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## The Symphony of Writing Strategies: Exploration of Strategies Used in a Collaborative Academic Writing Task

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### Abstract

Inspired by Rebecca Oxford's thought-provoking reflections on language learning strategies, and particularly her orchestra metaphor on how the strategies work together, I conducted a study that seeks to understand how non-native writers employ, configure, sequence and combine individual writing strategies when creating a text in the target language. Four dyads of undergraduate students of English were video-recorded while jointly writing an argumentative essay. The transcripts were analyzed using a general inductive approach to uncover writing strategies emerging in the writing process and to explore how individual strategies are coordinated in task completion. The most important finding is that writers do not randomly sequence the strategies, but they orchestrate them to attain the desired goal. Metaphorically, learners combine writing strategies into 'symphonies of strategies', mirroring the way different instruments of an orchestra create music.

**Keywords:** *Writing Strategies, Strategy Orchestration, Collaborative Writing, Write-aloud, Argumentative Essays, EFL*

### <sup>1</sup>Introduction

Writing is among the most complex academic tasks learners undertake during their education. Especially non-native writers struggle with the cognitive, linguistic, social, emotional, and creative demands of the task. Navigating this maze requires ample knowledge, skills and tools, including efficient writing strategies.

In the present paper, I report a study of non-native writers' strategic behaviors during argumentative essay composition. The ultimate goal was to explore whether and to what extent these behaviors operate in orchestration (Oxford, 2017, 2021). In the first sections I briefly

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outline the current view of the concepts of language learning and writing strategies, and then focus on the idea of strategy orchestration. Finally, I portray and discuss non-native writers' processes of text creation and writing strategy use.

For various reasons, most notably their limited target language exposure, many language learners must invest conscious effort into learning. In the wake of seminal work by O'Malley and Chamot (1996) and Oxford (1990), we now have *language learning strategies* as a cover term for actions learners take in the language learning process. Although the term has become commonplace, the concept has been scrutinized (Dörnyei & Ryan, 2015; Griffiths, 2018; Macaro, 2006; Rose, 2012) because it has been used to refer to a range of phenomena, that is, general approaches to learning, very specific actions, evident physical actions or unobservable mental activities.

Based on the content-analytic study of definitions by experts in the field, Oxford (2017) offers a definition that embraces the multifaceted nature of learning strategies:

learning strategies are complex, dynamic, thoughts and actions, selected and used by learners with some degree of consciousness in specific contexts in order to regulate multiple aspects of themselves (such as cognitive, emotional, and social) for the purpose of (a) accomplishing language tasks; (b) improving language performance or use; and/or (c) enhancing long-term proficiency. Strategies are mentally guided but may also have physical and therefore observable manifestations. Learners often use strategies flexibly and creatively; combine them in various ways, such as strategy clusters or strategy chains; and orchestrate them to meet learning needs (p. 48).

At least two points emanating from this definition are pertinent to my study: (1) learners choose which strategy to use according to a particular language task, and (2) strategies are complex and often applied in combination. It is, therefore, suggested that uncovering how learners select strategies, how they interconnect them, and adapt them to the immediate task outweighs establishing how often they use individual strategies.

There seems to be an agreement among experts that one of the most important aspects of multiple strategy combination is that it enhances the effectiveness of individual strategies, because of their cumulative impact (Cohen, 2014), and thus of language learning and performance. This has been recognized in the field for over thirty years (e.g., Anderson, 1991; Oxford, 1990). In my own early research on vocabulary learning strategies (Pavičić, 1999), I also speculated that strategy combination is vital. I proposed a model of a strategic approach to vocabulary learning comprised of four strategy categories which lend themselves to all possible combinations. The underlying hypothesis was that the efficiency of vocabulary development is influenced not by the use of any particular strategy but by the ways in which strategies are combined. Regretfully, I did not empirically pursue the idea any further. Let us turn to writing as a specific language task and the strategies learners employ to accomplish it.

### **Writing Strategies in the Target Language**

As suggested above, learners' strategy choice is governed by the task type and requirements. In order to deal with the complex and challenging task of writing in the target language learners must develop a repertoire of strategic behaviors they can utilize. Specific processes or

techniques writers use to facilitate and improve their writing are referred to as *writing strategies* (Oxford, 2017).

Following her general learning strategy definition, Oxford (2017) defines writing strategies as "teachable, dynamic thoughts and behaviors that learners consciously select and employ in specific contexts to improve their self-regulated, autonomous writing development for effective task performance and long-term proficiency" (p. 272). Writing strategies are considered very important, because they "unlock doors to academic learning and to major aspects of human communication" (Oxford, 2017, p. 272). Therefore, writing strategies help non-native writers develop their writing skill and performance, and deal with the complexity of the writing process as a personal and sociocultural endeavor. In the latter sense, they can be used by writers at different proficiency levels, and in both first and target language to regulate their motivation and concentration while efficiently completing the task (Csizér & Tankó, 2015).

