# DYNAMIC ASSESSMENT OF EFL LEARNERS' ACADEMIC WRITING SKILLS AND WRITING ABILITY

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Abstract: Logical order refers to the arrangement or sequence of information in a text to create a clear and easily understandable flow of ideas for the reader. Writing ability involves the capacity to organize ideas effectively, including in creating logical order. This encompasses skills such as connecting paragraphs, composing arguments chronologically or based on urgency, and creating a coherent flow of thought from beginning to end. This research was carried out to investigate factors that can be formed from research indicators related to writing skills and writing ability and how the formed factors influence writing skills and writing ability. The participants in this study were 100 undergraduate students aged 18 to 21 at Indonesian Islamic University, participating in research number 94, consisting of 85 females and 15 males. Two different data analysis were performed: the Hierarchical Factorial Test to identify factors that can share meaningful correlation and a multiple regression test to examine the effect of an independent variable on the dependent variable. The findings showed that all variables of this research including content, organization, vocabulary, language, mechanics, thesis statement, blueprint, main idea, supporting, link, linker, fluency, logical order, rewordings, and clincher are contributing factors to the dependent variables. Sig value was lesser than 0.05, implying that the seven main factors had simultaneous and significant effects on the logical order variable. This research is expected to provide more structured feedback and develop assessment rubrics that encompass aspects of content, organization, language usage, and logical sequence in writing.

Keywords: dynamic assessment, writing skill, writing ability, academic writing



#### INTRODUCTION

Education practitioners have been discussing about the use of large-scale, standardised test called the Dynamic Assessment (DA) as an assessment that delivers insights that could not be gained using most of other methods. Unlike other types of assessment, DA is primarily concerned with the development of new skills. DA draws from a variety of sources and challenges traditional teaching and assessment frameworks, proposing learning and evaluation which must be regarded as a fully integrated totality instead of separate processes. According by Poehner (2008), this integration occurs when an intervention gets into the assessment system in order to reinterpret people' skills, resulting in greater levels of functioning. In the context of teaching English as a foreign language (TEFL), dynamic assessment has been one of the most popular alternative evaluations.

Dynamic assessment (DA) is the integration of assessment and training into a single, continuous activity. The combination of teaching and evaluation enhances linguistic skills by giving guidance that is targeted to the needs and abilities of a single student or a group of students (Lantolf & Poehner, 2004). A teacher can accommodate students' language development in a classroom DA by first identifying students current level of knowledge and skills. Dynamic assessment is described as a procedure for determining distinctions and the consequences of that knowledge for education. It is a type of evaluation that incorporates intervention into the testing process, where students' nonperforming language abilities, particularly their writing ability are identified and addressed.

Writing skill refers to the technical abilities and specific expertise needed to produce written texts. This includes aspects such as grammar, spelling, sentence structure, and choosing the right words. Writing skills may encompass the ability to use punctuation correctly, organize ideas chronologically, or write sentences with clarity and conciseness. Writing ability encompasses the capacity to generate texts that are effective and meaningful as a whole. It involves the utilization of writing skills but also incorporates elements of creativity, clarity of thought, and the ability to convey messages effectively to the audience. Writing ability involves not only technical skills but also the ability to logically structure ideas, compose persuasive arguments, and adapt writing style according to the communicative goal.

Therefore, the difference between writing skill and writing ability can be observed. Writing skill is more focused on technical aspects, such as grammar and spelling, while writing ability involves the capability to organize ideas effectively and convey messages clearly. Writing skill can be measured through specific skills, whereas writing ability concerns the holistic use of these skills to achieve broader communicative goals. Writing skill can be taught and enhanced through technical practice and learning, while writing ability includes elements that may be more challenging to teach, such as creativity and clarity of thought.

Logical order refers to the arrangement or sequence of information in a text to create a clear and easily understandable flow of ideas for the reader. Logical

order helps build a coherent structure and provides meaning that is easily grasped. Aspects such as grammar, sentence structure, and the use of punctuation are writing skills that can aid in creating logical order. For example, the ability to compose well-structured sentences and adhere to grammar rules can support the formation of a clear flow of thought. Writing ability involves the capacity to organize ideas effectively, including in the creation of logical order. It encompasses skills such as connecting paragraphs, composing arguments chronologically or based on urgency, and creating a coherent flow of thought from beginning to end. In the context of writing skills, logical order is key to presenting information or arguments systematically and comprehensibly for the reader.

