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8%FACTOR ANALYSIS INFLUENCING LEARNERS' SATISFACTIO...

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Analysis Factors Influencing the Learners' Satisfaction in L2 Writing Class

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Abstract: This research attempted to investigate learners' satisfaction in L2 writing class at higher education. The study focused on the factors influencing learners' satisfaction covering ten components, namely curriculum, learning material, classroom management, teacher's competence, teaching method, facilities, environment, grading system, helpful, and career. The questionnaire of 25 items was applied to collect data. Learners' response measured through an adapted questionnaire using Likert Scale. The participants were 95 learners majoring in English at IAIN Palangka Raya. The study used a purposive sampling technique. A pilot study was given to 24 respondents showing the Cronbach alpha value as 0.84 indicating that the questionnaire was in a good reliability. Then, factor analysis was applied to analyze data. The findings revealed that Kaiser-Meyer-Olkin value was $0.793 > 0.50$ and the significance of Bartlett's Test was $0.000 < 0.05$. There were three dominant factors of ten components being investigated. The first factor (35.93%) were curriculum, teaching method, facilities, environment, grading system, helpful, career. The second factor (12.18%) were learning material, class management; and the third factor (10.410%) was teacher's competence. All of the three factors contributed 58.53% influencing the learners' satisfaction. The rest (41.47%) was influenced by other factors out of study. It was suggested that lecturers should update the materials, organize the class well and improve their teaching competence. Further studies on learners' satisfaction in wider context and participants was recommended.

Keywords: *factor analysis, learners' satisfaction, writing class, higher education.*

Introduction

Learners' satisfaction is very important for surviving an university. It is known as predictor of outcomes. Although there is a number of research investigating learners' satisfaction all over the world (Greiner, 2000; Knight, 2002; Mai, 2005; Deshields et al, 2005; Rashidi & Moghadam, 2014), there was still limited number of research examining the learners' satisfaction on L2 writing class in Kalimantan context. Therefore, the research tries to fill those gaps. Elliot and Shin (2002, p. 198) define learner satisfaction as the favorability of a learners' assessment of outcomes and experiences related with educational service. In addition, satisfaction is the learners' perceived educational experience meets the desire (Demaris & Kritsonis, 2008, p. 5). Moreover, satisfaction is the willingness to go on the process of learning (Rashidi & Moghadam, 2014). In terms of L2 learning, learners' satisfaction is resulted from the assessment of experience with the service accepted (Elliot & Healy, 2001). Gao (2010) states that learners having appropriate satisfaction with their

language learning progress tend to be more successful (p. 150). Deshields et al (2005) confirm that the college institutions are emphasizing on fulfilling the learners' facility and desire. Such factors include learner achievement, college facility, conducive atmosphere for learning, reputation, accreditation, curriculum design, teachers expertise and grading system.

The study conducted by Carey, Cambiano and De Vore (2002) confirmed that satisfaction included the learners' perception and experiences. Then, Mai (2005) investigated the learner satisfaction. The finding revealed that the impression of the college, education quality, lecturers' competence and interest in course, the quality of information technology equipment and career were the most powerful predictors of the learners satisfaction. Then, Rashidi & Moghadam (2014) found that learner satisfaction can influence to their desire to go on learning. Also, Aldemir and Gulcan (2004) investigated the Turkish learners' satisfaction. The finding confirmed many Turkish university learners, the instructors' quality, education, handbooks and information on attending the college regarded to be the most influential factors of satisfaction. Next, Martirosyan, Saxon, and Wanjohi (2014) confirmed the learners with less satisfaction tend to have less academic achievement. Zaheer and Rehman (2010) revealed some factors in accordance with learners satisfaction, namely, lecturers' competence, learning materials, classroom atmosphere and technological equipment for class. (Greiner, 2000; Knight, 2002) also found service quality, teaching quality, and the engagement quality are line with the learners' satisfaction. Then, Hennig et al. (2001) confirmed teaching quality and learners' satisfactions are vital components to maintain the learners' interest. Holdford and Reiders (2001) suggests three things: school, faculty and administration dimensions. Next, Jannati and Marzban (2015) investigate EFL learners' perception of learning environment. The finding confirmed a high relationship between the learners' satisfaction and achievement..