Writing strategies have been addressed in many studies, albeit from different theoretical perspectives, with different aims and methodologies. Among them, several studies primarily focused on the identification, classification and frequency of writing strategy use (e.g., Kao & Reynolds, 2017; Raofi et al., 2017). Lists of identified writing strategies include content planning, brainstorming, content organization, outlining, drafting, translating from the first language, reviewing and restructuring notes and previous drafts, matching language with communicative intent, checking task execution, comparing drafts/plans and text, assessing appropriateness of ideas or text organization, assessing and correcting language inaccuracies, adapting expression to readers, and so on. Non-native writers may undoubtedly benefit from such lists as they represent concrete actions they can take when writing. Nevertheless, strategy classifications or lists fail to provide guidance as to how strategies may be used together to enhance writing performance (cf. Gu et al., 2009)

Studies comparing good and weak, or native and non-native writers' texts (e.g., Forbes, 2018; Guo & Huang, 2018), although somewhat inconclusive or contradictory, provided valuable insights into writing strategy use. Good writers interact with the text (i.e., they plan, revise or edit it) more than weak writers do (Raimes, 1987). Experienced writers typically spend more time planning and organizing the text before writing, and they tend to revise sentences they write directly in the target language, while beginners plan less globally and translate from their first language (e.g., Maarof & Murat, 2013; Sasaki, 2000). Both high- and low-proficiency non-native writers utilize first-language writing strategies in the target-language writing tasks, but low-proficiency writers do not transfer them efficiently (Karim & Nassaji, 2013). Moreover, efficient writers use target-language writing strategies in their first-language writing equally successfully (Guo & Huang, 2018). Forbes's (2018) study highlighted the individuality of general approaches to writing, writing strategy use, and of learner characteristics (e.g., attitudes).

Overall, effective writing strategy use is a skill in need of systematical and continuous development, even at higher language proficiency levels (Csizér & Tankó, 2015). Strategy development, as Sasaki et al. (2018) demonstrated, may be strongly influenced by individual and environmental factors. They observed Japanese university students' longitudinal development in the use of three writing strategies (global planning, local planning, translation from first language) and its interaction with cognitive and affective variables (i.e., target

language proficiency and writing abilities, and motivational action) with study abroad experience as an environmental variable. The use of global planning increased significantly, but with considerable individual variation. The effect of strategy instruction on retention of strategy use hinged on how stimulating further personal experiences were.

Writing strategies have been categorized either as a subtype of general learning strategies applied to writing (Oxford, 1990), or as a distinct strategy group (Mu, 2005). In the latter sense, studies based on the so-called process approach to writing that views writing as a series of multiple strategic actions (Manchón, 2001) classify writing strategies chronologically, that is into groups reflecting the stages writers go through: planning (before writing), monitoring (during writing), and reviewing (after writing) (e.g., Maarof & Murat, 2013; Zhang & Qin, 2018). Writing strategy classifications synthesized from the literature (Mu, 2005) into rhetorical, meta-cognitive, cognitive, communicative and social-affective strategies (to which Guo & Huang, 2018, added approach strategies) might be appealing but may be impossible to maintain. For example, it may be difficult to allocate individual strategies to one category or to delineate a strategy from a similar one. What is more, the number and frequency of individual strategy use might not be as relevant as has been suggested by an overwhelming focus on quantification in previous strategy research. Instead, ways in which writers orchestrate individual strategies into actions tailored to specific tasks gain importance (Cohen, 2007; Griffiths, 2018; Oxford, 1990).

### **Strategy Orchestration**

Combining individual strategies with each other to complete a language task has become referred to as 'orchestrating strategy use' (Anderson, 1991). It is defined as learner's ability to effectively employ strategies in harmony with each other (Griffiths, 2018). The concept presupposes connection rather than competition of individual strategies assembled into a goal-oriented network of strategies. Anderson (2008) sees strategy orchestration as one of the five primary components of metacognition and Oxford (2017) places it among metastrategies responsible for governing other types of strategies. Similarly, Griffiths (2018) uses the term metaphorically to refer to a type of metacognitive strategy, that is a supervisory strategy employed to manage learning. As such, it is to be understood as a strategy whose use rests on learners' wide repertoire of strategies and their ability to appropriately employ and adapt strategies to task requirements, conditions and their individual needs in order to achieve the desired results. Finally, and perhaps most importantly, strategy orchestration potentially contributes to successful language learning more than linear or frequent use of individual strategies (Macaro, 2006; Vandergrift, 2003). Therefore, effective strategy use should be conceptualized in respect of learners' ability to orchestrate their strategy use to achieve their goals (Manchón 2008). Although the idea of strategy orchestration and its role in language learning resonated well with experts in the field, it remains surprising that it is explicitly stated only in Oxford's (2017) strategy definition (see above).

Strategy orchestration has recently attracted more (although still insufficient) empirical attention. It has been explored in research on reading (e.g., Ikeda & Takeuchi, 2006; Zhang et al.; 2008), listening (e.g., Gu et al., 2009; Vandergrift, 2003), speaking (e.g., Cabaysa & Baetiong, 2010; Ducker, 2021), vocabulary (e.g., Hu & Nassaji, 2014; Wang, 2018), or language learning in general (e.g., Griffiths & Cansiz, 2015), invariably finding that efficient

language learners employ strategies in a well-orchestrated manner to meet the task requirements, and attributing unsuccessful learners' problems to a lack of strategy orchestration.