Both writing skill and writing ability contribute to the author's capability to ensure that the structure of the writing creates a logical and effective flow of ideas. The adept use of writing skills and writing ability ensures that the message or information conveyed by the author is well-received and thoroughly understood by the audience. This scheme allows learners to gain assistance when they run into problems. In DA, evaluation and teaching are not distinct, instead, they are combined for more optimal results.

Dynamic assessment is a method that simulates a teacher's perception of dynamic assessment in a specific classroom setting. Thus, dynamic assessment is a rethinking of teaching, assessment, and development rather than a pre-specified system of testing that must be followed precisely. Thus, its procedures should be focused on the classroom context. Dörfler et al., (2009) stated that two important factors are taken into consideration in the implementation of DA: (a) generating the direction and guidance based on students' potentials and (b) assessing learners' achievement, particularly the one that represents the DA modifications. Poehner (2009) stated that there seems to be a limitation of scholarly investigation on the application of DA within L2 learning in the extant DA literature. In light of this issue, Haywood & Lidz (2007) suggested that providing principled mediation in DA-based research has always been a source of worry, resulting in a low frequency of empirical study. To address the gap, this study was performed to examine the implementation of DA in second language course and how it affected the perspective and, in particularly, the delivery of mediation throughout assessment. Some prior studies have also investigated various factors related to the effects of DA.

Davin & Donato (2013) carried out a to determine whether learners were able to mediate their peers during this task and if so, whether this mediation might be traced back to participation in classroom DA. Students relied on a variety of sources, according to the findings. To fulfill the mission, we employed our combined expertise. Students did not use proper ways of communication, mediation during DA, as well as features like as repetition and the use of the first language peer scaffolding appeared. Furthermore, Ebadi & Rahimi (2019) investigated the effect of online dynamic assessment (DA) on EFL learners' academic writing skills. During one individualized and online simultaneous, DA trainings through Google Docs showed that the learners had some difficulty transferring some aspects of their gained writing abilities to more challenging circumstances during the TR sessions. The learners' favorable opinions

among the influence of online DA on academic writing abilities were underlined by thematic analysis which was utilized to analyze the interview data.

Rashidi & Bahadori Nejad (2018) also carried out the study on DA. This study was undertaken to explore the practicality and the effect of dynamic assessment on L2 writing ability of Iranian English as a foreign language (EFL) learners. The findings revealed that dynamic assessment had a substantial impact on participants' scores, improved their writing skill, and revealed that the experimental group's dynamic assessment scores were typically higher than the control group's. Based on the interview, dynamic evaluation might help students enhance their EFL process writing and writing confidence. It also increased their desire to improve their writing skills. Meanwhile, several studies have indicated the presence of DA influence on writing performance. (Shrestha & Coffin, 2012) have demonstrated the facilitative function that DA writing performance. However, conducting Dynamic may improve Assessment (DA) research proves to be challenging due to a lack of proficiency in content writing, organizational skills, and the necessary approaches. Therefore, this study is undertaken with the aim of gaining a more comprehensive understanding of these challenges. By conducting this research, it is anticipated that a more detailed identification of why Dynamic Assessment research can be challenging will emerge. Additionally, the findings of this study are expected to provide valuable insights for improving the quality of Dynamic Assessment research in the future.

# **Dynamic Assessment Concept**

According to Haywood & Lidz (2007), DA was assigned the term dynamic even though it was established to assess procedures, (i.e., the appearance of teaching inside the assessments and the changing activities). There are two key teaching components in DA. First, it can provide the chance to learn and it incorporates education and feedback into the testing process (Elliott, 2003). DA is used to track, intervene and correct behaviors, while also documenting the learning process. DA occurs through moderation, which may be the change from particle regulation to self-regulation (i.e., explicit or implicit cooperation or scaffolding by parents, teachers, or peers, having voluntary control over the L2 to govern cognition).

DA can take place through ZPD where students use their background knowledge to create something novel (Nassaji & Tian, 2010). There are two main models of DA: interventionist and interactionist models. Interventionist model is quite similar to current standardized tests focusing on measurement. A pre-test-mediation-post-test pattern is common in interventionist models. Meanwhile, interactionist model is more engaged in the interaction that occurs between the mediator and the learner and, thereby it concerns less on assessing ability and more concerned with facilitating student growth.

