



The Mediating Effect of Attitude towards Writing on the Relationship Between Instructional Approach and Syntactic Complexity in Argumentative Essays of TESOL Learners in China: Moderating Role of Writing Task Complexity

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Citation: Tao, Y., Mofreh, S. A. M., & Salem, S. (2024). The Mediating Effect of Attitude Towards Writing on the Relationship Between Instructional Approach and Syntactic Complexity in Argumentative Essays of TESOL Learners in China: Moderating Role of Writing Task Complexity. *Educational Administration: Theory and Practice*, 30(3), 301-317. doi: 10.52152/kuey.v30i3.840

ARTICLE INFO

Received: 06 Mar 2023

Accepted: 24 May 2023

ABSTRACT

Non-native English speakers, especially in countries like China where English is taught as a second language, value English proficiency. In TESOL contexts, writing proficiency is crucial to language learning. To design effective instructional methods and improve students' writing skills, educators and researchers must understand writing performance factors. The goal of this research is to look into the relationship between instructional technique (process-based teaching, direct instruction, and hybrid instruction) and syntactic complexity in argumentative essays written by TESOL students in China. With the mediating role of attitude towards writing and the moderating influence of writing task complexity in this connection. This study enlisted the participation of 368 TESOL students from China. Participants were assigned to one of three teaching groups based on a random draw: process-based instruction, direct instruction, or hybrid training. Students were then given the option of completing an argumentative writing exercise of high or low complexity. This study found that the instructional approach affects argumentative essay syntactic complexity. Attitude towards writing also mediated the relationship between instructional technique and syntactic complexity. The high-complexity writing assignment had a stronger instructional style effect on syntactic complexity. This study shows that attitude towards writing and writing task complexity must be considered when developing instructional approaches to increase syntactic complexity in argumentative essays of Chinese TESOL learners. This study also stresses the importance of considering the complexity of the writing assignment when teaching TESOL students to write.

Keywords: TESOL, Instructional Approach, Syntactic Complexity, Attitude towards Writing, Writing Task Complexity.

INTRODUCTION

English has evolved into a global language, and it is widely used for communication in many countries worldwide. As a result, teaching English as a second or foreign language has become a required component of many educational systems (Lake & England, 2023). TESOL (Teaching English to Speakers of Other Languages) students in China are no exception, and they frequently struggle with writing argumentative essays because of the grammatical discrepancies between Chinese and English. As a result, it is critical to explore the relationship between instructional methodologies and syntactic complexity in TESOL students' argumentative writings in China (Ducker, 2022).

In today's globalized world, the English language has gained increasing significance. As the dominant language of international communication, it plays a crucial role in various domains, including education, business, technology, and culture. Proficiency in English has become a valuable asset for individuals seeking academic and professional success, particularly in countries like China, where English is taught as a second or foreign language (Liu, Sun, & Tu., 2019). English language learning holds immense importance in the Chinese context due to its potential impact on students' academic and career prospects. Effective communication in English opens doors to educational opportunities abroad, facilitates international collaborations, and enhances employability in multinational corporations. Recognizing these advantages, the Chinese educational system places significant emphasis on English language education (Panavas et al., 2022).

Chinese English and culture training using TESOL. ESL teachers with experience boost students' English fluency, confidence, and proficiency (Christodoulakis, Carulla, & Adbo, 2021). Student benefits from TESOL are many. These activities improve language and confidence. TESOL emphasizes academic and communicative skills like listening, speaking, reading, and writing (P. Zhang, 2022). Writing, conversations, and interactive exercises teach language in TESOL classes. These opinion-based exercises help students learn language. Comprehensive language skills are stressed in TESOL programmes to teach English communication (Christodoulakis, Carulla, & Adbo, 2021). TESOL teachers improve with study tools. These include textbooks, audiovisuals, online resources, and language learning software (Zollo, 2019). These tools teach students diverse language scenarios. Teachers must create curriculum that meets students' needs and goals. A vibrant class demands customized programming. Many methods and resources help TESOL students learn English (Yenkimaleki, van Heuven, & Soodmand Afshar, 2022). Multimedia, interactive activities, and personalized curricula make learning dynamic. This is needed to engage language learners. Online resources and language learning technologies make TESOL courses more engaging (Zollo, 2019). TESOL programs in China boost English proficiency, confidence, and fluency. TESOL classes teach English through listening, speaking, reading, and writing. Numerous study aids, materials, and curricular concepts offer a dynamic and engaging learning environment for Chinese language learners.

TESOL in China and English language instruction worldwide are booming. China has stressed the need of English language teachers due to globalization and trade. Therefore, more Chinese students are pursuing TESOL classes to improve their English. China needs English teachers, therefore online TESOL, study abroad, and classroom instruction are popular (Qiu & Luo, 2022). The growing Chinese TESOL business lets local and foreign professors improve Chinese students' language skills. Recently, more TESOL teaching strategies have been used for writing. Process-based, direct, and hybrid teaching are common (Catala, Gijlers, & Visser, 2023). Direct training stresses writing, process-based learning encourages revising, and hybrid instruction does both. Writing requires complex sentence structure (Krause et al., 2023). Syntactic complexity improves writing, hence argumentative essay complexity teaching tactics should be investigated. Writing attitudes affect students (Yoon, 2021). Positive writing attitudes improve kids' writing. Negative people may work poorly due to lack of motivation. Written difficulty moderates instructional style and grammatical complexity in argumentative essays (D'Alessio, Wilson, & Jaichenco, 2019). sophisticated writing may require sophisticated syntactic structures. Recognizing these links helps teachers enhance students' writing curricula.

