

The Effect of Motivation, Concentration and Vocabulary Mastery on Students' Listening Skill in Japanese Classroom

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Abstract: The purpose of this research is to investigate whether there is direct correlation between learning motivation, concentration and vocabulary variables and listening comprehension skill in Japanese language. The research was conducted at Riau University to students majoring in Japanese language. The research makes use of path analysis. Data collection was carried out by using three instruments and one Japanese listening comprehension test; (1) test instrument of learning motivation, (2) test instrument of learning concentration, and (3) test instrument of vocabulary acquisition or mastery and Japanese listening comprehension test. As the sampling technique used was total sampling, population in this study was the whole 52 fourth semester students at Riau University. The hypothesis test shows -0.311 for correlation coefficient between learning motivation and listening comprehension skill, 0.309 for correlation coefficient between concentration and listening comprehension skill, 0.281 for correlation coefficient between vocabulary mastery and listening comprehension skill, 0.287 for correlation coefficient between learning motivation and vocabulary mastery. Whereas correlation coefficient between concentration and vocabulary is 0.410, and correlation coefficient between motivation and concentration is 0.451. The findings can be used as theoretical basis to do another research at Japanese Language Department throughout Indonesia. The findings can also be used as a reference to develop similar research in another place, especially when it has similar problems and conditions.

1 INTRODUCTION

In Indonesia, teaching Japanese is more complex than teaching another foreign language. This is especially because students have to deal with Kanji writing system, which is completely different from Latin alphabet adapted by Indonesian people.

Like other languages, listening is the very basic language skill as it is frequently integrated with other skills, such as speaking, reading and writing skills. Apparently, most communication requires human interaction involving listening, and this also takes place in a classroom. When a teacher writes on the board, she must explain it to her students, and the students have to listen carefully to understand the explanation, and then the students may speak or ask for clarification. In this case, the teacher must listen carefully too, in order to respond her students properly. Therefore, it might be impossible to find human interaction without listening. Listening is crucial not only in language learning but also in learning other subjects. Listeners can use both

bottom-up process (linguistic knowledge) and top-down process (prior knowledge) to comprehend a message. When students fail to use their listening comprehension effectively, they will not be able to comprehend a message, and they will not get the knowledge they need from their teacher.

Learning is one of classroom activities requiring motivation, which can be an internal factor in learning. A teacher needs to motivate students, so that they will be interested in their learning. Unfortunately, motivating student does not always succeed. Instead of listening carefully, students do not show their interest or enthusiasm, and they become lazy. This was an example of a situation that happened to students majoring in Japanese Language of Teacher's Training Program at Riau University.

In spite of their Japanese Language major, the students at Riau University was lack of motivation in learning Japanese. Students did not pay attention to their teacher and could not maximize their

learning because the teacher herself was unable to motivate them although she had tried hard.

Ideally, during classroom practices, in order to comprehend what the students hear, students must be able to concentrate, so that their focus is on the information needed to answer questions. It is highly likely that students need more vocabulary too.

In learning Japanese, vocabulary is called *goi*, which is a collection of words related to certain topics discussed in a chapter. It is true that mastering vocabulary is essential in learning Japanese. However, as in Indonesia learning English is more prioritized, mastering vocabulary can be challenging because the number of Japanese students are not as many as English students. It means that they do not have enough exposure to use Japanese vocabulary more frequently on daily basis.

Based on the observation of 4th semester students from Japanese Language major at Riau University, it was obvious that students did not have enough motivation and concentration in their learning. In addition, they were not able to acquire the vocabulary. For instance, a teacher had been trying hard to explain a lesson, and then she asked the students some questions, but they failed to give correct answers due to lack of attention. Even students were not able to comprehend anything although the teacher had been playing the recording many times. They also had difficulties repeating the vocabulary after their teacher. Worst of all, they could not correctly write the new vocabulary they had just learnt.

Besides lacking motivation, probably students only relied their learning on the language program organized by the university, and they did not have any intention to improve their language outside class. Being lack of vocabulary and concentration made students fail to understand most parts in a conversation, and being lack of motivation made them unable to understand a normal pace conversation (they thought it was too fast), and a long passage. Unable to identify what the speaker meant while producing high and low intonation was also another problem for them.

To highlight relevant studies related to the current studies at Riau University, some differences and similarities between the previous studies and the research conducted in Riau are presented. The following are previous studies by some researchers related to learning motivation, concentration, vocabulary acquisition or mastery, and listening comprehension skill in Japanese language:

A journal published by Kong Bee Leng (2011), "The Relationship between Self-Concept, Intrinsic

Motivation, Self- Determination and Academic Achievement among Chinese Primary School Students" concludes that there is significant and weak correlation between self-concept and academic achievement. There is negative and weak correlation between students' internal motivation and their academic achievement. What makes this research different from the current study at Riau University is that the variables contain self-concept, determining students' own fate and academic achievement conducted at an elementary school in China. The similarity between this research and the current study is caused by X1 variable about students' motivation in learning process.

