just 8 percent of the respondents disagreed, and 10 percent of respondents strongly disagreed. This suggests that the majority of students, 82 percent, agreed that online learning can increase their motivation to study the English for Communication subject. The information is represented in Figure 14.
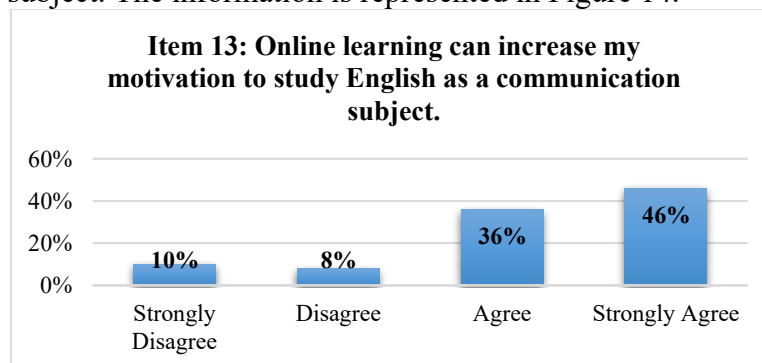

Figure 14: Online Learning Can Increase My Motivation To Study English As A Communication Subject.

Item 14

Regarding whether online learning platforms allow for repeated learning, 49 percent of respondents strongly agreed with the statement. This indicates that there is broad agreement among respondents, with 88 percent of respondents believing that online learning environments do provide possibilities for repeated learning. 39 percent of the respondents have just agreed. Just 7 percent of the respondents strongly disagreed, and 5 percent of students just disagreed. The information above is displayed in Figure 15 below.
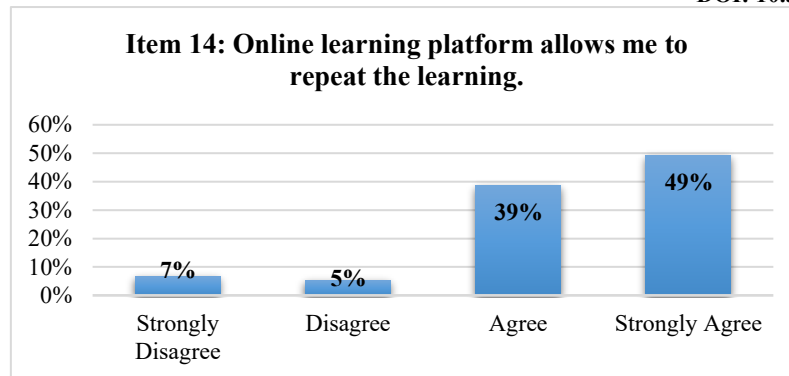
Figure 15: Item 14-The Online Learning Platform Allows Me To Repeat The Learning

Item 15

Figure 16 examined the participants' preferences for an online learning platform to access all course materials. There is a clear preference for this option in the statistics, with 65 percent of the students strongly agreeing with the statement. Only 31 percent of the respondents just agreed. A tiny minority, just 3 percent of the respondents, expressed basic disagreement, while only 1 percent of the respondents showed strong disagreement. This suggests that a total of 96 percent of students resounding majority of participants, prefer the online learning platform to access the learning materials.
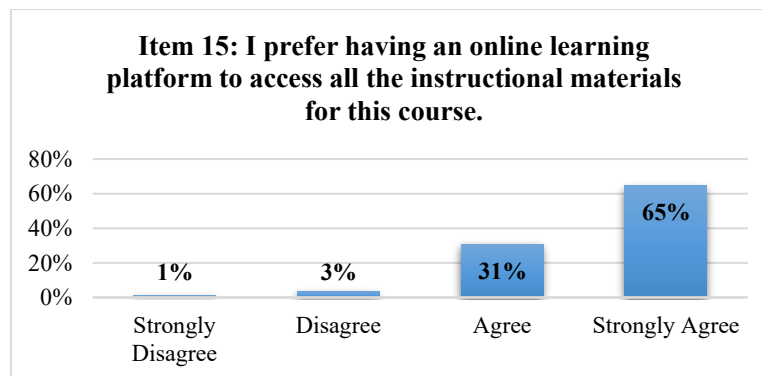

Figure 16: Item 15-I Prefer Having An Online Learning Platform To Access All The Instructional Materials For This Course.