As for writing strategy orchestration, there have been a few notable, predominately instructional intervention studies conducted in the Asian context. One of the research questions in Bai's (2015) quasi-experimental longitudinal study addressed the impact of strategy instruction on frequency and orchestration of strategy use. The results revealed that the experimental group was more successful both in terms of their writing performance and strategy orchestration. De Silva and Graham's (2015) study, involving 12 Sri Lankan learners attending English for Academic Purposes classes, also found evidence in favor of strategy instruction. Stimulated recall interviews revealed that learners combined strategies differently but orchestrated them effectively to achieve their goals. A similar study conducted with Iranian EFL learners also showed that strategy instruction boosted participants' ability to orchestrate their strategy use (Baleghizadeh & Jafari, 2020).

The experimental groups in two separate studies – one involving Taiwanese (Chen, 2022), and the other Chinese university students (Teng, 2022) – received explicit writing strategy training as part of their writing course, while the control groups attended regular writing classes. Both studies showed that strategy instruction improved learners' ability to coordinate strategy use resulting in more successful task completion. Interestingly, in Teng's (2022) study, both groups' writing proficiency increased, but the effects were larger and longer-lasting for the experimental group. Teng attributed this to enhanced strategy orchestration.

Two studies investigated learners' ability to orchestrate strategy use in computer-based learning environments in China. As part of their questionnaire validation study, Zhang and Qin (2018) found that students possessed general and specific writing strategies which they orchestrated to solve problems during writing using multimedia tools. The questionnaire proved useful both as a research instrument and as a pedagogical tool for boosting learners' metacognition about their writing strategies. Tian et al. (2022) explored learners' use of self-regulated writing strategies when revising based on automated, peer, and teacher feedback. The analysis of think-alouds produced by four participants revealed that learners employed and orchestrated their personal repertoires of self-regulated writing strategies to achieve their feedback revision goals.

The literature reviewed in this section seems to highlight the standpoint that strategy orchestration:

- [is] a prerequisite for enhancing language learning or performance: it is unrealistic to expect that a single strategy can be as useful (Anderson, 2008; Macaro, 2006); to be effective, strategies need to be combined with each other "either simultaneously in strategy clusters or sequentially in strategy chains" (Cohen, 2014, p. 27);

- requires a higher level of metacognition, that is the knowledge of when, how and why use strategies (Macaro, 2006; Zhang & Qin, 2018);

- unfolds in different ways for every learner, and there might be numerous novel combinations created by individuals (De Silva & Graham 2015);

- is not a linear (Oxford, 2017) or random string of strategies, but a complex operation in which strategies are "harmonized with each other" (Griffiths, 2018, p.23);

- is vital in complex tasks, such as writing, which necessitate the use of multiple and different types of strategies, and, consequently, their thoughtful and careful orchestration (Teng, 2022);

The present study sought to contribute to research on strategy orchestration by exploring how non-native writers employ and orchestrate strategies to navigate through the writing task. Writers' strategy orchestration was investigated by examining write-aloud protocols generated during a collaborative writing task to obtain information that may be critical in disclosing not only what writers do, but also how they go about writing. The aim was not to enumerate and classify the writing strategies arising in the participants' dialogue, but to capture how participants sequence and combine writing strategies to complete the task.

### **The Study**

The study was guided by the following research question:

**RQ:** How do non-native writers orchestrate their use of writing strategies in the collaborative task of writing an argumentative essay in English?

#### *Participants*

The study involved eight undergraduate (7 female and 1 male, aged 19–20) EFL students at a Croatian university. Their proficiency was at B2+ level (CEFRL, 2020). Study participation was voluntary and written informed consent containing all important information necessary for participants to make an informed decision about participating was signed by all participants. The data were collected within the project "Textual coherence in foreign language writing: Croatian, German, English, French and Hungarian in comparison – KohPiTekst (2017-2020)" (Pon & Bagarić Medve, 2021). All studies planned within the project were reviewed for adherence to ethical guidelines and approved by the Croatian Scientific Foundation. Participants' anonymity and confidentiality of their identity was assured (Pon et al., 2021).

### **Data Collection**

Participants were tasked with writing an argumentative essay in pairs about advantages and disadvantages of online shopping. The minimum required length was 250 words. No time limit was set, but participants were told to submit the essay once both felt satisfied with their product. Their task procedure was video-recorded and subsequently transcribed verbatim yielding four transcriptions.

Collaborative writing tasks have been rarely used in studies on writing strategies (Manchón, 2018), not least because it is assumed that the processes of writing alone or writing in collaboration are different (cf. Wigglesworth & Storch (2012) and Simeon (2016) for factors affecting group cohesiveness and individual's contribution). When forming dyads, we ensured that students had a close social relationship so that they would feel as uninhibited as possible in discussing ideas and intervening in each other's writing. We feel that collaborative write-aloud tasks have benefits for strategy research: they can stimulate participants to spontaneously verbalize out loud what would otherwise remain their internal monologue in order to negotiate their way through the decision-making process while writing. Thus, it can be assumed that most writing strategies surfacing in the dialogue are likely to be used by participants when writing alone. Collaborative writing tasks may alleviate some disadvantages of verbal protocols

(e.g. simultaneous engagement in writing and thought sharing), because interacting in pairs fosters natural dialogue.