A finding from a journal published by Rafiul Islam Shazu (2014) "Use of Literature in Language Teaching and Learning: A Critical Assessment" suggests that for some people, vocabulary is a reference for language learning. However, for some students, vocabulary acquisition is a key to improve their motivation while learning English. The difference between the research in this article and the research at Riau University is because English literature is used as medium of instruction during learning process, but it is similar with the current research in Riau because there are variables X2 and X1 about vocabulary acquisition and motivation in foreign language learning.

Maizatul Haizan Mahbob & Arina Anis Azlan in a journal published by Wan Idros Wan Sulaiman (2011), "Learning outside the Classroom: Effects on Student Concentration and Interest" suggest that most of respondents in their research seem to be happy adapting their learning outside classroom. It can be an indication that out-of-class learning is an important factor to improve students' satisfaction and concentration. While this research focuses on learning quality and satisfaction variables, variable X2 about students' concentration in learning process is relevant with the research in Riau.

A journal published by Arono (2014) "Improving Students Listening Skill through Interactive Multimedia in Indonesia" states that PMAI Model can make students listen more critically. It is regarded as a reference for a teacher to develop a model in teaching listening comprehension. This research is relevant to the research in Riau because the Y variable is about teaching listening comprehension skill.

From a journal published by Yo Hamada (2011) "Improvement of Listening Comprehension Skills through Shadowing with Difficult Materials" can be concluded that a text that is one level above students' ability helps students to improve listening

comprehension skill, and tackle students' problems during short term listening comprehension practice. The research in this article uses training and comprehension variables. This article is similar to the current research in Riau because Y variable in this article is about teaching listening comprehension skill.

Research through path analysis on listening comprehension in Japanese language related to learning motivation, concentration, and vocabulary mastery or acquisition has not been conducted thoroughly before. For this reason, the current study is presented. The researcher is concerned about students' low motivation and lack of effort to improve their language without relying heavily on the language program run by Riau University. Apparently, inability to acquire vocabulary could be troublesome. With limited vocabulary and lack of concentration, students were unable to comprehend a conversation they heard. Low motivation made students unable to do listening comprehension practices successfully too. As a result, they could not understand anything when they thought a conversation they heard was too fast. Moreover, it was difficult for them to comprehend a long passage. Furthermore, students were unable to identify the right meaning when it came to listening to high and low intonation during conversation.

2 RESEARCH METHODOLOGY

The subject in this research was the whole 52 students from semester 4 taking Japanese language major at Riau university. The research made use of path analysis, and the data collection was done by using 3 instruments and a listening comprehension test: (1) test instrument of learning motivation, (2) test instrument of learning concentration, and (3) test instrument of vocabulary mastery and Japanese listening comprehension test. A test booklet was distributed to each student to measure Japanese listening comprehension skill, and students' progress sheet was used to see their ability. Data collection was done through research instruments as follow: (a) organizing variable indicators in this research, (b) organizing description of instrument, (c) testing the instruments, (d) doing validity test and reliability test of instruments.

As types of variable have been selected according to the research being carried out, data was collected and analysed by using instruments: (1) Japanese listening comprehension test (Y) students' progress sheet to see their listening comprehension

skill, (2) learning motivation instrument (X1) sheets of questionnaire, and Likert scale to organize the questionnaires (3) measuring concentration (X2) using sheets of questionnaire, and organize them into Likert scale (4) measuring vocabulary acquisition (X3) using sheets of questionnaire, and organize them into Likert scale.

3 RESULTS

The description of the results in this research is intended to give general pictures of data distribution, including the frequency. The data is analyzed by using descriptive statistic method, such as minimum and maximum scores, range, average, standard deviation, and variants.

The data about students' results in the research is summarized in table 1.

Table 1: students' results summary

Statistic	Variable			
	X ₁	X ₂	X ₃	Y
Number of Samples (n)	52	52	52	52
Maximum scores	120	90	150	100
Minimum scores	85	45	85	30
Range	35	45	65	70
Average (X)	105.08	71.98	120.58	79.23
Standard deviation (s)	10.299	9.803	15.689	17.360
Variant (s ²)	106.072	96.098	246.131	301.357

Notes:

X₁: Learning motivation

X₂: Concentration

X₃: Vocabulary mastery or acquisition

Y: Japanese listening comprehension skill (Y)

3.1 Japanese Listening Comprehension Skill (Y)

Based on the results from Japanese listening comprehension skill (Y), the minimum score is 30, the maximum score is 100, and the score range is 70.