DA is a type of assessment that emphasizes on students' weak components of language abilities, especially their writing ability. Hence, it ensures that students obtain helps when they experience problems. The evaluation in DA

is not separated from the training as they are integrated to gain more optimal results. As Haywood et al., (1990) phrased it, DA stresses ideal performance under certain conditions rather than just recognizing the present level of performance. The majority of DA techniques have one thing in common: they treat learning and evaluation as one activity with the purpose of identifying teaches time and encouraging growth within this regard. The quality of the intervention they recommend, as well as the technique of continuous instruction in DA sessions, are the key sources of difference throughout DA procedures (Lantolf & Poehner, 2004).

In general, DA is a regular measurement and growing procedure that takes into account the individual or group (or group's) domain of idea of the zone as Lantolf & Poehner (2004) described. Lantolf and Poehner interpreted DA as one's zone of proximal development, which is a key concept in Vygotsky's Socio Cultural Theory (SCT). This definition also demonstrates that perhaps the goal of DA is to promote the development of test - takers rather than to assess their performance at a certain particular moment in time.

# **Dynamic Assessment of Writing**

There appears to be a dearth of studies among DA of writing in terms of the content, organizational skills, and strategy. Shrestha & Coffin (2012) have explored the efficacy of tutor mediation in the form of text-based discussion concerning assignments in the context of academic writing growth among undergraduate business studies students who are enrolled in open and remote learning. Moreover, they discovered DA could assist in identifying and responding to the field where learners require the greatest assistance. A learning theory driven method like DA may contribute to the academic writing growth of undergraduate students. The concept of the zone of proximal development is integrated into dynamic assessment through supervision. During dynamic assessments, a computer-based (tutorial) system frequently assists the user by using a variety of approaches such as aids, instructions, feedback, or prompts. It is clear that the use of aid in dynamic assessments aims to design the best possible advice inside a specific dynamic assessment in order to take optimally explore ones' potentials.

The most existing practices toward DA consists of three major phases: a traditional evaluation of the abilities in concern, a response aimed at difficult obstacle of learner performance, and a final assessment that mirrors the previous one (Haywood & Lidz, 2007). The difference between pre- and post-intervention levels is used to determine whether the abilities being measured were within individual's ZPD. These observations frequently lead to longer-term teaching programs. However, this strategy is rather product-focused than method-focussed. As a method that reflects a principal's assessment in a classroom setting, DA reconsiders the teaching, assessment, and improvement. As a result, its procedures should be focused on the context of the classroom.

During the DA process in this study, students were provided with teacherstudent dialogues or mediational instruments (e.g., guidance, materials such as books, etc.) and without any assessment of their progress. Furthermore, the current study developed a foundation for the DA of writing in order to combine the assessing and assisting aspects of DA. Based on this view, writing could be measured by means of grammar, vocabulary, content, and organization. This research was primarily concerned on the writing skills and writing ability. The goal of this study was to examine dynamic assessment of EFL learners' academic writing skills towards five indicators namely content, organization, vocabulary, language, mechanics and writing ability towards ten indicators namely thesis statement, blueprint, main idea, supporting, link, linker, fluency, logical order, rewordings, and clincher.

This study involved 100 students who were assigned into experimental and control groups with pre-test and post-test treatments to assess theese following predetermined questions.

- 1. What are the factors can be formed from research indicators related to writing skills and writing ability ?
- How do the formed factors affect writing skills and writing ability?

#### **METHOD**

# **Participants**

This study involved 100 undergraduate EFL students aged between 18 to 21 years old at Indonesian Islamic University (85 females and 15 males). Students subsequently participated in a Basic English course with four hours of regular training. They were selected for the inquiry using nonprobability convenient sampling. Nonprobability convenient sampling is a sampling method in which subjects are chosen for their ease of access or availability, rather than based on random probability. Hence, no screening process was performed.

## Instruments

A questionnaire was developed to measure students' writing skills and writing ability based on fifteen indicators. There were five indicators of writing skills variable namely including content, organization, vocabulary, language, and mechanics, and ten indicators of writing ability variable namely thesis statement, blueprint, main idea, supporting, link, linker, fluency, logical order, rewordings, and clincher.

#### **Materials**

To operationalize the notion of ZPD in the DA of writing, as well as to actualize feedback and mediation, a framework was developed as the foundation for teaching and evaluation in the DA. The procedures section then provide comprehensive review of the framework. In addition, the instructor's mediation in the two DA administrations was guided by a written handout consisting of guidelines and examples on how to compose a five-paragraph essay.

