

Cognitive strategies of law students in writing opinion text

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ABSTRACT

Writing skills are one of the determining factors for law students' success, but it is their biggest problem. This problem stems from the lack of grammar mastery and learning barriers during the COVID-19 pandemic. Therefore, this study aims to describe cognitive strategies for law students in writing opinion texts during the COVID-19 pandemic and the pedagogical implications. This study employed a mixed method. The research participants were 200 first-year students of the 2021-2022 academic year. Data collection methods are inventory and open-ended questions. The research found that students with Indonesian as first language (L1) are high in cognitive strategies, while second language (L2) students are moderate. The highest cognitive strategy is to look for reference sources on grammar rules on the internet. The correlation found a significant relationship among cognitive strategy. The most significant is the relationship between all cognitive strategies and developing explicit knowledge of grammar. Our findings provide pedagogical implication that writing instruction needs to use cognitive strategies as grammar learning strategies within a contextual-communicative approach in law. In conclusion, cognitive strategies can be used integrative in writing by emphasizing the use of explicit language knowledge and various digital sources for L1 and L2 learners.

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1. INTRODUCTION

Law students have to master writing skills [1]–[3]. It is due to writing ability is very essential as professional competency in the legal field [4], and highly valued in the legal profession [3]. So, writing skills are one of the predictors of law students' success [5]. Law students learn to write and write in law [4], [6]. However, writing skills are the biggest problem for students [3], [7]. So, it is challenging to acquire writing skills [1], [7]. This problem impacts their commitment and achievement level in writing [8].

The students' complex writing problems are due to a need for grammar mastery [7], [9], [10]. First-year law students also face writing problems at the Universitas Muhammadiyah Malang when writing opinion texts. They write arguments based on data, facts, legal documents, theories, and relevant research

results. Challenges arise from grammatical intricacies, crafting introductory statements, and organizing coherent ideas by synthesizing information from diverse sources.

Additionally, the emergence of the COVID-19 pandemic further complicated the challenge of mastering grammar and writing skills. Law students struggle to improve writing skills and grammar concepts due to restricted interactions, teaching materials, and learning media. These problems impact students' learning strategies to improve their competence [11], [12], particularly grammar learning strategy as an essential element in writing [13]. So, students can control the grammatical structures in the text, manage and utilize grammar effectively and efficiently, and overcome grammatical problems [13].

Previous studies have examined the significance of employing grammar learning strategies to enhance language performance [14]–[16]. Other previous studies also explore applying grammar learning strategies to address writing challenges [9], [17]. Additionally, earlier research assessed the impact of grammar learning strategies on grammatical competence in writing activities [13]. Moreover, prior research scrutinized the influence of grammatical and discourse competence on writing competence [18].

In particular, cognitive strategies' influence on writing skills has been studied extensively, showing significant improvements in writing outcomes when employing writing strategy instruction [19] and cognitive strategy [20]–[22]. A strong correlation exists between students' use of cognitive strategies and their writing performance [22]. Moreover, students exhibited more development in word variation, lengthier texts, and grammatical accuracy [20].

Research has been conducted on writing skills within the law field. Nevertheless, it remains a fundamental skill for lawyers [23], [24]. Prior research highlights the importance of legal professionals meeting writing standards in Australian [25], English [3], and South African contexts [26]. Furthermore, various studies have centered on the social and affective strategies of law students for writing opinion text [27]. These investigations revealed that law students still require improved grammar and writing skills, encompassing language structure and semantic clarity.

Prior research has yet to address the use of cognitive strategies in writing assignments for law students during the COVID-19 pandemic. Yet, cognitive strategies are fundamental in generating and developing ideas, monitoring the writing process [19], and engaging in reasoning and writing strategies [21]. Furthermore, cognitive strategy plays a significant role in developing explicit and implicit knowledge of grammar, practicing communication, handling corrective feedback in grammar production [14], [28], and facing obstacles in particular language tasks [9].

