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# Focused Freewriting, Tchart, or Group Debate: Effects of Prewriting Conditions on EFL Argumentative Writing

集中式自由寫作、Tchart與小組辯論：不同的寫作前條件對EFL議論文寫作之影響

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## Abstract

The study investigated how different prewriting instructions support English as a Foreign Language student writers in their generation of arguments and therefore improved the quality of text and self-efficacy in writing. Participants included 142 Vietnamese students at the upper-intermediate level in English. Three forms of prewriting interventions including focused freewriting, Tchart, and group debate were examined on five argumentation strategies, text quality, and writing self-efficacy. In a three-group pretest-posttest design with three experimental panels, one prewriting intervention was tested in comparison to the other two interventions, and the sequence effects of the order of the three prewriting instructions could also be tested. Mixed model analyses yielded two main results. First, global quality and writing self-efficacy were significantly influenced by the type of prewriting conditions. Second, about the sequence effect, an individual-based prewriting instruction, if placed after a group-based instruction, could consistently support students in global quality and variation of types of argumentation strategies. We discuss the questions of the pros and cons of the research design and the scaffolding function of the prewriting instructions in the last part of the paper.

## 摘要

本研究探究了不同的寫作前指導如何幫助英語為第二外語的學生寫作者產出論點，從而提升文本品質和寫作的自我效能。142位英語層度中上的越南學生參與本研究。我們檢視了三種寫作前的干預措施，包含了集中式自由寫作、Tchart及小組辯論，針對五種論證策略、文本品質與寫作的自我效能進行了研究。實驗設計包含了前中後測及三個實驗組，一個寫作前的干預措施會和其他兩種干預措施進行比較，三種寫作前指導的順序效應也被測試。混合模型分析得出了兩個主要的研究結果。首先，寫作前指導的類型對整體寫作

品質與寫作自我效能有顯著的影響。第二，關於順序效應的部分，個人化的寫作前指導若被放在小組指導之後，可持續幫助學生的整體寫作品質和論證策略的類型變化。我們也在文末討論了研究設計的利弊與寫作前指導的鷹架功能。

**Keywords** Argumentation strategies · Tchart · Focused freewriting · Group debate · Argumentative writing · EFL writing · Self-efficacy

**關鍵詞** 論證策略 · Tchart · 集中式自由寫作 · 小組辯論 · 議論文 · EFL寫作 · 自我效能

*Argumentative writing is a task so stressful!* (a case study of Zhu in Mexico, 2001).

*Argumentative writing is always scaring!* (a student in a study of Nguyen et al., 2020, in Vietnam)

*You must have an idea of what you want to say, how to explain it and how to sound convincing to your reader, and you have to do all of this in English.* (Leki, 1998, p. 3)

## Argumentative Prewriting Practice and Research in EFL Settings

Compared to the other skills in language learning, writing required more working memory capacity because learners not only received and processed information but had to express their position, arguments, and evidence (Gorin et al., 2014; Tindle & Longstaff, 2015). Current EFL writing pedagogies were mainly characterized by scaffolding learner writers in the three main stages of brainstorming, drafting, and revision, together with the knowledge of text structure (Hyland, 2009). The division of stages was mainly aimed to improve the selective attention of writers in each facet of text creation including rhetorical situation, content development, and linguistic processing. Genre-based chapters of EFL writing textbooks, therefore, were also divided into parts of prewriting, writing, and revision or edition. The first step of composition, ideation, was the primary focus of a process approach to writing (Leki, 1998; McCloskey et al., 2014). The step invoked “complex cognitive skills” and inevitably required even more mental effort for the writing tasks that writers had less knowledge and experience (Scott, 1996, p. 51). EFL writing pedagogies emphasized the necessity of prewriting activities for generating and organizing ideas. Typical names included “discussion, brainstorming, creating semantic maps or webs, reading, consulting Web sites and basic references, devising a plot outline or general outline” (Gunning, 2014, p. 482). Controlled freewriting and clustering, two variants of brainstorming, took the dominant role in writing instruction in most EFL contexts (see Ratnawati et al., 2018; Wahdan & Buragohain, 2019, for the review of prewriting techniques in EFL contexts; Reid, 2011, for the common techniques in college writing). However, less was known about how the preparation for idea generation contributed to the quality of argumentation and evidential support in text creation.

Before the introduction of the three prewriting instructions, we would specify briefly the three aspects of writing we planned to examine as the effects of the instructions. First, the quality of the text was the holistic quality of the end text that students produced after the prewriting stage. Second, self-efficacy was students' self-perceptions of their effectiveness in the sub-processes of writing. Last, the argumentation strategy was students' usage of evidence to convince an audience to accept their message (Fletcher, 2015; Hager & Scheiber, 1997). In the scope of the study, we limited argumentation strategy into students' usage of five types of evidence including *example*, *personal anecdote*, *explanation*, *factual evidence*, and *counterposition*. The last one was counted as one strategy because the process of anticipating and refuting arguments that might be made by those who stood in the opposite side of an issue was defined as one argumentation strategy common in risk rhetoric (Hoffman & Ford, 2010). Specifications of each type of evidence and counterposition would be provided in the measurement section.

