

Needs Analysis for Module Development of Communication Skills Based on Learning Styles for Vocational College Students

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The purpose of this study is to identify the needs for the development of communication skills based on the learning style module for vocational college students. This study employed a quantitative approach of the survey study design. The respondents consisted of 109 communication skills lecturers at vocational colleges throughout Malaysia. Analysis of the study showed that the overall mean value for all three constructs; the problem ($M=3.8441$), knowledge ($M=4.2058$), and need (4.5811), were high. Meanwhile, the results of t-test showed no significant difference for all three constructs; problem [$t(109) = 0.279$; $p = 0.718$, ($p > 0.05$)], knowledge [$t(109) = 1.222$; $p = 0.224$, ($p > 0.05$)], and need [$t(109) = 0.812$; $p = 0.419$, ($p > 0.05$)] for gender. In conclusion, the development of this Communication Skills Based on Learning Style Module is proposed as a teaching aid to improve students' mastery of communication skills.

Keywords: communication skills, learning style, vocational college

INTRODUCTION

The education transformation based on TVET has a high demand for technical graduates (Mohammad Yunus & Mohamad, 2022). Thus, TVET institutions have become an important platform to fulfil their needs (Jamaludin, Alias, DeWitt, & Ibrahim, 2020; Shklyar, 2011). However, most developing countries face almost the same problem of failure of technical graduates in meeting the requirements of the market and industry (Ardeljan, 2021; Arifin, Rasdi, Anuar & Omar, 2018). Studies have proven that good academic achievement no longer guarantees graduates to get jobs if they do not master soft skills well (Dogara, Saud, Kamin, Abd Hamid & Nordin, 2019; Ismail, 2011). According to Ardeljan (2021), even with excellent academic qualifications, graduates will not be able to perform their duties properly if they do not master soft skills. This is because, in the current era of globalisation, the quality of human capital is not only a privilege but a necessity (Ahmad, Md Yunus & Mohamad Ali, 2011). This is proven when employers are now focusing on employees with good technical and soft skills to increase the productivity of their companies (Husain, Mokhtar, Abdul Kamil & Mustapha, 2010; Izekor & Ojeaga, 2021). Soft skills help employees to be more confident and competent in carrying out their duties besides providing added values to employees (Ahmad et al., 2011; Sadasivan, Vijayalakshmi & Balachander, 2021). The National Association of Colleges and Employers (NACE) lists some skills claimed by employers from graduates as shown in Table 1.

TABLE 1
SKILLS CLAIMED BY EMPLOYERS FROM GRADUATES

No	Skill
1	Problem-solving/critical thinking
2	Oral/written communications
3	Teamwork
4	Digital technology
5	Leadership
6	Professionalism/work ethics
7	Career management
8	Global/intercultural fluency

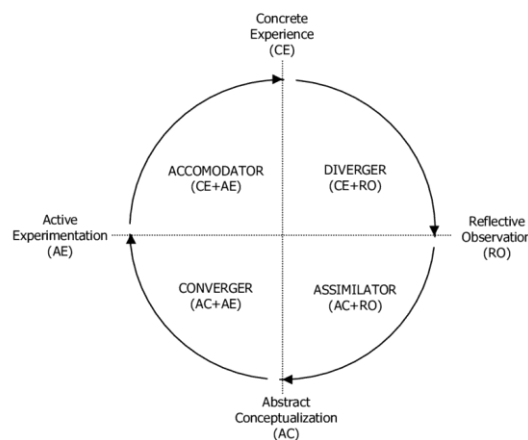
Based on Table 1, communication is the main skill that needs to be mastered by graduates. Communication is also the highest valued skill required by the industry (Sadasivan et al., 2021; Sai'en, Tee, Md Yunus, Lee & Yee, 2017; Wan Muda, Burhanuddin, Ramlee & Ab Halim, 2020). Analysis from the study proves that many graduates with excellent academic achievements are still unemployed because they do not pass interview sessions due to a lack of communication skills (Ismail, 2012; Jamaludin et al., 2020). In addition, technical graduates fail to get jobs due to their weaknesses in communication skills and failure to create positive interactions with the environment (Mohd Dazali & Awang, 2014). Ahmad Zainuddin and Selamat (2012) add that graduates who have successfully obtained jobs also face problems developing themselves and improving their work performance due to a lack of skills in communicating. The inability of new employees to communicate properly will cause uncertainty, fear, and dissatisfaction that will ultimately affect their productivity (Kelvin-Iloafu, 2016). In addition, technical graduates not only have problems communicating in English but Malay too (Ngadiman & Jamaludin, 2018).

Due to the importance of mastering communication skills, a specific method must be established to teach such skills. Integrating communication skills with learning styles is an alternative for lecturers to convey these skills to students. A learning style refers to the easiest and quickest way for a person to learn (Sulaiman & Jasmi, 2013). According to Pratiwi, Sova, Putra, Yunian Putra, and Kusuma (2020), individuals who can manage and master their learning styles can achieve learning objectives well. By identifying one's dominant learning style, students can develop strategies so that the learning process runs

smoothly and effectively (Chen, Masek & Amiruddin, 2014). According to Kurniawan and Hartono (2020), there is a significant relationship between learning styles and academic achievements. Learning styles can help students in solving mathematical problems (Sindi, Prayitno & Hikmah, 2020) and help students develop creative thinking skills (Demir, 2021). This is in line with a study by Kamarudin and Abdul Hamid (2021), stating that students can enhance their creativity in mathematics if they are encouraged to think differently using a creative learning style.