Then, Garcl a-Aracil (2009) revealed that contacts with alumni learners, learning materials, learning facilities, libraries, and teaching quality give facilitative effect on the learners' satisfaction. Then, Karna & Julin (2015) revealed learners got satisfaction with some factors in connection with conducive environment of learning, park area and teaching facilities. In addition, Douglas (2006) revealed that physical facilities did not give significant effect to learners' satisfaction. Andrea and Benjamin (2013) revealed that learners perceive accommodation, as most influential predictor. Next, Kanan & Baker (2006) revealed that academic programs give influence on learners' satisfaction. In addition, Pathmini, et al. (2014) found reliability and empathy as main influential factor of learner satisfaction. Next, Farahmandian, et al. (2013) revealed that academic advising, curriculum, teaching quality and university facilities gave facilitative effect on learners' satisfaction. Alvis and Rapaso (2006) revealed that university image gives effect on learner satisfaction and loyalty.

To conclude, the literature indicates learners' satisfaction are significantly related to their academic performance. Yu and Dean (2001) found that emotions and cognitive component of satisfaction have strong relationship with learner loyalty. Palacio et al (2002) investigated the learner satisfaction on Spanish university learners. The finding showed that university image has great impact on the learner satisfaction. Then, Navarro et al (2005) investigated learners' satisfaction on the Spanish university learners. The finding revealed that the teaching staff, and the teaching strategies were key factors for achieving learner satisfaction and loyalty. Furthermore, Holford and Patkar (2003) found five items of

learners' satisfaction such as college facilities, learning process, curriculum, and teaching implementation. Different with the above studies, this study investigated the learning satisfaction in terms of ten factors, namely (1) curriculum, (2) learning material, (3) classroom management, (4) teacher's competence, (5) teaching method, (6) facilities, (7) environment, (8) grading system, (9) helpful, and (10) career. Therefore, the single research question is: "What are the dominant factors influencing the learners' satisfaction? This study investigates the most dominant factor of learners' satisfaction in L2 writing class.

Method

This part covered the research design, participants, procedures, and analysis of data. The study used survey research, since it studied a sample to investigate the distribution of variables (Ary, Donald, Lucy, C.J. Chris, S, and Asghar R, 2010, p. 651). This study attempted to measure the factors influencing learners' satisfaction covering ten components, namely curriculum, learning material, classroom management, teacher's competence, teaching method, facilities, environment, grading system, helpful, and career. A self-developed questionnaire of 25 items of ten variables was used for collecting data. Learners' response was counted through likert scale. The sample size of the study consisted of 95 L2 learners majoring in English at IAIN Palangka Raya. The study used a purposive sampling technique to determine the sample of the study. A pilot study was given to 24 respondents showed the Cronbach alpha value as 0.84 indicating that the questionnaire was in a good reliability. Then, the data were analysed using factor analysis of SPSS program.

Procedures

To develop the questionnaire, the stages below were taken: (a) First, 95 L2 learners were taught during the whole semester in L2 writing class. (b) The questionnaire was given to pilot study with 24 learners in order to make sure its comprehensibility and clarity. The output revealed that the questionnaire fulfilled validity. The questionnaire was reduced to 25 items of ten variables. At the end, the 25-item questionnaire was given to 95 L2 learners.

Result

To respond the single RQ: What are the dominant factors Influencing the Learners' Satisfaction? the factor analysed was applied. To begin with, Kaiser-Meyer-Olkin Measure (KMO) and Bartlett's Test was considered, as described in Table 1.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.793
Bartlett's Test of Approx. Chi-Square	211.570
Sphericity	df
	Sig.
	45
	0.000

The output found that the value of Kaiser-Meyer-Olkin was $0.793 > 0.50$ and the significance of Bartlett's Test was $0.000 < 0.050$. It was said that the factor analysis could be continued to the next statistical calculation. The next step was to find the Measures of Sampling Adequacy (MSA) in Anti-image Correlation, as described in Table 2.

