

# Determining the relationship between self-directed learning readiness and acceptance of E-learning among culinary students

Journal of Tourism, Hospitality & Culinary Arts (JTHCA)  
2021, Vol. 13 (1) pp 37-45  
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UITM Press  
Submit date: 25<sup>th</sup> February 2021  
Accept date: 09<sup>th</sup> June 2021  
Publish date: 30<sup>th</sup> June 2021

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## Proposed citation:

Quah, W. B., Che Abu Bakar, A. F., & Mohd Yusop, N., (2021). Determining the relationship between self-directed learning readiness and acceptance of E-learning among culinary student. *Journal of Tourism, Hospitality & Culinary Arts*, 13(1), 37-45

## Abstract

This is a study conducted on Culinary Certificate students of Sungai Petani Community College, Kedah. This study aims to identify the relationship between the level of self-directed learning readiness with the level of acceptance of E-learning among culinary students at KKSP. A total of 106 Culinary Certificate students took part in the study. Descriptive and inferential analysis was used to analyze the data obtained in this study. This study found that the level of acceptance of E-learning among culinary students at KKSP is high. The level of readiness for self-directed learning among culinary students at KKSP is moderate. The Pearson correlation test results showed a significant relationship but a low correlation between the level of acceptance of E-learning and self-directed learning readiness. The majority of respondents accepted the E-learning method in college, and students also have a moderate level of self-directed learning readiness. Suggestions and implication for further study are also recommended.

## Keywords:

Self-directed learning readiness, acceptance, e-learning, culinary students

## **1 Introduction**

E-learning has become a popular term during the pandemic COVID-19. Almost all the educators in school, colleges, or universities are required to implement online teaching due to the limitation of face-to-face classes. Students can experience learning anytime and anywhere through E-learning. In addition, knowledge can be conveyed more effectively because of the combination of interesting text, animation, graphics, audio and video. As a result of the outbreak of pandemic COVID-19, which hit Malaysia in early March this year, online teaching and learning, or E-learning, was officially introduced at the Sungai Petani Community College (KKSP). As an alternative to replace the face-to-face routine, Polytechnic and Community College Education Department (DPCCE) have released the online learning study plan to guide lecturers to adapt the transformation of implementing the e-learning. The e-learning implementation has changed the pattern of student learning. In addition, all educators must follow DPCCE guidelines to learn and teach online by using applications such as Google Classroom and Google Meet as the e-learning platform.

The use of these online apps is considered something new for students and educators. Students are aware of their learning responsibility in themselves instead of an external source, such as a teacher (Demir, 2015). A self-directed learner tends to actively engage in the learning processes, such as acquiring information, planning and evaluating the learning activities. Active learning strategies can increase students' participation and improve the learning process and performance (Freeman et al., 2014; Yilmaz, 2016). However, not much empirical evidence is available in the extent literature regarding the impact of self-direct learning in the e-learning setting for TVET institution. Furthermore, questions remain about how ready students are for a e-learning model of instruction. Therefore, the present study focuses on investigating the level of acceptance among KKSP culinary students towards E-learning and students' self-directed learning readiness (SDLR) for e-learning in a leading Malaysian community college institution.

## **2 Literature Review**

### **2.1 Self-Directed Learning**

Self-directed learning (SDL) requires various skills and attitudes to ensure successful independent study. Hence, self-directed learning has emerged as a useful approach to pursuing academic aspirations. However, despite this important fact, self-directed learning requires high levels of commitment, which means that individuals have to remain committed to learning. In order to facilitate students' self-directed learning, it is critical to assess students' readiness (Geng, Law, & Niu, 2019). This is because self-directed learning is not for all students, and it may cause anxiety and frustration in some students (Siddiqui, Nerali, & Telang, 2021). The study's findings on 346 third year Bachelor students consisting of students majoring in engineering at UTHM show that the level of readiness for self-directed learning of students shows at a moderate level

(Amiruddin, Zulkepli, & Rohanai, 2018). This indicates that based on the analysis results, students have not yet reached the level of full readiness and still rely on external control or specific instructions to perform self-learning. In this study, E-learning was just implemented to culinary students which these students are more focused on hands-on learning. Therefore, the level of readiness for self-directed learning is the important elements to investigate in this study.

## **2.2 Google Classroom**

Google Classroom is one of the cloud-based and free applications that combines the use of technology with internet-based development (Pardeshi & Alliwadi, 2015). There are many advantages of technology advancements in teaching and learning tools, including producing more creative and innovative learning, enhanced connection between teachers and students, and the opportunity to impart knowledge that continues to grow. Furthermore, Google Classroom is a learning management system (LMS) that provides instruction by creating and delivering content, monitoring student participation, and evaluating student performance (Mohamed & Shamsuddin, 2020). Thus, Google Classroom is a flexible application, that can easily access by educators and students. Google Classroom has the ability to produce learning that attracts the attention of the students because of the multimedia nature of the tool, which can present information in the form of audio and video in accordance with the pedagogical technology aspects, hence providing a better quality historical learning (Fitriningtiyas, Umamah, & Sumardi, 2019). In this study, Google Classroom is selected as a medium for learning is expected to help achieve the objectives of learning for the subject of culinary. Therefore, the level of acceptance among KKSP culinary students towards E-learning is an important element to investigate in this study.