### **Data Analysis**

The four write-aloud transcriptions were scrutinized by two researchers independently to identify verbalizations signposting writing strategy use. A third researcher was included in resolving all instances of divergence until full agreement was reached. The analysis was generally inductive in that strategies emerged from the data, that is each strategy was considered in light of "the particular role [it] has for the person in the situation" (Oxford, 2017, p. 339). Each dyad's writing strategy sequence was then reanalyzed to find evidence of coordination.

### **Results**

In this section the four write-alouds are first summarized in order to sketch a profile of each dyad's approach to writing. Since a more detailed account cannot be given within the space of the current article, behaviors and interactions signaling the writing strategy use are focused on. Participants' names have been replaced with pseudonyms.

#### *Dyad A (Ana and Areta)*

Dyad A first evaluates the topic and then focuses on the introduction: they discuss starting with a general sentence and list several prompts. While Ana writes, Areta suggests (in first language) ideas and wording. Ana asks Areta to monitor her spelling. Ana stresses the need to keep track of word count. They reread the introduction and evaluate its content and length. Then they plan the main part: they will start with advantages. Ana suggests a metadiscoursal element to connect this part with the previous. Occasionally, they debate their own personal shopping preferences or experiences. They regularly reread and evaluate propositions. When Areta misunderstands Ana's suggestions, she asks for clarification, which Ana immediately provides. Ana proposes listing all arguments and then contextualizing them. They contemplate the number of ideas to include, making sure they do not exaggerate. They make each other laugh by pronouncing words in different accents or voices. They also laugh at Areta's automatic use of an internet abbreviation, funny typos, or overly formal words. Again, they evaluate the paragraph. The decision to continue to the paragraph about the drawbacks of online shopping is signaled by a suggestion of a metadiscoursal transition marker.

They work as a team: they share ideas, discuss wording, request and offer help whenever needed and without hesitation. They focus on both form and meaning. They negotiate using metadiscourse to signal the beginning of the conclusion, then continue discussing concepts, all along appraising and amending their choices. Ana suggests rereading the whole text, and they both do: they elaborate and modify some parts, paying special attention to cohesion and coherence. Ana states in the first language that they have finished and Areta, laughingly, reiterates this in English.

#### *DYAD B (Bella and Bianca)*

Dyad B considers the topic and turns to planning. They comprehensively discuss the form and content of the introduction: they will start with a general statement to launch the topic and

organize the "middle" part into two paragraphs (pros and cons). They discuss the order of paragraphs and writing a list of arguments. They recall having been trained to prepare for writing argumentative essays in this way, and although Bianca remembers regularly omitting this step, they conclude that having an outline is advantageous. They plan to restate pros and cons and include their personal opinion in the conclusion. Next, they list arguments, simultaneously planning points to develop and other concepts they can link them with. Bianca deems it satisfactory, at which Bella claps her hands in agreement and appreciation. Bianca laughs.

As they start writing the introduction they pay attention to wording and accuracy. Bianca stresses that a general statement in the introduction is necessary. Bella realizes that they will use the same idea later in the text, so they change the angle. Bella writes another sentence containing a vivid metaphor and Bianca evaluates it as "not bad". Bella invites Bianca to monitor her spelling and typing, which she does recurrently. They continuously plan the content and organization of their writing. They reassess the introduction and Bianca suggests adding a question which they would answer in the conclusion. Then they choose the paired expression '*on one hand*' and '*on the other*' to guide the layout of propositions in the main part. Each step of their text creation is well thought-out, as the following episode illustrates: they discuss an idea (in first language), Bianca offers a formulation and asks Bella for an English translation, but Bianca finds it odd and suggests an alternative of which Bella approves. Finally, Bella suggests taking action. Before composing the conclusion, they visually inspect the length of arguments presented, elaborate on one that is articulated in only one sentence, count the words, and reread the text. Bella ties the conclusion with the question in the introduction. As they formulate ideas, they inspect lexicogrammatical choices, discuss improvements and next steps. Their text generation follows similar steps: they go back to the plan to check what concept they should address, suggest a formulation, review it for content quality and linguistic realization, and check how the new part fits in with the text (both the existing and the anticipated one). Bianca regularly checks off the finalized items on their plan. They keep a friendly tone as they negotiate each move. They look at the final product and, as all paragraphs are equally long, decide they have finished.

#### *Dyad C (Corina and Carlo)*

Dyad C first plans and discusses ideas to write about. They list advantages of online shopping in one column, and disadvantages in the other. Corina suggests that the last advantage should be followed by '*however*' to announce their description of drawbacks. They evaluate the plan, that is the number of ideas in each column, and ponder what else to include. Carlo proposes starting writing and adding ideas later on. Corina agrees. She writes down the title and then recalls the rules of structuring the introductory paragraph: it should contain a general statement and explain that online shopping has advantages and disadvantages (to be elaborated in the main part).