### **Freewriting as a Prewriting Activity for Content Generation in an EFL Classroom: Research Review**

In terms of global quality of text, L1 writing pedagogies recognized freewriting as an idea generation technique, but evidence of its validity in global quality of writing needed to be further confirmed since the meta-analysis of effective treatments into writing of Hillocks (1986) indicated that “free writing has only minimal effect on the quality of writing” (p. 232). Studies of Rau and Sebrechts (1996) showed few differences in the experimental group with freewriting as a prewriting activity, compared with other mental planning forms of prewriting. In L2 writing, there was very limited empirical evidence on the causal link between freewriting as a prewriting activity and the improved quality of text. Freewriting was reported as contributing to better final text in one recent study of Dunifa et al. (2017); however, information about the writing task, text genre, and clarification of scoring from the study has not yet been accessed. What was known from relatively few empirical studies of freewriting in EFL writing classroom was its positive effects on writing fluency; however, measured by the length of the freewrite, rather than from the final text (studies of Hwang, 2010; Muller, 2014; Park, 2020; Shiobara, 2014). Another study of Nguyen et al. (2018) also reported the advantages of preparing EFL students with freewriting in combination with genre analysis. Students were found producing longer freewriting texts, perceiving the ideas generated as more useful and using more ideas from the drafts for their argumentative text composition. In brief, the role of freewriting as an EFL prewriting activity for idea enrichment and then better text composition has not been empirically validated yet.

The enquiry into the relation between freewriting and affective impact toward writing revealed a growing apprehension about writing among EFL students in general (see studies of Li (2007) on EFL students of diverse disciplines and Cole and Feng (2015) on elementary EFL learners). However, the studies focused on freewriting as one single independent act in itself, without a linkage to text creation. One study of Creme (2005), from the observation of students' journals of freewriting,

revealed students' awareness of their personal stance in different perspectives to the issue at stake. Yet, the study above was limited to examining the freewriting journals; the role of freewriting as a prewriting activity has not been reported. Another empirical study of Nguyen et al. (2020) examining freewriting in connection to final text composition revealed that, compared with group discussion condition, freewriting enhanced students' expression of individualized voice in writing, but negatively affected their self-confidence in the content they generated in the freewrite. The results of the empirical studies on the effects of freewriting, as a prewriting practice, on the quality of L1 and L2 compositions were not consistent with each other, as well as with the pedagogical expectations of the practice (Ong & Zhang, 2013). A specific look into its validity for the final composition, self-efficacy in composition, and argumentation strategies used in the composition must be heartening.

### **Tchart as a Prewriting Activity for Content Generation in an EFL Classroom: Research Review**

In composition research, little was reported of how forms of outlining, let alone Tchart, contributed to content enrichment, divergence of thoughts, persuasiveness of writing, and writing apprehension. A rare handful of studies in L2 context have reported the positive effects of visual-aided brainstorming on ideation, e.g., webbing and idea development of 20 young students of sixth grade at A1 level CEFR in Columbia (Mora-Gonzalez et al., 2018), or webbing and idea relevance of Asian EFL students (Styati & Irawati, 2020). In L1 argumentative writing, there was one empirical study of Campbell and Filimon (2018), on 47 students, of the effects of using graphic organizers that signaled the components of an essay. The results were positive through the increased amount of evidence students used to support their claims, but not in counterposition. In other words, students in the study have not been founded with increasing more counterpositions to verify their stance in the organizational mapping condition. In brief, the lack of the findings in L2 studies on using the technique as a prewriting activity in the composition classroom still invited further research for a practical application of the tool in L2 writing pedagogy. For example, in the Asian EFL context, attached to the notion of effective communication relying on being neutral and in harmony (Nguyen et al., 2020), one could assume the Tchart map might cause a neutralized stance, and the argumentative text could become a synthesis text of both sides of an issue.

### **Debate as a Prewriting Activity for Content Generation in an EFL Classroom: Research Review**

There have been some initial efforts in L1 writing instruction for establishing the conjunction of writing and debate. However, most of the theoretical studies viewed writing as a meaningful means toward an effective debate because debaters had to first write arguments cogently and effectively (Freeley & Steinberg, 2009). Just in one rare review of comparative prewriting approaches of McClish (1988), the use of debate for ideation before composition was strongly advocated.

The author placed his claims in the light of the confrontational approach toward prewriting in which “students feel most inspired to write about things that matter when they highlight their struggle with their opponent’s viewpoint” (p. 12), rather than the reflective approach that focuses on the personal journey of reflection of one’s own thoughts or ideas for a controversy.

Most of the studies of debate as a platform for L2 language acquisition placed debate in connection with developing critical thinking and/or speaking skill. For example, a related study of Iman (2017) reported students in an EFL setting in Asia sharpening their skill of recognizing the context of an issue through debate, although the effects on the other key issues such as evaluating assumptions, usage of evidence, and grasping implications have not been clearly observed. There has been very little evidence from empirical studies of how debate contributed to EFL learners’ development of arguments in writing. One study from Majidi et al. (2021) reported the increase of the evidence advanced to support a claim and counterarguments from the learner writers in the debate condition, compared with a traditional L2 writing practice without debate. Unfortunately, the sub-components of qualified argumentation were not specified in the study. The questions, in particular, of what kinds of evidence were involved and how debate, as a springboard for qualified sub-components of argumentation, contributed to the global quality of the opinion text were still open. In the direction, another study of Kuhn et al. (2015) indicated that learners’ dialogues with peers of the same side and of the different side would yield more incorporation of evidence to support their claims in argumentative essays. Likewise, further information on what types of evidence were influenced from the learning condition should be reached for a better understanding of how debates supported evidentiary preparation for text creation.

## Purpose of the Study

In the Vietnamese EFL context, we hoped to examine two strands of prewriting: one was individual-directed activities including Tchart graphic organizer and freewriting and another was group debate. The paper was on the effects of three prewriting scaffolds on text quality as a whole, writing self-efficacy, and types of argumentation strategies used in the final texts.

Therefore, we formulated the two research questions:

1. Do different prewriting instructions result in different effects on the global quality of argumentative text, self-efficacy, and types of argumentation strategies?

While strong theories were not available, we could only formulate expectations, not hypotheses, based on the difference in nature of the three prewriting instructions. We do not expect differences in global quality and self-efficacy, but types of argumentation strategies.