## **2.3 Google Meet**

Google Meet is a free app provided by Google to allow users to make conference video calls with other users for in-depth meetings and discussions. During the pandemic outbreak, Google Meet is considered and highly recommended as a safe environment in online teaching and a potential solution in teaching during the shutdown period (Al-Marroof, Salloum, Hassanien, & Shaalan, 2020). According to Al-Marroof et al. (2020), students' intention to accept technology is higher whenever technology is evaluated as easy. It has the implicit indication that it is useful. Moreover, the results of a study from Saad et al. (2020) showed that the readiness of teachers to use Google Meet as a teaching and learning platform is at a high level. In this study, Google Meet app is relatively a recent application that uses for culinary students. Therefore, the level of acceptance among KKSP culinary students towards E-learning is the important element to investigate in this study.

## **3 Methodology**

The descriptive survey method was used. Surveys were evaluated using questionnaires as instruments. For questions related to self-directed learning readiness

scale (SDLRS) was adapted from Guglielmino (1977) and questions related to the acceptance level of E-learning acceptance among culinary students at KKSP were adapted and modified from the from Umbit and Taat (2016). The study sample consisted of culinary students in semester 1, 2 and 3 at Sungai Petani Community College. Thus, culinary students involve more than 70 % hands-on learning which require face-to-face. Based on Krejcie and Morgan's (1970) table, for a population of 142 people, the minimum value is 103 people. This study involved a total of 106 respondents have successfully answered and returned the questionnaire. This questionnaire consists of three parts, as shown in Table 1. This questionnaire uses the measurement of 5 points Likert scale that has five level of agreement to understand the level of acceptance of E-learning among students. Meanwhile, to see the level of readiness for self-directed learning, the five-point Likert scale used is in table 2. The items in Part A were analyzed based on frequency and percentage. While the items in Sections B and C, the data were analyzed based on descriptive statistics of percentage, mean and standard deviation. To see the relationship between the level of use of E-learning and self-directed learning readiness, the researcher used Pearson Correlation.

Table 1: Research Instruments

1	Part A	Background of the respondents
2	Part B	Level of use of E-learning
3	Part C	Self-directed learning readiness scale (SDLRS)

Table 2: Self-directed learning readiness scale (SDLRS)

1	2	3	4	5
Almost Not True About Myself	Not Always True About Myself	Sometimes True About Myself	Is Usually True About Myself	Almost True About Myself

To determine the level of acceptance of respondents to E-learning, researchers have used a mean score where the three acceptance levels are used. The scale interval of 1.00 to 2.33 is categorized as low. The mean at the interval of scale 2.34 to 3.67 was classified as moderate while the mean at the range of 3.68 to 5.00 was concluded as high. In determining the level of self-directed learning readiness, for each item, the researcher used a mean value in which five levels of self-directed learning readiness were measured. These five levels are based on the division of the five levels of SDLR score value proposed by Guglielmino (1989). Table 4 depicts the score and Level of SDLRS.

Table 4: Score and Level of SDLRS

Mean	Level of Self-Instruction Learning Readiness SDLRS
1.00 – 1.80	Low

1.81 – 2.60	Below average
2.61 – 3.40	Average
3.41 – 4.20	Above average
4.21 – 5.00	High

The correlation strength of either high or low was determined based on the ‘Guilford’s Rule of Thumb’. Values that determine whether the correlation obtained is strong or weak have been introduced by Guilford (1956) and recently used by Sabti, Rashid, and Hummadi (2019) in their study.

#### 4 Findings

Analysis of demographic background information of respondents describes the distribution of data successfully collected through the survey method. Here is detailed information on demographic backgrounds containing various ages, genders, races and semesters in KKSP.

Table 5: Frequency distribution by gender

Gender	Frequency	Percentage
Male	43	40.6
Female	63	59.4
Age		
18 – 19 years	87	82.1
20 – 21 years	17	16.0
22 – 23 years	2	1.9
Semester		
SKU 1A	18	17.0
SKU 1B	18	17.0
SKU 2	24	22.6
SKU 3A	25	23.6
SKU 3B	21	19.8

*N=106*

The study's findings showed that the mean value for the overall level of E-learning acceptance is 3.68 and its standard deviation is 0.64. Nine items show a mean at a high level. Overall, the respondents agreed that saving time to obtain reference material, and E-learning provides relevant information, good, easy to understand, accurate, timely. Besides, the E-learning system is very useful improves the quality, which is required to influence E-learning acceptance.