Because cognitive strategies are crucial for law students' writing, there is an urgent need to explore language learning in various writing contexts [29], [30], and identify effective ways to support grammar learning [14]. This study fills gaps by investigating law students' cognitive strategies in writing opinion texts, while earlier studies have explored lawyers' general skills, as mentioned previously. So, this current research addresses three main research objectives: (a) identifying the cognitive strategies, (b) exploring the correlation among cognitive strategies used by law students when writing opinion texts during the COVID-19 pandemic, and (c) considering the pedagogical implications of law writing instruction. Furthermore, research findings contribute to grammar learning strategies in writing text, especially in determining and managing adaptive cognitive strategies in writing opinion texts in law. This research is also beneficial for students in deciding their cognitive strategies to master grammar and overcome problems in law writing activities. Lecturers may also assist students in using cognitive strategies when writing texts.

2. METHOD

2.1. Research method

This research employed mixed-method by using quantitative and qualitative data [31]. This study comprehensively investigated the cognitive strategies of law students in writing opinion texts. Qualitative data were collected through interviews, while quantitative data were collected through inventory [31].

2.2. Participants

The research participants are the Law Faculty, Universitas Muhammadiyah Malang students during the odd semester of the 2021/2022 academic year. The research participants were 200 students aged 18-20 years, from 509 law students in 2021/2022 class. The participants were selected through purposive sampling, employing specific criteria: (a) Indonesian language acquisition as either first or second language, (b) current enrollment in Indonesian language courses, (c) absence of language disorders, and (d) Indonesian citizenship.

2.3. Data collection method

Data collection utilized a cognitive strategies inventory (CS) adapted from Pawlak [14], comprising four sections: facilitating grammar production and comprehension (CS1), fostering explicit grammar

knowledge (CS2), cultivating implicit grammar knowledge (CS3), and managing corrective feedback on grammar errors (CS4) [15]. The Likert-type questions were rated on a five-point scale from strongly agree (5) to strongly disagree (1). The inventory was translated into Indonesian and administered via Google Forms. The inventory demonstrated validity ($r=3.67$ and $3.21>0.195$) and reliability ($\alpha=0.73$ and $0.78>0.600$), making it suitable for data collection. Additionally, open-ended questions elicited detailed insights into cognitive strategies, including preparatory grammar, grammar structure, grammar troubleshooting, and critical considerations in writing opinion texts.

2.4. Data analysis method

Data analysis and table creation primarily utilize Excel to calculate data, generate tables, and measure correlations among cognitive strategies. The inventory score results are measured and interpreted based on the average range: high (3.5-5.0), moderate (2.5-3.4), and low (1.0-2.4). Then, the inventory score was correlated using the Pearson product moment and interpreted as follows: very strong (0.80-1.0), strong (0.60-0.79), moderate (0.40-0.59), low (0.20-0.39), and very low (0-0.19). Moreover, responses to students' open-ended questions were coded and analyzed thematically. The findings were summarized and presented, detailing students' cognitive strategies and their correlation during writing.

3. RESULTS AND DISCUSSION

This section discusses findings on law students' cognitive strategies in writing opinion texts, their correlation, and pedagogical implications amid a pandemic. Demographic traits are outlined in Table 1. Table 1 provides demographic details of the students: 117 females and 83 males with ages ranging from 18 to 20. Language acquisition order for Indonesian was categorized into first language (L1) (52.5%) and second language (47.5%). Thus, the findings of law students' cognitive strategies are presented in Table 2.

Table 2 demonstrates higher cognitive strategy scores for L1 students (3.52-3.90) than moderate scores for L2 students (3.04-3.44). L1 and L2 students predominantly utilize CS4 to manage corrective feedback on grammar errors. These findings suggested that L1 students utilize more cognitive strategies than L2 students. Thus, the correlation between cognitive strategies in L1 and L2 students is presented in Table 3.

Table 3 indicates that all cognitive strategies have a significant relationship for L1 and L2 students because the correlation coefficient is greater than the r-table value (0.195). We found that the highest correlation coefficient value is also in the relationship among CS2 (fostering explicit grammar knowledge) and all cognitive strategies (0.94) in L1 and L2 students. Overall, the findings of cognitive strategy are presented in Table 4.