1. Do different sequences of prewriting instructions result in different patterns of improvement of the global quality of argumentative text, self-efficacy, and types of argumentation strategies?

We expected the sequence of the three prewriting instructions would not lead to different outcomes in global quality of text, self-efficacy, and argumentation strategies.

## Method

We aimed at a research design in which both research questions could be answered, and that allowed us to generalize outcomes across topics, in regular classes. Therefore, we set up a pretest-posttest control group design with three switching replications (Shadish et al., 2002), in a regular classroom setting, with three different prewriting instructions including focused freewriting, Tchart, and group debate (see Table 1 for research design and topics for test). With the first panel, a regular pretest-posttest design with three competing interventions, the first research question could be answered. The extension with two adjacent panels created the option to test the effects of the three prewriting instructions under different circumstances, which would increase the generalizability of the study. These panels were replications in a somewhat other context; in panels 2 and 3, the effects of the three prewriting tasks were tested as follow-ups of different prewriting tasks, and on different topics. It also allowed us to answer the second research question.

Five classes were available for this study. Therefore, we chose to test the interventions on five different topics (T1–T5, see Table 1). To test three different prewriting instructions, we assigned each of the five classes to one of the three interventions, which resulted in panel 1; two interventions were each tested in two classes, with two different topics as pretest and two different topics as posttest, and one intervention was tested in one class, with different topics again. From the six possible sequences (123–231–312–213–312–131), we implemented three of them (123–231–312) to avoid that intervention effects were tested per topic combination, with a loss of generalizability. An even more valid design would have been that all five topics were assigned to individuals per panel in a class, but such a design was not possible since each intervention was for the whole class preparing for a topic.

## Participants

Participants included 142 students, nested in existing classes, which were randomly composed, based on students' registration to the school for the writing course. Students were in the first semester of the third year of a 4-year Bachelor Degree Education in English studies, with a post-intermediate level in English proficiency. Classes were randomly assigned to one of the three condition groups (Table 1).

**Table 1** Research design

	Group	Class	MO <sub>1</sub>	Panel 1	MO <sub>2</sub>	Panel 2	MO <sub>3</sub>	Panel 3	MO <sub>4</sub>	
Random assignment on group level	1 (E <sub>123</sub> ; n = 49)	1.1 (n = 22)	T1	E <sub>1</sub>	T2	E <sub>2</sub>	T3	E <sub>3</sub>	T4	
		1.2 (n = 27)	T2		T3		T4		T5	
		2.1 (n = 31)	T3	E <sub>2</sub>	T4	E <sub>3</sub>	T5	E <sub>1</sub>	T1	
	2 (E <sub>231</sub> ; n = 31)	3.1 (n = 33)		T4	E <sub>3</sub>	T5	E <sub>1</sub>	T1	E <sub>2</sub>	T2
				T5		T1		T2		T3
	3 (E <sub>312</sub> ; n = 62)	3.2 (n = 29)								

E<sub>1</sub> = Tchart, E<sub>2</sub> = Focused freewriting, E<sub>3</sub> = Group debate

MO<sub>1-2-3-4</sub> = Measurement occasion 1, 2, 3, 4

T1 = Topic 1 = It is immoral to eat animal for food

T2 = Topic 2 = Online course is better than traditional classroom

T3 = Topic 3 = Medical research on animals should be discontinued

T4 = Topic 4 = Sex education must be a compulsory subject in primary and secondary education

T5 = Topic 5 = The art and music classes should be compulsory in schools

## Intervention and Course Description

### Focused Freewriting: 20 Min

1. Modeling (direct instruction) (1 min). Students first watched a clip of 48 s illustrating how a student performed freewriting while thinking aloud and how he highlighted and marked ideas for his later composition.
2. Exercise (15 min). Students were then stimulated to freewrite on a controversial statement of an issue at stake from the five topics in the experiment. They were provided with a freewriting handout, encouraged to write nonstop, and not to feel worried for language issues such as wording, structure, or clarity of expression. They were encouraged just to continue writing without thinking of quality of ideas or form of language.
3. Selecting (5 min). After the time allotted, they were prompted to color or mark the ideas which they thought were relevant, useful, or interesting for the topic.

Students did all the steps individually.

### Tchart Condition: 30 Min

1. Exercise (15 min). Students were provided with a Tchart handout for a controversial issue at stake from the five topics in the experiment and required to fill in both columns of the chart in 15 min.
2. Direct instruction (8 min). The teacher showed and explained a sample Tchart for a topic that was different from the five topics in the experiment (8 min). For each Tchart hand-out, there was a controversial statement of an issue at stake as the ideation prompt for students to think about whether they agreed or disagreed with the statement.
3. Application (7 min). For whatever stance they took, they were then required to fill in both columns with the right column for at least five arguments and evidence to support their stance and the left column for at least five arguments and evidence they might assume another person of the opposite side would have for his stance.

Students did all the steps individually.

### Group Debate: 45 Min

Debate was organized in three rounds, after the teacher created groups based on the stance each student chose on the issue.

1. Collaborative brainstorm (20 min). Groups of four students of the same stance brainstormed collaboratively, selected, and wrote their arguments and reasons for their stance on a flipchart.

2. Debate (18 min). Two groups of four students of opposite viewpoints debated; the other students would listen as audience and vote for the winner. In particular, both debate groups took turn to present their arguments and reasons to support their arguments, 4 min each. Each group would then have one episode of 5 min each to pose the questions, listen to the answers of the other group, and respond to the answers on the spot.
3. Feedback. The teacher acted as the judge to determine the winner of the debate and gave general feedback of what she felt as the strong points of each group. The audience would vote for the strongest team after all the teams have finished their debate. For time limitation and noise effects from the small and closed space of a classroom, the audiences, while attending the debates, were just listening without asking further, interrupting, or sharing small talk and comments.