China emphasizes English language acquisition, thus teachers must apply numerous methods. To meet Chinese students' changing demands, mix online and study abroad programs. Teaching methods, grammatical complexity, writing attitude, and task difficulty are interrelated, necessitating a thorough and flexible approach. Addressing these characteristics helps teachers teach Chinese students English and prepare them for global communication. TESOL schools may award credits, certifications, or recognition to motivate graduates. By showing language proficiency, these incentives increase students' confidence and English learning (Xu, Fan, & Luo, 2021). TESOL students benefit from credits, certifications, and recognition. These awards reward programming and language skills. Credits or certificates recognise student English learning. Rewards promote student confidence. Credentials prove English proficiency. Student English confidence encourages its use outside of class. Material rewards inspire. Despite the efforts in TESOL instruction, there is a research gap concerning the factors that influence students' writing performance in TESOL classes, particularly in the context of argumentative essays. While instructional approaches, such as process-based instruction, direct instruction, and hybrid instruction, have been widely employed in TESOL classrooms, their specific impact on syntactic complexity in argumentative essays has not been extensively explored (Fathi, Derakhshan, & Torabi, 2020). Moreover, learners' attitudes towards writing have been recognized as crucial factors influencing their writing performance. However, the mediating effect of attitude towards writing on the relationship between instructional approaches and syntactic complexity in TESOL learners' essays remains largely unexplored. Additionally, the moderating role of writing task complexity in this relationship requires further investigation.

The aim of this study is to investigate the relationship between instructional approach (process-based instruction, direct instruction, and hybrid instruction) and syntactic complexity in argumentative essays of TESOL

learners in China while examining the mediating effect of attitude towards writing and the moderating role of writing task complexity. The study will advance TESOL argumentative essay instructional method and syntactic complexity research. These goals guide research:

The study compares process-based, direct, and hybrid argumentative essay syntax teaching. This study studies writing outcomes to determine syntactic complexity-boosting training options.

To determine if TESOL learners' writing attitudes moderate teaching style and syntactic complexity. Instructors can improve training by understanding how student attitudes affect results.

Our study will examine how writing task complexity moderates instructional strategy-syntactic complexity. The study examines how task complexity affects teaching approaches to show their dynamic interplay.

TESOL argumentative essay literature now includes instructional strategies' effects on grammatical complexity. It fills knowledge gaps by studying writing attitude and task complexity (Duman, Yaçın, & Erçetin, 2021).

This study impacts Chinese TESOL teachers. Learning how instructional methods affect writing can assist teachers improve students' syntactic complexity. TESOL teachers can use data to improve students' writing.

The study may impact TESOL teaching methodology research. This research enhances language training, particularly writing. The study gives educators and researchers evidence-based TESOL teaching improvements.

LITERATURE REVIEW

Process-Based Instruction and Instructional Approach

Process-based education prioritises learning steps above the final outcome (Pratsri, Nilsook, & Wannapiroon, 2021). This method promotes active learning, feedback, and reflection. Process-based training prioritises learning over results. Methodology guides pupils through learning, encouraging active participation. This contrasts with methods that focus on the result without understanding how it was accomplished. Process-oriented students employ deep processing more, according to Broemmel, Rearden, and Buckner (2021). Learning product advocates like surface processing. Process-based training enhances learning and engagement. Knowing how learning works promotes comprehension and connection. Yu, Xu, Jiang, and Chan (2020) found process-based learners self-regulated more. These students effectively tracked and assessed their learning. Process-based training promotes self-awareness and metacognition by letting students lead their learning. Process-based education promotes learning rather than results, focusing on the journey. Process-oriented students like deep processing, which engages them in the material. Process-based learning improves self-regulated learning and progress monitoring and evaluation.

Direct Instruction and Instructional Approach

Teachers emphasise extensive explanations of skills and concepts in direct instruction. Education by steps simplifies complex abilities and concepts (Sun et al., 2022). Highly structured direct instruction focuses on specific skills and knowledge. Mannarelli and Serrano (2022) found direct instruction improves education. Direct instruction increased student engagement, performance, and retention. Direct instruction's clear content helps students learn. Challenged children benefit from direct instruction. Blömeke et al. (2022) found direct instruction improved reading and maths. The youngsters behaved better than at other schools. Direct education was effective and inclusive for all races and socioeconomic groups. Organised direct instruction works. Teachers can simplify difficult concepts to promote comprehension and recall. Its positive effects on student engagement and accomplishment, especially among struggling learners, demonstrate its versatility and application in various educational environments. Direct instruction is highly regulated and explains skills and concepts. Research consistently shows its benefits to student engagement, academic performance, and material retention. Direct instruction helps kids with learning difficulties, demonstrating its inclusion and versatility (Sun et al., 2022).

Hybrid Instruction and Instructional Approach

Combining online and face-to-face learning makes hybrid training adaptable. This technique allows self-paced learning (Raes et al., 2020). A hybrid classroom uses online quizzes, discussions, and multimedia with in-person education. J., Steele, and L. Singh (2021) found hybrid training successful. They found hybrid students outperformed face-to-face students academically. Online education may improve student learning. Integrating traditional and online learning strengths is hybrid training's main value. Teachers can lead and support students face-to-face, boosting teamwork. Online learning is customisable for different learning styles and interests. Because it accommodates learning styles, hybrid education works. Online study, forums, and tests are convenient

for students. This flexibility helps students with diverse learning methods.

Combining online and face-to-face learning is creative and effective. Hybrid students outperform face-to-face students academically (J. Singh, Steele, & L. Singh, 2021). Students learn better with hybrid instruction's flexibility and personalisation. Also, the study discovered that hybrid instruction improved student engagement, student happiness, and instructor satisfaction. According to the research by Stillman-Webb, Hilliard, Stewart and Cunningham (2023), hybrid instruction was equally beneficial for students from various socioeconomic and racial backgrounds. Also, the study discovered that hybrid training improved student retention and graduation rates. It was discovered that hybrid-instructed pupils were more likely to use higher-order thinking abilities including analysis, synthesis, and evaluation.

Instructional Approach and Syntactic Complexity in Argumentative Essays

A well-supported argument or position on a certain issue or topic is presented in an argumentative essay, a style of academic writing. An argumentative essay's goal is to persuade the reader to share the writer's viewpoint by supporting it with facts and sound reasoning. Normally, the opening of an argumentative essay presents the subject and gives some background information (Shao, H. Zhang, J. Zhang, Zhong, & Xu, 2022). Structured argumentative essays are common. The opening states the essay's thesis. Development and defence of this thesis will span the essay. The essay organises evidence and ideas. This section may refute criticisms to support the author. Essays end with diverse theses. Conclusions condense and reinforce key ideas. The finale concludes and leaves a mark. Argumentative essays can address social, political, philosophical, and scientific issues (Sarte & Gnevshva, 2022). An argumentative essay can suffer from complex syntax. Shao et al. (2022) showed syntactic complexity training complicates argumentative essays. Grammar and sentence-combining practise helped (Wallace, Knudson, & Gheidi, 2020). Different teaching approaches complicate argumentative essay syntax. Brainstorming, composing, reviewing, and editing process-based learning increases English language learners' essay syntactic complexity (Gleichgerrcht et al., 2021). Feedback during writing has also worked. Jo (2021) found syntactic complexity feedback benefited Chinese students' argumentative writing. An argumentative essay systematically argues a main point. Effective argumentative essays require explicit training, process-based learning, and feedback to improve syntactic complexity. These methods provide more sophisticated and persuasive arguments.