## **Procedures**

The Michigan exam of English language competence was used to confirm that the students had similar levels of English language understanding. After that,

a take-home writing pre-test was administered, which results were scored based on the indicators. The same grading technique was applied for all four writing tasks, with the emphasis on the proper use of content and organization abilities and tactics. Then, the students went through two levels of DA after receiving three weeks of training on writing abilities and tactics (i.e., DA1 and DA2). They were asked to produce an essay covering all of the writing abilities and tactics they gained during the teaching sessions before the first DA.

Students' writing products were then evaluated and scored based on how well the abilities and strategies were applied. Essays were then distributed to students for the DA1. A two hour classroom activity was performed to discuss about students' papers. After completing DA1 and DA2, the students were given a writing posttest to assess if DA had any influence on their internalization of writing skills and abilities.

# **Statistical Analysis**

To answer the research questions, two distinct types of data analysis were performed. The main data analysis used in this research was the the Hierarchical Factorial Test that aimed to identify factors that can explain the relationship or correlation between the various independent indicators observed. Factor analysis is an extension of principal component analysis that can identify a relatively small number of factors that possibly explain a large number of interrelated variables and which variable has the strongest correlation. Each group of variables represents a basic construct called a factor. To improve the interpretive power of factors, a transformation must be carried out on the loading matrix. The transformation was carried out by rotating the matrix using the varimax, quartimax, equamax, quartimin, biquartimin and covarimin and oblimin methods.

The varimax method aims to maximize the variance of squared factor loadings, resulting in cleaner or more separate individual factors. The quartimax method also aims to maximize variance but focuses more on the variance of each variable associated with only one factor. The equamax method is a combination of varimax and quartimax, attempting to strike a balance between maximizing total variance and maintaining a simple factor interpretation.

The quartimin method, like quartimax, aims to maximize variance while retaining correlations between factors. The biquartimin method is a variation of quartimin, emphasizing the minimization of cross-factor correlations. The covarimin method aims to minimize the covariance between the resulting factors, making them less interrelated. On the other hand, the oblimin method does not maximize or minimize specific variances or covariances. instead, oblimin retains correlations between factors. There are two types of oblimin: oblique and promax. The oblique method allows correlations between factors, while promax provides greater control over the level of inter-factor correlation.

The main purpose of factor analysis is to explain the structure of the relationship among many variables in the form of factors or latent variables or formed variables. Factors formed are random quantities that previously could not be observed or measured or determined directly.

After the hierarchical factorial test was carried out, a multiple regression test was performed as a statistical inference tool that examined the effect of an independent variable on the dependent variable. Basically, multiple regression is a prediction or forecasting model using interval or ratio scale data where there is more than one predictors.

#### **RESULTS**

# **Descriptive statistics**

Descriptive statistics is a preliminary data analysis provided an overview of the variables that have been measured. Descriptive statistic analysis measures data concentration (Mean, Mode, Median, etc.) and data distribution (standard deviation, variance, etc.). The average scores and standard deviation of all variables in the study are presented in Table 1.

No	Indikator	Pre-t	est	Post-test		
NO	Indikator	Mean	SD	Mean	SD	
1	Content	19.87	5.42	19.96	5.43	
2	Organization	12.97	3.78	13.09	3.81	
3	Vocabulary	12.83	3.78	12.85	3.78	
4	Language	14.53	6.60	14.56	6.60	
5	Mechanics	3.45	1.03	3.46	1.03	

Table 1. Descriptive Statistics of Writing Skills Variable

Table 1 presents the mean and standard deviation of the Writing Skills variable in the pre-test and post-test treatments. Students' writing skills were measured based on five indicators: Content, Organization, Vocabulary, Language, and Mechanics. The results showed increases in these aspects in the post-test. In other words, all indicators have increased on average from pre-test to post-test.