### Course Design

The three prewriting interventions were embedded in a course on source-based argumentative writing (see Table 2 for a standard description of a panel). The basic learning activities were analysis of the quality of arguments of a reading article from the textbook, application of such an analysis on another sample text (also from the textbook) for more focused knowledge of genre-based text features, introduction of an issue, the prewriting intervention, reading sources on the issue, and writing a text. It was noted that students did not receive comments or credit for the texts they wrote after a panel. Instead, they received comments on the prewriting stage for their efforts in idea generation. The detailed comments on global structure, stance clarity, quality of arguments, and language expression of the text were provided after the panels, in individual and time-taking discussions between the teacher and each student, with around 18 min per discussion.

### Measurement Instruments

There were two instruments. First, written text was used to measure argumentation strategies and global quality of text; the text was the one each student wrote during the panel (phase 5 of Table 2 above). The second was a questionnaire to measure students' writing self-efficacy (phase 6 of Table 2 above). The writing prompt for each measurement occasion was the same as the prompt for the prewriting task for each group. See Table 3 for the descriptions of the two measurement instruments.

### Factual Evidence

A student presented a quote from an authorial source to support her claim of the benefit of social skills that traditional classes gave, compared to online classes: *In spite of this, traditional classes will help students adhere to the rules and put them in check. According to [name of an educational organization], “students will get a routine of their own, which will inevitably make the students punctual and disciplined.”*

**Table 2** Course specification of a panel

Time	Phase	Condition		
		Focused freewriting	Tchart	Group debate
20'	1	Whole-class reading of an article on a certain issue to analyze how arguments and counterarguments were presented and contributed to the writer's persuasiveness. Per panel, another article was analyzed		
30'	2	Whole-class reading of a model of argumentative text to analyze, first, the rhetorical features of the model text including stance of the writer, purpose of the writer, global structure of text; and second, the function of each paragraph and what kinds of ideas were presented in each paragraph. New models were used for subsequent panels		
45'	3	Introduction to the current issue to warm up the prewriting activity, one out of these three		
		TChart	Focused freewriting	Group debate
20'	4	Students read individually two documents on the pros and cons of the issue that was introduced; the length of each document was from 2–3 pages. The documents were from magazines, newspaper on the internet, and science websites		
70'	5	Students composed their text individually		
08'	6	Students did self-assessment with a checklist of 22 items (self-efficacy instrument)		

### Example

A student gave an example of how the traditional setting supported them to feel the realness of activities in the classroom: *Students are never bored when they take a traditional classroom because in the real learning environment there are always active activities for them. For example, they can play learning games with their peers in the classroom time or as an extra-class activity.*

### Personal Anecdote

To illustrate the importance of the face-to-face setting of traditional learning for students' soft skills, a student wrote: *For example, I am a third-year student at [name of the university]. Every Monday evening, I often join in the "life skill club" which is my favorite club at the school. I realize that I have learned many real skills such as communication skill or soft skill of working in groups and problem solving that make me feel much more comfortable in real life.*

### Explanation

On the topic whether the art and music classes should be compulsory in schools, in the counterargument paragraph of a student text, an explanation appeared as follows: *However, some suppose that if arts and music become a compulsory subject in schools, it will be a difficulty for other students who are not good at it. In fact, for any subject, nobody is born with innate talent or ability, so to be good,*

**Table 3** Descriptions of dependent variables

<i>Dependent variable</i>	<i>Description</i>
Global quality of text	Holistic rating of the quality of the end text
Self-efficacy	Questionnaire of 22 items
Variation of types of argumentation strategies	Number of different types of strategies [(i)-(v)] (i) Factual evidence (facts, statistics, quotes) (ii) Example (iii) Personal anecdote (iv) Explanation (v) Counterposition

Written texts of students were measured for global text quality and five indicators of argumentation strategy: (i) factual evidence, (ii) example, (iii) personal anecdote, (iv) explanation, and (v) counterposition. Examples of content and counting of each indicator were illustrated in the following part, with the underlined part counted as one indicator for the measurement. Reliabilities of the double-coded data were also provided below

*they have to study seriously with great passion to become a successful professional and human being in life.*

### Counterposition

For the topic whether an online course was better than a traditional classroom, a student provided the opinion of the other side as follows: *Some people who support online learning may argue that this format, because of its flexibility in time, offers more options in education for the disadvantaged and the aged. But for me, a traditional classroom is the form that cannot be replaced by any online course.*

In the study, the five variables of (i) factual evidence, (ii) example, (iii) personal anecdote, (iv) explanation, and (v) counterposition were identified from the students' end texts, as argumentation strategies students used for their argumentative writing. Each variable was counted for its occurrence in each text; scores ran from 0, 1, 2, to, in principle, infinity.

A sample set of 30 texts were blindly coded by three raters. Texts in the set were from all conditions/groups and measurement occasions. They were mixed, and students' names were removed from the texts. All the raters hold a postgraduate degree in EFL teaching and have been teaching in the field from 8 to 20 years. Correlations were very strong, running from 0.86 to 0.95.

### Global Quality of Text

Written texts were rated blindly for holistic quality, using an adapted scale measuring argumentative text quality of Hamp-Lyons (1991) and three anchor or benchmark texts. This procedure was implemented reliably in an earlier study (Nguyen et al., 2018). The instruction for holistic rating focused on the main components of argumentative text and deemphasized the language skills such as sentence structure or vocabulary.