TESOL instructors' writing styles affect argumentative essay syntactic difficulty, research shows. Dalman and Plonsky (2022) found a strong correlation between TESOL teachers' writing opinions and teaching practices, which affect essay syntactic complexity. Positive writing TESOL instructors taught syntax and grammar better, the study revealed. This positive mindset improved their pupils' persuasive writing grammar (McAndrews, 2021). Teachers that help students write demonstrate their language development views. The study examined TESOL teachers' writing opinions. Background, instruction time, and culture mattered. Many TESOL instructors with linguistics and English expertise promoted writing and taught syntax and grammar (Li, 2021). Teachers of English as a second language were also more likely to help students write argumentatively. Culture also shaped TESOL teachers' writing. Cultural writing influenced teachers and TESOL students (Ngo, 2019). Culture affects TESOL writing teaching venues and expectations. Finally, TESOL instructors' writing styles affect argumentative essay syntax. Positive teachers can instruct children precisely, increasing syntactic complexity. Educational background, teaching experience, and culture affect TESOL writing instruction attitudes and success. Understanding and resolving these issues improves TESOL students' writing.

TESOL's Attitude towards Writing as a Mediator

Writing instruction using various methods, such as process-based instruction, direct instruction, and hybrid instruction, has been investigated. The writing process is highlighted in process-based instruction, which encourages students to come up with ideas, plan, draft, revise, and edit their writing (Duan, Jia, & Chen, 2022). A systematic approach called direct instruction places an emphasis on the explicit teaching of concepts and skills. Online learning and conventional face-to-face training are combined to create hybrid instruction (Neha, Reese, Schaughency, & Taumoepeau, 2020). The way TESOL instructors feel about writing can have an impact on how they teach and how well their students write. A study by Vellanki, Mond, Khan and Nair. (2022) established a correlation between TESOL's attitude regarding writing and their use of writing tactics and feedback on students' writing. TESOL instructors who had a favorable outlook on writing tended to employ more strategies and give their students more thorough feedback. TESOL teachers' writing attitudes may affect instruction and student writing. TESOL's writing attitude influences argumentative essay syntax and instruction, argues McAndrews (2021). TESOL's writing attitude affects argumentative essay syntactic complexity and process-based training, research shows. Writing process attitudes of TESOL teachers impact how process-based instruction improves syntactic complexity. Writing opinions of TESOL teachers affect process-based instruction. The study also found that TESOL's writing attitude fully affected direct teaching and argumentative essay syntactic difficulty. The

writing attitudes of TESOL instructors determine whether direct teaching affects syntactic complexity. Therefore, TESOL instructors' writing attitudes greatly affect how direct teaching improves argumentative essay syntactic complexity. These data suggest addressing instructional method and TESOL instructor attitudes. In TESOL's writing attitude mediation, instructor mentality affects how well instructional approaches improve students' writing. Finally, TESOL teachers' writing attitudes affect student writing and instruction. Understanding how teachers' attitudes affect process-based and direct teaching improves TESOL writing.

Writing Task Complexity as Moderator

Writing well involves syntactic complexity (M. Zhang Lan, & Yang, 2023). Complex syntax means argumentative essayists can explain complex topics. Writing difficulty can affect TESOL's argumentative essay syntax and thinking.

Writing task difficulty affected TESOL's writing attitude and argumentative essay syntactic complexity, according to Sarte and Gnevsheva (2022). The TESOL writing attitude improved syntactic complexity for difficult argumentative essays. TESOL instructors' assignment difficulty may affect syntactic complexity.

A hypothesis and conceptual framework evolved from this discourse and literature review. The concept is that TESOL's writing balances argumentative essays' grammar. Written challenges should affect TESOL's grammatical complexity view.

TESOL's writing attitude, argumentative essay syntactic complexity, and writing task complexity may interact in **Figure 1**. For empirical testing, frameworks show research links and dynamics.

Literature analysis demonstrates argumentative writing demands grammatical complexity. Sarte and Gnevsheva (2022) found that writing task complexity complicates TESOL's writing attitude-syntactic complexity relationship. Further empirical research can confirm and improve our understanding of these links utilising the findings' premise and conceptual framework.

H1: The instructional approach has a significant and positive influence on process-based instruction.

H2: The instructional approach has a significant and positive impact on direct instruction.

H3: Instructional approach has a significant and positive impact on hybrid instruction.

H4: Instructional approach has a significant and positive impact on TESOL's attitude towards writing.

H5: TESOL's attitude towards writing has a significant and positive impact on syntactic complexity in argumentative essays.

H6: TESOL's attitude towards writing significantly mediates the relationship between instructional approach and syntactic complexity in argumentative essays.

H7: Writing task complexity significantly moderates the relationship between TESOL's attitude towards writing and syntactic complexity in argumentative essays.