Table 2. Anti-image Matrices

		Curriculum	teacher's competence	learning material	class management	Teaching Method	facilities	environ ment	grading System	helpful	career
Anti- image Covarian ce	Curriculum	.426	-.065	-.025	-.014	.000	-.112	-.103	-.156	-.084	-.183
	teacher's competence	-.065	.724	-.007	-.079	.016	-.015	-.227	-.104	.061	.122
	learning material	-.025	-.007	.753	-.242	-.034	-.034	.023	-.029	-.126	.074
	class management	-.014	-.079	-.242	.722	.044	-.150	.078	.041	-.106	-.029
	Teaching Method	.000	.016	-.034	.044	.958	-.057	.020	.044	-.118	-3.990E-6
	facilities	-.112	-.015	-.034	-.150	-.057	.639	-.110	-.075	.052	-.074
	environ ment	-.103	-.227	.023	.078	.020	-.110	.570	.080	-.179	-.031
	grading System	-.156	-.104	-.029	.041	.044	-.075	.080	.619	-.134	-.068
	helpful	-.084	.061	-.126	-.106	-.118	.052	-.179	-.134	.580	-.004
	career	-.183	.122	.074	-.029	-3.990E-6	-.074	-.031	-.068	-.004	.696
Anti- image Correlati on	Curriculum	.826 ^a	-.117	-.044	-.025	.000	-.214	-.210	-.303	-.169	-.336
	teacher's competence	-.117	.735 ^a	-.010	-.109	.019	-.023	-.353	-.155	.095	.172
	learning material	-.044	-.010	.760 ^a	-.328	-.040	-.048	.035	-.042	-.190	.103
	class management	-.025	-.109	-.328	.731 ^a	.053	-.221	.122	.062	-.163	-.041
	Teaching Method	.000	.019	-.040	.053	.613 ^a	-.073	.028	.057	-.159	-4.888E-6
	facilities	-.214	-.023	-.048	-.221	-.073	.860 ^a	-.182	-.119	.085	-.111
	environ ment	-.210	-.353	.035	.122	.028	-.182	.754 ^a	.134	-.312	-.049
	grading System	-.303	-.155	-.042	.062	.057	-.119	.134	.824 ^a	-.223	-.104
	helpful	-.169	.095	-.190	-.163	-.159	.085	-.312	-.223	.800 ^a	-.006
	career	-.336	.172	.103	-.041	-4.888E-6	-.111	-.049	-.104	-.006	.791 ^a

a. Measures of Sampling Adequacy(MSA)

The Anti-image Matrices was used to determine which variables that appropriate to be used in factor analysis. The output revealed that the values of Measures of Sampling Adequacy (MSA) as illustrated in Table 3.

Table3. The value of each variable

Components	Value
Curriculum	0.826
teacher's competence	0.735
learning material	0.760
class management	0.731
Teaching Method	0.613
facilities	0.860
environment	0.754
grading System	0.824
helpful	0.800
career	0.791

Since the values of all components were higher than 0.50, the analysis could be continued to the next step, that was to determine some variables observed influenced the learners' satisfaction, as in Table 4.

Table 4. Communalities

Components	Initial	Extraction	Percentage of varians of variable
Curriculum	1.000	.739	73.9%
teacher's competence	1.000	.644	64.4%
learning material	1.000	.701	70.1%
class management	1.000	.621	62.1%
Teaching Method	1.000	.457	45.7%
facilities	1.000	.477	47.7%
environment	1.000	.578	57.8%
grading System	1.000	.494	49.4%
helpful	1.000	.534	53.4%
career	1.000	.609	60.9%

The output indicated some variables that be further obseved that had score higher than 0.50. based on the outcome, there were some varaibles influenced the learners' satisfaction. The next step was to determine the value of variable to be analysed, as in Table 5.

Table 5. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.593	35.933	35.933	3.593	35.933	35.933
2	1.219	12.188	48.122	1.219	12.188	48.122
3	1.041	10.410	58.532	1.041	10.410	58.532
4	.993	9.927	68.459			
5	.743	7.431	75.890			
6	.658	6.583	82.473			
7	.550	5.500	87.973			
8	.530	5.299	93.273			
9	.342	3.425	96.697			
10	.330	3.303	100.000			

The table showed the value of variable to be analysed. In this case, there were two kinds of analysis. They were Initial Eigenvalues and Extraction Sums of Squared Loadings. Initial Eigenvalues showed the factors constructed. There were ten components. Meanwhile, the Extraction Sums of Squared Loadings showed the number of variance or variables constructed. Each factor Eigenvalues was higher than 1. There were three factors. (a) The first factor eigen values was 3.593 with variance 35.933%. This was able to explain the variance about 35.933%. (b) The second factor eigen values as many as 1.219 with variance 12.188%. This was able to explain the variance about 12.188%. (c) The third factor eigen values as many as 1.041 with variance 10.410%. This was able to explain the variance about 10.410%. If the three factors were added, they could explain about 58.53% of variance. The eigen values described the importance of each factor in calculating from 10 variables analysed. All variables were counted as follows: (a) $3.593/10 \times 100\% = 35.93\%$; (b) $1.219/10 \times 100\% = 12.19\%$; and (c) $1.041/10 \times 100\% = 10.41\%$. The total percentage was 58.53%. The number of factors constructed could also be seen from Scree Plot as described in Figure 1.