Table 1. Demographic characteristics of law students

	Profile	N	%
Gender	Male	83	41.5
	Female	117	58.5
Age	18	76	38.0
	19	89	44.5
	20	35	17.5
Language acquisition order	First-language learner (L1)	105	52.5
	Second-language learner (L2)	95	47.5

Table 2. L1 and L2 students' cognitive strategies in writing

Cognitive strategy (CS)	N	Max	First-language learners (L1 students)			Second-language learners (L2 students)					
			Mean	Category	Standard deviation	N	Min	Max	Mean	Category	Standard deviation
CS1	105	35	3.84	High	0.64	95	10	35	3.39	Moderate	0.84
CS2	105	55	3.52	High	0.64	95	15	55	3.08	Moderate	0.80
CS3	105	25	3.54	High	0.79	95	7	25	3.04	Moderate	0.81
CS4	105	25	3.90	High	0.80	95	5	25	3.44	Moderate	0.97
C-All	105	140	3.67	High	0.74	95	37	140	3.21	Moderate	0.87

Table 3. Correlation among cognitive strategies (CS) of law students with Indonesian as L1 and L2

CS	L1 students					L2 students				
	CS 1	CS2	CS3	CS4	CS-All	CS 1	CS2	CS3	CS4	CS-All
CS1		0.70	0.66	0.72	0.84		0.78	0.76	0.76	0.91
CS2			0.88	0.78	0.95			0.86	0.64	0.94
CS3				0.78	0.92				0.63	0.90
CS4					0.89					0.81

Note: Correlation analysis using Pearson product moment 2 tailed with a significance level 0.05. The r-table value is 0.195

Table 4. Cognitive strategies (CS) inventory results of law students writing opinion texts

Cognitive strategies (CS)	Cognitive strategy activities	L1 score		L2 score		Grammar		
		N	Mean	N	Mean	C	P	A
Facilitating grammar production and comprehension in communication (CS 1)	I use specific grammar structures in communication (e.g., telling a story).	105	3.68	95	3.48	✓		
	I read for pleasure and watch television to improve my knowledge of grammar.	105	3.65	95	3.29	✓		
	I notice (or remember) structures often repeated in the text.	105	3.83	95	3.24	✓		
	I notice (or remember) structures emphasized orally through pitch, repetition, etc.	105	3.69	95	3.27	✓		
	I pay attention to how more proficient people say things and then imitate.	105	4.04	95	3.57	✓		
	I compare my speech and writing with that of more proficient people to see how I can improve	105	3.73	95	3.25	✓		
	I use Google or other search engines to see how a specific grammar structure is used in meaningful contexts.	105	4.26	95	3.61	✓		
Fostering explicit knowledge of grammar (CS 2)	I try to understand every grammar rule.	105	3.79	95	3.29	✓		
	I memories rules about frequently used linguistic forms/structures (e.g., formation and use of the passive).	105	3.27	95	3.06	✓	✓	
	I paraphrase the rules I am given because I understand them better in my own words.	105	3.85	95	3.18	✓	✓	
	I make charts, diagrams, or drawings to illustrate grammar rules.	105	2.76	95	2.54	✓		
	I use rhymes or songs to remember new grammar rules.	105	2.99	95	2.70	✓		
	I physically act out new grammar structures.	105	3.68	95	3.20	✓		
	I use notebooks/notecards to find new rules and examples.	105	3.55	95	2.97	✓		
	I review grammar lessons to remember the rules better.	105	3.48	95	3.06	✓		
	I use grammar reference books, grammar sections of coursebooks, or grammatical information in dictionaries.	105	3.43	95	3.10	✓		
	I try to discover grammar rules by analyzing examples.	105	3.64	95	3.15	✓		
Cultivating implicit knowledge of grammar (CS 3)	I use electronic resources (e.g., English websites, corpora) to determine rules.	105	4.25	95	3.64	✓		
	I repeat the rules and examples to myself or rewrite them many times.	105	3.29	95	2.87	✓		
	I do many exercises to practice grammar (e.g., paraphrasing, translation, multiple-choice).	105	3.61	95	3.04	✓		
	I try to apply new rules carefully and accurately in specific sentences (e.g., to complete a gap)	105	3.56	95	3.12	✓		
	I use grammar rules as soon as possible in a meaningful context (e.g., use them in my speech and writing).	105	3.64	95	3.08	✓	✓	✓
	I compare how grammar is used in written and spoken language with how I use it.	105	3.59	95	3.09	✓		
	I listen carefully for any feedback the lecturer gives me about my structures.	105	3.98	95	3.54	✓	✓	✓
Managing corrective feedback on grammar errors (CS 4)	I pay attention to lecturer corrections when I do grammar exercises and try to repeat the correct version.	105	3.98	95	3.55	✓	✓	✓
	I notice and self-correct my mistakes when practicing grammar.	105	3.96	95	3.41	✓	✓	✓
	I notice when I am corrected on grammar in spontaneous communication (e.g. when giving opinions).	105	3.80	95	3.28	✓	✓	✓
	I notice how the correct version differs from my own and improve what I say.	105	3.80	95	3.41	✓	✓	✓