As Corina starts typing, they discuss the order and contextualization of ideas. Carlo monitors spelling and grammar. They pay close attention to lexical choices, occasionally making quirky suggestions (e.g., *homo sapiens* for *people*) and they laugh. They pause to think about formulations and rewrite the parts they are displeased with. Corina evokes the planned idea, but Carlo finds it inconsistent with the rest of the text. Corina wavers, but Carlo formulates



a new sentence, carefully selecting vocabulary. Corina compliments his choices. They plan the next sentence. On Corina's request, Carlo carefully considers the grammatical consistency between the preceding and subsequent formulations. Unsure about an expression he suggests checking it online, but they are not allowed to. Therefore, Carlo decides to exclude it, suggesting an alternative. They rewrite the sentence to link it with a notion they mentioned before. Carlo concludes that the introduction is often the most difficult part to write. Again, they plan the next part. Carlo restates the rule that the main part should begin with a more general statement. He suggests expanding an idea, and Corina suggests making it more formal. They continue with conceptualization and formulation, occasionally stopping to check the plan, reread and evaluate the written sentences, rewrite parts and plan the next steps. They are equally involved in discussions and making decisions, both conceptual (e.g., adding 'an adjective' or having two paragraphs) and linguistic (e.g., use of metadiscourse). Carlo digresses by explaining his personal approach to writing argumentative essays: he first depicts advantages and then disadvantages, often signaling the transition with a metadiscoursal marker ('*contrary*'). Corina struggles to formulate the next sentence and regrets not having revised useful expressions she learnt at school. Carlo offers help. They complete the paragraph on advantages and estimate the word count. Corina suggests introducing the paragraph about disadvantages using 'however'. Carlo formulates a sentence, Corina suggests improvements to which Carlo agrees. They review each sentence and judge it acceptable or needing correction. They instantly correct grammatical mistakes, but decide to ponder their lexical choices later. They constantly consult their initial plan to check next steps. Carlo suggests starting a new paragraph. They struggle to find a word: Corina would rephrase the sentence and Carlo would use a synonym as an interim solution. They comment on their (lack of) knowledge about the aspects related to the task (e.g., the use of commas). Corina counts the words to check where they stand. They discuss restructuring the text into three rather than four paragraphs, but Carlo feels that the obviously unrelated content should be marked by separate paragraphs. Since they want to add another argument, they rewrite the introduction to accommodate the new idea. They collaborate actively during composing. They request, provide and accept help. They sometimes digress and explain their personal viewpoint or share a joke. In their contextualization of the planned ideas they express concern about repeated phrasing and seek alternatives. Before writing the conclusion, Carlo says it should be, much like the introduction, connected with advantages and disadvantages, and Corina suggests summarizing what they have written in one or two sentences and adding a personal opinion. This is reiterated several times. They choose a metadiscoursal element which determines the order of the ideas. The final phase is signaled by Carlo's statement "I think this is it". He asks Corina if she has another idea to add, but she agrees they have finished as they reached the expected word count.

#### *Dyad D (Dana and Dora)*

Dyad D begins by acknowledging the topic and arranging to make a plan. Dana suggest listing advantages and disadvantages in tabular form. Dora remembers having practiced this procedure at school. They settle on itemizing concepts to elaborate later. They list several positives and Dora suggests stopping because of the word limit. Dana agrees and they turn to the negatives. Dana states they need a topic sentence and explains her idea.

As Dora formulates the opening sentence, Dana intervenes by suggesting a different wording. She calls attention to a badly formulated sentence. They keep track of the word count, contextualize ideas, and review their lexicogrammatical choices. They plan next steps and evaluate the form of the introduction. They will start the main paragraph with advantages followed by disadvantages. Dana formulates a sentence, but Dora deems it too simple. Dana reminds her that they cannot go into details because of the word limit. As Dana formulates the next sentence, Dora notices a repeated phrase and provides alternatives. They contemplate lexical options, laughing at those that sound too formal or wordy. Dora asks Dana for a synonym, which Dana provides but is unsure of its spelling. They both suggest formulations. Dana is typing and asks Dora to wait when she cannot keep up. Dora lets Dana think and helps with the formulation. Dora proposes addressing the opposite arguments and they share personal experiences. They refer to the list to check what idea comes next. Dora notices a repeated use of connectors, but Dana declares it "decorative". Sometimes they introduce arguments but leave their explication for later. In her attempt to formulate a new argument, Dora ensures it fits in with the preceding one. Occasionally, they jokingly insert an expression they know they will not use. Dana suggests brainstorming the next sentence, and Dora feels they should choose a linker first. Dora comes up with several examples for Dana to decide and Dana remembers writing an essay on a similar argument at school. The sentence seems too long so Dora suggests breaking it into two. Again, they discuss their lexical choices and suggest using synonyms to avoid repetition. They recall conventions for writing conclusions and decide to write a generic sentence beginning with a suitable metadiscoursal marker. They write several sentences and Dora suggests adding another one because she is unsure whether it will suffice. Dana thinks the last point in the conclusion should be their personal opinion, but Dora disagrees. Dana asks Dora if she thinks they have finished. Dora suggests reviewing the whole text, and Dana invites Dora to check spelling and other mistakes. They reread the text. Dora hopes they have the requested number of words, but Dana fears they might have too many. They estimate the word count and conclude they have finished.