Table 6: Mean and Standard Deviation for E-learning acceptance (N = 106)

Item	Mean	SD	Level
I found the E-learning system very useful for me	3.71	.862	High
E-learning improves the quality of my assignments	3.68	.921	High
E-learning will save time getting reference material	4.06	.815	High
E-learning provides accurate information	3.86	.749	High
E-learning provides good information	3.92	.765	High
E-learning provides timely information	3.77	.820	High
E-learning provides relevant information	4.02	.662	High
E-learning provides easy-to-understand information	3.87	.863	High
E-learning provides detailed information	3.75	.781	High
Overall Mean	3.68	.644	High

Table 7 shows the respondents' perception of self-directed learning readiness, overall shows that the level of self-directed learning readiness is at a level above moderate with a mean value of 3.94 and a standard deviation of 0.54. Three items show a mean at being high level, namely Item 11 - I have a lot of respect for people who like to learn new things (M = 4.29), Item 28 - Age will not prevent me from learning new things (M = 4.27), and Item 17 - I likes to think about the future (M = 4.25). This means that respondents agree that respecting people who like to learn new things, age will not prevent them from learning new things, and thinking about the future that is needed affects the readiness of self-directed learning.

Table 7: Mean and Standard Deviation for self-directed learning readiness (N = 106) (N=106)

Item	Mean	SD	Level
I respect people who like to learn new things.	4.29	.703	High
I like to think about the future.	4.25	.892	High
Age will not stop me from learning new things.	4.27	.834	High
Overall mean	3.94	.549	Above Medium

Table 8 shows the relationship between the level of acceptance of E-learning and the readiness of self-directed learning of respondents. Since the significant value obtained is less than the Alpha value of 0.01, then there is a significant relationship between the level of acceptance of E-learning with the willingness of self-directed learning of respondents.

Table 8: Summary of Regression Analysis

Variable	B	Beta( $\beta$ )	T-value	P	R <sup>2</sup> =
Constant	1.635				
Level of acceptance	.520	.444	5.047	.000	.197

Note: \* $p < .05$

The study's findings also show that the level of respondents' acceptance of the implementation of E-learning is directly proportional to the readiness of self-directed learning at the correlation value of  $r = .444$ . Based on the interpretation of 'Guilford's Rule of Thumb' (Guilford, 1956), the Pearson correlation values obtained indicate a low correlation between respondents' level of acceptance of E-learning implementation and self-directed learning readiness.

In this study, the result shows that the null hypothesis is rejected ( $p < .000$ ). In the regression analysis,  $R^2 = 0.197$  shows that about 19.7% of total variation in acceptance of e-learning is explained by the total variation in self-directed learning readiness (SDLR). However, the good fit model (ANOVA) is shown significant ( $p = \text{value} = .000$ ). A regression parameter test showed that the relationship between acceptance of e-learning and self-directed learning readiness (SDLR) are statistical significant,  $p = \text{value} = .000$ .

## 5 Conclusion

The analysis of the data showed the overall level of acceptance among the respondents is high. The majority of respondents stated that they could receive E-learning implemented in KKSP. However, out of the 20 items studied, 11 items were at a moderate level. This shows that respondents do not understand the implementation of E-learning in KKSP. Based on the analysis of the study that has been conducted, most of the respondents stated that the items listed as usual are true about themselves. This shows that Culinary Certificate students at KKSP are able to plan their learning strategies and methods individually and at the same time comfortable in a structured learning environment according to their preferences.

Overall, the findings of the study indicate that the level of respondents' acceptance of the implementation of E-learning has a significant relationship and is directly proportional to the readiness of self-directed learning at a correlation value of  $r = 0.444$ . Based on the interpretation of 'Guilford's Rule of Thumb' (Sabti et al., 2019), the Pearson correlation value indicates a low correlation relationship between respondents' level of acceptance of E-learning implementation and self-directed learning readiness. The relationship is significant at Alpha level = 0.01. This means that if the readiness of self-directed learning increases, then the level of acceptance of E-learning will also increase, but at a lower rate due to the low relationship. Therefore, it is concluded that the level of respondents' acceptance of the implementation of E-learning in KKSP has a low but significant correlation and is directly proportional to the willingness of self-directed learning of respondents.

In conclusion, all three objectives set at the beginning of the study have been achieved based on the results obtained. This study can see the level of acceptance of Culinary Certificate students in KKSP towards E-learning and the perception of their self-directed learning readiness and identify the relationship between the two variables described in the conclusions conducted on the findings of the study. Indeed, the implementation of E-learning is to address the problem that is being faced, which is to

avoid holding teaching and learning face to face, but this requires a student to have a high readiness for self-directed learning. Suggestions for further study are recommended to make a study based on students' perceptions in other fields and the scope of the study can be added by focusing on the effectiveness of E-learning implemented to students and their learning process.

## 6 About the author

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