Chapter in Book

Online Mandarin Language Courses Among University Learners: Perceptions, Readiness and Its Effectiveness

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Abstract: *Mandarin is Fun 2.0 is an interactive website created by lecturers from Akademi Pengajian Bahasa (APB) UiTM Kelantan Branch. The project which started in 2020 has undergone several modifications and improvements to cater to the learners' needs. Mandarin is Fun 2.0 is a webpage providing interactive teaching and learning materials for tutors and learners of the Mandarin language around the world. This webpage is specially designed to assist learners to gain knowledge of the language in a fun and stress-free setting. Learners can learn all language skills: reading, listening, speaking, and writing via several sub-topics and themes in this module. They will also be able to test their learning outcomes by working on the practices available on the website.*

Keywords: Mandarin language, online, readiness, effectiveness

1. INTRODUCTION

1.1 Background of Study

The COVID-19 (C19) pandemic has been a threatening health crisis around the world since the end of 2019. Our daily lives have undergone significant changes following the C19 pandemic and the education system has also had to be readjusted to comply with the new norms. According to the World Health Organization (WHO) report as of March 19, 2022, the total number of C19 cases has reached almost 465 million and a total of 6 million deaths worldwide. Meanwhile, the Statistics Report of the Ministry of Health Malaysia (2022) has shown that a total of 3.95 million positive cases and a total of more than 34,000 people died due to C19 in Malaysia as of March 19, 2022. This C19 pandemic has indeed brought a huge influence on the socio-economy as well as the field of education around the world (Prawoto, et al., 2020). Therefore, our country has decided to close schools, colleges, and universities to prevent the spread of the C19 virus (Special Message of the Prime Minister of Malaysia, 2021).

The new online teaching environment continues to get the community's attention towards its implementation in the context of education in Malaysia when the Ministry of Education Malaysia

(MOE) announced the closure of schools until the end of 2020. Anderson (as cited in Ballard, 2022) agreed that with the move from a pandemic to an endemic situation, the learning goals need to be adjusted where the engaging learning experience is made available instead of remediating learning.

1.2 Problem Statement

Since the announcement of the endemic situation, the teaching and learning process has started to move to the hy-flex mode where a combination of hybrid and flexible methods are put into practice. The 100% Open and Distance Learning (ODL) needs to be combined with the previously practiced methods which are the traditional talk-and-chalk techniques. Modifications need to be made immediately considering the issues of dropping out, and catching up, as well as the emotionally and socially unstable learners. Educators regardless of the level of learners need to be actively involved in implementing online learning to adapt to the new norms of education. According to Sulaiman, et al., (2021), the online learning process has modified and given a lot of impact on learners. The daily activities of the public at this time are greatly influenced by the development of online technology such as "live streaming", "virtual and augmented reality", and other technologies (Cranmer et al., 2021).

Kumorotomo (2020) argues that online learning also has advantages such as being able to minimize time and effort so that the minimised energy can be used to perform other activities outside of lesson time. However, online learning also has the disadvantage that learners find it difficult to focus on learning due to a less conducive learning environment, internet quota limitations or internet or WIFI packages, and some other distractions (Ma & Lee, 2017). This online learning requires educators and learners to play an active role and also emphasise relationships and communication with each other.

In Martin, et al., (2019) study, they found that out of the 205 faculties of online institutions of higher learning in the United States, the level of teacher readiness to teach online was high. Similarly, a study conducted by Alea, et al., (2020) on educators' readiness for online teaching has shown that educators can still face trends in distance learning despite limited experience in distance education such as technical skills, time management, knowledge, and attitudes in online education. The readiness issues are not only faced by the educators but the learners too. According to the World Health Organization (WHO) (2020), the effects of the C19 pandemic crisis are expected to continue much longer and will not end shortly. As this pandemic has now turned into an endemic, educators have to embrace new challenges to come. There are lots of expectations that need to be presented most realistically and possibly to ensure the effectiveness of the teaching and learning process.