### **Discussion**

Dyad A's preparation for writing was very short, with a brief topic evaluation and discussion of the opening sentence, and no global planning. The other dyads devoted considerably more time and attention to planning, and because of their strong preparation, they were able to rely heavily on their plan, which enabled them to systematically manage their writing from the onset to the finished product. The planning clearly revealed orchestrating strategy use: evaluating the topic, brainstorming concepts to address, and planning the introduction, body and conclusion were often used in clusters. They attended to the organization of the text into sections, compiling a list of arguments, detailedness of the arguments, potential formulations, and ways of linking different parts of the text into a coherent whole. They typically started by discussing ideas, which mostly unfolded in their native language, and then searched for adequate English formulations.

Particularly dyad B's, C's and D's writing seemed to flow effortlessly, not least because they had an outline to resort to. They started from the planned ideas and then invested significant effort into their contextualization. While writing, they regularly reread and appraised the text, weighed it against the original plan and, if necessary, improved the draft.

Even during writing, all dyads devoted ample time to planning subsequent actions, structure and content. They would return to previous parts to ensure they conform with the subsequent text and constantly monitor how a new sentence coheres with the preceding text. They seemed to have a clear vision of the text they wanted to create and therefore attended to linguistic choices, text coherence, clarity and tone throughout the whole writing process. They attached major importance to their lexical choices, that is their appropriateness and accuracy or unwanted repetition. Interestingly, the order of ideas was occasionally governed by their selection of metadiscourse, pointing to their awareness of the role of metadiscourse in academic writing.

All dyads' write-aloud protocols revealed knowledgeable and informed writers. This is evidenced by their evocation of prior instruction and previous experiences in similar writing tasks. They showed detailed familiarity with the genre and conventions of argumentative essays and a keen awareness of task requirements by keeping track of the word count. The number of propositions included, using metadiscourse to improve coherence, and making lexical choices to keep the tone academic or avoid repetition. They monitored their progress in terms of formal, functional and conceptual aspects of the task requirements. The occasional digressions were in fact related to the topic or the task, thus activating appropriate schemata and relevant knowledge, helping them generate ideas, or providing motivational incentives.

The pairs seemed very in sync. Cooperative monitoring of the micro (spelling and punctuation) and macro aspects (text organization, lexicogrammatical decision-making), evaluations, elaborations and reformulations of written sentences took place continually during the performance phase. For example, dyad C encouraged each other with humor, spontaneous praise and admiration, sometimes affectionately teasing each other. Carlo is a reputed skilled writer, which Corina explicitly acknowledged. But all dyads shared an occasional laugh which seemed to relax them. They all tried to keep each other motivated and focused, and they were obviously uninhibited when it came to requesting and offering help and supporting each other in all aspects of writing.

A detailed analysis of the strategy types lies beyond this study's scope (but see Figure 1). Still, it emanates from the description that during writing participants employed all types of writing strategies that they smoothly orchestrated into a cyclical methodical approach to the task. Participants seemed to utilize strategies they had adopted during their previous education efficiently adapting them to the task and combining them to meet their goals. For example, if their evaluation of a sentence was positive, they conferred about how to proceed or checked the initial plan. But if it was negative, they rewrote it or planned a remedy. This enabled them to manage the process of composing the text more efficiently.

The completion of the task was signaled by the dyads' last comments in which they appraised the product and explicitly stated they had finished the task. Only one dyad (D) reread the entire text but without any interventions. None of the participants showed explicit concern about the text quality or its perception by recipients. They seemed to have deemed the task finished primarily because they had met the formal criteria (i.e., word count, three paragraphs, use of metadiscourse) and covered the advantages and disadvantages. A potential reason might be their high familiarity with the task, expectations and customary evaluation criteria. This allowed them to use the strategies they already considered efficient. The fact that they wrote

the text as part of a research project and did not expect any feedback or further engagement might also have influenced their strategic behavior in this phase.