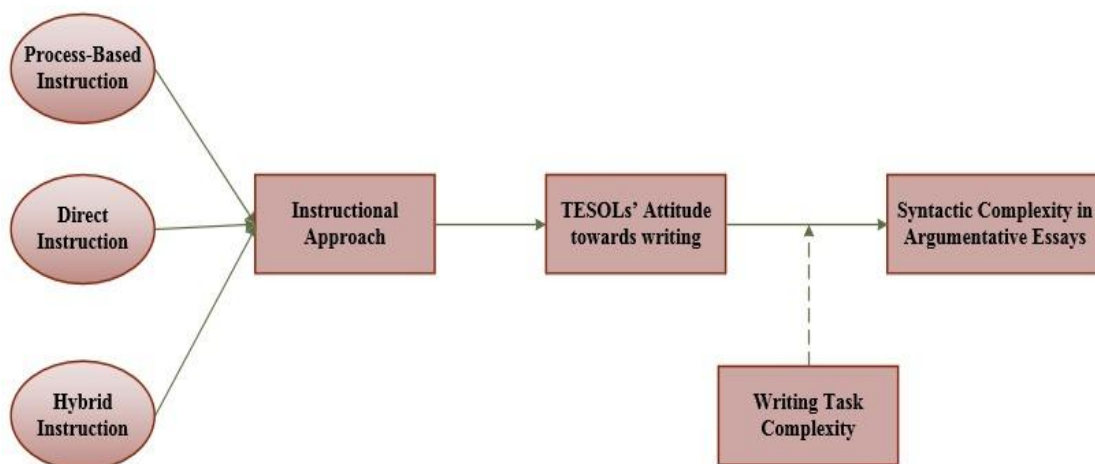


Figure 1. Conceptual Framework
METHODOLOGY

Internet questionnaires provided data. Instructional technique, grammar, writing attitude, and task complexity may have been surveyed. Online surveys streamline data collection from remote workers. SmartPLS 4, a powerful structural equation modelling system, analysed data (Sandra Marcelline et al., 2022). Complex models with many variables and interactions can be analysed using structural equation modelling. The programme tested the study's instructional approach, grammatical complexity, writing attitude, and task complexity. SmartPLS 4's comprehensive analysis can analyse the model's complex links. All links are revealed by structural equation modelling of latent variables and their effects. University-level English writing was studied with 368 Chinese TESOL students. Inclusion criteria were used to select participants using basic random sampling. Online survey data was analysed using SmartPLS 4 to test the recommended model and correlations between instructional approach, syntactic complexity, writing attitude, and task difficulty. A systematic study examines the complex dynamics of TESOL writing instruction. They studied university English writing. Random selections were made from university student lists. English-speaking Chinese students taking an English writing course were eligible. The study included 368 TESOL students who met these criteria. The mediating effect of attitude towards writing and the moderating role of writing task complexity was also examined using SmartPLS 4.

RESULTS

Sample Profile

The sample size for this study is 368 TESOL learners in China, with gender distribution (49.7% male and 50.3% female). The majority of the students were between the ages of 18-23 (59.2%), and about two-thirds of the sample had a bachelor's degree (68.5%). In terms of English proficiency, the majority of the students had an advanced level (59.0%), with 34.5% at an intermediate level and only 6.5% at a beginner level (**Table 1**).

Table 1. Demographic profile of the respondents

Demographic item	Frequency	Percentage
Gender	Male	183
	Female	185
Age	18-20	92
	21-23	126
	24-26	85
	27 and above	65
	Bachelor's Degree	252
Educational Level	Master's Degree	116
	Beginner	24
English Proficiency Level	Intermediate	127
	Advanced	217
		59.0%

In this study, the measurement and structural models were put to the test using the variance-based PLS-SEM. The PLS-SEM method has been dubbed the "holy grail" and "silver bullet" of advanced research analysis because it is basically without rival in large, complex models with hierarchical latent variables (Hair et al., 2019). When examining complicated models with higher-order constructs (HOCs), such as reflective-reflective models, PLS-SEM offers a good predictive potential (Hair, Risher, Sarstedt, & Ringle, 2019). The technique has the benefit of using path analysis to measure latent components (Hair et al., 2019). It also offers a more thorough justification for the variance that results from changes in the dependent variable when analyzing the structural model (Hair et al., 2019).

Testing Measurement Model (Stage 1)

Reflective-formative modeling is the most modern and reliable PLS-SEM technique for second-order structures used in this study. The technique makes it simpler to estimate hierarchical second-order constructs by utilizing recurrent indicators (Hair et al., 2019). As a result, modeling the instructional approach necessitates measuring each of its types as reflecting (first-order) constructs. Following this, the instructional approach is measured as a reflective (second-order) construct utilizing repeated suggestions. Better management suggestions can be made by focusing on the indicators' relative weights in the construction of the instructional technique design (Hair et al., 2019). With regard to process-based instruction, direct instruction, hybrid instruction, and all other variables, the factor-based PLS algorithm produced outer loading values that reflected the measurement

model of a multidimensional educational strategy. The outer loading larger value for each item is 0.5. The outer loading of each item is shown in **Table 2**.

Table 2. Outer Loading of Items

	Items	Outer Loading
Direct Instruction	DI1	0.890
	DI2	0.912
	DI3	0.922
Hybrid Instruction	HI1	0.908
	HI2	0.921
	HI3	0.887
Process Based Instruction	PBI1	0.805
	PBI2	0.779
	PBI3	0.756
Syntactic Complexity in Argumentative Essays	SCAE1	0.766
	SCAE2	0.729
	SCAE3	0.804
TESOL's Attitude towards Writing	TATW1	0.795
	TATW2	0.778
	TATW3	0.757
Writing Task Complexity	WTC1	0.871
	WTC2	0.875
	WTC3	0.915

The measuring model's quality was evaluated by accessing individual items and the scale reliability of all components, followed by convergent and discriminant validity. Internal consistency of items can be used to assess reliability, whilst convergent and discriminant validity of constructs can be used to assess validity (Hair et al., 2019). Cronbach's and CR confirmed the internal consistency of all questionnaire items (Hair et al., 2019). Cronbach's Syntactic Complexity in Argumentative Essays ($\alpha = 0.930$) with 3 items, TESOL's attitude towards Writing ($\alpha = 0.907$) with 3 items, writing task complexity ($\alpha = 0.942$) with 3 items, and instructional approach dimensions, i.e. process based instruction ($\alpha = 0.866$), direct instruction ($\alpha = 0.894$), and hybrid instruction ($\alpha = 0.917$) with 3 items each are represented in **Table 3**. **Table 3** also includes the CR results for all metrics, including the multi-dimensions of the instructional method. The CR is said to be a better tool for measuring accurate reliability findings (Hair et al., 2019). The findings revealed that all construct attributes fulfilled a reasonable level of CR and Cronbach's alpha, with values greater than the threshold, i.e.0.70 (Hair et al., 2019). The measurement of convergent validity gives correlational metrics that represent the extent of agreement among different indicators of the same construct. Convergent validity is established when the value of AVE reaches the threshold value, i.e. 0.5. (Hair et al., 2019). **Table 3** evaluates all constructs with AVEs greater than the threshold, i.e. 0.50. As a result, these values confirm the composites' unidimensionality and the authenticity of convergent validity.