After the data has been statistically processed, it turns out that the average score is 79.23, the standard deviation is 17.360 and the variant is 301.357.

Results from total sampling of 52 students based on listening comprehension skill in Japanese language (Y) within the group above the average is 21 students (82.69%), the group below average is 4

students (7.69%), and 5 students (9.62%) is the group with average scores.

3.2 Students' motivation (X1)

The results of learning motivation (X1) show that the lowest score is 85, and the highest score is 120, so the score range is 35. After the data has been statistically processed, the average score is 105.08, the standard deviation is 10.299 and the variant is 106.072.

Results from total sampling of 52 students based on learning motivation (X1) within the group above average scores is 29 students (55.77%), the group below average is 6 students (11.54%), and 17 students (32.69%) belong to average group.

3.3 Concentration (X2)

The results on students' concentration (X2) indicate that the lowest scores is 45, and the highest scores is 90, so the range is 45. After the data has been statistically processed, the average score is 71.98, the standard deviation is 9.803 and the variant is 96.098.

Results from total sampling of 52 students based on concentration (X2) within the group above average scores is 31 students (59.62%), the group below average is 14 students (26.92%), and 7 students (13.46%) belong to average group.

3.4 Vocabulary Acquisition (X3)

The results on students' vocabulary (X3) indicate that the lowest scores is 85, and the highest scores is 150, so the range is 65. After the data has been statistically processed, the average score is 120.58, the standard deviation is 15.689 and the variant is 246.131.

Results from total sampling of 52 students based on vocabulary (X3) within the group above average scores is 37 students (71.16%), the group below average is 8 students (15.38%), and 7 students (13.46%) belong to average group.

3.5 Tests requirement before doing analysis

In order to see whether the data obtained in each variable is normal or not, a normality test must be carried out by using Liliefors test. If the value of (L_0) is higher than the value of variables in a group (L_t), the data is considered as the one with normal distribution

On the other hand, (L_0) is the gap between the highest absolute value with the probability from the whole proportion of raw data. The result of normality test can be presented conveniently after being processed by liliefors with significance $\alpha = 0.05$.

3.5.1 Normality test

Normality test of X_1

Based on results of liliefors normality test, the value of L_0 is 0.0823. The critical value of L_0 in the liliefors table for sampling ($n = 52$ with $\alpha = 0.05$) results in value of 0.122. When it is compared with L_0 after calculation, in fact it is lower than L_0 in the table, so that it can be concluded that X_1 normality test results in normal distribution.

Normality test of X_2

Based on results of liliefors normality test, the value of L_0 is 0.1002. The critical value of L_0 in the liliefors table for sampling ($n = 52$ with $\alpha = 0.05$) results in value of 0.122. When it is compared with L_0 after calculation, in fact it is lower than L_0 in the table, so that it can be concluded that X_2 normality test results in normal distribution.

Normality test of X_3

Based on results of liliefors normality test, the value of L_0 is 0.0754. The critical value of L_0 in the liliefors table for sampling ($n = 52$ with $\alpha = 0.05$) results in value of 0.122. When it is compared with L_0 after calculation, in fact it is lower than L_0 in the table, so that it can be concluded that X_3 normality test results in normal distribution.

Normality test of Y

Based on results of liliefors normality test, the value of L_0 is 0.1171. The critical value of L_0 in the liliefors table for sampling ($n = 52$ with $\alpha = 0.05$) results in value of 0.122. When it is compared with L_0 after calculation, in fact it is lower than L_0 in the table, so that it can be concluded that Y normality test results in normal distribution.

3.5.2 Linearity of regression test significance of regression test

The requirement of linearity is met if F value calculated $<$ F value table. However, significance of regression meets the requirement if F value calculated $>$ F value table. Correlation coefficient value is the calculation of scores stating how strong the degree of correlation is. A correlation is considered strong enough if the degree of significance from t value $>$ t table.

Test of (X_1) to (Y)

Based on the result of linear regression test, F value is 0.981, by which the value from the table is 2.8024. Compared with F value calculated, in fact it is lower than F table, so it can be concluded that linear regression test of X_1 to Y indicates normal distribution.

Whereas from significance of regression test, F value is 4.03. If we compare F value calculated with F value table, the F value calculated is higher than with F value table. It can be concluded that significance of regression test X_1 to Y shows normal distribution.