A learning style often chosen is the Kolb learning style model. According to Kolb (1984), an individual must go through four different stages of the learning cycle but help each other to achieve learning objectives and have a relationship with each other. The learning cycle consists of concrete experience, reflective observation, abstract conceptualisation, and active experimentation (Figure 1).

FIGURE 1
KOLB LEARNING STYLE MODEL CYCLE (1984)



Through this style, students can try various interesting and effective learning alternatives. In the end, students will be able to identify the most suitable learning style for them. Various learning styles can be compiled in one teaching module to make the teaching and learning process easier for lecturers and students. Thus, the objective of this study is to develop a module that integrates communication skills and learning styles. The use of this Communication Skills based on Learning Style Module can help students learn and master communication skills more effectively and enjoyably.

PROBLEM STATEMENT

The problem of not mastering communication skills among technical graduates may be due to the failure of lecturers to identify students' differences (Mohd Zainudin, Kok, Risfendra, Sukardi & Nabawi, 2020). Each student is different, unique, and has his/her style of learning due to several factors, such as background and environment (Marzuki, Asih & Wahyudin, 2019). Studies show that among the factors that make it difficult for students to master skills subjects is inappropriate learning styles applied in class (Mohd Zainudin et al., 2020). According to Jani, Ong, Madon, Ahmad, and Mohamad Khalid (2009), teachers need to adapt the subjects taught by diversifying the learning styles, seeing the levels of abilities, capabilities, and intelligence of the students as well as being associated with the environment for teaching and learning objectives to be achieved. However, some teachers do not know the appropriate learning styles to be applied in their teaching and learning processes (Jani et al., 2009). Teachers' lack of time to attend to each student's different needs, lack of teaching aids and lack of knowledge on learning styles may contribute to this case (Bantwini, 2015). As a result, an effective teaching and learning process does not occur because the objective is not fully achieved. This is because students who are advantageous in a particular learning style may face learning difficulties if the teacher's teaching style does not suit them. Therefore, students

need to know their preferences of respective learning styles to be comfortable and be able to follow the teaching and learning process in non-burdensome circumstances.

A recommendation in the Soft Skills Development module for the Malaysian Higher Education Institution (KPT IPT, 2006) is the application of soft skills to be implemented in real life and assessed accordingly. Because of that, there is a need for a complete module that has several characteristics, such as instructions on how to use it, a list of pre-requisite skills, a list of learning objectives expressed in the form of achievement (behaviour), pre-diagnostic exams, a list of necessary equipment, an assessment rubric, and teaching activities in order. The communication skills course is a newly introduced elective course. Therefore, no specific module has been developed yet as a reference for lecturers teaching the subject. As often emphasised, the module is important for lecturers to create a learning activity to conceptualise the application of soft skills according to the suitability of the activities carried out by students (Sharberi, Yee, Bin Ibrahim, Kok & Yeo, 2019). Based on the reasons given, the researchers recommend developing a communication skills module based on learning styles to help vocational college students master communication skills.

METHOD

This study employed a quantitative approach with a survey study design. Sets of questionnaires were distributed online to respondents throughout Malaysia. The study population consists of 146 communication skills lecturers at vocational colleges throughout Malaysia. According to Krejcie and Morgan (1970), for a population of 150 people, the number of samples involved should be 108 people. So, the number of respondents involved in this study, which is 109 people, was considered adequate.

This study developed a set of questionnaires to meet the purpose of the study and also answer the research questions. Questionnaires were used in this study because they were time-and cost-effective. In addition, the data obtained from this method were more consistent compared to data obtained through the survey method. The developed questionnaires went through a process of validity and reliability. A total of five experts from UTHM and a vocational college were appointed to review the questionnaires and verify them. The questionnaires consist of five parts, as follows:

Part A: Demographics

Part B: Problems faced during the implementation of communication skills learning

Part C: Knowledge of learning style patterns and communication skills

Part D: The need to develop communication skills based on the learning style module

Part E: Design features required in the development of communication skills based on the learning styles module

In parts B, C, and D, a 5-point Likert scale was used (1: Strongly Disagree, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Strongly Agree). The total number of questions for each part was 7 (Part B), 7 (Part C), 6 (Part D), and 6 (Part E). For items in parts B, C, and D, the mean values were interpreted to three levels based on Table 2 (Jamil, 2002).

TABLE 2
INTERPRETATION OF MEAN SCORE (JAMIL, 2002)

Mean score	Interpretation
1.00 – 2.33	Low
2.34 – 3.67	Medium
3.68 – 5.00	High

The data gained from the study were analysed by using descriptive analysis through SPSS. The descriptive analysis described the frequency distribution, percentage, mean, and standard deviation.

FINDINGS AND DISCUSSION

Findings

Study findings are shown in tables. The demographic analysis of respondents is shown in Table 3. A total of 109 respondents, consisting of communication skills lecturers at vocational colleges, are involved in this study, with the number of male respondents (37) less than female respondents (72). The difference between male and female respondents is 32.1%. Most respondents have more than 16 years of teaching experience (47.7%). The number of respondents with teaching experience of 10 years and below is 45 (41.2%).