Table 3. Construct Reliability

Variables	Cronbach Alpha	CR	AVE
Direct Instruction	0.894	0.934	0.824
Hybrid instruction	0.890	0.932	0.820
Process-Based Instruction	0.866	0.917	0.786
Syntactic Complexity in Argumentative Essays	0.930	0.955	0.877
TESOL's Attitude Towards Writing	0.907	0.942	0.844
Writing Task Complexity	0.942	0.963	0.896

The Fornell-Larcker criterion of cross-loading indicators was used to evaluate the discriminant validity criterion of the measurement model (Hair et al., 2019). The evaluation of discriminant validity ensures that reflective constructs and their indicators have substantial correlations in comparison to other constructs and their indicators (Hair et al., 2019). Hence, discriminant validity testing supports the empirical distinction between various ideas. The values of the correlations between the model constructs are shown in **Table 4**. The square root of AVE is used to compare these correlations between latent constructs according to the Fornell-Larcker cross-loading criteria. As a result, the discriminant validity increases with the square root of each latent construct's AVE in comparison to the connection with other latent variables. As is shown in **Table 4**, the results confirm the discriminant validity value for Syntactic Complexity in Argumentative Essays (0.936), TESOL's attitude towards

Writing (0.919), writing task complexity (0.946), and instructional approach dimensions, i.e. process based instruction (0.887), direct instruction (0.908), and hybrid instruction (0.905).

Table 4. Discriminant Validity (Fornell-Lacker)

	DI	HI	PBI	SCAE	TATW	WTC
Direct Instruction	0.908					
Hybrid instruction	0.403	0.905				
Process-Based Instruction	0.273	0.270	0.887			
Syntactic Complexity in Argumentative Essays	0.066	0.113	0.450	0.936		
TESOL's Attitude Towards Writing	0.312	0.226	0.087	0.325	0.919	
Writing Task Complexity	0.182	0.167	0.397	0.873	0.292	0.946

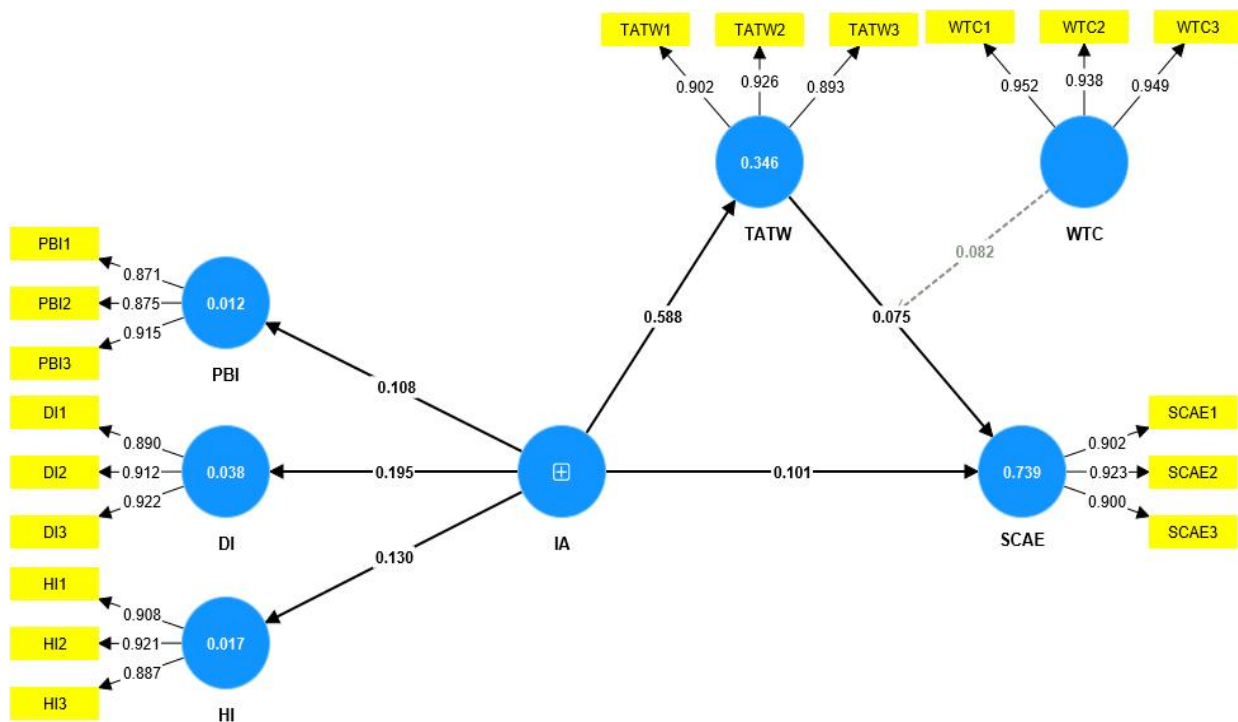


Figure 2. Measurement Model

Testing Measurement Model (Stage 2)

Reporting the outer weights and p-values of the first-order (reflective) dimensions is necessary, as stipulated by the standards for evaluating formatively modeled HOC (Hair et al., 2019). Outer weights and p-values are used in **Table 5** to determine the significance of the instructional method (second-order reflective) and its dimensions (first-order reflective). In addition, the absence of multi-collinearity problems was demonstrated by the collinearity statistics of the reflective construct indicators. This was accomplished by ensuring that all of the variance inflation factor values were less than 0.5, which is the suggested threshold (Hair et al., 2019).

Table 5. Assessment of Reflective Dimensions of Instructional Approach

First-order construct (Reflective)	Second-order construct (Reflective)	Path Coefficient	t-value	VIF	p-value
Instructional Approach	Direct Instruction	0.195	4.034	3.230	0.0001
	Hybrid instruction	0.130	2.610	2.898	0.005
	Process-Based Instruction	0.108	2.148	2.188	0.016

Significance of Structural Model

The statistical significance of all route coefficients between exogenous (i.e. independent) and endogenous (i.e. dependent) variables is investigated in a structural model (Hair et al., 2019). The PLS-SEM method and

bootstrapping (i.e. resampling) technique uses path coefficients and t-values to assess the significance level of structural correlations (Hair et al., 2019). Path coefficients offer standardized regression coefficients, whereas t-values establish the significance level of the research constructs, which must be more than 1.64 (Hair et al., 2019). **Figure 2** depicts the structural model of the multidimensional instructional approach, whereas **Table 6** displays the path coefficients, t-values, and significance level for the research variables.