1.3 Research Objectives

Based on the problem statement above, the objectives for this study are:

1.4.1 To identify the readiness of learners taking Mandarin language courses toward online learning.

1.4.2 To study the perceptions of learners taking Mandarin language courses toward online learning.

1.4.3 To understand if online learning is effective in improving learners' performance in Mandarin language proficiency.

2. METHOD & MATERIAL

This chapter explains the research methodology that has been planned to carry out the research study. It started with explaining the research design that has been adopted, the sampling methods used when collecting data, and also the definition of the target population for study in the earlier part of the chapter. The chapter continues to explain how the data is going to be collected in detail including the means of communication used. Here, the report will also explain the research instrument that has been planned to use for data collection. Finally, validity tests as well as analysis methods that have been used in the research study are also discussed in the later part of the chapter.

2.1 Research Design

This study applies quantitative research methods by collecting and analysing numerical data to identify learners' perceptions, and learners' readiness toward online Mandarin language courses as well as to examine the effectiveness of learning Mandarin courses via online platforms.

2.2 Population and Sampling

The target population of the study is learners of Diploma in Business and Management from 2 institutions: Universiti Teknologi MARA Cawangan Kelantan and Kolej Poly-Tech MARA Kota Bharu. A total of 50 respondents will be selected from each of the selected institutions. The participants are learners who enroll for Mandarin Online Courses (Level 1 and Level 2) from both universities.

This research applies a convenience sampling method which is a type of non-probability sampling. The sample respondents will be taken from a group of people that are easy to be contacted or reached out to, technically will be peers or their connections through word of mouth that fulfill the condition of the research's target sample. Such a way of sampling, as the word itself mentioned, is convenient for the researcher to collect a certain number of respondents of data in a short duration of time. Not only help to save time, but it is also cheap and affordable for the researcher to share out the questionnaire online without much cost incurred. However, convenience sampling has its drawback too. Because convenience sampling is shared by spreading through friends or relatives and their connections, there might be a bias being introduced in the sample data (Salin, et al., 2020). Hence, such a method of sampling is not able to generalise the results of the survey to the target population as a whole.

2.3 Research Instrument

A research questionnaire was designed to ask relevant questions to the respondents regarding the research study. The questionnaire for this study consists of 15 questions and is divided into 4 parts.

The first part of the questionnaire is designed to obtain the demographic data of the participants. Part 2 of the questionnaire asks questions to find out learners' perceptions towards online Mandarin Language courses. Questions in part 3 are intended to find out the answers on the level of learners' readiness in online Mandarin courses and Part 4 is aimed to evaluate the effectiveness of online Mandarin language courses among the selected participants. This questionnaire is adapted from Rusli, et al.,'s (2020) study on "Student Perception Data on Online Learning using Heutagogy Approach in the Faculty of Mathematics and Natural Sciences of Universitas Negeri Makassar, Indonesia" and Adam and Anwar's (2020) study on "Online Learning amid the COVID-19 Pandemic: Learners' Perspectives".

The questions designed for the questionnaire as mentioned above are shown in Table 2.3.1, Table 2.3.2, and Table 2.3.3.

Table 2.3.1: Independent Variable 1: Learners' Perceptions

Survey Questions	Responses	Reference
SP1. Do you agree with the mandarin Language Courses online learning system?	Likert Scale (1 to 5) whereby 1 indicates Strongly Disagree, 3 indicates Neutral and 5 indicates Strongly Agree.	(Rusli et. al., 2020)
SP2. Do you agree that using technology (ICT) in teaching and learning makes it easy?		
SP3. Do you accept learning online?		

Table 2.3.2: Independent Variable 2: Student Readiness

Survey Questions	Responses	Reference
SR1. I have internet access to learn online.	Likert Scale (1 to 5) whereby 1 indicates Strongly Disagree, 3 indicates Neutral and 5 indicates Strongly Agree.	(Adnan & Anwar, 2020)
SR2. I am comfortable communicating electronically.		
SR3. I feel qualified to use a computer/laptop.		

Table 2.3.3: Dependent Variable: Effectiveness of Online Learning

Survey Questions	Responses	Reference
EOL1. No difference between online and conventional learning.	Likert Scale (1 to 5) whereby 1 indicates Strongly Disagree, 3 indicates Neutral and 5 indicates Strongly Agree.	(Adnan & Anwar, 2020)
EOL2. Online learning is more motivating than conventional learning.		
EOL3. It is easy to complete group projects/assignments digitally.		
EOL4. Complete courses can be completed effectively through the internet.		