Test of (X_2) to (Y)

Based on the result of linear regression test, F value is -13.158, by which the value from the table is 2.8024. Compared with F value calculated, in fact it is lower than F table, so it can be concluded that linear regression test of X_2 to Y indicates normal distribution.

Whereas from significance of regression test, F value is 5.2668. If we compare F value calculated with F value table 4.03, the F value calculated is higher than with F value table. It can be concluded that significance of regression test X_2 to Y shows normal distribution.

Test of (X_3) to (Y)

Based on the result of linear regression test, F value is -0.525, by which the value from the table is 2.8024. Compared with F value calculated, in fact it is lower than F table, so it can be concluded that linear regression test of X_3 to Y indicates normal distribution.

Whereas from significance of regression test, F value is 4.2867. If we compare F value calculated with F value table 4.03, the F value calculated is higher than with F value table. It can be concluded that significance of regression test X_3 to Y shows normal distribution.

Test of (X_1) to (X_3)

Based on the result of linear regression test, F value is -15.904, by which the value from the table is 2.8024. Compared with F value calculated, in fact it is lower than F table, so it can be concluded that linear regression test of X_1 to X_3 indicates normal distribution.

Whereas from significance of regression test, F value is 4.4743. If we compare F value calculated with F value table 4.03, the F value calculated is higher than with F value table. It can be concluded that significance of regression test X_1 to X_3 shows normal distribution.

Test of (X_2) to (X_3)

Based on the result of linear regression test, F value is -15.928, by which the value from the table is 2.8024. Compared with F value calculated, in fact it is lower than F table, so it can be concluded that linear regression test of X_2 to X_3 indicates normal distribution.

Whereas from significance of regression test, F value is 10.1014. If we compare F value calculated with F value table 4.03, the F value calculated is higher than with F value table. It can be concluded that significance of regression test X_2 to X_3 shows normal distribution.

Test of (X_2) to (X_3)

Based on the result of linear regression test, F value is -15.928, by which the value from the table is 2.8024. Compared with F value calculated, in fact it is lower than F table, so it can be concluded that linear regression test of X_2 to X_3 indicates normal distribution.

Whereas from significance of regression test, F value is 10.1014. If we compare F value calculated with F value table 4.03, the F value calculated is higher than with F value table. It can be concluded that significance of regression test X_2 to X_3 shows normal distribution.

Test of (X_1) to (X_2)

Based on the result of linear regression test, F value is -15.893, by which the value from the table is 2.8024. Compared with F value calculated, in fact it is lower than F table, so it can be concluded that linear regression test of X_1 to X_2 indicates normal distribution.

Whereas from significance of regression test, F value is 12.7510. If we compare F value calculated with F value table 4.03, the F value calculated is higher than with F value table. It can be concluded that significance of regression test X_1 to X_2 shows normal distribution.

3.6 Hypothesis Test

3.6.1 Hypothesis Formula and Model-1 of Structural Equation

Model-1 Hypothesis states that learning motivation, concentration, and vocabulary acquisition simultaneously contribute to Japanese listening comprehension skill.

Structure of Model-1:

$$Y = p_{yx1} X_1 + p_{yz2} X_2 + p_{yx3} X_3 + p_y \epsilon_1 \tag{1}$$

Diagram of Model-1 coefficient path

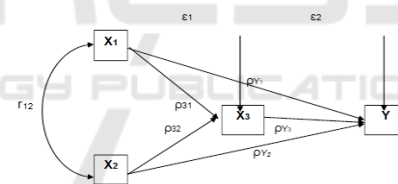


Figure 1: Correlation structure between X_1 , X_2 , X_3 and Y Model-1

Diagram of Model-2 coefficient path

Model-2 Hypothesis states that learning motivation and concentration simultaneously contribute to vocabulary acquisition.

Structur of Model-2 :

$$Y = p_{x3x1} X_1 + p_{x3x2} X_2 + p_{x3} \epsilon_2 \tag{2}$$

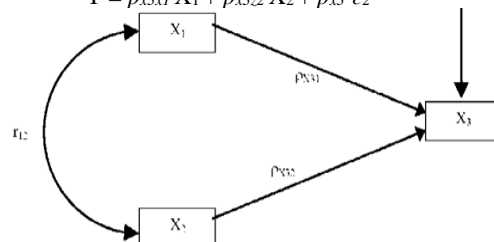


Figure 2: Correlation structure between X_1 , X_2 and X_3 Model-2

3.6.2 Calculation of Model-1 coefficient path

The overall test is represented by Table Anova^b table.