The findings demonstrate the predictive usefulness of the reflective notion of a multidimensional instructional process via direct linkages such as syntactic complexity in an argumentative essay and TESOL's attitude about writing. Furthermore, the coefficient of determination, or R² value, provides the primary assessment of the structural model. **Table 6** demonstrates that the teaching procedure, TESOL's attitude towards writing, and writing task complexity explain 73.9 percent of the variance in argumentative essay syntactic complexity. Hence H1, H2, and H3 are accepted. This study model's R²-value indicates greater statistical power in parameter estimations (Hair et al., 2019). Furthermore, the PLS-SEM blindfolding technique was employed to confirm the model's predictive significance. For this investigation, the derived Stone-value Geisser's (Q²=0.722) meets the stipulated criteria (i.e. Q²>0) for the predictive relevance of our study model (Chin, 1998). The PLS-SEM assessment for standardized root mean residual (SRMR) criterion value (SRMR=0.077) confirms the model fitness, which is likewise within an acceptable range, i.e. SRMR 0.08 (Hair et al., 2019), as shown in **Table 6**.

Table 6. Direct Path Analysis

Constructs	Path Coefficient	T value	P value	Q ²	R ²	SRMR
IA -> SCAE	0.101	2.741	0.003	0.722	0.739	0.077
TATW -> SCAE	0.075	2.063	0.020			

Testing of Hypotheses

The PLS-SEM bootstrapping technique generates evaluation ratings for the structural path model, which are based on the study hypotheses and are presented in **Table 6**. The model illustrates the direct influence that instructional strategies and TESOL instructors' views regarding writing have on the syntactic complexity of argumentative essays. The correlation between the two variables demonstrates that instructional approaches do have a highly substantial and favorable impact on the syntactic complexity of argumentative essays (t = 2.74; p = 0.003). Hence, H₄ is therefore accepted. In addition, the attitudes of TESOL teachers towards writing demonstrate a substantial and beneficial effect on the syntactic complexity of argumentative essays (t = 2.063; p = 0.020). Hence, H₅ is therefore accepted.

Mediation Analysis

The mediation effect of TESOL's attitude towards writing was investigated between the relationship of instructional approach and syntactic complexity in argumentative essays. TESOL's attitude towards writing significantly mediates the relationship between instructional approach and syntactic complexity in argumentative essays (t=2.003; p = 0.023). H₆ is therefore accepted as shown in **Table 7**.

Table 7. Mediation Analysis

Constructs	Path Coefficient	T value	P value
IA -> TATW -> SCAE	0.044	2.003	0.023

Moderation Analysis

The moderating influence of writing task difficulty was explored on the relationship between TESOL teachers' attitude towards writing and the syntactic complexity of argumentative essays, as graphically displayed in **Figure 3** and **Table 8**. The results of this investigation are shown below. Writing task complexity (t=2.215; p = 0.013) establishes significantly positive moderations on the relationship between TESOL's attitude towards writing and syntactic complexity in argumentative essays.

Table 8. Moderation Analysis

Constructs	Path Coefficient	T value	P value
WTC x TATW -> SCAE	0.082	2.215	0.013

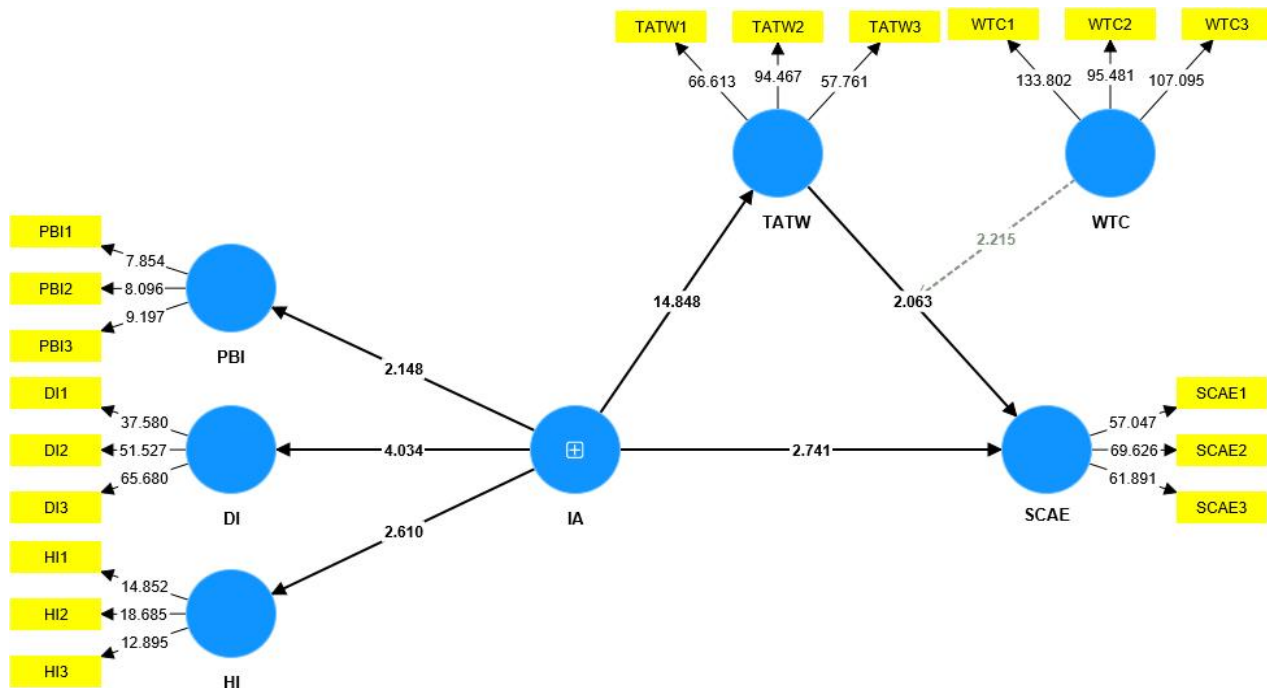


Figure 3. Structural Model

DISCUSSION

First hypothesis: process-based instruction's influence. Process-based learning emphasises problem-solving, critical thinking, and self-regulation over content (Rezai, Ashkani, & Ismail, 2023). Numerous studies suggest process-based teaching improves student learning. Process-based learning boosts student engagement (Fathi et al., 2020). Student participation improves comprehension and retention. Process-based learning improves metacognition, including learning monitoring and technique correction (Usher, Hershkovitz, & Forkosh-Baruch, 2021). Academic success and lifelong learning require metacognition (Kurent & Avsec, 2023). Process-based learning may boost metacognition and motivation (S. Zhou & Rose, 2021). Students enjoy active learning more than passive learning. This develops critical thinking and problem-solving skills for academic and non-academic achievement.