2.4 Data Collection

After the questionnaire has been approved and validated among the researchers, supervisors, and lecturers, the questionnaire was designed into the format of Google Forms. The link of the Google Form is then generated and shared with peers or family and friends that fit the criteria of the target sampling. Various social media platforms will be used such as WhatsApp, WeChat, Instagram, and Facebook to share out the Google link.

The survey will be self-administered which means that respondents will click the Google Form link and fill up the entire survey without any supervision. There are pros and cons to such a self-administered method. The advantages of the self-administered questionnaire are that it enables the researcher to collect enough responses that fit the target population of the study fast especially when there is only limited time being allocated for data collection (Read, et al., 2021).

However, there are also disadvantages to such an approach too. Because respondents are required to fill up the survey on their own, they might lose motivation to finish the entire survey questionnaire if it is too lengthy. Since participation in the research is voluntary, hence it will be up

to the respondents' free will to fill up the survey whenever or wherever at their convenience. Another concern is, if the respondent is unable to understand certain keywords or questions being asked in the questionnaire, respondents are unable to get clarification immediately regarding their doubts. They either need to ask the researchers about it, or most of the time respondents will just fill up the ambiguous questions based on their hunch to get over the questions quickly. Such responses will lead to researchers obtaining inaccurate results because respondents did not answer the questions after fully understanding the context.

2.5 Data Analysis Methods

There are a few data analysis methods that will be used in the research study, including a descriptive analysis of demographic data and survey responses as well as Pearson's Correlation method that measures the correlation between each construct.

Descriptive analysis is changing the crude, raw information into a visually appealing form so that analysts or readers can understand the gist of the data quickly at a glance (Ryan, 2018). Visualization charts like pie charts or bar charts will be created on the demographic data and also the survey responses. The results will be presented in the next chapter and each visualisation will be further analysed.

Pearson's correlation is a method that is widely used by researchers to assess the relationship between different variables (Holgado-Tello, et al., 2010). Pearson's correlation value ranges from -1 to 1. If the correlation value is close to 1, it indicates that both variables correlate highly together, whereas if the correlation value of the pair of variables is close to 0, it means the other way round which states either the correlation is weak or maybe there is no significant correlation at all between the two variables.

2.6 Ethical Considerations

The topic and objective of the data collection have been clearly stated at the beginning of the questionnaire, so every respondent acknowledged it. Respondents have the freedom to choose to participate in the study, all the data collected is completely voluntary without any repression. This study does not cause any harm or risk to the respondents, researcher, and public.

Ethical behaviour helps protect individuals, communities, and environments, and offers the potential to increase the sum of goods in the world (Atlam & Wills, 2020). As social scientists trying to 'make the world a better place, we should avoid doing long-term, systematic harm to those individuals, communities, and environments as mentioned by Beghetto & Anderson (2022). As a reminder pointed out by Israel & Hay (2006), if we as social scientists do not do ethical research, 'we leave those who are attempting social change the prey of hucksters who are willing to put forth undocumented claims based on inadequate evidence.

3. FINDINGS

This chapter discusses the result of this study by showing the statistical data analysis. By performing hypothesis testing based on the data collected, it will show the "Factors Affecting Online Learning Effectiveness". This chapter includes the studying of the demographic factors of the respondents, Descriptive Analysis, Validity and Reliability Analysis, Spearman's Correlation, Multiple Regression, and the summary of the hypotheses based on statistical results.

A total of 100 respondents participated in the research study and this means that there will be a total of 100 observations or rows in the data. In the following sections, the analysis will be done on the survey responses using the statistical tool named SPSS or known as Statistical Packages for Social Science.

Table 3.1.1: Respondents' Gender

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	64	64.0	64.0	64.0
	Male	36	36.0	36.0	100.0
	Total	100	100.0	100.0	

Table 3.1.1 shows that out of 100 respondents, 64% of the respondents are female, whereas the remaining 36% are male.