Rating reliability was tested with a sample set of 19 texts and six raters. Texts in the sample were from all conditions/groups and measurement occasions. They were mixed, and student names were removed from the texts. All the six raters hold a postgraduate degree in EFL teaching and have been teaching in the field from 5 to 20 years. Correlations between the six raters were high: between rater 1 and the other five raters from  $r=0.82$  to  $r=0.90$ . All other 549 texts have been rated by rater 1.

### Self-Efficacy

Self-perceptions of their effectiveness in the sub-processes of writing were measured with a 22-item questionnaire, using a 10-point Likert-type scale with 0=no confidence and 10=complete confidence. The sub-processes included content generation (e.g., I think I have provided an effective refutation to the counterargument; I think I have used effective evidence to prove my points), on quality of writing (e.g., I think my argumentative text is well organized; I feel confident to show my essay to the whole class), and on management of writing process (e.g., I think I can manage to construct ideas for a text of this genre; I feel the more I write, the more ideas come). The questionnaire items were formed in reference to the concept of self-efficacy of Bandura (1997) that referred to “an individual’s belief in his or her capacity to execute behaviors necessary to produce specific performance attainments” (cited in Allen, 2016, p. 69). In brief, the 22 items were about students’ self-efficacy in managing sub-processes of writing including planning, revising, and in creating specific elements of an argumentative text. The questionnaire reached an appropriate level of reliability through four times of measurement (Cronbach’s  $\alpha > 0.90$ ).

### Procedure of Data Collection

All the experimental activities were carried out in a classroom setting for the management of progress, time, and the restriction of external influences from media or websites. The setting was equipped with a whiteboard, projector, removable desks, and chairs. Each group met the instructor one time per week of four teaching periods per meeting (from 1 p.m. to 5 p.m. with a 30-min break in between).

To generalize the effects of conditions, we assigned all five topics to all measurement occasions, necessarily nested in groups because of classroom work. For example, students in debate condition in posttest 1, 2, and 3 faced topics related to sex education (T4), art and music (T5), and animal diet (T1). Topics for the writing test in pretest and after each panel were different between groups and sub-groups for an in-class impromptu and timed essay on a surprise topic. All participants seemed to be able to deal with the topics; we did not observe a topic that caused students serious problems in background knowledge and comprehension and leaving a blank page. Supporting documents for each topic were selected from the public media discussing the issue from both sides and of similar length of wording.

## Analyses

### Global Quality and Self-Efficacy

Preliminary analysis: Whether topics were different in difficulty was tested by comparing global text quality scores at Measurement Occasion 1. Analyses via multi-level analysis with topic as factor and subject as random component showed no significant differences between pairs of topics, with topic 4 marginally more difficult than topic 2 ( $p = 0.073$ ). This effect disappeared when self-efficacy was included in the analysis.

For research question 1: We used a mixed model to check the effects of (i) time and (ii) condition for panel 1, in which the idea generation tasks were new for students. This analysis would provide us with the insights into possible differential effects of the prewriting instructions.

For research question 2: We used a mixed model to check the effects of (i) time and (ii) condition in interaction to time through the three panels of experiment. If there was an effect, then, estimates of fixed effects of each panel were examined for the specific differences of the three condition groups. Analyses of the effects in panels 2 and 3 might reveal whether these effects also occurred when they followed another task that had been practiced in a former panel or whether some tasks functioned differently because of the former panel. In reference to Table 1 in the Research Design section, it is necessary to repeat in the part the sequential combinations of idea-generation practices (condition). Condition 1 was the sequence of Tchart practice in panel 1, freewriting in panel 2, and group debate in panel 3; condition 2 was freewriting practice in panel 1, group debate in panel 2, and Tchart in panel 3; condition 3 was group debate practice in panel 1, Tchart in panel 2, and freewriting in panel 3.

### Types of Argumentation Strategies

We included four argumentation strategies: example, explanation, factual evidence, and counterposition. We refrained from including personal anecdote in the analyses, because of the low frequency. In maximal 3.5% of the texts, such a strategy was observed (at T3), which was higher than T1 (0.6%), but not significantly.

In the beginning, we recoded the scores into a dichotomous score of each strategy, absent vs. present, and created the variable *Types of Argumentation Strategies*, based on the sum of the dichotomous scores of the four indicators, so the min-max score range of the variable would be 0–4. For the first and second research questions, we used the same procedures of analysis as for global quality and self-efficacy.

In summary, for all variables, we applied the same analysis strategy. We used mixed models because of the nesting of the data in participants (ID\*Class as random component), with condition and measurement moment as fixed factors. First, we ran this analysis for panel 1 between MO1 and MO2, and then all datapoints per variable, including four measurement occasions, in search for interactions between measurement moment and treatment.

## Results

### Global Quality of Argumentative Text

Panel 1 for pure effects: An analysis with panel 1 and three condition groups revealed an effect of time at  $F(1, 131.61)=20.60, p<0.001$ . The effect was from the improvement of the two conditions of Tchart and debate from MO1 to MO2, at  $F(1, 41.10)=15.86, p<0.001$  and  $F(1, 61.52)=13.85, p<0.001$ , respectively.

All panels for sequence effect: An analysis with the three panels and three condition groups revealed an effect of time  $F(3, 408.79)=27.62, p<0.001$  and an interaction effect between condition groups and time  $F(6, 408.41)=2.97, p=0.007$ . That meant all the groups had improved significantly in global quality through the experimental course; however, the pattern of development was different, depending on the sequence of the interventions. Further inspection of each panel for each condition revealed a significant decline in freewriting condition in panel 2 (group 1) at  $F(1, 46.91)=6.47, p=0.014$ . In general, the sequence of group 3 debate-Tchart-freewriting had been found to be more stable in the increased global quality of argumentative text. The figure below showed the patterns of improvement of the three sequences (Fig. 1).