Note: L1: first-language learner, L2: second-language learner, C: complexity, P: productivity, A: accuracy

Table 4 shows "managing corrective feedback on grammar errors" (CS4) as the dominant cognitive strategy for all grammatical aspects. Internet use is prevalent for accessing references and aiding grammar in writing, especially during the pandemic. However, visual aids are rarely utilized; they prefer noted rules in descriptive sentences for clarity and ease of understanding. Additionally, Table 5 presents detailed findings from open-ended questions.

Table 5 shows that students utilize all macro-organism elements of grammar when writing opinion texts. However, students encounter writing challenges across all grammatical elements. In complexity, difficulties emerge in constructing compound sentences. Regarding productivity, students struggle with incorporating legal terminology to articulate their ideas due to limited exposure in their first semester. Additionally, limited vocabulary mastery leads to the use of less engaging words. Lastly, accuracy poses challenges in using punctuation marks like commas, semicolons, and hyphens to delineate sentences.

Table 5. Macro-organism elements of grammar on the law students writing

Elements of grammar	Writing activity	Writing challenges
Complexity	Compose various sentence lengths	Difficulty in compiling long sentences into compound sentences
	Compose various clause lengths	Difficulty in constructing clauses with predicates other than verbs and adjectives
Productivity	Compose intricate compound sentences using varied clause arrangements	Difficulty in determining conjunctions when composing multilevel compound sentences
	Ensure opinion texts meet word count requirements (700-800 words)	Difficulty in composing efficient and meaningful sentences and paragraphs so the text does not exceed 800 words
	Use precise terms to convey intended meanings	Difficulty in determining specific terms in law
Accuracy	Choose diverse vocabulary	Difficulty in choosing words that give an impression
	Use correct punctuation by language rules	Difficulty in employing punctuation in compound sentences
	Capitalize words appropriately	Difficulty in capitalization as limited understanding of the rules
	Write words with correct pronunciation	Difficulty in accurately pronouncing words, especially loanwords

3.1. Cognitive strategies in law student writing activities

This study found that most students employed cognitive strategies in writing by utilizing the internet to obtain information about using grammar in writing due to limited communication engagement during the pandemic. This finding is consistent with a previous study that identified writing as the primary language skill used in technology, particularly e-learning and social media [7]. Students must critically and consistently review references from various sources to enhance their text quality [25].

Previous research found that cognitive strategies were in the middle range across all subcategories [14], [19]. In contrast, our study revealed that cognitive strategies in L1 students tended to be high, while L2 students were moderate. L1 student mentioned the high utilization of cognitive strategies due to their familiarity with Indonesians from an early age, making it more convenient to employ them. So, the language acquisition order may affect the preference for cognitive strategies in writing.

We also revealed that law students used cognitive strategies by utilizing corrective feedback to improve their writing. The result is consistent with prior research showing the impact of grammar correction on writing quality [32], [33]. This cognitive strategy improved writing competence [32], [33].

