Article

The Effect of Cognitive Style, Critical Thinking, And Digital Literature on Argumentative Writing Skills

Ninuk Lustyantie
Applied Linguistics Study Program
Universitas Negeri Jakarta, Jakarta, Indonesia
ninuk.lustyantie@unj.ac.id

Yetti Suriyati
Educational Research & Evaluation
Universitas Negeri Jakarta, Jakarta, Indonesia

Fathurrahman Nur Isnan
Applied Linguistics Study Program
Universitas Negeri Jakarta, Jakarta, Indonesia

Ramli
English study program, Universitas Lakidende Unaaha,
Sulawesi Tenggara, Indonesia

Rivo Panji Yudha
Universitas 17 Agustus 1945 Cirebon, West Java, Indonesia

Abstract

Writing is not only a productive skill required in communication but it is also a tool for critical thinking, developing knowledge, and actualizing ideas and thoughts. This study aimed to examine the constraints that students faced due to various factors like cognitive style, critical thinking from the traditional angle and Digital Literacy from the modern angle, and their joint impact on students' argumentative writing skills. The population of the study comprised the 4th semester of the 2019 academic year, in the Faculty of Language and Letters, State University of Jakarta. A sample of 55 students was selected through a random sampling technique. Each of the four variables, cognitive style, critical thinking, digital literacy and argumentative writing skills, was tested through a questionnaire and a test. The data were analyzed statistically to determine the effect partially or simultaneously using SPSS. The results revealed that the average coefficient of determination of critical thinking cognitive style variables and digital literacy on argumentative writing skills got a relative less significant percentage of 2.2%, 13.1% and 10.6% respectively. It was also found that the influence of cognitive style on critical thinking was not directly visible. These two things do not directly show a significant effect between these variables. On the other hand, digital literacy also provided the same data. Digital literacy had no significant effect on students' argumentative writing skills. The study recommends more emphasis to be given on developing students cognitive, critical and argumentative skills in order to cope up with the challenges of digital literacy.

Keywords

Critical thinking, Argumentative Writing skills, Cognitive style, Digital literacy

Writing is not only a productive skill important in all students' communication and a means of expressing ideas and thoughts, but it can also be a tool for critical thinking, learning and remembering, developing knowledge, communicating, and mastering certain disciplines (Coffin et al., 2005). Through writing activities, students basically also experience the process of acquiring knowledge about what they write. Atkinson (2003) states that writing is a cultural activity and process. In addition, writing is also a means of spreading knowledge and technology supported by advances in the world of communication and information technology (Ramli et al., 2019). This description shows that writing skills play an important role in academic achievement, in the world of professionalism, and interpersonal communication relationships of students in particular and for the success of language learners in their future work environment

Writing skills are relatively more difficult for students to master when compared to other language skills (Flynn & Stainthorp, 2006) because writing skills involve cognitive processes as well as critical and creative thinking processes. Besides, writing skills are constrained by various factors. The main factor is that writing must present views/substantive information and attract the interest of the reader. Students must be able to express the message they want to convey clearly and logically. Secondly, a student must adapt to the cognitive style, which direct students to receive, process, and respond to information. Substance is poured in written form and it requires cognitive activity to find ideas that are substantive and needed by others. Third, it the critical thinking factor which is seen when students use their critical power in collecting, processing, analyzing and responding to the information (Fok et al., 2021; Indah, 2017; Wale & Bishaw, 2020). Lastly, in relation to information technology, digital literacy can be seen as a co-factor that can influence students' writing skills and enable their work to be effective and efficient.

There is a dearth of literature and research documents that examine the effect of variables on writing skills, particularly very few studies have used the quantitative approach with path analysis design and the SEM-PLS analysis technique. There is also a dearth of research examining digital literacy of students inside and outside of school (Moreno-morilla et al., 2021). A need is often felt to understand the practice of digital literacy when using printed text both inside and outside the school. A student's learning must be compatible with digital and information literacy. Alt and Raichel (2020) examine digital literacy and creative self-concept in relation to a learning environment in the form of games. Wu (2020) examines EFL writers' digital literacy and practices through asynchronous communication and their findings show that the ecological perspective provides important insights into how best to measure authors' digital literacy.