Table 2: overall test represented by Table Anova^b table

ANOVA^b

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	6218.763	3	2072.921	10.874	.000 ^a
Residual	9150.468	48	190.635		
Total	15369.231	51			

a. Predictors: (Constant), Vocabulary acquisition (X3), Learning motivation (X1), Concentration (X2)

b. Dependent Variable: Japanese Listening Comprehension Skill (Y)

Statistic hypothesis is formulated as follows:

$$H_a: p_{yx1} = p_{yx2} = p_{yx3} \neq 0 \quad (3)$$

$$H_o: p_{yx1} = p_{yx2} = p_{yx3} = 0 \quad (4)$$

Description of the hypothesis:

Ha: learning motivation, concentration and vocabulary acquisition simultaneously contribute to Japanese listening comprehension skill.

Ho: learning motivation, concentration and vocabulary acquisition do not simultaneously contribute to Japanese listening comprehension skill.

The rule of significance test: SPSS Program version 17.0 as shown in Model Summary^b

Table 3: Table. Model Summary^b X3, X1 and X2 to Y

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.636 ^a	.405	.367	13.807	.405	10.874	3	48	.000

a. Predictors: (Constant), Vocabulary acquisition (X3), Learning motivation (X1), Concentration (X2)

b. Dependent Variable: Japanese listening comprehension skill (Y)

Based on table model summary^b above, $R_{square} = 0.405$ and from anova table F value is 10.874 with probability (sig) =0.000. Because sig < 0.05, Ho is rejected and Ha is accepted. Therefore, individual test can be done.

Individual test of (X1 to Y), (X2 to Y) and (X3 to Y) Model-1

Learning motivation contributes to Japanese listening comprehension skill. Individual test is presented in the *Coefficients* table, which results in coefficient path $p_{yx1} = 0.025$

Table 4: Coefficients X1 to Y

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	134.335	23.916		5.617	.000
	X1	-.524	.227	-.311	-2.315	.025

a. Dependent Variable: Y (Japanese listening comprehension skill)

Test of research hypothesis is formulated into following statistic hypothesis:

$$H_a: p_{yx1} > 0 \quad (5)$$

$$H_o: p_{yx1} = 0 \quad (6)$$

Hypothesis description:

Ha: Learning motivation contributes to Japanese listening comprehension skill.

Ho: Learning motivation does not contribute to Japanese listening comprehension skill.

Based on coefficients table, the value of sig. is 0.025. If sig. 0.025 is lower than probability value 0.05, or 0.05 > 0.025, Ha is accepted and Ho is rejected. It means that coefficient of path analysis is significant. It indicates that learning motivation contributes to Japanese listening comprehension skill.

Concentration to Japanese listening comprehension skill

Individual test in the *Coefficient* table shows coefficient path $p_{yx2} = 0.026$

Table 5: Coefficients X1 to Y

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	39.881	17.301		2.305	.025
	X2	.547	.238	.309	2.295	.026

a. Dependent Variable: Y (Japanese listening comprehension skill)

$$H_a: p_{yx2} > 0 \quad (7)$$

$$H_o: p_{yx2} = 0 \quad (8)$$

Description of the hypothesis:

Ha: Concentration contributes to Japanese listening comprehension skill

Ho: Concentration does not contribute to Japanese listening comprehension skill.

Based on Coefficient table value of sig. is 0.026. Because sig. 0.026 is lower than probability value 0.05 or $0.05 > 0.026$, Ha is accepted and Ho is rejected. It means that coefficient of path analysis is *significant*. It indicates that concentration contributes to Japanese listening comprehension skill.

Vocabulary acquisition contributes to Japanese listening comprehension skill

Based on individual test in *Coefficient* table, the result of path coefficient is $p_{yx3} = 0.044$

Table 6: Coefficients X3 to Y

Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	41.739	18.258		2.286	.027
	X3	.311	.150	.281	2.070	.044

a. Dependent Variable: Y
(Japanese listening comprehension skill)

Test of research hypothesis is formulated into following statistic hypothesis:

$$Ha: p_{yx3} > 0 \quad (9)$$

$$Ho: p_{yx3} = 0 \quad (10)$$

Description of the hypothesis:

Ha: Vocabulary acquisition contributes to Japanese listening comprehension skill

Ho: Vocabulary acquisition does not contribute to Japanese listening comprehension skill

Based on coefficients table, the value of sig. is 0.044. If sig. 0.044 is lower than probability value 0.05, or $0.05 > 0.044$, Ha is accepted and Ho is rejected. It means that coefficient of path analysis is significant. It indicates that vocabulary acquisition contributes to Japanese listening comprehension skill.