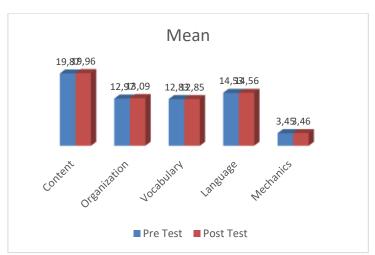


Figure 1. The Mean Value of Each Indicator of the Writing Skills Variable

Table 2. Descriptive Statistics of the Writing Ability Variable

No	Indikator	Pre-t	est		Post-test	
NO	indikator	Mean	SD	•	Mean	SD
1	Thesis Statement	2.77	1.22		2.80	1.22
2	Blueprint	3.16	1.22		3.18	1.22
3	Main Idea	2.91	1.19		2.92	1.20
4	Supporting	3.13	1.13		3.15	1.13
5	Link	3.32	1.17		3.33	1.16
6	Linker	3.17	1.22		3.19	1.22
7	Fluency	3.11	0.99		3.13	0.99
8	Logical Order	3.03	1.11		3.05	1.12
9	Rewordings	3.04	1.12		3.06	1.12
10	Clincher	2.81	1.10		2.82	1.11

Table 2 describes the mean and standard deviation of the Writing Ability variable in the pre and post treatments. The Writing Ability variable was measured using 10 indicators: Thesis Statement, Blueprint, Main Idea, Supporting, Link, Linker, Fluency, Logical Order, Rewordings, and Clincher. The scores of these 10 indicators in the post-test were higher than the ones of the pre-test. It can be concluded that all indicators of writing ability have increased on average from pre-test to post-test.

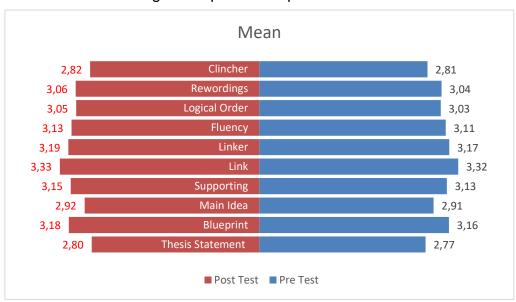


Figure 2. The Mean Value of each Indicator of the Writing Ability Variable

#### **Hierarchical Factorial Test**

After analyzing the statistic description of all indicators, a hierarchical factorial analysis was carried out to obtain the main factors that affected the writing skills. The results of the hierarchical factorial test are shown in Table 3.

Table 3. Value of Communalities

	Initial	Extraction
Content	1.000	0.675
Organization	1.000	0.684
Vocabulary	1.000	0.543
Language	1.000	0.775
Mechanics	1.000	0.626
Thesis_Statement	1.000	0.521
Blueprint	1.000	0.588
Main_Idea	1.000	0.652
Supporting	1.000	0.695
Link	1.000	0.487
Linker	1.000	0.724
Fluency	1.000	0.727
Logical_Order	1.000	0.623
Rewordings	1.000	0.701
Clincher	1.000	0.532

Communalities value shows the extent to which a variable can explain a factor. The Content variable shows a value of 0.675, meaning that the Content variable can explain a factor by 67.5%. The Link variable has a value of 0.487, indicating that the Link explains 48.7% of the factor. The scores of other aspects are also > 50% except for the link variable, therefore it can be concluded that all variables can explain the factor.

Table 4. Value of Total Variance Explained

Compon	Initial Eigenvalues				Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Compon ent	Tot al	% of Varian ce	Cumulati ve %	Tot al	% of Varian ce	Cumulati ve %	Tota I	% of Varian ce	Cumulati ve %	
1	1.82 2	12.147	12.147	1.82 2	12.147	12.147	1.62 4	10.826	10.826	
2	1.61 8	10.784	22.931	1.61 8	10.784	22.931	1.48 9	9.928	20.754	
3	1.37 7	9.178	32.109	1.37 7	9.178	32.109	1.43 6	9.575	30.329	
4	1.34 0	8.936	41.045	1.34 0	8.936	41.045	1.37 7	9.183	39.512	
5	1.24 4	8.295	49.340	1.24 4	8.295	49.340	1.26 6	8.442	47.954	
6	1.12 9	7.527	56.867	1.12 9	7.527	56.867	1.19 2	7.947	55.901	
7	1.02 3	6.821	63.688	1.02 3	6.821	63.688	1.16 8	7.787	63.688	
8	.924	6.158	69.846							
9	.878	5.855	75.701							
10	.797	5.310	81.012							
11	.693	4.619	85.630							
12	.655	4.364	89.994							