Research conducted by Alt & Raichel found that there is a relationship between digital literacy and creative self-concept with a high to medium range (Alsoud et al., 2021; Alt & Raichel, 2020). Tham et al. (2021) tried to understand the perception of students' digital literacy and found that understanding digital literacy helped meet the learning needs of students and their future world of work. In addition, Porat, Blau, & Barak tried to compare digital literacy competencies according to students' perceptions with actual student competencies and found that only some of them were in harmony with students' perceived competencies and actual competencies (Dağtan & Cabaroğlu, 2021; Porat et al., 2018).

Studies have examined a few variables that have a relationship with writing skills. For instance, cognitive styles have been researched in relation to learning methods (Setiawan et al., 2020) and results have revealed the effect of interactions between learning methods and cognitive styles on students' ability to solve positive problems. Cognitive style was also found affecting individual development (Baron, 2020; Rachman, 2021); a relationship between cognitive ability and argumentative writing was also evident (Zarrabi & Bozorgian, 2020) which suggest a significant linear relationship between the variables of writing skills. This is also evident of cognitive activity predicting writing skills, especially in argumentative essays.

Another research study examined students' digital literacy inside and outside school (ADINDA et al., 2021; Lisha & Abdullah, 2021; Moreno-Morilla et al., 2021), and reported that digital literacy practices in classrooms were appropriate when using printed texts and were compatible with digital and information literacy. Alt and Raichel (2020) also examine digital literacy and creative self-concept in relation to a learning environment in the form of games. Meanwhile Wu (2020) examines EFL writers' digital literacy practices through asynchronous communication and his findings show that the ecological perspective provides important insights on how to best measure writers' digital literacy. Chang et al. (2019) attempted to look at the effect of cognitive style on learning through online media and found that students who had an independent verbal cognitive style received greater benefits when studying using MOOC online media. MOOC as a part of information technology is a device that can facilitate students in developing their digital literacy skills which are indirectly related to the variables in this study. A slightly different study was conducted by Wale and Bishaw (2020) with writing skills as the independent variable and critical thinking as a dependent variable. It found that research-based

argumentative writing skills improved students' critical thinking skills and predicted critical thinking skills (Mazur, 2021; Thai & Le Loi, 2021; Yogo, 2021).

These studies only provide a limited and general understanding of writing skills and do not map the relationships of variables that can be predictors of writing skills. This research gap thus became the scope of this research study and provided room to examine predictor variables (cognitive style, digital literacy, and critical thinking) that have a relationship with students' writing skills. This study examined the causal relationship that occurs between cognitive style variables and digital literacy, variables of critical thinking on students' writing skills. Based on this, the following research hypotheses were formulated:

H1: *there is a partial influence of Cognitive Style (X1) with Argumentative Writing Skills (Y),*

H2: *there is a partial influence of critical thinking (X2) with argumentative writing skills,*

H3: *there is a partial influence digital literacy (X3) with argumentative writing skills (Y),*

H4: *there is a simultaneous influence between Cognitive Style (X1), critical thinking (X2), and digital literacy (X3) on argumentative writing skills.*

Methodology

- *Research Design*

This study used a quantitative approach with an associative type of study. Quantitative research methods were interpreted as research methods based on the philosophy of positivism, to examine certain population or samples, for data collection using research instruments, statistical data analysis, with the aim of testing predetermined hypotheses. This type of associative research also helps to formulate the relationship between two or more variables and a causal relationship between variables. In this study, therefore, the causal relationship was studied between independent variables namely cognitive style, critical thinking, and digital literacy and the dependent variable namely argumentative writing skills.

- *Population and Sample*

All students of the Language Education Study Program, Faculty of Languages and Letters, State University of Jakarta were selected as the unreached population in this study. Meanwhile, the affordable population was class students in the 4th semester of the 2019 academic year, from which a sample of 55 students was selected by a random sampling technique.

- *Instrument and research procedure*

For the data collection process, this study used four instruments to be tested for reliability and validity of all four variables of the study namely Argumentative Writing Skills; cognitive style; Digital Literacy; and Critical Thinking. The argumentative writing skill instrument was used to measure students' ability to communicate ideas, and experiences that were embodied in written form effectively which involved cognitive processes and transfer of thoughts through the stages of collecting materials, taking notes, compiling, writing and revising by following the applicable linguistic rules so that it can create a distinct impression upon the reader.

