

Lifelong Learning Readiness Level of Unemployed IPT Graduates in Malaysia According to Gender

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ABSTRACT: Lifelong learning (LPH) is a government effort in the implementation of continuous learning aimed at improving skills among the Malaysian population. Through lifelong learning, the country is able to produce a knowledgeable and highly skilled society. Accordingly, the National Economic Recovery Plan (PENJANA) was announced as one of the government's initiatives to improve the skills of graduates in addressing the challenge of the marketability of graduates of public universities, polytechnics, and community colleges throughout the country. This study aims to identify differences in lifelong learning readiness levels among Polytechnic Kuching Sarawak graduates according to gender. The study sample consisted of 79 respondents who were students of Sarawak Kuching Polytechnic in the Department of Electrical Engineering, Department of Civil Engineering, Department of Mechanical Engineering, Department of Commerce, Department of Petrochemical Engineering, Department of Information and Communication Technology and Department of Mathematics, Science and Computer and were participants in the PENJANA program KPT-CAP, which is a government initiative training program to increase the marketability of graduates. This study uses a survey research method that involves collecting information from respondents through a survey form using the Lifelong Learning Questionnaire [1]. Data were analyzed using the Statistical Package for Social Science (SPSS) software to test differences using the t-test of two independent samples and the results were described in the form of mean and percentage tables. The five aspects studied are in terms of setting goals, increasing appropriate knowledge and skills, determining self-direction, searching for information and adapting learning strategies. The findings of the study found that there was no significant difference in the level of readiness for lifelong learning (PSH) among the graduates of Polytechnic Kuching Sarawak according to gender. Among the five aspects, only the self-determination aspect shows self-determination where the mean score of female graduates is 4.08, higher than the mean score of male graduates, which is 3.77. This shows that female graduates have a higher level of readiness for lifelong learning (PSH) than male graduates in determining their own direction. The relationship between the level of lifelong learning readiness and gender among students was measured using Pearson's correlation. The results found that only aspects of determining direction and self-evaluation have a weak relationship ($r=0.24$, $p=0.02$) between the level of readiness for lifelong learning and gender among Polytechnic Kuching Sarawak graduates. This study can be improved by further expanding the scope of sampling throughout Malaysia so that the government's initiative in spreading the importance of lifelong learning is more effective.

Keywords - life long learning, graduate's readiness, Politeknik Kuching Sarawak

1. INTRODUCTION

The Twelfth Malaysia Plan 2021-2025 (RMKe-12) is a continuation of the Eleventh Malaysia Plan 2015-2020 (RMKe-11) which emphasizes the strengthening of lifelong learning. The 12th Plan is based on four basic catalysts and one of those catalysts is developing future talent. Next, this RMK is also the basis for the Malaysian Education Development Plan 2015-2025 (Higher Education) (PPPM (PT)) which sets 10 leaps towards achieving the aspirations of the system and students. Leap 3 which is "Enjoying Lifelong Learning" states that Lifelong Learning (LPH) can improve the abilities and skills of individuals, especially graduates who have not yet found a job. In addition, PSH also does not focus on the young but comprehensive throughout life (Development & Malaysia, 2015). This jump of 3 PPPM (PT) continues as the basis for the Polytechnic and Community College Strategic Plan (2018 – 2025) (PSJPKK). Among the missions outlined in PSJPKK is "Empowering the community through Lifelong Learning" [2]. Therefore, Politeknik takes on the role of an institute that offers PSH programs to improve individual potential and skills in line with PSJPKK's mission.