13	.569	3.790	93.784
14	.558	3.718	97.503
15	375	2 497	100 000

As seen in the column "Component", there are 15 components of the variables. The "Initial Eigenvalues" is set at 1 (one). The variance explained by a factor of 1 is  $1.822/15 \times 100\% = 12.147$ . By factor of 2 from  $1.618/15 \times 100\% = 10,784$ . Meanwhile, factor 3 is  $1.377/15 \times 100\% = 9.178$ . The sum up to the seventh factor results in a percentage of 63.688%. As the Eigenvalues are set to 1, the total values that can be regarded are those greater than 1, namely components 1,

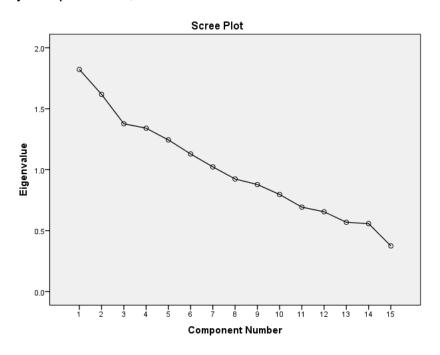


Figure 3. Eigenvalue

Table 5. Value of Component Matrix

	Component							
_	1	2	3	4	5	6	7	
Organization	.585	.493	088	209	162	147	.005	
Fluency	.537	.318	.067	342	347	.197	.238	
Content	.482	154	.294	.473	106	.208	.234	
Clincher	.447	.219	.249	099	.419	119	.151	
Mechanics	.099	648	268	232	.244	.075	072	
Logical_Order	.233	604	004	191	178	140	.340	
Blueprint	.136	.368	577	.276	.124	095	.009	
Thesis_Statement	413	.121	.549	.075	011	066	.155	
Main_Idea	.097	078	237	.587	048	404	.264	
Rewordings	.344	241	.369	.509	112	.281	193	
Link	224	.218	350	.380	243	.250	037	
Linker	152	.177	.111	.105	.638	085	.482	
Language	.213	101	333	016	.390	.662	.137	
Vocabulary	415	.310	.155	059	051	.469	.158	
Supporting	.297	.128	.219	.102	.411	056	600	

The Component Matrix value shows the strength of the correlation with the factors. Organizational variables correlated by 0.585 to factor 1, 0.493 to factor 2, -0.088 to 3, -0.209 to factor 4, -0.162 to factor 5, -0.147 to factor 6 and 0.005 to factor 7. Correlation values of other variables with each factor determines the factor that forms the variable.

Table 6. Rotated Component Matrix Value

			С	omponent			
	1	2	3	4	5	6	7
Fluency	.808	.066	.109	134	.089	052	169
Organization	.783	079	050	.174	071	.014	.164
Vocabulary	050	.688	069	164	.091	.036	163
Logical_Order	.020	562	.148	237	.066	015	473
Mechanics	267	523	088	189	.478	075	059
Content	.141	061	.793	.048	.042	.113	082
Rewordings	077	009	.788	070	.027	155	.209
Blueprint	.142	.028	146	.713	.151	.049	.112
Main_Idea	150	269	.257	.612	244	.144	193
Link	112	.387	.054	.463	.083	296	112
Language	.014	.111	.115	.060	.852	.139	009
Thesis_Statement	219	.361	.068	291	436	.238	082
Linker	168	.135	077	.094	.055	.811	043
Clincher	.354	136	.101	082	.032	.544	.273
Supporting	.012	100	.119	054	.017	.068	.814

Factor has the strongest influence is determined based on the largest correlation value. In the table above, the values have been sorted from the largest to the smallest per factor. Fluency has the largest correlation with factor 1 by 0.808, as well as the Organization variable by 0.783. Vocabulary shares the largest correlation with factor 2 by 0.688, as well as the Logical Order by -0.562 and Mechanics by -0.523. Content strongly correlated with factor 3 by 0.793, as well as the Rewordings by 0.788. Blueprint has the strongest correlation with factor 4 by 0.713, as well as the Main Idea by 0.612 and the Link by 0.463. The Language variable strongly correlates with factor 5 by 0.852 and Thesis Statement by -0.436. The Linker variable has the largest correlation with factor 6 by 0.811 and Clincher by 0.544. The Supporting variable has the largest correlation with factor 7 by 0.814.