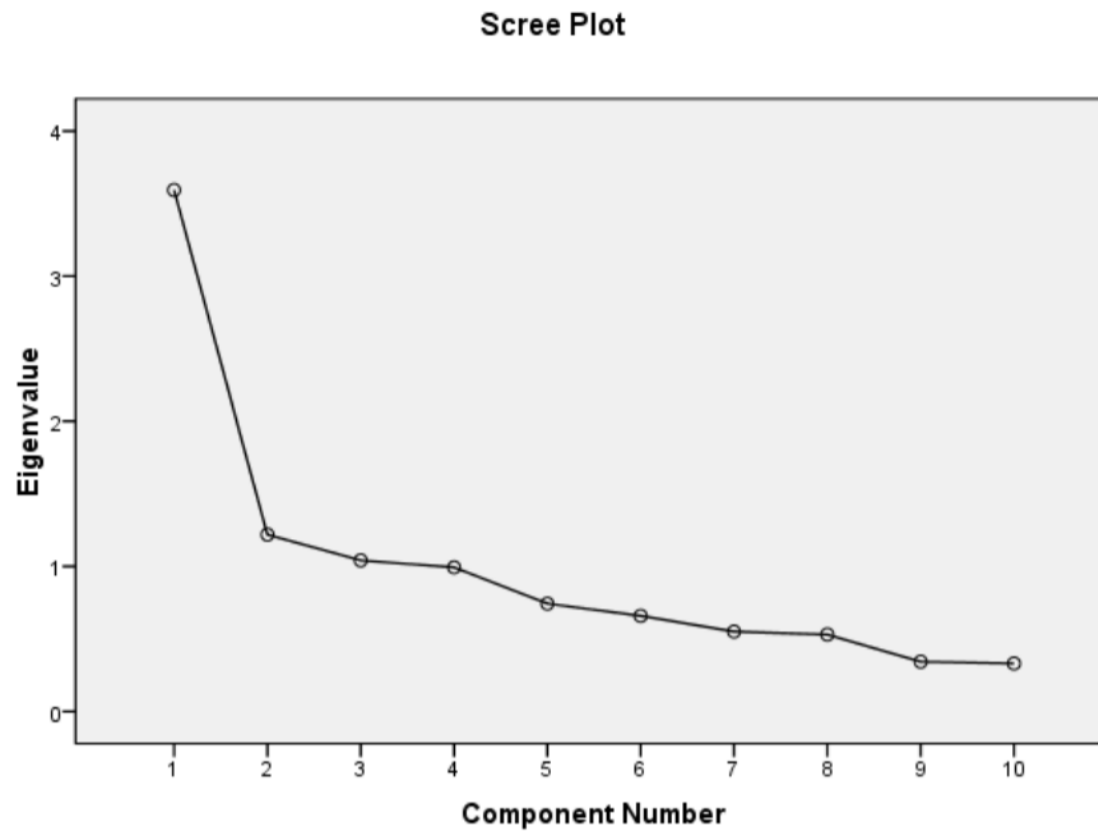


Figure 1. The Scree Plot

The scree plot indicated the number of factors constructed. The figure indicated that there were three components having higher score than 1. The next procedure was to determine the correlation coefficient of each variable, as in Table 6.

Table 6. Component Matrix^a

	Component		
	1	2	3
Curriculum	.825	-.225	.085
teacher's competence	.511	-.122	-.606
learning material	.456	.699	-.061
class management	.498	.603	-.103
Teaching Method	.155	.217	.621
facilities	.689	-.033	.042
environment	.669	-.256	-.255
grading System	.677	-.176	.072
helpful	.704	.152	.122
career	.544	-.365	.424

The output indicated the correlation coefficient or relationship of each variables with the factor constructed. For example, curriculum had 0.825 with component 1 and -0.225 with component 2 and 0.085 with component 3. Teacher's competence had 0.511 with component 1 and -0.122 with component 2 and -0.606 with component 3. Learning

material had 0.456 with component 1 and 0.699 with component 2 and -0.061 with component 3; and so forth. The next step was to put each component to the factor constructed, as in Table 7.

Table 7. Rotated Component Matrix^a

	Component		
	1	2	3
Curriculum	.838	.171	.083
teacher's competence	.364	.212	.683
learning material	.088	.832	-.034
class management	.156	.772	.033
Teaching Method	.183	.177	-.626
facilities	.627	.283	.062
environment	.638	.119	.396
grading System	.684	.148	.063
helpful	.580	.442	-.054
career	.727	-.128	-.252

The output indicated: (a) The variable of curriculum belonged to the first factor, since the r value was the highest (0.838). (b) The variable of teacher's competence belonged to the third factor, since the r value was the highest (0.683). (c) The variable of learning material belonged to the second factor, since the r value was the highest (0.832). (d) The variable of class management belonged to the second factor, since the r value was the highest (0.772). (e) The variable of teaching method belonged to the first factor, since the r value was the highest (0.183). (f) The variable of facilities belonged to the first factor, since the r value was the highest (0.627). (g) The variable of environment belonged to the first factor, since the r value was the highest (0.638). (h) The variable of grading system belonged to the first factor, since the r value was the highest (0.684). (i) The variable of helpful belonged to the first factor, since the r value was the highest (0.580). (j) The variable of career belonged to the first factor, since the r value was the highest (0.727). Based on the explanation above, it was inferred that (a) factor 1 covered the variables of Curriculum, teaching method, facilities, environment, grading system, helpful, career. (b) factor 2 covered learning material, class management; and factor c covered teacher's competence.