The framework of empirical causal correlation between X1, X2, X3 and Y is equated into structural Model-1:

$$Y = p_{yx1} X_1 + p_{yx2} X_2 + p_{yx3} X_3 + p_y \epsilon_1 \quad (11)$$

$$= 0.025 X_1 + 0.026 X_2 + 0.044 X_3 + 0.595 \epsilon_1$$

Value of $R^2_{yx3.x1,x2}$ or R_{square} can be seen in table 9 of Model Summary^b. In order to get the value of $p_y \epsilon_1$ (residual) the following formula is used:

$$p_y \epsilon_1 = 1 - R_{square} = 1 - 0.405 = 0.595 \quad (12)$$

3.6.3 Calculation of Model-2 coefficient path

The overall test is represented by Table Anovab table.

Table 7: Anova^b X2 and X1 to X3

ANOVA ^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2273.002	2	1136.501	5.417	.007 ^a
	Residual	10279.691	49	209.790		
	Total	12552.692	51			

a. Predictors: (Constant), Concentration(X2), Learning motivation (X1)

b. Dependent Variable: Vocabulary acquisition (X3)

Test of research hypothesis is formulated into following statistic hypothesis:

$$Ha: p_{yx1} = p_{yx2} \neq 0 \quad (13)$$

$$Ho: p_{yx1} = p_{yx2} = 0 \quad (14)$$

Description of the hypothesis:

Ha: Learning motivation and concentration simultaneously contribute to vocabulary acquisition

Ho: Learning motivation and concentration simultaneously do not contribute to vocabulary acquisition

The rule of significance test: SPSS Program version 17.0 as shown in Model Summary^b

Table 8: Model Summary^b X2 dan X1 to X3

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.426 ^a	.181	.148	14.484	.181	5.417	2	49	.007

a. Predictors: (Constant), Concentration (X2), Learning motivation (X1)

b. Dependent Variable: Vocabulary acquisition (X3)

Based on model summary^b above, $R_{square} = 0.181$ and from anova table, F value is 5.417 with probability value (sig) = 0.007. Because the value of sig < 0.05, Ho is rejected and Ha is accepted. For this reason, individual test can be done.

Individual test of (X1 to X3), (X1 to X2) and (X2 to X3) Model-2

Learning motivation contributes to vocabulary acquisition

Individual test in the Coefficient table shows coefficient path $p_{x3x1} = 0.039$.

Table 9: Coefficients of Learning motivation to Vocabulary acquisition

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	74.704	21.789		3.429	.001
Learning motivation	.437	.206	.287	2.115	.039

a. Dependent Variable:

Vocabulary acquisition (X3)

Test of research hypothesis is formulated into following statistic hypothesis:

$$H_a: p_{x3x1} > 0 \tag{15}$$

$$H_o: p_{x3x1} = 0 \tag{16}$$

Description of the hypothesis:

Ha: Learning motivation contributes to vocabulary acquisition

Ho: Learning motivation does not contribute to vocabulary acquisition

Based on Coefficient table value of sig. is 0.039. Because sig. 0.039 is lower than probability value 0.05 or 0.05 > 0.039, Ha is accepted and Ho is rejected. It means that coefficient of path analysis is *significant*. It indicates that learning motivation contributes to vocabulary acquisition.

Learning motivation contributes to concentration

Individual test in the Coefficient table shows coefficient path $p_{x3x1} = 0.001$.

Table 10: Coefficients of Learning motivation to Concentration

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	26.897	12.685		2.120	.039
Learning motivation	.429	.120	.451	3.571	.001

a. Dependent Variable:

Concentration (X2)

Test of research hypothesis is formulated into following statistic hypothesis:

$$H_a: p_{x1x2} > 0 \tag{17}$$

$$H_o: p_{x1x2} = 0 \tag{18}$$

Description of the hypothesis:

Ha: Learning motivation contributes to concentration

Ho: Learning motivation does not contribute to concentration

Based on Coefficient table value of sig. is 0.001. Because sig. 0.001 is lower than probability value 0.05 or 0.05 > 0.001, Ha is accepted and Ho is rejected. It means that coefficient of path analysis is *significant*. It indicates that learning motivation contributes to concentration.

Concentration contributes to vocabulary acquisition

Individual test in the Coefficient table shows coefficient path $p_{x3x1} = 0.003$

Table 11: Coefficients of Concentration to Vocabulary acquisition

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	73.350	14.994		4.892	.000
Concentration	.656	.206	.410	3.178	.003

a. Dependent Variable:

Vocabulary acquisition

Test of research hypothesis is formulated into following statistic hypothesis:

$$H_a: p_{x3x2} > 0 \tag{19}$$

$$H_o: p_{x3x2} = 0 \tag{20}$$

Description of the hypothesis:

Ha: Concentration contributes to vocabulary acquisition

Ho: Concentration does not contribute to vocabulary acquisition

Based on Coefficient table value of sig. is 0.003. Because sig. 0.003 is lower than probability value 0.05 or 0.05 > 0.003, Ha is accepted and Ho is rejected. It means that coefficient of path analysis is *significant*. It indicates that concentration contributes to vocabulary acquisition.