The second hypothesis covers direct instruction and instructional method. Direct instruction is structured, teacher-led, and focuses specific teaching approaches to promote student learning. Many research suggest that direct education enhances student performance (Duan et al., 2022). Students receive clear instructions on what and how to study (Catala et al., 2023). It effectively guides challenging students and provides feedback to increase comprehension. Direct instruction helps teachers identify student learning challenges for focused interventions and support (Mendoza, Yan, & King, 2023). Students are more engaged with direct instruction (Emerick, 2019). Clear instructions help teachers create a good, engaging learning environment and reduce student misunderstanding and frustration. Direct instruction shows pupils they can grasp difficult subjects, boosting their confidence (Maureen, van der Meij, & de Jong, 2022). P. Zhang & Graham (2020) found that direct instruction strongly affects instructional strategy. This effect is greatest for students at risk of academic failure or with learning disabilities. Direct instruction's structure benefits such students academically. Direct instruction promotes instruction, says the second hypothesis. Its benefits include clear instructions, learning issue detection, motivation and engagement, and a positive learning environment. Direct instruction enhances academic outcomes for struggling pupils.

Students have more freedom, flexibility, and control with hybrid learning. Lindorff, Jentsch, Walkington, Kaiser, and Sammons (2020) say hybrid learning gives students more control. Students can learn at their own speed by participating in online forums, conversations, and digital resources with peers and teachers. Self-motivation and involvement boost academic performance (Nascimento, Moreira, & Welker, 2019). Hybrid classrooms encourage active learning. Nogueroń-Liu's 2020 study indicated hybrid training boosts critical thinking, problem-solving, and teamwork. Online discussion forums and group projects help students apply their knowledge (M. (John) Zhang, Newton, Grove, Pritzker, & Ioannidis, 2020). The flexibility of hybrid training offers personalised learning. Students can customise their education with online materials and debates. Facilitating diverse learning styles and preferences makes training more inclusive and effective (Means et al., 2013). Virtual collaboration between students and instructors is possible with hybrid methods. Students can share ideas and

gain comments in online forums and collaborative activities, building community and learning (Allen & Seaman, 2017). Studies show that hybrid education improves instruction by increasing student autonomy, active involvement, and personalisation. As education evolves, blended instruction may meet students' demands.

Fourth hypothesis: teaching style influences argumentative grammar. Research shows writing instruction influences argumentative essay syntactic complexity. Process-oriented students wrote more complicated argumentative essays than product-oriented students (Al-Husban, 2020). Process-oriented approaches concentrate prewriting, drafting, revising, and editing, while product-oriented approaches emphasise a well-structured essay (Maureen, van der Meij, & de Jong, 2020). Grammar and sentence structure are stressed in student feedback. Product-oriented writing emphasises essay structure over language and syntax (Crawford, Higgins, & Hilburn, 2020). These data suggest writing and syntactic complexity are connected. Writing process, grammar, and syntax feedback make argumentative writing more syntactically difficult. Good writing instruction, especially for argumentative essays, is crucial. Process-oriented writing focuses grammar and syntax, helping students build argumentative writing syntactic complexity. As teachers improve, argumentative essays may rely on more difficult grammar.

Fifth hypothesis: Writing philosophy of TESOL instructors affects argumentative essay syntax. Multiple studies demonstrate TESOL professors' writing attitudes affect students' syntactic complexity. McAndrews (2021) suggests that TESOL instructors who consider writing as an exploratory learning process rather than a set of rules can improve students' syntactic complexity. In McAndrews' study, one teacher stressed grammar and syntax and the other encouraged inquiry and discovery. Process students wrote more syntactically complexly than rule-oriented pupils. These findings imply that TESOL teachers' attitudes greatly affect students' syntactic complexity (Yanagawa, 2022). The research suggests that argumentative essays may become more syntactically complex if TESOL professors, who view writing as exploratory and learning, emphasise grammar and syntax in their feedback. Methods and philosophy of TESOL instructors affect students' writing. ESL teachers' attitudes are also highlighted in Sabiri's 2020 report. Teaching writing as inquiry and discovery stimulates experimentation and risk-taking, which increases grammatical complexity. Teacher must help youngsters see writing as dynamic. By treating writing as research and discovery, TESOL instructors can complicate argumentative essays. Teaching pupils to see writing as more than rules encourages dynamic language and sophisticated syntactic structures.

Sixth hypothesis: TESOL's writing philosophy affects argumentum and grammar. Dalman and Plonsky (2022) found that TESOL teachers' writing attitudes affect instructional tactics and argumentative essay syntax. Robillos and Bustos (2022) suggest process-based education hurts TESOL argumentative essay syntax. In addition, TESOL teachers' writing attitudes moderate teaching methods and grammatical complexity. Process worked best for writing-loving TESOL teachers. TESOL teachers' writing attitudes strongly influence writing instruction (Xu & Luo, 2022). Irgin and Erten (2020) add "TESOL teachers who believe that writing is essential and have a positive attitude towards it are more likely to adopt instructional approaches that enable students to improve their writing skills." Teachers' opinions influence writing instruction. The implications of our hypothesis are immense. Encourage good writing to improve TESOL argumentative essay grammar. Positive writing philosophy may inspire teachers to use effective practices that reflect their writing beliefs. Sixth hypothesis: TESOL teachers' writing ideology affects argumentative essay grammar and instruction. Good teachers' writing attitudes improve syntactic writing and education.