TABLE 3
RESPONDENT DEMOGRAPHIC PROFILE

	Demographic Feature	Frequency	Percentage (%)
Gender	Male	37	33.9
	Female	72	66.1
Education level	Bachelor Degree	94	87
	Master Degree	14	13
Teaching experience	0 – 5	37	33.9
	6 – 10	8	7.3
	11 – 15	12	11.0
	16 and above	52	47.7

The analysis of the findings refers to three constructs; the problems faced during the implementation of communication skills learning, knowledge of learning style patterns and communication skills, and the need to develop the Communication Skills based on Learning Style Module.

The analysis of problems during the implementation of communication skills learning is shown in Table 4. Overall, the level of problems faced by lecturers during the implementation of communication skills learning is high (M=3.8441). Based on Table 4, the highest score is recorded on students depending entirely on the lecturer during the learning session involving communication skills (M=3.9817). The second highest item with a mean value of 3.9725 is that students do not have specific techniques for mastering communication skills. Besides that, the lecturer's factors should also be taken into account. This is because item 1; lecturers find it difficult to apply communication skills in the teaching process, also records a high mean value of 3.90. Item 3 which is “I do not have a specific guidebook or reference to apply communication skills in teaching” states the reading of 3.7523.

TABLE 4
PROBLEMS FACED DURING THE IMPLEMENTATION OF COMMUNICATION SKILLS

No	Item	Mean	Level
1	I find it difficult to apply communication skills in the teaching process	3.9083	High
2	I do not have specific skills in communications	3.6881	High
3	I do not have a specific guidebook or reference to apply communication skills in teaching	3.7523	High
4	Students find it difficult to master communication skills	3.8073	High
5	Students do not have specific techniques for mastering communication skills	3.9725	High
6	Students do not have communication skills textbooks	3.7982	High
7	Students depend entirely on the lecturer during the learning sessions involving communication skills	3.9817	High
	Overall	3.8441	High

Table 5 shows the findings of the independent sample t-test. Based on Table 5, there is no significant difference in the respondents' scores based on gender [$t(109) = 0.279$; $p = 0.718$, ($p > 0.05$)]. This is because there is no significant difference in the mean value for the problems faced during the implementation of communication skills learning based on gender. The mean score difference between male ($M=3.8649$, $SD= 0.59851$) and female ($M=3.8333$, $SD= 0.53827$) respondents is 0.0316.

TABLE 5
T-TEST RESULTS OF THE PROBLEMS FACED DURING THE IMPLEMENTATION OF COMMUNICATION SKILLS LEARNING BASED ON GENDER

Gender	N	Mean	Standard deviation	T	Df	Sig.
Male	37	3.8649	0.59851	0.279	107	0.781
Female	72	3.8333	0.53827			

Table 6 shows the findings of the One-Way ANOVA test. Table 6 shows the descriptive values indicating the difference in mean score for problems faced during the implementation of communication skills learning based on each lecturer's teaching experience. Based on the analysis, the group of lecturers with teaching experience of 6 to 10 years gives a high perception of the problems faced during the implementation of communication skills learning ($M=4.1905$). Lecturers with other teaching experience have similar perceptions of this construct, 0 to 5 years ($M=3.9266$), 11 to 15 years ($M=3.5165$), and over 16 years ($M=3.8275$).

TABLE 6
MEAN SCORE OF THE PROBLEMS FACED DURING THE IMPLEMENTATION OF COMMUNICATION SKILLS LEARNING BASED ON TEACHING EXPERIENCE

Experience	N	Mean	Standard deviation
0-5	37	3.9266	0.44749
6-10	6	4.1905	0.44873
11-15	13	3.5165	0.73201
>16	53	3.8275	0.56268

The ANOVA test shows no significant score difference between lecturers with different teaching experiences as shown in Table 7. The value of $F=2.680$ ($p > 0.05$) means that each lecturer with a different teaching experience gives an equivalent perception to this construct.

TABLE 7
ONE WAY ANOVA RESULTS OF THE PROBLEMS FACED DURING THE IMPLEMENTATION OF COMMUNICATION SKILLS LEARNING BASED ON TEACHING EXPERIENCE

Group	Sum of squares	df	Mean square	F	Sig.
Between Groups	2.382	3	0.794	2.680	0.051
Within Groups	31.110	105	0.296		

Based on Table 8, respondents' knowledge of learning style patterns and communication skills is at a high level with a mean value of 4.2058. Most respondents agree that the use of the teaching module facilitates the teaching process ($M=4.5413$) and are confident that the communication skills based on the learning style module can assist them in teaching communication skills ($M=4.3670$). Respondents also

believe that the communication skills based on the learning style module can help students master communication skills better (M=4.3211).

TABLE 8
KNOWLEDGE OF LEARNING STYLE PATTERNS AND COMMUNICATION SKILLS

No	Item	Mean	Level
1	I know what a learning style is	4.0550	High
2	I know the dominant learning style for me	3.9358	High
3	I know that by applying my learning style while learning, the objectives of learning will be easier to achieve	4.2202	High
4	By applying their learning style, students can master communication skills easily	4.0000	High
5	The use of the teaching module facilitates the teaching process	4.5413	High
6	I am confident that the Communication Skills based on Learning Style Module can assist me in teaching communication skills	4.3670	High
7	I believe that the Communication Skills based on Learning Style Module can help students master communication skills better.	4.3211	High
	Overall	4.2058	High

Table 9 shows the findings for the independent sample t-test. Based on Table 9, there is no significant difference in mean value for knowledge of learning style patterns and communication skills based on gender [t (109) = 1.222; p = 0.224, (p > 0.05)]. The mean score difference between male (M=4.2819, SD= 0.50112) and female (M=4.1667, SD=0.44728) respondents is also small, which is 0.1152. This proves that the perception of knowledge of learning style patterns and communication skills between male and female lecturers are the same.