The framework of empirical causal correlation between X₁, X₂ and X₃ is equated into structural Model-2:

$$X_3 = p_{x3x1} X_1 + p_{x3x2} X_2 + p_{x3} \epsilon_1 \tag{21}$$

$$= 0.039 X_1 + 0.003 X_2 + 0.819 \epsilon_1$$

Value of R²_{yx3.x1.x2} or R_{square} can be seen in table 14 of Model Summary^b. In order to get the value of p_y ε₁ (residual) the following formula is used:

$$p_y \epsilon_1 = 1 - R_{\text{square}} = 1 - 0.181 = 0.819 \tag{21}$$

Based on test results of medel-1 and sub model-2, the path diagram of all models can be illustrated as follows:

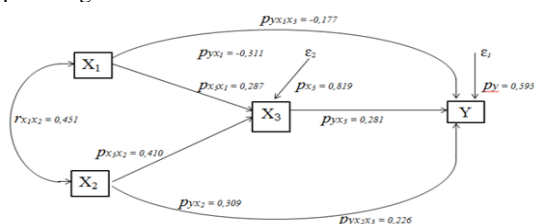


Figure 3: Path Diagram of all medel-1 and sub model-2

3.7 Results of Path Analysis

The results of path analysis structure give objective information about:

3.7.1 Result of Model-1 contribution

Some direct correlations between learning motivation (X₁), concentration (X₂) and Japanese listening comprehension skill (Y) are described as follows:

Direct correlations between variable X₁ and Y = -0.311

Indirect correlations between variable X₁ and Y through X₃ = -0.311 (0.287+0.281) = -0.177

Total correlations between X₁ and Y = -0.177

Direct correlations between X₂ and Y = 0.309

Indirect correlations between X₁ and Y through X₃ = 0.309 (0.451+0.281) = 0.226

Total correlations between X₁ and Y = 0.226

Contribution of learning motivation (X₁) indirectly correlates with Japanese listening comprehension skill (Y) as much as -0.311² = 0.0967 or 09.67 %

Contribution of concentration (X₂) indirectly correlates with Japanese listening comprehension skill (Y) as much as 0.309² = 0.0955 or 09.55 %

Contribution of vocabulary acquisition (X₃) indirectly correlates with Japanese listening comprehension skill (Y) as much as 0.281² = 0.0789 or 07.89%

Contribution of learning motivation (X₁), concentration (X₂) and vocabulary acquisition (X₃) indirectly and simultaneously correlates with Japanese listening comprehension skill (Y) as much as R²_{square} = 0.405 = 40.5 %. with residual 0.595 = 59.5 %

3.7.2 Result of Model-2 contribution

Contribution of learning motivation (X₁) directly correlates with vocabulary acquisition (X₃) as much as 0.287² = 0.0824 or 08.24 %

Contribution of learning motivation (X₁) directly correlates with concentration (X₂) as much as 0.451² = 0.2034 or 20.34 %

Contribution of concentration (X₂) directly correlates with vocabulary acquisition (X₃) as much as 0.410² = 0.1681 or 16.81 %

Contribution of learning motivation (X₁) and concentration (X₂) directly and simultaneously correlate with vocabulary acquisition (X₃) as much as R²_{square} = 0.181 = 18.1 %, with residual 0.819 = 81.9 %.

Table 12: Summary of decomposition from coefficient path; direct correlation between learning motivation (X₁), concentration (X₂), vocabulary acquisition (X₃) and Japanese listening comprehension skill.

Correlation Variable	Direct correlation	residual ε ₁ dan ε ₂	Total
X ₁ to Y	-0.311		-0.311
X ₂ to Y	0.309		0.309
X ₃ to Y	0.281		0.281
X ₁ , X ₂ , X ₃ to Y	0.405	0.595	1.00
X ₁ to X ₂	0.451		0.451
X ₁ to X ₃	0.287		0.287
X ₂ to X ₃	0.410		0.410
X ₁ , X ₂ , X ₃	0.181	0.819	1.00

4 DISCUSSION

Based on the results of overall hypothesis tests, we can come up with the following statements:

The results of the study showed that accent, pronunciation, speed of speech, insufficient vocabulary, different accent of speakers, lack of concentration, anxiety, and bad quality of recording were the major listening comprehension problems encountered by EFL Saudi learners. Understanding students' learning difficulties may enable EFL teachers to help students develop effective learning strategies and ultimately improve their English listening abilities. Suggestions are made for addressing problems regarding how teachers can help their students overcome listening comprehension problems. (Dr Arafat Hamouda, 2013)

Firstly, the hypothesis indicates significant correlation between learning motivation, concentration and vocabulary acquisition. This is based on hypothesis tests, that the variables are proven simultaneously or individually correlate with Japanese listening comprehension skill. Structural equation of path analysis between learning motivation, concentration, vocabulary acquisition and Japanese listening comprehension skill is $X_3 = 0,039 X_1 + 0,003 X_2 + 0,819 \epsilon_1$

The degree of contribution from learning motivation and concentration to vocabulary acquisition is 18.10%. Whereas 81.90% is residual of other variables apart from variables of learning motivation and concentration.

Indirect contribution of learning motivation variable (X_1) to vocabulary acquisition (X_3) is $0.287^2 \times 100\% = 8.24\%$. Variable of concentration (X_2) indirectly contributes as much as $0.451^2 \times 100\% = 20.34\%$. The indirect correlation between concentration and vocabulary acquisition is $0.410 \times 100\% = 16.81\%$. Learning motivation and concentration correlates with vocabulary acquisition as much as $(0.287 \times 0.451 \times 0.181) \times 100\% = 2.34\%$. Total correlation (both directly and indirectly) between learning motivation and vocabulary acquisition is $8.24\% + 2.34\% = 10.58\%$. Concentration directly contributes to vocabulary acquisition as much as $20.34\% + 2.34\% = 22.68\%$. Whereas learning motivation directly and indirectly contributes to concentration as much as $16.81\% + 2.34\% = 19.15\%$.

The findings show that firstly, in order to improve vocabulary acquisition, students majoring in Japanese language should have good learning motivation and concentration, which contribute 18,10% to increase vocabulary acquisition. Secondly, it confirms the hypothesis test that there are significant and simultaneous correlations between learning motivation, concentration, vocabulary acquisition and Japanese listening comprehension skill. The results of hypothesis are significant, for both simultaneously and individually. Learning motivation, concentration and vocabulary acquisition significantly correlate with Japanese listening comprehension skill. The structural equation of path analysis of learning motivation, concentration and vocabulary acquisition to Japanese listening comprehension skill is $Y = 0,025 X_1 + 0.026 X_2 + 0.044 X_3 + 0.595 \epsilon_1$

The simultaneous contribution degree of learning motivation, concentration and vocabulary acquisition to Japanese listening comprehension skill is 40.50%. While 59.50% is residual resulting from other variables apart from learning motivation, concentration and vocabulary acquisition. Other variables which can correlate with Japanese listening comprehension skill are some factors influencing the process of effective and efficient teaching, such as: physical and physiological factors, experience, attitudes, and environment.

Indirect contribution of learning motivation (X_1) to Japanese listening comprehension skill (Y) is $-0.311^2 \times 100\% = 9.67\%$. Variable of concentration (X_2) directly contributes $0.309^2 \times 100\% = 9.55\%$. On the other hand, variable of vocabulary acquisition (X_3) directly contributes $0.281^2 \times 100\% = 78.9\%$. The correlations between motivation, concentration, vocabulary acquisition and Japanese listening

comprehension is $(-0.311 \times 0.309 \times 0.405) \times 100\% = -3.89\%$.

The findings show that in order to improve Japanese listening comprehension skill, students should have learning motivation, concentration and vocabulary acquisition as the three of them contribute 40.50% to increase Japanese listening comprehension skill.

5 CONCLUSIONS

Based on the findings of research on students majoring in Japanese language at Riau University, the exogen variables consist of learning motivation (X_1), concentration (X_2) and vocabulary acquisition (X_3). While endogen variables consist of Japanese listening comprehension skill (Y). It can be concluded that: (1) There is positif correlation between learning motivation (X_1) and Japanese listening comprehension skill (Y) (2). There is positif correlation between concentration (X_2) and Japanese listening comprehension skill (Y). (3). There is positif correlation between vocabulary acquisition (X_3) and Japanese listening comprehension skill (Y). (4). There is positif correlation between learning motivation (X_1) and concentration (X_2). (5). There is positif correlation between learning motivation (X_1) and vocabulary acquisition (X_3). (6). There is positif correlation between learning motivation concentration (X_2) and vocabulary acquisition (X_3).

In summary, Japanese listening comprehension skill can be improved through learning motivation, concentration, dan vocabulary acquisition.

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