The students' cognitive style instrument used in this study to test reliability and validity was developed by Witkin (1987). This instrument identified simple objects embedded in complex objects. The higher the score obtained indicated the tendency of students to have a field-independent cognitive style category and a low score indicated the tendency of students to have a field-dependent cognitive style category.

The Digital literacy instrument was used to measure the level of students' abilities in finding, analyzing, processing, synthesizing, evaluating, generating, and communicating information using information technology media. The level of students' skills in digital literacy was displayed in the form of scores obtained from the given instrument.

The Critical thinking instrument was used to measure the level of students' ability to analyze information, manage it and take decisions for action. The results obtained by students showed high and low levels of thinking skills.

- *Data Analysis*

The data analytical technique used in this study was the use of multiple linear regression technique with SPSS software. This helped in analyzing the causal relationship between the independent variable and the dependent variable. The effect to be analyzed was partial and simultaneous in testing the research hypotheses.

The data analysis first involved understanding the validity and reliability measurement results of the instruments used in the study. The measurement results of instruments were validated by a team of experts including two experts each from language education and evaluation department. Three experts were lecturers and one was a senior English teacher. These experts used observation sheets, adopting the Inter Rater Reliability formula.

Such a reliability involved raters to enter into an inter rater agreement or inter rater reliability. If in the case of self-report reliability is shown by internal consistency between two items, or one item has a higher correlation than the other, in that case the reliability and the consistency between raters are tested. If required, the position of the item is replaced with the position of the person (rater) in order to effectively assess the reliability between two or more observers, as well as test-retest reliability. In this study, too, inter-rater reliability was calculated using Inter rater reliability, showing a comparison between the variation caused by the measured attribute and the overall measurement variation.

Result

Based on the results of the data analysis of the content validity test, the information obtained suggested that all items were relevant. The recommendations of the experts on the instruments (questionnaire) are tabulated in Table 1.

Table 1. *Instrument Validation Results*

No.	Rated aspect	Statement Item	Expert				Score	Quality
			1	2	3	4	20	
1	Conformity of variable assessment aspects with existing indicators	1	5	5	5	5	20	Very Good
		2	4	5	4	5	18	
2	Writing Procedure	3	5	4	4	4	17	Very Good
		4	5	5	3	5	18	
		5	4	5	4	5	18	
3	Language	6	5	5	5	4	19	Very Good
		7	5	5	4	5	19	
		8	5	4	3	4	16	
4	Physical Appearance	9	5	5	3	4	17	Very Good
		10	5	5	5	5	20	
Total Score			48	48	40	46	182	Very Good

Table 1 also reveals aspects of the assessment such as: the suitability of the assessment aspect with the existing indicators, the aspect of the suitability of the aspect with the indicator, the writing procedure, the language aspect, and the physical appearance aspect.

In Table 1, it appears that the general validation results of the four raters on the Cognitive Style (X_1) critical thinking (X_2), digital literacy (X_3), and Argumentative Writing Skills (Y) instruments were based on the value of expert judgment, to get a maximum score of 20 on the aspect of suitability of indicators and physical appearance and defined as 'Very good'.

Likewise, the level of agreement (reliability) between the four raters was explained by calculating the reliability coefficient between raters using the Intraclass Correlation Coefficient. The results of this calculation (using the the SPSS version 16) are presented in Table 2.

Table 2. *Intraclass Correlation Coefficient: Reliability Test Results*
Intraclass Correlation Coefficient

	Intraclass Correlation[a]	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.116[b]	-.1178	.526	1.520	9	27	.190
Average Measures	.948[c]	-.730	.815	1.520	9	27	.190

Table 2 presents the results of the ICC calculation and reveals that the average agreement between raters is 0.116 while for raters the consistency is 0.948 which means it has high stability (Streiner et al., 2015).