All of the information above is further summarized in Table 2 below:

Table 2: Summary Of Items, Figures, Statements, And Percentage Of Respondents' Preference

No	Figures	Items	Percentage of respondents' preferences			
			Strongly Disagree	**Disagree**	**Agree**	**Strongly Agree**
1	Figure 2	Item 1	60%	20%	19%	1%
2	Figure 3	Item 2	65%	25%	8%	2%
3	Figure 4	Item 3	65%	25%	9%	1%
4	Figure 5	Item 4	80%	17%	2%	1%
5	Figure 6	Item 5	3%	13%	23%	61%
6	Figure 7	Item 6	6%	7%	38%	49%

7	Figure 8	Item 7	13%	12%	35%	40%
8	Figure 9	Item 8	0%	2%	38%	60%
9	Figure 10	Item 9	3%	8%	37%	52%
10	Figure 11	Item 10	23%	11%	29%	37%
11	Figure 12	Item 11	40%	39%	14%	7%
12	Figure 13	Item 12	4%	2%	36%	58%
13	Figure 14	Item 13	10%	8%	36%	46%
14	Figure 15	Item 14	7%	5%	39%	49%
15	Figure 16	Item 15	1%	3%	31%	65%

Discussions

The present work attempts to study the perceptions of vocational engineering students in the currently used learning instructional materials, the desired learning media, and online and offline learning resources for the subject of English for Communication through a needs analysis before designing and developing instructional materials that particularly cater to the Malaysian vocational colleges. Through need analysis, new issues can be identified, as it can help researchers in identifying important aspects of material development, which also includes the latest issues (Tomlinson, 2023). However, the challenge in producing instructional materials involving Gen Z is that this group is characterized by their digital fluency and dominated by the technology world (Kassim, Hairuddin, Chowdhury, Al-Din, & Azhar, 2020). This generation also grows up with technology, and they become dependent on it (Demir & Sonmez, 2021). Thus, the challenges of creating instructional materials for this generation are prevalent.

Digital technology is pervasive, and different learning resources, particularly online resources, need to be varied in learning the English for Communication subject. In other words, a variety of learning media involving online and offline learning instructional materials need to be improvised from time to time according to the trends and needs of the students, specifically in English language education (Shafiq, 2019). The fact that online and offline learning multimedia resources play an important role in learning English for Communication subjects in vocational college settings is revealed in this study.

The needs analysis survey shows that, out of 150 students who answered the survey, a sizable majority believe that the currently used learning instructional materials are obsolete. Only 20% of the respondents agreed that the materials used make them understand the subject easily, with only 9% finding it engaging, 13 % believing that the materials can be studied independently, and just 3 % of the respondents found that there are a lot of illustrations included in the currently used instructional materials.

A sizable majority of the respondents find that the learning media for studying English for Communication needs to be improved. It was found that 84 % were interested in learning English for Communication materials from the web, 87% of the respondents were interested in learning English for Communication materials from slides, and 98 % preferred materials presented in the form of animated videos as they find it more interesting than those presented in text materials, 89% prefers material that is presented in the form of videos online. However, there are also students, with 66 % of respondents, who prefer face-to-face learning. 75 % of the students also find it convenient to do exercises in printed form as compared to online exercises.

In terms of perceptions of online and offline learning resources English for Communication learning materials media to be improvised; 94% enjoy online-based learning as it is easier to access and learn anywhere and anytime, 82 % believe online learning can increase the students' motivation to study English for communication subject, 88 % perceive online learning platform as it allows them to repeat the learning and 96 % prefers having an online learning platform to access all the instructional materials for this course. On the contrary, when it comes to opinions on whether they enjoy having speaking activities in the class, 79% of students disagreed.

This study is also consistent with a study by Tabasi et al. (2023), which revealed that the need for technology-enhanced learning has a profound impact on students. The use of learning media has an essential role in the educational field (Laksmi, Yasa, & Mirayani, 2021). By identifying preferred learning media in the needs analysis, the researcher can develop instructional teaching and learning materials that benefit both the students and the teachers. Djalilova and Kazoqov (2024) also pointed out in their studies that innovative tools and resources can enhance teaching and learning experiences, particularly animation. Abdulrahaman et al. (2020) similarly stress that the use of technology through varied multimedia instructional teaching and learning mediums has an impact on teaching content and teaching resources.

In sum, the study investigated the need to improvise multimedia instructional materials development to improve Engineering vocational college Diploma students learning motivation to use instructional materials. The aforementioned findings revealed that students were very positive and felt motivated to use online learning resources in terms of accessing instructional materials. They also reported that the use of learning media such as the web, animated videos, and slides is preferred. However, when it comes to speaking and doing exercises, the students still prefer the offline form. Thus, the need for both online and offline learning materials using a variety of learning media is gathered from this study. Based on these findings, it is safe to conclude that a variety of multimedia online and offline learning can be appreciably helpful in enhancing English for Communication learning.

Research Implications and Recommendations

By turning the above needs into a checklist item in the designing and development of the English for Communication subject in a needs phase analysis, the study can help curriculum designers recognize the needs of students. The findings of the study can also serve as a checklist for researchers to approach the development through the needs and wants of students. A custom-made English for Communication instructional material specifically developed for vocational first-year Diploma groups of students in the Malaysian context can also be designed and developed.

The findings can also serve as an indicator to implement prompt pedagogical innovations. Online and offline learning media can be used to make teaching more student-centred. These media can help teachers in their teaching strategies by maximizing the materials to conduct class activities. Authentic materials can also be contextualized using vocational students' examples. However, for all these to take place, teachers must be digitally savvy to utilize resources in the 21st century. Training and professional development need to be given from time to time for teachers to be ever ready to face the digital natives of today's world.

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