The Lifelong Learning Process (LPH) involves the democratization of formal or informal education that consists of programs to acquire knowledge, skills and competencies guided by the orientation of the work environment (Hasami & Buang, 2018). PSH is a learning activity that continues until the end of life to improve the knowledge and skills of individuals to bridge social equity and create an active society. The early history of PSH saw UNESCO working with the European Union Commission to propose a 'Lifelong Learning Year' with the aim of a 'Knowledgeable Society' in 1996. Malaysia also took the same step to apply Lifelong Learning (PSH) in the education system to produce competitive human capital. According to [3] an individual in Malaysia will gain continuous skills and knowledge if they engage in lifelong learning. This understanding of lifelong learning is important. Therefore, it is important to measure its characteristics. Even so, it is very difficult to measure characteristics that are too broad [4]. [1] have developed 14 questionnaires to measure the tendency of students to engage in lifelong learning which has been conducted on 309 university and vocational college students. Overall, the questionnaire provides an overview of students' inclination towards lifelong learning as well as evaluates the effectiveness of educational interventions. A rubric developed by [5] to assess lifelong learning was used for two student reflection assignments at the University of Waterloo. Staff feedback and correlational analysis have supported this rubric as a useful instrument for assessing lifelong learning. The study conducted by [6] developed a questionnaire for life learning competence and examined the validity and reliability of the questionnaire structure. This questionnaire contains 51 items and was conducted on 300 secondary school teachers. Through their observations, the questionnaire containing 6 dimensions has shown Cronbach's Alpha scale reliability coefficient of 0.95. The value indicates that the developed scale contains sufficient merit. The purpose of this study is to test the level of lifelong learning readiness of Polytechnic Kuching Sarawak graduates. The research instrument chosen to obtain the information required in this study is a set of questionnaires that contain two parts, namely Part A related to demographics and Part B using the Lifelong Learning Questionnaire measurement tool [1]

2. PAST STUDY HIGHLIGHTS

[3] used the Life Long Learning questionnaire that was developed by [1] to study the level of lifelong learning readiness at Tawau Community College. A study was conducted on 71 students of the final semester of Tawau Community College Certificate (SKK) in the fields of Electrical Installation, Computer Systems and Networks and Light Vehicle Service has shown that the respondent's tendency towards lifelong learning readiness is high. The research conducted by [7] measured the level of readiness to become an entrepreneur among lifelong learning program participants in Malaysian community colleges. It focused on four elements of readiness consisting of knowledge, interest, motivation and ability measured using a questionnaire self-perception. The sample for this research consisted of 236 participants from 305 students of the Lifelong Learning program to make Pastry at a Malaysian community college under the Ministry of Education. No differences were found in entrepreneurial readiness between participants of different age groups indicating that age may not be a contributing factor towards entrepreneurship among participants of the Lifelong

Learning program making pastries. A meta-analysis study was conducted by [8] to evaluate the subject from a broad perspective, as well as the latest quantitative studies on lifelong learning trends published between 2012 and 2021 in the country of Turkey. They are specifically researched in terms of gender differences. A total of 51 studies were included in the meta-analysis, and it was found that gender differences in lifelong learning tendencies were significant, positively correlated, and in favor of women ($g=+0.27$, 95% CI [0.18, 0.36]). A study conducted by [9] investigated the lifelong learning tendencies of university students in terms of different variables. For this purpose, a survey method was used. The study sample consisted of 500 university students who studied in various undergraduate programs at state universities in Turkey during 2018 until the academic year 2019. The results of the study show that the level of lifelong learning tendencies of students is significantly different according to variables such as gender, grade, keeping up with the development of information and communication technology, faculty and participation in activities such as conferences, panels, symposiums and so on held at the university. The results also show that the lifelong learning tendency of university students is at a moderate level.

3. OBJECTIVES

This study aims to identify the difference in lifelong learning readiness levels between male and female graduates who participated in the Fiber Competency and Confined Space Training program under the 2022 PENJANA KPT-CAP Phase 3 Budget. In addition, the relationship between aspects for lifelong learning readiness levels life with gender was also studied in this research.

4. METHODOLOGY

4.1 Study design

The survey research method was used in this study to obtain data from the respondents. In order to make it easier for the researcher to get cooperation from the respondents, the researcher has chosen a survey research design using a questionnaire. In this study, the researcher used a simple sampling method and a quantitative research method. From the data obtained, the researcher was able to analyze the difference in the level of readiness for lifelong learning between male and female graduates as well as the relationship or correlation of variables between gender and the level of readiness for lifelong learning.

4.2 Sampling

Participants of the National Economic Recovery Plan (PENJANA KPT-CAP) Phase 3 program in the state of Sarawak are the population of this study. While the study sample that has been selected is the participants of the Fiber Competency Program and Confined Space Training program under PENJANA KPT-CAP phase 3. The participants for both of these programs are graduates who have graduated in 2019 until 2022 and are still not working. Data was taken from 49 people out of 50 participants of the Fiber Competency program and all 30 participants of the Confined Space Training program.