A t-test was also conducted to determine the effect of each independent variable individually on the dependent variable. The results of this t-test on the SPSS output was seen in the Coefficients table to determine whether there was an influence of each independent variable individually on the dependent variable, done by comparing the p-value in the Sig column. each independent variable with a significant level used 0.05. If the p-value was less than 0.05 then Ha is accepted and H_0 is rejected. On the other hand, if the p-value is greater than 0.05, then Ha is rejected and H_0 is accepted.

Table 3 reveals the findings of the normality test for the variables of Cognitive Style (X1), Critical Thinking (X2), Digital Literacy (X3) and Argumentative Writing Skills (Y), using Sig. In the Kolmogorov-Smornov section, because the data was tested upon (N=55). The results of this test criteria show a number > 0.05, suggesting that the data is normally distributed.

Table 3. *Normality Test*
Tests of Normality[a,b,e,f,g,h]

	Argumentative Ability(Y)	Kolmogorov-Smirnov[c]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Cognitive Style(X1)	15.00	.186	6	.200[*]	.898	6	.362
	16.00	.180	15	.200[*]	.843	15	.014
	17.00	.179	22	.066	.916	22	.064
	18.00	.266	7	.144	.856	7	.138
	19.00	.361	3	.	.807	3	.132
Critical thinking(X2)	15.00	.321	6	.053	.826	6	.099
	16.00	.196	15	.127	.868	15	.031
	17.00	.187	22	.054	.937	22	.175
	18.00	.172	7	.200[*]	.932	7	.567
	19.00	.253	3	.	.964	3	.637
Digital Literacy(X3)	15.00	.219	6	.200[*]	.897	6	.355
	16.00	.249	15	.053	.782	15	.002
	17.00	.224	22	.055	.772	22	.000
	18.00	.187	7	.200[*]	.928	7	.536
	19.00	.196	3	.	.996	3	.878

Hypothesis Testing between X_1 and Y (t test)

The next step was to determine whether or not there is an influence of Cognitive Style (X1) with Argumentative Writing Skills (Y). Table 4 reveals the t count > t table or 1,696 > 1,672 and shows a significance of 0.041 < 0.05, suggesting a significant positive effect on cognitive style with argumentative writing skills, thus H1 is accepted. Table 5 also shows the Adjusted R Square value of 0.022, which means 2.2% of the independent or independent variables are able to explain the dependent variable of cognitive style variable as well as the dependent variable, namely argumentative writing skills

Table 4. *Coefficients Cognitive Style*
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.756	.534		29.489	.000
	Cognitive Style	.087	.058	.201	1.696	.041

a. Dependent Variable: Argumentative Ability

Table 5. *Adjusted R Square Value Cognitive Style*
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.201[a]	.041	.022	2.46261

a. Predictors: (Constant), Cognitive Style
b. Dependent Variable: Argumentative Ability

Hypothesis Testing between X2 and Y (t test)

Table 6 shows t count > t table or 3.023 > 1.672 showing a significance of 0.004 < 0.05, which means that there is a significant positive effect on critical thinking with argumentative writing skills, thus H1 is accepted. Table 7 shows the Adjusted R Square value of 0.131, which means that 13.1% of the independent or independent variables are able to explain the dependent or dependent variable, Critical thinking variable as well as the dependent variable, namely argumentative writing skills.

Table 6. *Coefficients Critical Thinking*
Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.878	.885		15.673	.000
	Critical thinking	.251	.083	.383	3.023	.004

a. Dependent Variable: Argumentative Ability

Table 7. *Adjusted R Square value Critical Thinking*
Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.383[a]	.147	.131	2.32187

a. Predictors: (Constant), Critical Thinking

b. Dependent Variable: Argumentative Ability

Hypothesis Testing between X3 and Y (t test)

Table 8 shows that t count > t table or 2.723 > 1.672, showing a significance of 0.006 < 0.05. This suggests that there is a significant positive effect on digital literacy with argumentative writing skills, thus H1 is accepted. Table 9 shows the Adjusted R Square value of 0.106, which means that 10.6% of the independent or independent variables are able to explain the dependent or dependent variable, Digital literacy as well as explain the dependent variable, namely argumentative writing skills.