TABLE 9
T-TEST RESULTS OF KNOWLEDGE OF LEARNING STYLE PATTERNS AND COMMUNICATION SKILLS BASED ON GENDER

Gender	N	Mean	Standard deviation	T	Df	Sig.
Male	37	4.2819	0.50112	1.222	107	0.224
Female	72	4.1667	0.44728			

Based on Table 10, the groups of lecturers with teaching experience of 0 to 5 years (M=4.2085), 11 to 15 years (M=4.2088), and over 16 years (M=4.2372) have a wide knowledge of learning style patterns and communication skills and give perceptions that are more or less equal to this construct. On the other hand, the group of lecturers with teaching experience of 6 to 10 years gives a relatively low perception with a mean value, M=3.9048.

TABLE 10
MEAN SCORE OF KNOWLEDGE OF LEARNING STYLE PATTERNS AND
COMMUNICATION SKILLS BASED ON TEACHING EXPERIENCE

Experience	N	Mean	Standard deviation
0-5	37	4.2085	0.45624
6-10	6	3.9048	0.66803
11-15	13	4.2088	0.43493
>16	53	4.2372	0.45946

The ANOVA analysis shows no significant difference in scores between lecturers with different teaching experiences for knowledge of learning style patterns and communication skills, $F = 0.909$ ($p > 0.05$), as shown in Table 11. This means that all groups of lecturers with different teaching experiences have the same perception that teaching communication skills will be more effective if delivered based on students' learning styles.

TABLE 11
ONE WAY ANOVA RESULTS OF KNOWLEDGE OF LEARNING STYLE PATTERNS AND
COMMUNICATION SKILLS BASED ON TEACHING EXPERIENCE

Group	Sum of squares	df	Mean square	F	Sig.
Between Groups	0.596	3	0.199	0.909	0.440
Within Groups	22.972	105	0.219		

The analysis of the need to develop communication skills based on the learning styles module is shown in Table 12. Overall, respondents have a high perception of this construct ($M = 4.5811$). On average, respondents agree to the requirements to be included in the module to be developed. Items with the highest mean value are items 4 and 6; the module should be equipped with reinforcement activities at the end of each chapter, and the module should be equipped with a clear rubric of communication skills assessment ($M = 4.6239$). Other items such as items 1, 2, 3, and 5 show approximately the same mean value of 4.5229, 4.5780, 4.5505, and 4.5872, respectively.

TABLE 12
THE NEED TO DEVELOP COMMUNICATION SKILLS BASED ON LEARNING STYLE
MODULE

No	Item	Mean	Level
1	The module should be equipped with steps on how to implement communication activities based on learning styles clearly	4.5229	High
2	The module should be equipped with a description of how learning styles are integrated with communication skills visually so that it is easy to understand	4.5780	High
3	The module should be equipped with contents of communication skills based on learning style	4.5505	High
4	The module should be equipped with reinforcement activities at the end of each chapter	4.6239	High
5	The module should be equipped with communication skills assessment methods	4.5872	High
6	The module should be equipped with a clear rubric of communication skills assessment	4.6239	High
	Overall	4.5811	High

For the construct of the need to develop communication skills based on the learning style module, the t-test analysis shows that there is no significant difference in the mean value based on gender [$t(109) = 0.812$; $p = 0.419$, ($p > 0.05$)] as shown in Table 13. The mean score difference between gender is 0.0819; male ($M=4.6351$, $SD= 0.46121$) and female ($M=4.5532$, $SD= 0.51642$) respondents. This analysis proves that male and female lecturers have the same views on the need to develop this module.

TABLE 13
T-TEST RESULTS OF THE NEED TO DEVELOP COMMUNICATION SKILLS BASED ON THE LEARNING STYLE MODULE BASED ON GENDER

Gender	N	Mean	Standard deviation	T	Df	Sig.
Male	37	4.6351	0.46121	0.812	107	0.419
Female	72	4.5532	0.51642			

Based on Table 14, all lecturers with different groups of teaching experiences give a high perception of the need to develop communication skills based on the learning style module with mean values of $M=4.5045$ for 0 to 5 years, $M=4.8056$ for 6 to 10 years, $M=4.4231$ for 11 to 15 years, and $M=4.6478$ for over 16 years.

TABLE 14
MEAN SCORE OF THE NEED TO DEVELOP COMMUNICATION SKILLS BASED ON THE LEARNING STYLE MODULE BASED ON TEACHING EXPERIENCE

Experience	N	Mean	Standard deviation
0-5	37	4.5045	0.5248
6-10	6	4.8056	0.2670
11-15	13	4.4231	0.5297
>16	53	4.6478	0.4811

Table 15 shows the findings for the One-Way ANOVA test. Based on Table 15, there are no significant score differences between lecturers with different groups of teaching experiences for the needs of developing the communication skills based on the learning style module, $F=1.472$ ($p > 0.05$). This proves that all respondents have the same perception of the items needed to develop the communication skills based on the learning style module.