### **Implications**

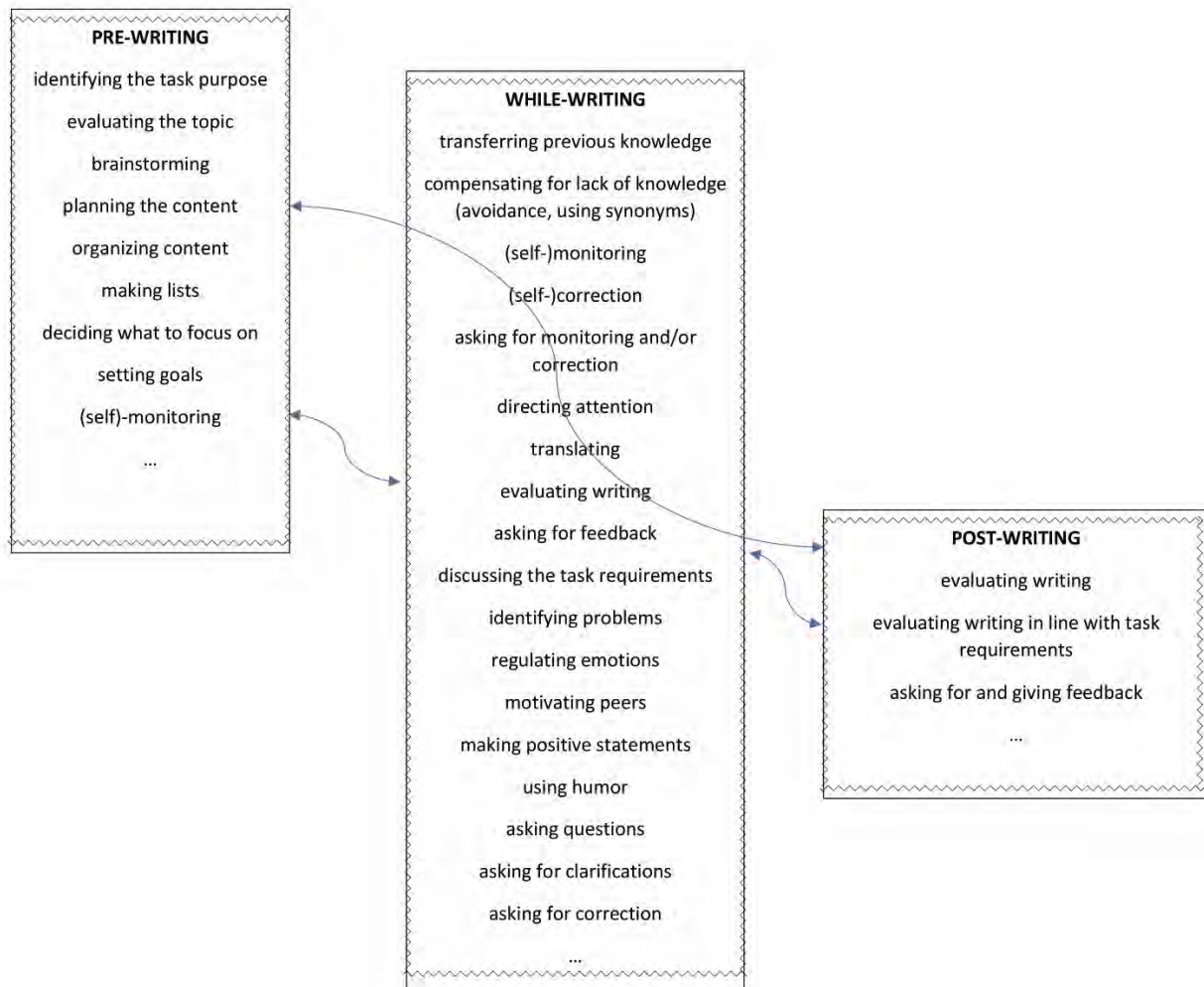
As the analysis of the write-alouds showed, some writing strategies could be considered typical of a particular stage in the writing process, but they were not employed strictly chronologically. Specifically, the strategies of task analysis, planning, brainstorming ideas, organizing and outlining prevailed in the pre-writing stage, but they were also abundantly coordinated while writing by all dyads. This included referring back to the plan, adjusting it or making a completely new one for the next step. The same goes for reviewing, evaluation, and editing, which is normally representative of the post-writing stage.

Much in agreement with De Silva and Graham's (2015) and Sasaki et al.'s (2018) conclusions, the results of this study revealed some individual variation that coevolved with shared combinations of strategy use across the four dyads which are attributable to similar prior instruction and experience, and high task familiarity. Their behavior was proactive: they established goals considering task requirements, assessed and reassessed goals as they created the text, often simultaneously exerting control over their motivation, cooperation and performance. They were fully invested in the task as evidenced by their orchestration of various writing strategies into a logical and purposeful flow (Guo & Huang, 2018; Oxford, 2017).

Overall, the use of strategies was indeed characterized by a high degree of flexibility and dynamism, as suggested by Oxford (2017): participants initiated one strategy they deem best suited for the imminent move, but pivoted to a different one as soon as the need arose. It is this flexibility that allows writers to orchestrate strategies to complement their writing during the entire writing process as well as to optimize their writing to fulfil their own goals and meet the task requirements.

The observed patterns of strategy use point to a purposeful orchestration of strategies within and across the three writing stages. The writing stages are globally sequenced linearly as the pre-writing stage precedes the writing stage, and the post-writing stage comes at the end. They may also contain a set of typical strategies (represented by the three 'boxes' in Figure 1), but the boundaries between stages are rather permeable, as indicated by the wavy lines, allowing strategies to freely flow from one to another. Participants interrupt their writing by returning to planning or 'fast forward' to evaluation, thus deviating from the linear path. The three "boxes" are to be imagined as dynamic and malleable, swelling with influx of new strategies, and "deflating" as strategy choice varies in response to the demands of the task. Thus, this should not be understood as a writing strategy classification into clearly delineated categories containing individual strategies, but as a collection of strategies that can be selected and combined by learners for their individual needs (cf. Oxford, 2017).