Law students in this study preferred lecturers' feedback, which was more helpful for revision. Peers' feedback lacked detail and comprehensiveness, likely due to grammar proficiency limitations. This aligns with previous research emphasizing the preference for explicit corrective feedback, which aids task completion [28], [34]. However, these findings contradict previous research, demonstrating that students prefer corrective feedback from lecturers but still show positive affective concern for corrective input from students [35]. These findings also differed from prior research, which showed that students' corrective feedback is more effective in improving the writing quality of Indonesian students [32].

In writing opinion texts, students utilize all macro-organism elements of grammar, including vocabulary, sentence structure, spelling, and punctuation. However, Indonesian law students' grammatical problems in writing during the pandemic varied greatly. These findings are presented in Figure 1.

Figure 1 shows that writing opinion texts is still a problem for law students at the phonology, morphology, and syntax levels. A varied grammatical system causes writing difficulties [14], [36]. To address these issues, formal reduction is used to aid the morphological problems, while functional reduction is used to solve syntactic concerns by storing messages for later use [10], [17].

Our study found that students faced various grammar challenges, as presented in Figure 1. In contrast, the previous study revealed learners' primary focus on lexical and surface-level linguistic processing, with limited attention to grammar [37]. Our study also contradicted another study that demonstrated students prioritize syntactic over morphological aspects. These differences stem from individual learner variations, such as fluency, accuracy, complexity, or communicative trustworthiness focus, which need to be investigated by future research [17]. The differences in the findings also arise as law students faced grammar problems in writing during the pandemic, with limited interactions in overcoming these problems.

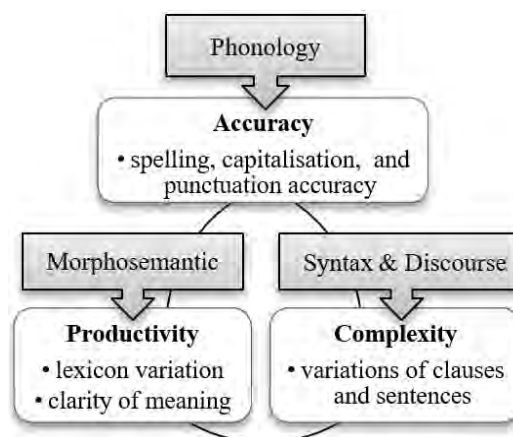


Figure 1. Grammar problems in law student writing

3.2. Cognitive strategy correlation in writing activities of law students

Cognitive strategies are fundamental in law students' application of grammar when writing opinion texts in this study. This study also supports the results of previous studies, which found that cognitive strategies are widely used by most students in Saudi Arabia [15] and Palestine [16]. These findings indicate that cognitive strategies are crucial and become students' preferences in completing communication tasks.

This study found that the correlation between CS2 and all cognitive strategies had the highest relationship. CS 2 emphasizes fostering explicit knowledge of grammar [14], which entails understanding and correctly applying grammar rules [13], [17]. Explicit knowledge aids law students in structuring phrases to convey facts clearly to ensure reader comprehension. Moreover, it fosters logical and clear language construction to minimize ambiguity. So, cognitive strategies targeting explicit knowledge entail explicit instruction [38], [39]. Thus, integrating CS 2 and all cognitive strategies is helpful in writing activities.

This finding contrasts with prior research, which suggests that students typically rely on implicit learning strategies, primarily on forms [40]. Implicit learning (CS 3) involves understanding grammar through text examples and practicing rules in controlled contexts [14]. In this study, law students engage in communication tasks requiring grammar mastery and critical analysis to compose exciting and straightforward language in opinion texts. Therefore, explicit knowledge-oriented cognitive strategies are beneficial for identifying grammar rules in opinion writing. Additionally, the law student characteristics in this study may yield different findings. Therefore, grammar instruction in the Law Faculty emphasizes conveying facts and arguments and enhancing writing skills and grammatical sensitivity [41], [42].

This study proposes that cognitive strategies are interconnected, especially in complex writing tasks. Thus, integrative strategies enhance writing activities. Combining all cognitive strategies yields the highest average correlation, aligning with previous research indicating that integrative instruction comprehensively improves conceptual understanding and practical language skills [34], [38], [43].