Table 7. Value of Component Transformation Matrix

Component	1	2	3	4	5	6	7
1	.682	470	.449	.078	.226	.063	.226
2	.523	.628	246	.330	227	.190	.274
3	.002	.198	.431	676	467	.264	.174
4	381	.141	.653	.609	166	.035	.094
5	300	093	164	.001	.383	.722	.454

6	.018	.562	.299	225	.710	192	058
7	.158	.048	.100	.078	.031	.575	791

As presented in the Table, component 1 obtains a correlation value of 0.682 > 0.5, component 2: 0.628 > 0.5, component 3: 0.431 < 0.5, component 4: 0.609 > 0.5, component 5: 0.383 < 0, 5, component 6: -0.192 < 0.5 and component 7: -0.791 > 0.5. Since all components have values > 0.5, then the three factors formed can be said correct in summarizing the fifteen existing variables.

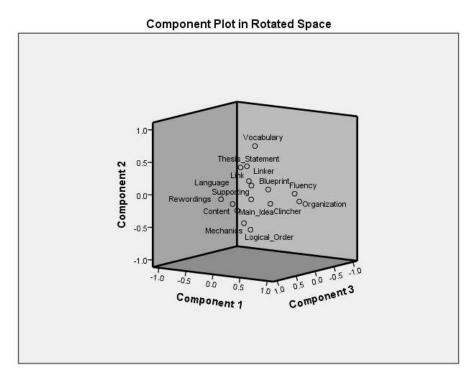


Figure 4. Rotated Space

## **Multiple Regression Test**

After identifying the 7 main factors, their effects on the Logical Order variable were tested in multiple regression analysis. The results of the multiple regression test can be seen in the following Table.

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	153.656	7	21.951	45.296	.000b
Residual	93.045	192	.485		
Total	246.701	199			

Table 8. Simultaneous Test Results (Test F)

F values show the top 7 main factors in simultaneously affect the logical order. Table 8 shows an F value of 45.296 with Sig 0.000. Sig value that is lesser than 0.05 implies that there is a significant effect of the 7 factors on the logical order variable.

Table 9. Partial test results (t test)

	Model		ndardized efficients	Standardized Coefficients	. т	T Sig.	Collinearity Statistics	
		В	Std. Error	Beta		- 3	Tolerance	VIF
	(Constant)	3.041	.049		61.770	.000		
	factor score 1	.022	.049	.020	.450	.653	1.000	1.000
	factor score 2	626	.049	562	- 12.680	.000	1.000	1.000
4	factor score 3	.164	.049	.148	3.331	.001	1.000	1.000
1	factor score 4	264	.049	237	-5.357	.000	1.000	1.000
	factor score 5	.074	.049	.066	1.495	.136	1.000	1.000
	factor score 6	016	.049	015	329	.742	1.000	1.000
	factor score 7	527	.049	473	- 10.676	.000	1.000	1.000

Table 9 shows the partial effect of each factor on the Logical Order variable. A factor is said to have a significant effect if its Sig value is less than 0.05. Based on the table, factor 2, 3, 4, and 7 have a sig value smaller than 0.05. Therefore, factors 2, 3, 4, and 7 have partial and significant influence on the Logical Order variable. Meanwhile, factor 1, 5, and 6 have sig values greater than 0.05. Thus, the partial effects of factor 1, 5, and 6 are insignificant on the Logical Order.

Table 10. Model Summary

		R	Adjusted R	Std. Error of	Durbin-
Model	R	Square	Square	the Estimate	Watson
1	.789ª	.623	.609	.69614	2.265

The R-Square value shows the goodness of fit of the model that ranges from 0 to 1. Table 10 shows that the R-Square value obtained is 0.623 (62.3%). This means that the 7 main factors that have been formed have been able to explain 62.3% of the variability in the value of the Logical Order variable. Whereas, the remaining 37.7% is explained by other variables that have not been included in this study.

## DISCUSSION

There are two proposed research questions. The first research question relates to the identification of the factors can be formed from research indicators of writing skills and writing ability. The Content variable has a value of 0.675, meaning that the Content variable can explain a factor by 67.5%. The Link variable has a value of 0.487, indicating that Link can explain the factor by 48.7%. Likewise with other variables, where all of them are show percentages > 50% except for the link variable. Therefore, it can be concluded that all variables can explain the factor.

This research has identified 15 components that can represent variables. As seen from the "Initial Eigenvalues" column, the value is set at 1 (one). The variance explained by a factor of 1 is  $1.822/15 \times 100\% = 12.147$ . By a factor of 2 of  $1.618/15 \times 100\% = 10,784$ . Meanwhile, factor 3 is  $1.377/15 \times 100\% = 9.178$ . Hence, all of the seven factors are able to explain the variables by 63.688%.