### Self-Efficacy

Panel 1 for pure effect: An analysis with panel 1 and three condition groups revealed an effect of time  $F(1, 127.42)=28.29, p<0.001$  and condition  $F(2, 138.55)=5.73, p=0.004$ . The significant improvement was observed in the two conditions of Tchart at  $F(1, 45.88)=19.49, p<0.001$  and debate at  $F(1, 55.27)=20.03, p<0.001$ .

All panels for sequence effect: An analysis with the three panels and three condition groups revealed an effect of time at  $F(3, 398.89)=72.21, p<0.001$  and no interaction effect between condition groups and time. That meant all the groups had

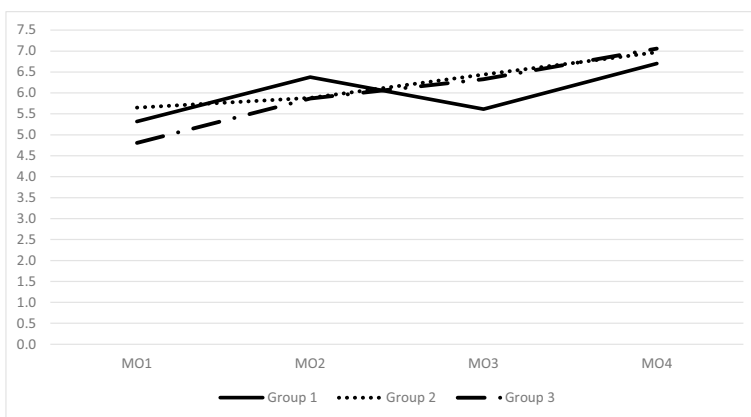


Fig. 1 Global quality of argumentative text: mean score per condition in three panels

improved significantly in self-efficacy through the experimental course, in whatever sequence of the three prewriting instructions (Fig. 2).

### Variation of Types of Argumentation Strategies

Panel 1 for pure effect: An analysis with panel 1 and three condition groups revealed an effect of time  $F(1, 142)=31.51, p<0.001$ . The significant improvement was observed in all the three conditions of Tchart, freewriting, and debate, at  $F(1, 49)=8.36, p=0.006$ ;  $F(1, 31)=9.73, p=0.004$ ; and  $F(1, 62)=15.77, p<0.001$ , respectively.

All panels for sequence effect: An analysis with the three panels and three condition groups revealed an effect of time  $F(3, 426.00)=55.19, p<0.001$  and an interaction effect between condition groups and time  $F(6, 426)=3.19, p=0.005$ . That meant all the groups had expanded their strategic options through the experimental course; however, the pattern of development was different, depending on the sequence of the interventions. Further inspection of each panel for each condition revealed that in panel 2 when group 1 switched from Tchart to freewriting, they were reported as using less of these types of argumentation strategies at  $F(1, 49)=7.43, p=0.009$ . In panel 3, although the three groups made use of differing strategies from time 3 to time 4, the significance was different; in particular for debate group  $F(1, 49)=32.55, p<0.001$ , for Tchart  $F(1, 31)=18.68, p<0.001$ , for freewriting  $F(1, 62)=8.4, p=0.005$ . It was very much the same as the tendency of global quality of text. In general, the sequences of group 2 with freewriting-debate-Tchart or group 3 debate-Tchart-freewriting showed a more sustained improvement of types of argumentation strategies in the students' end texts. The figure below showed the patterns of improvement of the three sequences (Fig. 3).

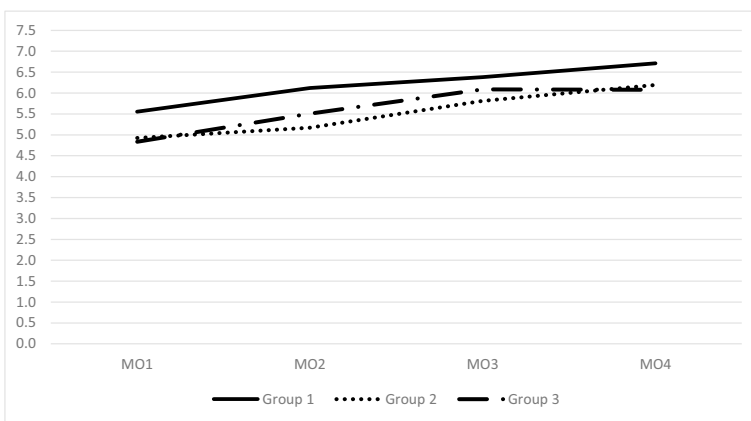
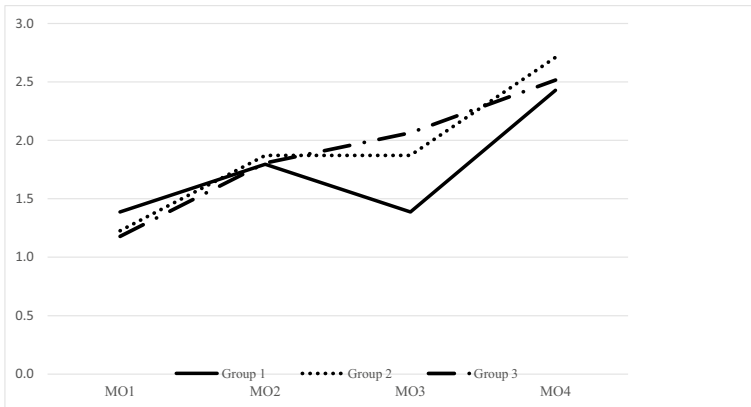


Fig. 2 Self-efficacy: mean score per condition in three panels



**Fig. 3** Variation of types of argumentation strategies per measurement occasion and condition

## Conclusion and Discussion

### Conclusions in Line with the Research Questions

For the first research question of the effects of the three content preparation instructions on writing components, we reach two conclusions. First, compared with free-writing, Tchart and debate cause an immediate effect on the two variables global quality and self-efficacy in writing. Second, all the three prewriting instructions cause an immediate effect on types of argumentation strategies; students use more types of argumentation strategies for their opinion texts.