The seventh hypothesis investigates TESOL's argumentative essay syntax and attitude in challenging writing assignments. TESOL professors' opinions on writing and their students' argumentative essays' syntactic complexity have been extensively researched, but current research shows that the writing task's inherent complexity moderates this association. When given tough tasks to evaluate and synthesise knowledge from many sources, TESOL teachers' writing attitudes affected students' syntactic complexity more (Savage & Pace, 2019). Writing task complexity affects TESOL teachers' writing attitudes and students' argumentative essay syntactic complexity, according to Lu, Casal, & Liu (2020). Another study found that TESOL teachers' criticism improved harder writing (W. Zhou, Li, & Lu, 2023). The study indicated that "difficult tasks provide TESOL professors with opportunities to engage in more meaningful feedback that can assist students in developing their writing skills" (Larsson & Kaatari, 2020). These studies show the complex interaction between TESOL professors' attitudes, writing tasks, and argumentative essay students' syntactic complexity. TESOL professors' attitudes alter syntactic complexity and provide more relevant feedback on complex writing problems, improving students' writing. Hypothesis 7: Writing assignment complexity moderates TESOL's writing attitude and argumentative essay syntactic complexity. Understanding how writing task complexity impacts teachers' attitudes can help TESOL teachers increase argumentative writing syntactic complexity.

CONCLUSION

The study examined the relationship between instructional strategy and syntactic complexity in argumentative essays written by Chinese TESOL students, with attitude towards writing and writing task complexity as mediators. The research found a positive correlation between teaching methods and argumentative essays' syntactic complexity. The study also found that the complexity of the writing task controlled the association between process-based instruction and syntactic complexity and that attitudes towards writing partially mediated the relationship. The study abstract includes these findings. This study found that the instructional technique increases the syntactic complexity of argumentative essays written by Chinese TESOL students. Language teachers should use process-based and hybrid instruction to increase syntactic complexity in students' writing. This study also shows that instructors should consider students' writing assignments' difficulty when choosing instructional methods. Teachers should also help students develop a positive writing attitude. This will accelerate student writing development. Additionally, writing attitudes mediate the relationship between instructional technique and grammatical complexity. It emphasizes the importance of encouraging students to write through language instruction. This study has implications for language teachers and can guide future research. Language teachers can help TESOL students improve their writing skills by using effective teaching methods, considering the difficulty of their writing assignments, and encouraging them to enjoy writing. This research can inform future studies on writing development and instructional methods.

IMPLICATIONS

Practical Implications

This study has several practical implications. Firstly, the study highlights how crucial process-based education and hybrid instruction are for raising the argumentative essays of TESOL learners' syntactic complexity. Language teachers should give their students plenty of opportunities to prepare, create, revise, and edit their writing in addition to incorporating process-based learning and hybrid instruction into their lesson plans. This method can assist students in improving their writing abilities and producing essays with more complicated syntactic structures. The study also emphasizes the necessity for language teachers to take the complexity of writing tasks into account when developing instructional strategies. To engage students and develop their critical thinking abilities, teachers should assign writing assignments that are tough enough. The exercises shouldn't be so challenging, though, that students are unable to do them. Teachers can choose instructional strategies that best assist students' development of syntactically complicated argumentative essays by taking the complexity of writing assignments into consideration. Thirdly, the research highlights the importance of writing attitudes in moderating the link between instructional strategy and syntactic complexity. Hence, by giving students criticism that is precise, relevant, and helpful, teachers can help students foster a favorable attitude towards writing. Also, teachers can encourage students to regard writing as a process rather than a final product and to view errors as opportunities to grow.

Theoretical Implications

The study's theoretical ramifications are also important. The research adds to the body of knowledge regarding the interaction between instructional strategy and grammatical complexity in second-language writing. The study discovered that process-based instruction and hybrid instruction are superior instructional strategies to direct instruction for increasing the syntactic complexity of argumentative writing for TESOL learners. The results of this study also imply that writing task difficulty moderates the association between instructional strategy and syntactic difficulty. The complexity hypothesis of second language acquisition, which highlights the significance of taking task complexity into account when developing language learning activities, is supported by this finding. The study also emphasizes the mediating role that writing attitudes play in the connection between instructional strategy and grammatical complexity. This result is in line with sociocognitive theories of second language acquisition, which postulate that writing performance can be influenced by learners' attitudes and beliefs. The study highlights the necessity for language teachers to take into account students' attitudes and beliefs regarding writing when developing instructional strategies to enhance their writing abilities.

Limitations and Future Direction

There are certain limitations to this study that must be recognized. First off, the study only included TESOL students in China, which restricts the applicability of the conclusions to other situations. In order to provide a more complete knowledge of the relationship between instructional style and syntactic complexity, future studies

should take a larger range of participants into account from various cultural and linguistic backgrounds. Second, the association between instructional strategy and syntactic complexity was not taken into account in the study when other factors such as learners' prior writing experience, English ability, and motivation were taken into account. To provide a more thorough knowledge of the elements that affect writing development, future studies could examine the effect of these variables on the link between instructional approach and syntactic complexity. Thirdly, the study excluded other writing types and only concentrated on argumentative essays. Future research should look into if there are any connections between instructional strategy and syntactic complexity in other writing genres, such as descriptive or narrative writing. The study's use of self-report measures to gauge attitudes towards writing is another drawback. Self-report measures are frequently employed in research, although they are prone to social desirability bias and might not correctly capture students' genuine sentiments towards writing. Future research should think about assessing learners' attitudes about writing using different techniques, such as observation or interviews, in order to provide a more accurate picture of those attitudes. However, the study only looked at the role that attitude towards writing plays in moderating the link between instructional strategy and grammatical complexity. The processes explaining this association were not looked into. Future research could investigate the mechanisms underlying the link between instructional strategy and syntactic complexity to learn more about the elements that affect the development of writing. Last but not least, the study overlooked the influence of teacher traits on the correlation between instructional strategy and syntactic complexity. Instructors are essential in encouraging students to develop their writing, and their traits, such as experience, education, and beliefs, may have an impact on how well instructional methods work. In order to provide a more comprehensive knowledge of the factors that influence writing development, future research may examine the role of teacher qualities in the relationship between instructional style and syntactic complexity.

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