TABLE 15
ONE WAY ANOVA RESULTS OF THE NEED TO DEVELOP COMMUNICATION SKILLS BASED ON THE LEARNING STYLE MODULE BASED ON TEACHING EXPERIENCE

Group	Sum of squares	df	Mean square	F	Sig.
Between Groups	1.080	3	0.360	1.472	0.226
Within Groups	25.677	105	0.245		

Discussion

The analysis of the findings refers to three constructs; the problems faced during the implementation of communication skills learning, knowledge of learning style patterns and communication skills, and the need to develop the communication skills based on learning style module. For the first construct, which is the problems faced during the implementation of communication skills learning, the overall analysis shows

a high mean reading value. This indicates that there are difficulties in implementing communication skills learning among the lecturers. Respondents gave a high perception to item 1 which is "I find it difficult to apply communication skills in teaching process". This explains why technical graduates have difficulty communicating at work, which is in line with a study by Ahmad Zainuddin and Selamat (2012).

Among the factors contributing to this problem is the failure of lecturers to identify student differences (Mohd Zainudin et al., 2020). Each student is different, unique, and has his/her style of learning due to several factors, such as background and environment (Marzuki et al., 2019). Therefore, lecturers need to be wise in adapting learning methods or styles that suit students. This is because according to Pratiwi et al. (2020), individuals who can manage and master their learning styles can achieve learning objectives well. This means that the teaching and learning of communication skills will be more successful if it is delivered based on a student's learning style. Students who are not exposed to learning styles and techniques that fit them will face problems mastering communication skills. Of course, lecturers will also have difficulty teaching them. This is evident in items 4 and 5 in Table 4 say "Students find it difficult to master communication skills" and "Students do not have specific techniques for mastering communication skills" which record a high mean reading. Thus, a specific method in teaching the subject needs to be established to deal with this problem.

Besides that, this situation may be due to lecturers having difficulty obtaining textbooks or references to teach communication skills to students (Esa, Padil, Selamat & Mohamed Idris, 2015; Kamsah, Abu & Razzaly, 2009; Sharberi et al., 2019). This is evident in item 3, which is "I do not have a specific guidebook or reference to apply communication skills in teaching", also recorded a high response. Since this subject has only been introduced in 2019, no specific modules are provided by The Technical and Vocational Training Education Division (BPLTV). Therefore, the researchers wanted to build a specific module to teach this course by combining the elements of communication skills and learning styles. As for the t-test conducted, the analysis proved no significant differences in the respondent's score based on gender. This means that male and female respondents have the same perception of this construct. While for the One-Way ANOVA Test, the conclusion is that lecturers from different teaching experience groups give the same perception that there are some problems faced when delivering communication skills courses.

For the second construct, the analysis shows that the respondent's knowledge of learning style patterns and communication skills is at a high level. All items in the construct receive high perceptions from the respondents. Most respondents agree that they know what a learning style is and know their dominant learning style. They also agree that by applying one's learning style while learning, the objectives of a lesson will be easier to achieve. But the findings of the study by Jani et al. (2009) prove otherwise when some teachers do not know the appropriate learning styles to be applied in their teaching and learning processes. This happens due to some reasons like teachers' lack of time to attend to each student's different needs, lack of teaching aids, and lack of knowledge on learning style (Bantwini, 2015). As we all know, in a normal class with a large number of students, of course, they have a variety of learning styles. Because of that, it is difficult for teachers to determine what learning style is most appropriate to be applied in a limited time and with various obstacles encountered in the classroom.

Respondents also gave a high perception of item 4 in Table 8, "By applying their learning style, students can master communication skills easily". This is in line with Chen et al.'s (2014) findings that by applying learning styles, students can develop strategies to make the learning process smooth and effective. Through learning styles, students can understand the things being taught more easily. This is because they feel comfortable and familiar with the learning style and feel not burdened to attend classes. Consequently, learning objectives will be easier to achieve. Next, most respondents agreed that the teaching module can facilitate the learning process. This is in line with a study by Ibyatova, Oparina, and Rakova (2018) who concluded that the module can facilitate the learning process because it was equipped with interesting materials such as activities, graphic diagrams, learning content, and self-training that help improve student understanding. For the same reason, most respondents are confident that the communication skills based on the learning style module can assist them in teaching communication skills. Furthermore, this communication skills course is still new and there are no specific modules built by BPLTV to help teachers

deliver this course effectively. Due to that, the respondents fully trust that the module produced can be used as a reference for them to deliver this communication skill course.

Finally, respondents gave a high perception of item 7, “I believe that the communication skills based on learning style module can help students master communication skills better”. This is in line with Kurniawan and Hartono (2020) through their study which concludes that there is a significant relationship between learning styles and academic achievement. A study concluded that learning styles can help students in solving mathematical problems (Sindi et al., 2020). Therefore, the integration of communication skills with learning styles is expected to help students master communication skills more easily.

For the t-test, the analysis proved that there was no significant difference in the mean value for knowledge of learning style patterns and communication skills based on gender. This proves that perceptions of knowledge of learning style patterns and communication skills between male and female lecturers are the same. Based on Table 10, it can be seen that most respondents, who are lecturers with different teaching experiences have extensive knowledge of learning style patterns and communication skills. This means that a person's teaching experience does not affect his knowledge to deepen and understand learning style patterns and communication skills. As for the One-Way ANOVA Test, the conclusion that can be made based on the analysis in Table 11 is that all lecturers from different teaching experience groups give the same perception that teaching communication skills will be more effective if delivered based on students' learning styles.