For the second research question of the sequence effects, we reach two conclusions. First, the sequence of group 1 Tchart-freewriting-debate, when this group switches from Tchart to freewriting in panel 2, causes a lower text score and a lower number of types of argumentation strategies. Second, the sequences of the three prewriting instructions do not cause differences in the pattern of development of self-efficacy. In other words, students' self-efficacy will increase through time of writing practice, in whatever sequence order of prewriting instructions.

### Discussions of the Conclusions

#### First Intervention Panel

First, we learn that global quality and self-efficacy are the two visible indicators of the impact of prewriting conditions in an EFL writing classroom. Second, the finding on the supportive role of debate condition in EFL students' composition may support the empirical results of Majidi et al. (2021) and of Kuhn et al. (2015) on the larger volume of argumentative evidence in L2 writers from debate condition. Third, the positive role of Tchart condition is beyond what has been revealed of its contribution to idea development (see studies of Mora-Gonzalez et al., 2018, and Styati & Irawati, 2020): students in the condition produce better final texts

and higher self-efficacy in writing. Last, the finding on freewriting as being less supportive for global quality of text and self-efficacy in writing would somehow go along with the study of Nguyen et al. (2018) on the lower level of self-confidence of L2 writers in the freewriting condition. The last finding, therefore, poses further questions on how to enhance the effectiveness of freewriting condition for writing quality in a novice EFL learner context.

### Subsequence Effects

Among the three sequences, the sequence of debate in panel 1, Tchart in panel 2, and then freewriting in panel 3 may accelerate a consistent improvement of global quality and differing strategies. Being reported in the conclusion above, when an individual-oriented task like freewriting is placed before a group-oriented task (group 1-sequence order of condition 1), the two indicators have generally not been improved positively or clearly. In another way, when the individual task of freewriting goes after the group-based task, there have been more consistently marked improvements in global quality of text and variation of argumentation strategies (group 3-sequence order of condition 3). The finding suggests, for novice EFL student writers, individual-based prewriting tasks could be placed after group-based ones for learning to write a new genre. It confirms the belief that group-based work enables “the expression of individual points of view” to flourish, rather than inhibits or distorts it (Kitzinger, 1994, p. 112). Finally, it is a noteworthy reminder that the effect of the prewriting activities cannot be separated from practice effects (practicing the test task) in panels 2 and 3; however, in panel 1, the pure effect is produced.

### Limitation and Invitation to Further Research

On one hand, the research design allows us first to test three concurrent interventions, with no control group. Second, that helps to deliver the three interventions with high ecological validity in EFL students’ daily classroom practice, in a series of learning activities, and measurements not pertaining to a specific topic. Third, argumentation strategies are not taught separately in the routine course, so the specific strategies found in the final texts could be naturally derived from the prewriting conditions. On the other hand, however, because of the design, for the first research question, the pure effects of each intervention are the most visible in just one panel, the first test panel. Second, in a learning-to-write study nested in a classroom-based setting with other necessary prewriting activities added to the main interventions, such as sample text analysis and document reading, the difference in effects between the interventions can be nuanced, although reflecting the reality of research in a classroom-based setting. The last question remained from the study is that the transition of ideas from the prewriting stage with group debate, Tchart, or freewriting to the drafting of the final text has not been reported. In other words, how the ideas in the prewriting reappear or are used in the drafting stage of writing have not been investigated. For the study, dependent variables are measured from the final composition, without connection with the papers in the prewriting stage. The question on the direct and exclusive link between the prewriting tasks and the final composition still needs to be validated from a larger body of empirical research.

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**Author Contribution** All authors contributed to the study conception and design. They read and approved the final manuscript.

**Data Availability** The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

## Declarations

**Ethical Approval** The study is comparing the effects of the three pedagogical activities that have been highly acclaimed already in the EFL classes. Within the normal practice in a daily classroom in the educational setting, the only difference is the sequential order of the three activities in an EFL writing course. In the nature of the research, there is no threat to human health or national security. The present article does not contain data that reveals personal identity.

**Competing Interests** The authors declare no competing interests.

## References

- Allen, K. (2016). *Theory, research, and practical guidelines for family life coaching*. Springer Nature Switzerland AG.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman and Company.
- Campbell, Y. C., & Filimon, C. (2018). Supporting the argumentative writing of students in linguistically diverse classrooms: An action research study. *RMLE Online*, 41(1), 1–10. <https://doi.org/10.1080/19404476.2017.1402408>
- Cole J, Feng J (2015) Effective strategies for improving writing skills of elementary English language learners [Paper presentation]. The Chinese American Educational Research and Development Association Annual Conference, Chicago, IL, United States
- Crene, P. (2005). Should student learning journals be assessed? *Assess Eval Higher Educ*, 30(3), 287–296. <https://doi.org/10.1080/02602930500063850>
- Dunifa, L., Ahiri, J., & Karno, E. (2017). The quality of university students' writing under free writing technique. *Int J Eng Lang Teach*, 5(6), 81–90.
- Fletcher, J. (2015). *Teaching arguments: Rhetorical comprehension, critique, and response*. Stenhouse Publishers.
- Freeley, A. J., & Steinberg, D. L. (2009). *Argumentation and debate: Critical thinking for reasoned decision making*. Wadsworth Cengage Learning.
- Gorin, J. S., O'Reilly, T., Sabatini, J., Song, Y., & Deane, P. (2014). Measurement: Facilitating the goal of literacy. In B. Miller, P. McCardle, & R. Long (Eds.), *Teaching reading and writing: Improving instruction and student achievement* (pp. 119–128). Paul H. Brookes Publishing Co.
- Gunning, T. G. (2014). *Creating literary instruction for all students*. Pearson Education.
- Hager, P. J., & Scheiber, H. J. (1997). *Designing and delivering scientific, technical, and managerial presentations*. John Wiley & Sons Inc.
- Hamp-Lyons, L. (1991). Scoring procedures for ESL contexts. In L. Hamp-Lyons (Ed.), *Assessing second language writing in academic contexts* (pp. 241–276). Ablex.
- Hillocks, G. (1986). *Research on written composition: New directions for teaching*. ERIC Clearinghouse on Reading and Communication Skills.