The next step was to give name of each factor, as in Table 8.

13 **Table 8. Component Transformation Matrix**

Factor	1	2	3
1	.876	.461	.138
2	-.426	.877	-.224
3	.224	-.137	-.965

The output showed the result of varimax rotation. The variables distributed to each constructed factor and then gave the name of each factor. For example factor 1 consisted of Curriculum, teaching method, facilities, environment, grading system, helpful, career. This was called Quality and facility factor. Factor 2 consisted of learning material, class management. This was called Material and management factor. Factor 3 consisted of teacher's competence. It was called competence factor. The output indicated that the r value of component 1 was $0.876 > 0.5$; the r value of component 2 was $0.877 > 0.5$; the r value of component 3 was $0.224 > 0.5$. Since they were higher than 0.5, it was said that the three components represented the ten variables observed.

Discussion

The finding revealed that there were three factors influencing the learners' satisfaction in L2 writing class at higher education. They were: (a) Quality and facility factor consisting of Curriculum, teaching method, facilities, environment, grading system, helpful, career. (b) Material and management factor consisting of learning material, class management. (c) competence factor consisting of teacher's competence. The most dominant factors was curriculum, teaching method, facilities, environment, grading system, helpful, and career, and followed by learning material, class management, and teacher's competence. According to the results, how to design English curriculum with matched with today's learner need was the primary consideration. Besides, the class should provide adequate facilities, conducive atmosphere, updating learning materials, and improving teacher's competence. The other factors, teaching methods; classroom equipment, helpful to learners and relating to the learners' career were also needed to be enhanced. Thus, this finding verified some factors contributing to learning satisfaction at higher education. According to finding, designing curriculum and teachers' expertise in class was the most dominant factor on the learners' satisfaction. Meanwhile, learning material, class management were the next important factors and teacher's competence was the least influential factor. The finding was in accordance with Marzo-Navarro *et al.*, (2005) who confirmed that satisfaction explained the intention to recommend the courses to others. This finding was also in line with Holford and Patkar (2003). The finding was also supported by (Greiner, 2000; Knight, 2002; Mai, 2005; Efe, 2009; Heikkilä & Lonka, 2006; Schaal, 2010; Waldrip & Fisher, 2003; Rashidi & Moghadam, 2014; Alvis, H. & Rapaso, M., 2006; Andrea, I. & Benjamin, S., 2013; Douglas, J., Douglas, A. & Barnes, B., 2006; Farahmandian, S., Minavand, H. & Afshard, M., 2013; and Hanssen, T.-E. S. & Solvoll, G., 2015; Karna & Julin, 2015).

Conclusion and Recommendation

The finding confirmed that the most dominant factors were was curriculum, teaching method, facilities, environment, grading system, helpful, and career, and followed by learning material, class management, and teacher's competence. According to finding, update curriculum, teacher expertise to help learners were most dominant factor on the learner satisfaction in L2 writing class. In the light of the research findings, it was recommended that the curriculum be designed to met future needs. The learning materials were perceived to be well organized and provide an important foundation for the learners' future professional practice. However, learners deemed it a necessity to have greater access

to internet in the classrooms. Therefore, efforts should be performed for improving the education quality. Curriculum should be revised to overcome future needs. Conducive modern classroom atmosphere should be created in all college buildings. The college facilities should be upgraded by using high technology, such as internet connection, HDMI, and other technological tools for modern class. The university accreditation should be improved better to be excellent. Research collaboration, international conferences, academic writing, international publication should be performed.

Some limitations should be considered. This study was to investigate the learners' satisfaction in L2 writing class at higher education with only 95 participants. Therefore, the results could not be generalized to all L2 learners majoring English. It also focused on the learners' satisfaction in L2 writing class. In addition, some other aspects, such as college fee, accreditation, lecturers' publication, and other academic facilities were excluded in this study. Since the study applied quantitative paradigm and it could not observe in depth, further studies on learners' satisfaction with different paradigm in wider context and participants was recommended.

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