Table 8. *Coefficients Digital Literacy*
Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.333	.816		17.555	.000
	Digital literacy	.080	.029	.350	2.723	.009

a. Dependent Variable: Argumentative Ability

Table 9. *Adjusted R Square Value Digital Literacy*
Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.350[a]	.123	.106	2.35467

a. Predictors: (Constant), *Literasi Digital*

b. Dependent Variable: *Kemampuan Argumentatif*

Simultaneous Test

The F-value test was conducted to show whether all the independent variables in the research model had a joint influence on the dependent variable. Testing the F test hypothesis also help in determining whether the independent variables have a significant effect on the dependent variable. The results of the F value test are presented in Table 9.

Table 10. *F Value Results*
ANOVA[a]

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	75.351	3	25.117	4.934	.004[b]
1	Residual	259.631	51	5.091		
	Total	334.982	54			

a. Dependent Variable: argumentation skills

b. Predictors: (Constant), Digital Literacy, Critical Thinking, Cognitive Style

The results of Table 10 show that the equation model had a calculated F value of 4.934 with a significance level of 0.004. The significance value of 0.000 is smaller than alpha 0.05, which means that argumentative ability can be explained by cognitive style, critical thinking, and digital literacy. Thus, it can be concluded that the independent variables in the form of cognitive style, critical thinking, and digital literacy in this study jointly affect the dependent variable, namely argumentative ability.

Table 11 presents the adjusted R Square of 0.179 or 17.9%, which means that the ability of the dependent variable, namely Argumentative Ability, can be explained by three independent variables, namely cognitive style, critical thinking, and digital literacy. While the rest (100% - 17.9%) 82.1% is explained by other variables that are not included in the regression model.

Table 11. *Adjusted R Square Result*
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.474[a]	.225	.179	2.25628

a. Predictors: (Constant), Digital Literacy, Critical Thinking, Cognitive Style

Discussion

The results of testing the partial hypothesis, namely, the average coefficient of determination of the cognitive style variables of critical thinking and digital literacy on argumentative writing skills each get a less significant percentage of 2.2%, 13.1% and 10.6%. Of the three variables, the value of students' critical thinking is higher than the percentage value of the students' cognitive style and digital literacy variables. This happens because students' argumentative writing skills are applied in class, providing opportunities for students to develop their argumentative writing and critical thinking skills through complex problem solving processes in small discussion groups.

This helps students to improve their analytical, interpretation, evaluation, inference and explanation skills. It makes the cumulative effect on students' critical thinking skills too, turning them better than their cognitive styles and digital literacy. This is in line with what was stated by Mezirow (1998), A person can be said to be able to think critically if he can test experience, assess knowledge and ideas and weigh arguments before arriving at an assessment. This opinion describes how the critical thinking process which includes when and how to ask and what questions will be asked, and how to reason and use that reasoning, so that someone can think critically if they can consider various arguments and judge them before making a decision. Technically, someone writing an argument must prove the evidence by assembling the facts to teach about something, that's when a thought process and strategy are needed to do it. The thought process required is critical thinking (Nurmahanani, 2016).

The results of hypothesis testing show that the argumentative writing ability of students have a smaller cognitive style compared to digital literacy and critical thinking skills. The character of the cognitive style in the form of analytical thinking, has a strong internal motivation, and tends to be independent, does not require the help of others, and is closely related to writing teaching material. Cognitive style has a fairly small influence on the ability to write argumentatively. This is due to the characteristics of students' cognitive styles that are less supportive of learning teaching materials that require analytical thinking skills and have internal motivation, even though the model provided is appropriate to support the characteristics of students' cognitive styles.

The results of the next hypothesis testing show that the effect of digital literacy on the ability to write argumentatively is 10.6%. This shows that digital literacy in writing activities will be a vehicle or media that provides all the information we need. The goal is very good, namely at least the prospective writer will know the extent of the position of the problem to be written whether it has been discussed by other authors or not. If it has been discussed in other people's writings, here we have to look for points that are different from the existing ones. The point is that our writing does not seem to repeat existing writings because it is likely that other people's writings are already famous or widely read by other people as well. Therefore, the uniqueness and distinctive style of our writing will add to the attraction of other readers.