For the third construct, which is the need to develop the communication skills based on learning style module, analysis shows that the respondents agree to the requirements to be included in the module to be developed. The requirement with a high perception is “The module should be equipped with reinforcement activities at the end of each chapter” and “The module should be equipped with a clear rubric of communication skills assessment”. Therefore, these requirements should be taken into account in the module development process. This step is important because according to Meyer (1988), reinforcement activity at the end of the topic should be designed to assess students' achievement based on the objectives of the topic. Therefore, we can see the effectiveness of the resulting module. This opinion is supported by Mohd Zainudin et al. (2020) who state that the content of a module should be complete and accompanied by rubrics and scoring schemes to help lecturers assess students.

For item 3 in this construct, “The module should be equipped with contents of communication skills based on learning style”, respondents want content related to communication skills based on the learning style to be provided clearly to facilitate them in delivering lessons. The content of the developed module must not only relate to the objectives but should also include steps in the necessary learning hierarchies. Not only that, the content must also be at an appropriate level of treatment and up-to-date (Meyer, 1988). Besides that, respondents also agree that the module should be equipped with steps on how to implement communication activities based on learning styles and descriptions of how learning styles are integrated with communication skills visually. These should make it easier for them to understand how to use the module and to ensure that the advantages of this module can be achieved to the maximum.

For the t-test, the analysis shows that there is no significant difference in the mean value based on gender. It means that male and female lecturers have the same views on the need to develop this module. Meanwhile, the analysis for the One-Way ANOVA test proves that all lecturers with different groups of teaching experiences give a high perception of the need to develop the communication skills based on the Learning Style Module. This is based on Table 14. Last but not least, all respondents with different groups of teaching experiences have the same perception of the items needed to develop the communication skills based on learning style module as stated in Table 15.

RESEARCH IMPLICATIONS

There are some implications if students do not master communication skills well. As discussed earlier, many graduates with excellent academic achievements are still unemployed due to a lack of communication skills (Ismail, 2012). This is a loss to the country because of the waste of excellent manpower in the academic field simply because they are incompetent in terms of soft skills. In addition, new employees who

are qualified to be employed but not proficient in communicating will affect their productivity (Kelvin-Iloafu, 2016). This will adversely affect the performance of the companies they work for.

Therefore, an efficient method should be applied in teaching communication skills to ensure that the problems discussed can be solved. Accordingly, this study proposes the development of a communication skills module for vocational college students. To inject effective elements in the modules to be developed, a learning style variable is integrated into the development of the module. This is based on a recommendation by Tee, Abd Hamid, Azid, Hanapi, and Nabawi (2020) in their study on the application of communication skills module among vocational college students. The development of this module provides a space and an alternative for students to learn the skills in various and better methods. This is because learning something in one's learning style is proven to be effective in helping students achieve their learning objectives well (Pratiwi et al., 2020).

CONCLUSION

Based on the analysis of this study, it can be concluded that the majority of respondents respond positively to the three constructs; the problems faced during the implementation of communication skills learning, knowledge of learning style patterns and communication skills, and the need to develop communication skills based on the learning style module. In conclusion, the respondents agree that they need the communication skills based on the learning style module to assist them in delivering communication skills courses to vocational college students. The development of this module can assist in the mastery of communication skills among students. This is because the module proves to be a source of reference and guidance in students' learning process (Md Salleh & Abu Rairah, 2011). Furthermore, the integration of communication skills with learning style can aid the communication skills delivery process as it is conveyed according to individuals' learning styles. It is proven true by a study by Durmus and Güven (2020) which concludes that there is a significant relationship between success and learning styles. In the current state of the pandemic, online learning has become an essential medium in the teaching and learning process (Megat-Abdul-Rahim, Idris, Abdul Rahman, Ya Shaq & Nasir, 2021). To make the module usage effective, other researchers may apply interactive module features to the developed module. Therefore, teachers can still use the module to carry out the teaching and learning process seamlessly.

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REFERENCES

- Ahmad, E., Md Yunus, J., & Mohamad Ali, A.A. (2011). Developing soft skill in Advanced Technology Training Centre (ADTEC): An analysis of comparison. *Elixir Social Studies*, 39, 4895–4904.
- Ahmad Zainuddin, Z.A., & Selamat, S. (2012). Efficacy of Polytechnic Students' Interpersonal Communication Skills. *Advances in Language and Literary Studies*, 3(2), 76–86. <https://doi.org/10.7575/aiac.all.v.3n.2p.76>
- Ardeljan, J.M. (2021). *Broadly-Based Graduate School Sponsored Communication Skills Programs: A Study in Three Essays of Programs and Perceptions of the Diversification of Career Pathways* (Issue May). University of New Hampshire.
- Arifin, M.A., Rasdi, R.M., Anuar, M.A.M., & Omar, M.K. (2018). Competencies of Vocational Teacher: A Personnel Measurement Framework. *International Journal of Academic Research in Business and Social Sciences*, 7(14), 147–164. <https://doi.org/10.6007/ijarbss/v7-i14/3659>