Table 3.1.2: Respondents' University

University					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UiTM Cawangan Kelantan	50	50.0	50.0	50.0
	Kolej Poly-Tech MARA, Kota Bharu	50	50.0	50.0	50.0
	Total	100	100.0	100.0	

Table 3.1.2 shows that 50% of the participants are learners from UiTM Cawangan Kelantan
And the other half are from Kolej Poly-Tech MARA, Kota Bharu.

Table 3.1.3: Respondents' Mandarin Course Enrolled

Mandarin Course Enrolled					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mandarin Language Course Level 1	37	37.0	37.0	37.0
	Mandarin Language Course Level 2	63	63.0	63.0	63.0
	Total	100	100.0	100.0	

Table 3.1.3 shows that 37% of the participants have enrolled for Mandarin Language Course Level 1 while another 63% of them enrolled for Mandarin Language Course Level 2.

Table 3.2.1: Learners' Perceptions Towards Online Mandarin Language Courses

Descriptive Statistics for Learners' Perceptions Towards Online Mandarin Language Courses					
	N	Minimum	Maximum	Mean	Std. Deviation
SP1. Do you agree with the mandarin Language Courses online learning system?	100	1	5	3.54	.797
SP2. Do you agree that using technology (ICT) in teaching and learning makes it easy?	100	1	5	3.40	.804
SP3. Do you accept learning online?	100	1	5	3.60	.752
Valid N (listwise)	100				

Table 3.2.1 above shows the survey responses distribution and the descriptive statistics for the construct of independent variable 1 – Student Perception. There are a total of 3 items in the construct. The item with the highest mean is 'SP3. Do you accept learning online?' with a mean of 3.60 and standard deviation of 0.752, followed by item SP1. Do you agree with the online learning system?' with a mean of 3.54 and a standard deviation of 0.797.

The item with the lowest mean is 'SP2. Do you agree that using technology (ICT) in teaching and learning makes it easy?' that has a mean of only 3.40 with a standard deviation of 0.804.

Table 3.2.2: Learners' Readiness Towards Online Mandarin Language Courses

Descriptive Statistics for Learners' Readiness Towards Online Mandarin Language Courses					
	N	Minimum	Maximum	Mean	Std. Deviation
SR1. I have internet access to learn online.	100	1	5	3.74	.760
SR2. I am comfortable communicating electronically.	100	2	5	3.43	.685
SR3. I feel qualified to use a computer/laptop.	99	1	5	3.33	.756
Valid N (listwise)	99				

Table 3.2.2 shows the survey responses distribution and the descriptive statistics for the construct of independent variable 2 – Student Readiness. There are a total of 3 items in the construct. The item with the highest mean is 'SR1. I have internet access to learn online.' with a mean of 3.74 and standard deviation of 0.760, followed by item SR2. I am comfortable communicating electronically.' with a mean of 3.43 and a standard deviation of 0.685. The item with the lowest mean is 'SR3. I feel qualified to use a computer/laptop.' that has a mean of only 3.33 with a standard deviation of 0.756.

Table 3.2.3: The Effectiveness of Online Learning

Descriptive Statistics on The Effectiveness of Online Learning					
	N	Minimum	Maximum	Mean	Std. Deviation
EOL1. No difference between online and conventional learning.	100	1	5	3.57	.742
EOL2. Online learning is more motivating than conventional learning.	100	1	5	3.43	.685
EOL3. It is easy to complete group projects/assignments digitally.	100	1	5	3.43	.742
EOL4. Complete courses can be completed effectively through the internet.	100	2	5	3.51	.628
Valid N (listwise)	100				

Table 3.2.3 above shows the survey responses distribution and the descriptive statistics for the construct of the dependent variable – Effectiveness of Online Learning. There are a total of 4 items in the construct. The item with the highest mean is 'EOL1. No difference between online and conventional learning.' with a mean of 3.57 and a standard deviation of 0.742. There are two items with the lowest mean which are 'EOL2. Online learning is more motivating than conventional learning.' with a mean of 3.43 with a standard deviation of 0.685 and item EOL3. It is easy to complete group projects/assignments digitally.' with the same mean of 3.43 and a standard deviation of 0.742.