Conclusion

This study examined the effect of Cognitive Style, Critical Thinking, And Digital Literature on Argumentative Writing Skills. It also intended to determine the relationship between these variables in the light of factors which could affect language learning strategies by learners. This study was conducted to see whether there is a relationship and influence of cognitive style, digital literacy, and critical thinking on writing arguments. Based on the research that has been done, it was found that the effect of cognitive style on critical thinking is not directly visible. These two things do not directly show any significant effect between these variables. On the other hand, digital literacy also provides the same data. Digital literacy does not have a significant effect on critical thinking skills.

In addition, the variables analyzed on the ability to write arguments also show similar results. The influence of cognitive style, digital literacy, and critical thinking has a fairly low influence on the ability to write arguments. This can be seen from the value of the test results which are fairly minimal. This then refers to a conclusion that cognitive style, digital literacy, critical thinking and argument writing do not influence each other between these competencies. The study recommends more emphasis to be given on developing students cognitive, critical and argumentative skills in order to cope up with the challenges of digital literacy.

Acknowledgements

References

ADINDA, A., PARTA, N., & CHANDRA, T. D. (2021). Investigation Of Students' Metacognitive Awareness Failures About Solving Absolute Value Problems in Mathematics Education. *Eurasian Journal of Educational Research*(95), 17-35. https://ejer.info/index.php/journal/article/view/426/3

Alsoud, A. R., Al-Debei, M. M., Johar, M., Ab Yajid, M. S., Alshareef, H. N., & Ariffin, I. (2021). Digitalization in Educational Technologies for Edtech Solutions: A Comparatuive Study of Jordanian and Malaysian Universities. *Educational Sciences: Theory & Practice, 21*(4), 83-99. https://jestp.com/index.php/estp/article/view/1502/816

Alt, D., & Raichel, N. (2020). Enhancing perceived digital literacy skills and creative self-concept through gamified learning environments: Insights from a longitudinal study. *International Journal of Educational Research, 101*, 101561. https://doi.org/10.1016/j.ijer.2020.101561

Atkinson, D. (2003). L2 writing in the post-process era: Introduction. In (Vol. 12, pp. 3-15): Elsevier.

Baron, J. (2020). Religion, cognitive style, and rational thinking. *Current Opinion in Behavioral Sciences, 34*, 64-68. https://doi.org/10.1016/j.cobeha.2019.12.015

Chang, J.-J., Lin, W.-S., & Chen, H.-R. (2019). How attention level and cognitive style affect learning in a MOOC environment? Based on the perspective of brainwave analysis. *Computers in Human Behavior, 100*, 209-217. https://doi.org/10.1016/j.chb.2018.08.016

Coffin, C., Curry, M. J., Goodman, S., Hewings, A., Lillis, T., & Swann, J. (2005). *Teaching academic writing: A toolkit for higher education, 1st Edition*. Routledge. https://doi.org/10.4324/9780203994894

Dağtan, E., & Cabaroğlu, N. (2021). Status of English speaking skills in Turkish ELT departments: A nationwide survey. *Eurasian Journal of Applied Linguistics, 7*(1), 359-382. https://ejal.info/wp-content/uploads/2021/06/10.32601-ejal.911454-1691525.pdf

Flynn, N., & Stainthorp, R. (2006). *The learning and teaching of reading and writing*. John Wiley & Sons.

Fok, L. Y., Morgan, Y.-C., & Zee, S. M. (2021). A Multi-Industry Study of Sustainability, Total Quality Management, Organizational Culture, and Performance. *International Journal of Operations and Quantitative Management, 27*(1), 45-60. https://doi.org/10.46970/2021.27.1.3

Indah, R. N. (2017). Critical thinking, writing performance and topic familiarity of Indonesian EFL learners. *Journal of Language Teaching and Research, 8*(2), 229. https://doi.org/10.17507/jltr.0802.04

Lisha, L., & Abdullah, N. H. B. (2021). The relationship between tourism development and sustainable development goals in Vietnam. *Cuadernos de Economía, 44*(124), 42-49. https://cude.es/submit-a-manuscript/index.php/CUDE/article/view/155/160

Mazur, J. (2021). Informacja i dezinformacja w przestrzeni publicznej. *socialspacejournal.eu, 21*(1), 69-95. https://socialspacejournal.eu/wp-content/uploads/2021/12/Social-Space-Journal-1202121.pdf