- Bantwini, B.D. (2015). Do Teachers' Learning Styles Influence Their Classroom Practices? A Case of Primary School Natural Science Teachers from South Africa. *International Journal of Educational Sciences*, 11(1), 1–14. <https://doi.org/10.1080/09751122.2015.11890369>
- Chen, U., Masek, A., & Amiruddin, M.H. (2014). Kajian Gaya Pembelajaran Dan Motivasi Terhadap Pencapaian Pelajar Diploma Kejuruteraan Di Politeknik. *CiE-TVET*, 008(2009), 1829.
- Demir, S. (2021). *Effects of learning style based differentiated activities on gifted students' creativity. Journal for the Education of Gifted Young Scientists*, 9, 47–56.
- Dogara, G., Saud, S.M.B., Kamin, Y.B., Hamid, M.Z.B.A., & Nordin, M.S.B. (2019). Developing Soft Skills through Project Based Learning in Technical and Vocational Institutions. *International Journal of Engineering and Advanced Technology (IJEAT)*, 9(1), 2842–2847. <https://doi.org/10.35940/ijeat.a9803.109119>
- Durmus, A., & Güven, M. (2020). The Relationship Between Teaching Styles of English Instructors and Learning Styles of English Prep Class Students at a Turkish State University. *Asian Journal of University Education*, 16(3), 15–26. <https://doi.org/10.24191/ajue.v16i3.8603>
- Esa, A., Padil, S., Selamat, A., & Mohamed Idris, M.T. (2015). SoSTeM Model Development for Application of Soft Skills to Engineering Students at Malaysian Polytechnics. *International Education Studies*, 8(11), 204. <https://doi.org/10.5539/ies.v8n11p204>
- Husain, M.Y., Mokhtar, S.B., Abdul Kamil, A., & Mustapha, R. (2010). *Kemahiran Insaniah Dalam Kalangan Pelajar Kejuruteraan Elektrik Politeknik Sultan Azlan Shah. 1.*
- Ibyatova, L., Oparina, K., & Rakova, E. (2018). Modular Approach To Teaching and Learning English Grammar in Technical Universities. *SOCIETY. INTEGRATION. EDUCATION. Proceedings of the International Scientific Conference*, 1, 139–148. <https://doi.org/10.17770/sie2018vol1.3229>
- Ismail, M.H. (2012). Kajian mengenai kebolehpasaran siswazah di Malaysia: Tinjauan dari perspektif majikan. *Prosiding Persidangan Kebangsaan Ekonomi Malaysia Ke VII*. Retrieved from <http://www.ukm.my>
- Ismail, N.A. (2011). Graduates' Characteristics and Unemployment: A Study Among Malaysian Graduates. *International Journal of Business and Social Science*, 2(16), 94–102.
- Izekor, A.I., & Ojeaga, J.I. (2021). The Need for Competencies Required by Vocational and Technical Educators for Quality of Job Performance in Technical Vocational Education. *Asian Journal of Assessment in Teaching and Learning*, 11(1), 14–23. <https://doi.org/10.37134/ajatel.vol11.2.2.2021>
- Jamaludin, K.A., Alias, N., DeWitt, D., & Ibrahim, M.M. (2020). Technical communication pedagogical model (TCPM) for Malaysian vocational colleges. *Humanities and Social Sciences Communications*, 7(1), 1–13. <https://doi.org/10.1057/s41599-020-00597-6>
- Jamil, A. (2002). *Pemupukan budaya penyelidikan di kalangan guru sekolah: Satu penilaian*. Universiti Kebangsaan Malaysia.
- Jani, J., Ong, K.B., Madon, M.S., Ahmad, H., Mohamad Khalid, N.H., & Ahmad, Y. (2009). Pendekatan Pengajaran, Gaya Belajar dan Jenis Penilaian dalam Mata Pelajaran Sains Sukan di Sekolah Menengah (Teaching Approach, Learning Style and Types of Evaluation in Sport Science Subject at Secondary Schools). *Jurnal Pendidikan Malaysia*, 34(2), 81–91. <https://doi.org/10.17576/JPEN-2009-%x>
- Kamarudin, N., & Abdul Hamid, N.H. (2021). Assessing Students' Mathematics Achievement and Mathematical Creativity using Mathematical Creative Approach: A Quasi-Experimental Research. *Asian Journal of University Education (AJUE)*, 17(2). <https://doi.org/https://doi.org/10.24191/ajue.v17i2.13399>
- Kamsah, M.Z., Abu, M.S., & Razzaly, W. (2009). Penerapan kemahiran insaniah (KI) kepada pelajar dalam aktiviti pengajaran & pembelajaran di IPTA. *Prosiding SKIKS 08SKIKS 08*, 491–502.
- Kelvin-Iloafu, L.E. (2016). The Role of Effective Communication in Strategic Management of Organizations. *International Journal of Humanities and Social Science*, 6(12), 93. Retrieved from www.ijhssnet.com