3.3 Reliability Statistics

Table 3.3.1: Learners' Perceptions Towards Online Mandarin Language Courses

Reliability Statistics	
Cronbach's Alpha	N of Items
.718	3

Table 3.3.2: Learners' Readiness Towards Online Mandarin Language Courses

Reliability Statistics	
Cronbach's Alpha	N of Items
.705	3

Table 3.3.3: The Effectiveness of Online Learning

Reliability Statistics	
Cronbach's Alpha	N of Items
.718	4

In psychometrics, the reliability test helps researchers to understand whether the constructs of the questionnaire have high or low consistency or not (Cook & Beckman, 2006). According to Taber (2018), some researchers will require a reliability of 0.70 or higher before they use the instrument. However, in the survey responses collected, all constructs including 2 independent and 1 dependent variable have Cronbach's Alpha value of 0.9 which is considered Excellent based on (Taber, 2018). Hence, the survey responses have sufficient internal consistency and are good to be analysed further.

4. DISCUSSION

4.1 Pearson Correlation

Table 4.1.1: Correlation 1

		SP	SR	EOL
SP	Pearson Correlation	1	.469**	.500**
	Sig. (2-tailed)		.000	.000
	N	100	99	100
SR	Pearson Correlation	.469**	1	.398**
	Sig. (2-tailed)	.000		.000
	N	99	99	99
EOL	Pearson Correlation	.500**	.398**	1
	Sig. (2-tailed)	.000	.000	
	N	100	99	100
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 4.1.1 above shows Pearson's Correlation between all 2 independent variables and our target variable Effectiveness of Online Learning items among Malaysian learners. Summarising the table above to a simpler version below to understand only the correlations between each independent variable to our target variable only.

Table 4.1.2: Correlation 2

Relationship	Pearson Correlation Value	P-value (sigma)
Student Perception - Effectiveness of Online Learning	0.500	0.000
Student Readiness - Effectiveness of Online Learning	0.398	0.000

Based on the results above, the independent variable Student Perception has a higher positive correlation to the target variable item with a Pearson's correlation value of 0.500. On the other hand, the correlation between Student Readiness and with target variable has Pearson's correlation value of 0.398. One thing to highlight is, both relationships are significant. This can be validated by observing their respective P value. Both of them have a low p-value of 0.000. These give us confidence and reliability in the Pearson value shown.

4.2 Multiple Linear Regression

Table 4.2.1: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.530[a]	.281	.266	1.76914
a. Predictors: (Constant), SR, SP				

Table 4.2.2: Anova

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	117.373	2	58.687	18.751	.000[b]
	Residual	300.465	96	3.130		
	Total	417.838	98			
a. Dependent Variable: EOL						
b. Predictors: (Constant), SR, SP						

Table 4.2.3: Coefficients

Coefficients[a]						
Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.714	1.234		5.442	.000
	SP	.434	.107	.397	4.049	.000
	SR	.253	.117	.212	2.161	.033
a. Dependent Variable: EOL						

The regression equation of the model is as below:

The F-statistic of the regression model is significant; this can be seen by observing the significant value at 0.000. The adjusted R-Square of the model is 0.266. This means that 26.6% of the variation of the dependent variable can be explained by the 2 independent variables but the other 73.4% remains unexplained. If we look at the independent variables respectively, both have p-values less than 0.05, this shows that both independent variables Student Perception and Student Readiness have significant contributions to the Effectiveness of Online Learning in the regression model developed.

5. CONCLUSION

To conclude, the results of the data analysis are reported in each section. We started by understanding the demographic profile of the respondents, then studying the responses of the respondents for each survey question. We also understand the correlation between each of the variables and finally, the results of the hypotheses will be shown in Table 5.1 below.

Table 5.1: Results

Hypotheses	Results
H1: To identify the readiness of learners taking Mandarin language courses toward online learning	**Supported**
H2: To study the perceptions of learners taking Mandarin language courses toward online learning.	**Supported**
H3: To understand if online learning is effective in improving learners' performance in Mandarin language proficiency.	**Supported**

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