4.3 Research instruments

Research instruments are important to get the data and information needed in this study. A set of questionnaires containing two parts, namely Part A related to demographics and Part B using the Lifelong Learning Questionnaire measurement tool [1] will be distributed to respondents. Table 1 shows the aspects studied in this questionnaire:

Table 1 The aspects studied in the questionnaire

Part	Aspect	Item Description	No of item
A	Demography	Age	1
		Gender	2
		Work experience after graduation	3

	Field of study at IPT	4
	Residential area	5
B	Goal setting	
	I like other people to plan my learning	1
	I rarely think about my learning and how to improve it	6
	I think I can learn by myself	7
	I like purposeful learning	9
	I focus on the details rather than the big picture when learning something new	14
	Improvement of appropriate knowledge and skills	
	I can give meaning to something considered as a disturbance	5
	I'm trying to connect academic learning with practical issues	10
	I'm trying to connect new approach with knowledge which i have	12
	Determination of direction and self-evaluation	
	I think others are in a better position than me in judging my success as a student	8
	I am responsible for what I learn in school	13
	Information search	
	I'm having a hard time finding the information I need	11
	Adaptation of learning strategies	
	I like problems that have answers	2
	I can solve problems that arise suddenly	3
	I feel uncomfortable in an uncertain situation	4

The researcher has translated and adapted the instrument according to the needs and objectives of the study. The translation process was verified using the back-to-back translation method. Respondents are given between 5 and 10 minutes to complete this LLQ. The Lifelong Learning Questionnaire is a simple assessment tool that is easy to use, includes only 14 items, is easy to deliver, and engages respondents. The Lifelong Learning Questionnaire measuring tool has 14 items that use 5 Likert scales, namely;

Totally agree

- a. Agreed
- b. Somewhat Agree
- c. Do not agree
- d. Strongly disagree

A pilot study was carried out on 309 final year students at several universities by Kirby et al. (2010) to test the validity and reliability of this questionnaire and produced a Cronbach alpha value of 0.71. This value means that the instrument built is in the good category and can be used for research.

5. FINDINGS / RESULT

Research data that includes total data, maximum value, minimum value, mean value, and so on are presented using descriptive statistics. To determine whether the collected research data is normally distributed or not, the researcher will then assess the normality of the data. The researcher will use the paired sample t-test if it is found that the research data is normally distributed, and the Mann Whitney test if it is found that the data is not normally distributed. The IBM SPSS Statistics 21 program was used to process the data and information. Basic statistical techniques, such as descriptive statistics and inferential statistics, are used to analyze the data.

5.1 Respondent demographics

Table 3 shows the percentage for the demographics of respondents who completed the Lifelong Learning questionnaire (Kirby et al., 2010). The data found that the number of female respondents was higher at 58.2% compared to male respondents at 41.8%.

Table 3: Respondent Demographics (N=79)

Gender	Frequency	Percentage (%)
Male	33	41.8
Female	46	58.2
Total	79	100.0

5.3 Normality of data

Before testing each hypothesis, the researcher needs to perform a data normality test to see if the data is extreme and conforms to the characteristics of normal data distribution, or vice versa [10]. The main goal of the normality test is to check the consistency in the data and to detect the error problem of the appropriate model for the data analysis (Smith et al., 2014). The distribution of the data was examined using the Skewness and Kurtosis tests (2) to determine the normality of the data. All the variables that cover aspects of setting goals, improving appropriate knowledge and skills, determining self-direction, searching for information and adapting learning strategies have been tested with a normality test. Table 4 below displays the normality of the data through skewness and kurtosis:

Table 4: Normality of the data through skewness and kurtosis

Graduate Readiness	N	Mean	Skewness	Kurtosis
Goal Setting	79	3.02	-0.17	1.32
Improvement of appropriate knowledge and skills	79	3.88	0.03	-0.86
Determination of direction and self-evaluation	79	3.95	-0.11	-0.80
Information search	79	3.01	0.15	-0.70
Adaptation of learning strategies	79	3.27	0.48	1.33

From the normality analysis of the data, the skewness value is in the range of -2 to +2. The value of normal data skewness, according to Chua (2011), is 0. However, the results in the +/- 2 range still show that it is normally distributed. Therefore, it can be concluded that the data obtained in Table 4 is normally distributed.

5.4 Identify differences in the level of lifelong learning readiness among Malaysian higher education institution graduates according to gender.

Differences in the level of readiness for lifelong learning for the aspects of setting goals, increasing appropriate knowledge and skills, determining self-direction, searching for information and adapting learning strategies among graduates of Kuching Sarawak Polytechnic according to gender were analyzed using a t-test. An independent sample t-test was performed to compare the mean scores of two different groups of people or conditions. The results of the independent two-sample t-test analysis for these five aspects have been shown in Table 5 and explained in detail as below.