Mezirow, J. (1998). On critical reflection. *Adult education quarterly, 48*(3), 185-198. https://doi.org/10.1177/074171369804800305

Moreno-Morilla, C., Guzmán-Simón, F., & García-Jiménez, E. (2021). Digital and information literacy inside and outside Spanish primary education schools. *Learning, Culture and Social Interaction, 28*, 100455. https://doi.org/10.1016/j.lcsi.2020.100455

Nurmahanani, I. (2016). Penerapan Strategi Metakognisi dan Berpikir Kritis dalam Menulis Argumentasi pada Mahasiswa PGSD UPI Kampus Purwakarta. *Metodik Didaktik: Jurnal Pendidikan Ke-SD-an, 10*(1). https://doi.org/10.17509/md.v10i1.3242

Porat, E., Blau, I., & Barak, A. (2018). Measuring digital literacies: Junior high-school students' perceived competencies versus actual performance. *Computers & Education, 126*, 23-36. https://doi.org/10.1016/j.compedu.2018.06.030

Rachman, A. (2021). THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP, COMPETENCE AT WORK, AND JOB CHARACTERISTICS ON THE EMPLOYEE PERFORMANCE THROUGH ORGANIZATIONAL COMMITMENT: A SOCIAL EXHCHANGE PERSPECTIVE. *International Journal of eBusiness and eGovernment Studies, 13*(1), 179-201. https://sobiad.info/index.php/ijebeg/article/view/526/36

Ramli, R., Boeriswati, E., & Emzir, E. (2019). Cognitive Style and Teaching Method: The Effect on Students' Writing Performance. 3rd edtion. https://doi.org/10.4108/eai.23-3-2019.2284902

Setiawan, A., Nyoman, İ. D., Sa'Dijah, C., & Praherdhiono, H. (2020). The Effect Of Collaborative Problem Solving Strategies And Cognitive Style On Students' Problem Solving Abilities. *Journal for the Education of Gifted Young Scientists, 8*(4), 1618-1630. https://doi.org/10.17478/jegys.812781

Streiner, D. L., Norman, G. R., & Cairney, J. (2015). *Health measurement scales: a practical guide to their development and use*. Oxford University Press, USA. https://doi.org/10.1093/med/9780199685219.001.0001

Thai, N. H., & Le Loi, M. (2021). THE ROLE OF PUBLIC/PRIVATE PARTNERSHIP IN DEVELOPMENT OF TRANSPORT INFRASTRUCTURE: EVIDENCE FROM VIETNAM. *International Journal of Economics and Finance Studies, 13*(1), 340-358. https://sobiad.info/index.php/ijefs/article/view/621/44

Tham, J. C. K., Burnham, K. D., Hocutt, D. L., Ranade, N., Misak, J., Duin, A. H., . . . Campbell, J. L. (2021). Metaphors, mental models, and multiplicity: Understanding student perception of digital literacy. *Computers and Composition, 59*, 102628. https://doi.org/10.1016/j.compcom.2021.102628

Wale, B. D., & Bishaw, K. S. (2020). Effects of using inquiry-based learning on EFL students' critical thinking skills. *Asian-Pacific Journal of Second and Foreign Language Education, 5*(1), 1-14. https://doi.org/10.1186/s40862-020-00090-2

Witkin, A. P. (1987). Scale-space filtering. In *Readings in Computer Vision* (pp. 329-332). Elsevier. https://doi.org/10.1016/B978-0-08-051581-6.50036-2

Wu, Z. (2020). Tracing EFL writers' digital literacy practices in asynchronous communication: A multiple-case study. *Journal of Second Language Writing, 50*, 100754. https://doi.org/10.1016/j.jslw.2020.100754

Yogo, É. É. (2021). L'exigence d'appropriation du concept d'autonomie stratégique en Afrique centrale. *Res Militaris, 11*(1), 1-15. https://resmilitaris.net/index.php/2021/01/01/id1032510/

Zarrabi, F., & Bozorgian, H. (2020). EFL students' cognitive performance during argumentative essay writing: A log-file data analysis. *Computers and Composition, 55*, 102546. https://doi.org/10.1016/j.compcom.2020.102546