The second research question was related to correlational strength of the formed factors on writing skills and writing ability. Organizational variables correlates by 0.585 with factor 1, 0.493 with a factor of 2, -0.088 with a factor of 3, -0.209 with a factor of 4, -0.162 with a factor of 5, -0.147 with a factor of 6 and 0.005 with a factor of 7. The correlation values of other variables with each each factor determines the factor forming the variable. F values indicate the simultaneous correlation of the 7 main factors on logical order. Table 8 shows an F value of 45.296 with Sig 0.000. Sig value lesser than 0.05 concludes that all 7 main factors have simultaneous and significant influences logical order. A factor has a significant effect if its Sig value is lesser than 0.05. Based on the table, it is known that factors 2, 3, 4, and 7 have sig values of lesser than 0.05. Therefore, factor 2, 3, 4, and 7 have partial and significant influence on the Logical Order variable. Meanwhile, factor 1, 5, and 6 have a sig value of more than 0.05 that their partial influence on Logical Order is insignificant.

Based on that statement, factors 1, 5, and 6 have significance values (sig value) greater than 0.05, indicating that their partial influence on the Logical Order variable is not significant. In other words, these factors do not contribute significantly to the ability to organize logical sequences. On the other hand, factors 2, 3, 4, and 7 have a significant partial influence on the Logical Order variable, as their significance values are less than 0.05. This suggests that these factors significantly contribute to the ability to organize logical sequences.

If we relate this to writing ability, we can argue that factors with significant and partial influence on Logical Order may also contribute to better writing skills. Conversely, factors with non-significant partial influence may not have a significant impact on writing ability, especially in the aspect of organizing logical sequences in writing. Therefore, in improving writing skills, focusing on factors with significant influence may be a more effective strategy.

A similar research was carried out by Alavi & Taghizadeh, (2014), which results indicated that dynamic assessment of writing exhibited strong potential to enhance the integration of writing content and organization skills and strategies, acquisition of skills and strategies showed up hierarchical structures, and teachers' intervention in the form of direct feedback was the most efficacious indication inside this dynamic evaluation processes in EFL context. Based on Vygotsky's sociocultural position, this findings are consistent as that of Nassaji & Swain (2000) who found that both implicit and explicit feedback were effective for improving learners' performance in language skills. Several skills and strategies, including such fluency, rewordings, and thesis statement, precipitated more commentary. Students require more assistance and direction from the teacher to implement these strategies. Similar to Nassaji & Swain's (2000) the mediation supplied by

explicit feedback works much better than implicit feedback. Implicit feedback requires students to perform various psychological tasks. Hence learners seem unable to identify the invalid performance accurately.

## CONCLUSION

This research was carried out to investigate factors that can be formed from research indicators related to writing skills and writing ability and the influence of the formed factors on writing skills and writing ability. This research has successfully identified content, organization, vocabulary, language, mechanics, thesis statement, blueprint, main idea, supporting, link, linker, fluency, logical order, rewordings, and clincher as the factors. Moreover, the Sig value of lesser than 0.05 shows that all the 7 main factors have simultaneous and significant effect on the logical order.

This research was conducted to investigate the factors that can be formed from research indicators related to writing skills and writing ability. The research successfully identified content, organization, vocabulary, language, mechanics, thesis statement, blueprint, main idea, supporting, link, linker, fluency, logical order, rewordings, and clincher as these factors.

The research also aimed to identify the influence of the formed factors on writing skills and writing ability. The results of the study indicate that the Sig value of less than 0.05 shows that all 7 main factors have simultaneous and significant effects on the logical order in writing. This suggests that these factors collectively impact the ability to organize logical sequences in writing.

Delve into each factor identified in this study, such as content, organization, vocabulary, language, mechanics, thesis statement, and others. Further research can provide more detailed insights into the impact of each factor on writing skills. Conduct additional analysis regarding the correlation between factors. Understanding how these factors relate to each other can provide insights into the complexity of relationships in writing skills. Expand the sample group to achieve better result generalization. Involving participants from diverse backgrounds or different educational levels can enhance the external validity of the research. With these considerations, future research can contribute more in-depth and relevant insights into understanding the factors influencing academic writing skills and students' writing ability.

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