- Hoffman, M. F., & Ford, D. J. (2010). *Organizational rhetoric: Situations and strategies*. Sage Publications Inc.
- Hwang, J. (2010). A case study of the influence of freewriting on writing fluency and confidence of EFL college-level students. *Second Lang Stud*, 28(2), 97–134.
- Hyland, K. (2009). *Teaching and researching writing*. Pearson Education.
- Iman, J. N. (2017). Debate instruction in EFL classroom: Impacts on the critical thinking and speaking skill. *Int J Instr*, 10(4), 87–108.
- Kitzinger, J. (1994). The methodology of focus groups: The importance of interaction between research participants. *Sociol Health Illness*, 16(1), 103–121.
- Kuhn, D., Hemberger, L., Khait, V. (2015). Tracing the development of argumentative writing in a discourse-rich context. *Written Communication*, 33(1), 1–30. <https://doi.org/10.1177/0741088315617157>
- Leki, I. (1998). *Academic writing*. Cambridge University Press.
- Li, L. Y. (2007). Exploring the use of focused freewriting in developing academic writing. *Journal of University Teaching & Learning Practice*, 4(1), 40–53.
- Majidi, A., Janssen, D., & Graaff, R. (2021). The effects of in-class debate on argumentation skills in second language education. *System*, 101, 1–15. <https://doi.org/10.1016/j.system.2021.102576>
- McClisg G (1988) Controversy in the composition classroom: Debate as a mode of pre-writing [Paper presentation]. The Annual Meeting of the Conference on College Composition and Communication, Missouri, United States
- McCloskey, G., Gilmartin, C., & Vitanza, B. S. (2014). Interventions for students with executive skills and executive functions difficulties. In J. T. Mascolo, D. P. Flanagan, & V. C. Alfonso (Eds.), *Essentials of planning, selecting, and tailoring interventions for unique learners* (pp. 314–356). John Wiley & Sons.
- Mora-Gonzalez, C. A., Anderson, C. E., & Cuesta-Medina, L. (2018). Graphic organizers support young L2 writers' argumentative skills. *Gist Educ Learn Res J*, 17, 6–33.
- Muller, T. (2014). Implementing and evaluating free writing in a Japanese EFL classroom. In T. Muller, J. Adamson, P. S. Brown, & S. Herder (Eds.), *Exploring EFL fluency in Asia* (pp. 163–177). Palgrave Macmillan.
- Nguyen, P. N. T., Admiraal, W., Janssen, T., & Rijlaarsdam, G. (2018). Learning to write: Effects of prewriting tasks on English writings of Vietnamese students. *Asian EFL J*, 20(9.1), 57–74.
- Nguyen, P. N. T., Rijlaarsdam, G., Janssen, T., & Admiraal, W. (2020). Effects of rhetorical text analysis on idea generation and text quality. *Int J Appl Linguist*, 171(2), 280–306. <https://doi.org/10.1075/itl.16013.rj>
- Ong, J., & Zhang, L. J. (2013). Effects of the manipulation of cognitive processes on EFL writers' text quality. *Tesol Q*, 47(2), 375–398. <https://doi.org/10.1002/tesq.55>
- Park, J. (2020). Benefits of freewriting in an EFL academic writing classroom. *ELT J*, 73(3), 318–326. <https://doi.org/10.1093/elt/ccaa018>
- Ratnawati, Faridah, D., Anam, S., & Retnaningdyah, P. (2018). Exploring academic writing needs of Indonesian EFL undergraduate students. *Arab World Eng J*, 9(4), 420–432.
- Rau, P. S., & Sebrechts, M. M. (1996). How initial plans mediate the expansion and resolution of options in writing. *Q J Exp Psychol*, 49A(3), 616–638. <https://doi.org/10.1080/173755642>
- Reid, S. (2011). *The Prentice Hall guide for college writers*. Pearson Education.
- Scott, V. M. (1996). *Rethinking foreign language writing*. Heinle & Heinle.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi experimental designs for generalized causal inference*. Houghton Mifflin Company.
- Shiobara, F. (2014). Increases in writing fluency through free-writing journals. *J Fac Lett Kobe Shoin Women's Univ*, 3, 63–73.
- Styati, E. W., & Irawati, L. (2020). The effect of graphic organizers on EFL students' writing quality. *Indonesian J EFL Linguist*, 5(2), 279–293.
- Tindle, R., & Longstaff, M. G. (2015). Writing, reading, and listening differentially overload working memory performance across the serial position curve. *Adv Cogn Psychol*, 11(4), 147–155. <https://doi.org/10.5709/acp-0179-6>
- Wahdan, N. R., & Buragohain, D. (2019). Integrating the writing process approach into EFL writing instruction in Saudi Arabia. *Int J Eng Lang Teach*, 7(6), 1–14.
- Zhu, W. (2001). Performing argumentative writing in English: Difficulties, processes, and strategies. *TESL Canada*, 19(1), 34–50.

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