3.3. Pedagogical implications of cognitive strategies in law student writing activities

This study shows a strong correlation between cognitive strategies, aligning with previous research that explicit and implicit knowledge exert reciprocal influence [38], [39], [44]. Explicit language instruction emphasizes formal language and is more suitable due to their higher cognitive maturity. Conversely, implicit instruction, being meaning-oriented, is less effective in facilitating grammar learning [45]. Integrating these strategies into writing tasks is essential in writing instruction [43], [46]. Therefore, lecturers must provide learners with implicit and explicit instruction [43], especially for writing activities.

In this study, L1 and L2 students highly preferred managing corrective feedback on grammar errors in their opinion texts. This finding aligns with prior research that a structured program providing targeted corrective feedback and revision materials was more effective for second-language and first-language writers than a generic grammar approach [47]. Written error feedback has enhanced writing accuracy, with practical and concrete notes, reviews, and inputs aiding students' comprehension and revision [32], [34].

From the learner's point of view, effective language learners often utilize strategic tools to enhance their grammatical knowledge in writing [27], [48]. These tools involve reading, text analysis, organizing thoughts, and writing essays, significantly improving writing skills [21]. Since much of a lawyer's work revolves around reading, writing, and analyzing legal documents, law students must be mindful of their writing practices [1].

Therefore, lecturers need expertise in mastering and effectively teaching grammar to engage students in learning [10]. Clear information about the material enhances students' metalinguistic knowledge [49]. The lecturer's explanation significantly enhances students' comprehension and application of grammar in writing [27]. Conversely, inadequate linguistic knowledge places undue pressure on lecturers when identifying grammatical errors in writing instruction [10].

Moreover, teaching and learning strategies show an interdependent relationship. Students can choose their preferred strategy [27], [48]. Lecturers can tailor instruction to address writing challenges, offer strategies to improve text, provide explicit guidance, and encourage learner autonomy in strategy selection based on individual preferences, cognitive styles, and language acquisition order [27], [17], [47]. So, a comprehensive systematic program is essential to introducing students to diverse grammar learning strategies.

Legal writing instruction is crucial [3]. Therefore, law students' efforts in writing must be considered in the broader context of their educational background by understanding the diverse writing tasks lawyers undertake for their clients [25], [3], [26]. They require general and legal writing skills [25], [3], [26]. Legal writing instruction should address the legal field demands, incorporating social justice while prioritizing grammar proficiency, strategic argumentation, and clear and persuasive writing [3], [27], [50]. Thus, writing instruction in the law requires students to consider which authorities to use and how to connect different sources effectively, critically analyze the broader subject [34].

While this study thoroughly examined the cognitive strategies of law students in crafting opinion texts, it is not without limitations. Specifically, the sample size was restricted by specific criteria, potentially constraining the study's applicability. To enhance generalizability, future research could encompass multiple universities. Additionally, while the study focused on grammar-learning strategies and their correlations with writing, it did not assess writing quality or explore the relationship with writing grades.

4. CONCLUSION

Our findings prove that L1 students are high in cognitive strategies, while L2 students are moderate. Cognitive strategy 4 was the highest, namely dealing with corrective feedback on grammatical errors. Meanwhile, the most significant is the relationship between all cognitive strategies and developing explicit knowledge of grammar. In practice, program and academic designers can use this study to improve writing programs for law students. A comprehensive program should introduce various grammar learning strategies, with lecturers encouraging students to choose them. Missed helpful strategy should be practiced more frequently. Administrators should organize more training for law lecturers and students to improve learning strategy knowledge and reading and writing skills.

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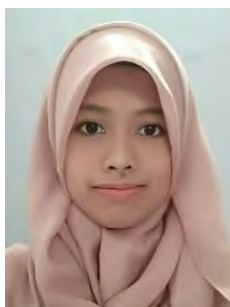
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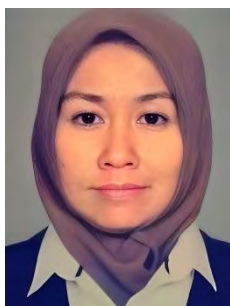
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