Table 5: T-Test results on the level of readiness for lifelong learning according to the aspects studied according to gender

Graduate Readiness	Ujian Levene	t	Sig
Goal Setting	0.89 (p>0.05)	-0.46	0.64 (p>0.05)
Improvement of appropriate knowledge and skills	0.36 (p>0.05)	1.08	0.28 (p>0.05)
Determination of direction and self-evaluation	0.07 (p>0.05)	-2.25	0.02 (p<0.05)
Information search	0.85 (p>0.05)	0.53	0.59 (p>0.05)
Adaptation of learning strategies	0.72 (p>0.05)	1.34	0.18 (p>0.05)

Table 5: Mean score and standard deviation of lifelong learning readiness level by gender

Graduate Readiness	Male		Female	
	Min	Sd	Min	Sd
Goal setting	2.99	2.99	2.99	2.99
Improvement of appropriate knowledge and skills	3.97	0.62	3.81	0.66
Determination of direction and self-evaluation	3.77	0.67	4.08	0.56
Information search	3.09	1.10	2.95	1.09
Adaptation of learning strategies	3.36	0.52	3.20	0.52

The hypothesis for this study is:

Ho1: There is no difference in the level of readiness for lifelong learning from the aspect of goal setting among graduates of higher education institutions (IPT) according to gender.

Ho2: There is no difference in the level of readiness for lifelong learning from the aspect of increasing knowledge and appropriate skills among graduates of higher education institutions (IPT) according to gender.

Ho3: There is no difference in the level of readiness for lifelong learning from the aspect of determining direction and self-evaluation among graduates of higher education institutions (IPT) according to gender.

Ho4: There is no difference in the level of readiness for lifelong learning from the aspect of information seeking among graduates of institutions of higher learning (IPT) according to gender.

Ho5: There is no difference in the level of readiness for lifelong learning from the aspect of learning strategy adaptation among graduates of higher education institutions (IPT) according to gender.

Analysis of the data found in Table 5 shows that there is no significant difference in the level of lifelong learning readiness from the aspect of goal setting between male and female graduates. According to [12] in [13], the three main elements of effective goals are difficulty, specialization, and reference. Likewise for the

aspect of improving knowledge and appropriate skills, information search and learning strategy adaptation where the coefficient value is $p > 0.05$, showing that there is no significant difference in the level of lifelong learning readiness between male and female graduates. Therefore, the null hypotheses Ho1, Ho2, Ho4 and Ho5 are accepted.

However, it was found that there was a difference in the level of PSH readiness between male and female graduates from the aspect of self-determination. Referring to Table 5, the mean score of female graduates is 4.08, while the mean score of male graduates is 3.77. This shows that female graduates have a higher level of lifelong learning readiness than male graduates in determining their own direction. Therefore, the null hypothesis Ho3 is rejected.

Table 6: The relationship between the aspects studied in the level of lifelong learning readiness with

Graduate Readiness	gender	
	Pearson Correlation, r	Sig
Goal setting	0.05	0.64
Improvement of appropriate knowledge and skills	-0.12	0.28
Determination of direction and self-evaluation	0.24	0.02 ($p < 0.05$)
Information search	-0.06	0.59
Adaptation of learning strategies	-0.15	0.18

The relationship between the level of readiness for lifelong learning and gender among graduates was measured using Pearson's correlation. Based on Table 6, there is a weak relationship between the level of lifelong learning and gender ($r = 0.24$, $p = 0.02$) from the aspect of determining direction and self-evaluation with gender among Malaysian higher education institution (HEI) graduates. This result is in line with the findings of a large-scale study by [14] involving 2815 respondents in Finland. The findings of the study show that there is a relationship between the level of lifelong learning readiness and gender. The researcher found that factors such as self-control, attitude and social support play an important role in increasing readiness for lifelong learning after completing formal higher education.

6. CONCLUSION

Each student has a unique ability to develop abilities and self-awareness. [15] claim that male and female students are equally prepared for lifelong learning, where it is consistent with the findings of the study that there is no difference in the level of readiness for lifelong learning by gender. Respondents for this study are limited to Polytechnic Kuching Sarawak graduates only. Therefore, it is hoped that this study will be improved by expanding the sampling so that the impact of the study can be disseminated more effectively. Apart from that, the government's initiative in spreading lifelong learning should be continued.

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