- Kolb, D.A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- KPT IPT. (2006). *Modul Pembangunan Kemahiran Insaniah (Soft Skills) untuk IPT*.
- Krejcie, R.V., & Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, pp. 607–610. <https://doi.org/10.1261/rna.2763111>
- Kurniawan, A.P., & Hartono, S. (2020). The Effect of Learning Style on Academic Achievement of Prospective Teachers in Mathematics Education. *Journal of Mathematical Pedagogy*, 2, 26–31.
- Marzuki, Asih, E.C.M., & Wahyudin. (2019). Creative thinking ability based on learning styles reviewed from mathematical communication skills. *Journal of Physics: Conference Series*, 1315(1). <https://doi.org/10.1088/1742-6596/1315/1/012066>
- Md Salleh, S., & Abu Rairah, F. (2011). Modul Pembelajaran Kendiri (MPK) bagi perisian Adobe Photoshop CS3 Berasaskan Teori Kognitif. *Journal of Science & Mathematics Education*. Fakulti Pendidikan, Universiti Teknologi Malaysia.
- Megat-Abdul-Rahim, P.R., Idris, S.L., Abdul Rahman, Z.I., Ya Shaq, M.S., & Nasir, N.F. (2021). Approaching Listening and Speaking Skills Using Online to Facilitate Interactive Learning from Students' Perspectives. *Asian Journal of University Education (AJUE)*, 17(2). <https://doi.org/10.24191/ajue.v17i2.13400>
- Mohammad Yunus, H., & Mohamad, F.S. (2022). Technology Integration Analysis Among TVET Lecturers in Sarawak. *Journal of Technology and Humanities*, 3(1), 7–16.
- Mohd Dazali, N.S., & Awang, M.I. (2014). Communication Skill among Undergraduate Students of Education in Northern Malaysia. *Malay Language Education Journal – MyLEJ*, 4(2), 44–56.
- Mohd Zainudin, M.A.F., Kok, B.C., Risfendra, Sukardi, Nabawi, R.A., Kamis, A., . . . Hanafi, Z. (2020). Pembangunan Modul Pembelajaran Aktif Berlandaskan Gaya Pembelajaran Kolb Bagi Kelas Teori Dan Amali Untuk Bidang Elektrik dan Elektronik. In *Kurikulum & Instruksi Siri 10*. Penerbit UTHM.
- Ngadiman, S.H., & Jamaludin, M.F. (2018). Hubungan di antara Kemahiran Kerja Berpasukan dan Kemahiran Komunikasi dalam Kalangan Pelajar Semesta Akhir Politeknik. *International Journal of Education, Psychology and Counseling*, 3(19), 1–18. <https://doi.org/http://www.ijepc.com/PDF/IJEPc-2018-19-09-01.pdf>
- Pratiwi, G., Sova, F., Putra, F.G., Yunian Putra, R.W., Kusuma, A.P., & Rahmawati, N.K. (2020). The Influence of Project-based Learning (PjBL) and Learning Style on Mathematics Communication Skills of Junior High School Students. *Journal of Physics: Conference Series*, 1467(1). <https://doi.org/10.1088/1742-6596/1467/1/012064>
- Sadasivan, U., Vijayalakshmi, S., & Balachander, B. (2021). A framework Model to Enhance Communication Skills – An Experiment. *Proceedings of the 2nd Annual Conference on Blended Learning, Educational Technology and Innovation (ACBLETI 2020)*, 560(Acbleti 2020), 498–506. <https://doi.org/10.2991/assehr.k.210615.094>
- Sai'en, S., Tee, T.K., Md Yunos, J., Lee, M.F., & Yee, M.H. (2017). The needs analysis of learning Inventive Problem Solving for technical and vocational students. *IOP Conference Series: Materials Science and Engineering*. <https://doi.org/10.1088/1757-899X/226/1/012198>
- Sharberi, S.N.M., Yee, M.H., Bin Ibrahim, M.R., Kok, B.C., & Yeo, K.J. (2019). Module development of teaching soft skills application in learning and facilitating theory class for technical. *International Journal of Innovative Technology and Exploring Engineering*, 9(1), 4701–4705. <https://doi.org/10.35940/ijitee.A4887.119119>
- Shklyar, A.K. (2011). The Development of the Vocational Education System in the Republic of Belarus in the Context of Lifelong Education. *Proceeding of the International Cooperation*, pp. 76–78.
- Sindi, N.A., Prayitno, S., & Hikmah, N. (2020). Analysis of Mathematics Problem Solving Ability Based on The Learning Style Class VIII At SMPN 13 Mataram. *Indonesian Journal of STEM Education*, 2(2). Retrieved from <https://journal.publication-center.com/index.php/ijse/article/view/204>

- Sulaiman, Z., & Jasmi, K.A. (2013). Gaya Pembelajaran dan Hubungannya dengan Motivasi Pelajar: Satu Kajian Tinjauan di Pusat Pendidikan Andalus Peringkat Menengah di Singapura. In *Seminar Pasca Siswazah Pertama. Fakulti Tamadun Islam*. Retrieved from [http://eprints.utm.my/37763/1/Cover %26 Paper.pdf](http://eprints.utm.my/37763/1/Cover%26Paper.pdf)
- Tee, T.K., Abd Hamid, R.I., Azid, N., Hanapi, Z., & Nabawi, R. (2020). Implementation of Communication Skill Module for Vocational College Students. *International Conference on Engineering, Technology & Vocational Education ICETVE 2020*.
- Wan Muda, W.H.N.B., Burhanuddin, P.N.I.B., Ramlee, M.H.H.Bin, & Ab Halim, F.B. (2020). Relationship between Soft Skills and Engineering Graduates ' Employability at UTHM. *The Online Journal for Technical and Vocational Education and Training in Asia*, 15, 1–15.