**Figure 1**  
*Writing Strategy Orchestration*



## Conclusion

The study reported here, aimed at exploring the ways writing strategies are used in the process of text creation, has provided empirical evidence underscoring the idea of orchestrated strategy use. Indeed, it can be concluded that skilled writers compose their own concords of writing strategies thus creating unique and exquisite symphonies of writing strategies which they orchestrate to engender a coherent and expressive text written in a language they are still mastering.

The effects of using a collaborative writing task used in the study had both positive and negative effects. Since participants were not prompted in any way to contemplate or disclose strategies, the ones they spontaneously voiced, or could be inferred from the context, were the strategies they actually used, but what other writing strategies were at play remained hidden. The cooperative nature of the task fostered the frequent usage of some writing strategies (e.g., discussing options), but its set-up as a one-off task in experimental conditions precluded the use of many strategies, such as those involving any long-term planning or those typically utilized after writing to evaluate the writing process. There were only eight participants in the study, all EFL majors with significant prior experience and familiarity with the task, which surely shaped the results.

Several worthwhile directions to be followed in future research include investigating how writers orchestrate writing strategies during different writing tasks (a different genre perhaps), or exploring longitudinally how orchestrating writing strategy use emerges and then advances from initial writing proficiency levels. Hopefully future studies will find inspiration in the present study that showed that the question to ask should be how strategies are efficiently orchestrated in task execution.

Writing is a skill that does not develop spontaneously, but needs to be learned. This includes writing strategy instruction whose positive effects have been empirically validated (e.g., Sasaki, 2000; Teng, 2022). Implications of the present findings suggest that developing writers would benefit from instruction that is not embedded in rigid classifications and definitions of strategies, but that informs them about how they may coordinate individual strategies to boost their effectiveness. This goes especially for writers who may already have a repertoire of strategies, but are unaware of how to orchestrate them to suit the specific demands of the writing task. Therefore, strategy orchestration should be at the forefront of strategy-based instruction. When planning writing strategy instruction, language teachers and writing instructors should remember that strategy orchestration itself is complex and that its development requires perseverance and attention to idiosyncratic learner characteristics and task- and context-related determinants (e.g., Griffiths, 2018; Sasaki et al., 2018).

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## Ethics Declarations

## Competing Interests

No, there are no conflicting interests.

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## References

- Anderson, N. (1991). Individual differences in strategy use in second language reading and testing. *The Modern Language Journal*, 75(4), 460-472. <https://doi.org/10.2307/329495>
- Anderson, N. (2008). Metacognition and good language learners. In C. Griffiths (Ed.), *Lessons from good language learners* (pp. 99-109). Cambridge University Press. <https://doi.org/10.1017/CBO9780511497667.010>

- Bai, B. (2015). The effects of strategy-based writing instruction in Singapore primary schools. *System*, 53, 96-106. <https://doi.org/10.1016/j.system.2015.05.009>
- Baleghizadeh, S., & Jafari, R. (2020). The effect of strategy-based instruction on Iranian EFL learners' writing achievement. *TESL Reporter*, 53(1/2), 1-36.
- Cabaysa, C., & Bactiong, L. (2010). Language learning strategies of students at different levels of speaking proficiency. *Education Quarterly*, 68(1), 16-35.
- Chen, A. (2022). The effects of writing strategy instruction on EFL learners' writing development. *English Language Teaching*, (15)3, 29-37. <https://doi.org/10.5539/elt.v15n3p29>
- Cohen, A. (2007). Coming to terms with language learner strategies. In A. Cohen & E. Macaro (Eds.), *Language learning strategies: Thirty years of research and practice* (pp. 29-45). Oxford University Press.
- Cohen, A. (2014). *Strategies in learning and using a second language* (2nd ed.). Routledge. <http://dx.doi.org/10.4324/9781315833200>
- Council of Europe (2020). *Common European Framework of Reference for Languages: Learning, teaching, assessment – Companion volume*. Council of Europe Publishing. [www.coe.int/lang-cefr](http://www.coe.int/lang-cefr).
- Csizér, K., & Tankó, G. (2015). English majors' self-regulatory control strategy use in academic writing and its relation to L2 motivation. *Applied Linguistics*, 38(3), 1-20. <https://doi.org/10.1093/applin/amv033>
- De Silva, R., & Graham, S. (2015). The effects of strategy instruction on writing strategy use for students of different proficiency levels. *System*, 53, 47-59. <https://doi.org/10.1016/j.system.2015.06.009>
- Dörnyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. Routledge. <http://dx.doi.org/10.4324/9781315779553>
- Ducker, N. (2021). Protecting and enhancing WTC with idiodynamic peer-peer strategy sharing. *System*, 103, 102634. <https://doi.org/10.1016/j.system.2021.102634>
- Forbes, K. (2018). The role of individual differences in the development and transfer of writing strategies between foreign and first language classrooms. *Research Papers in Education*, 34, Article 4. <https://doi.org/10.1080/02671522.2018.1452963>
- Griffiths, C. (2018). *The strategy factor in successful language learning* (2<sup>nd</sup> edition). Multilingual Matters. <http://dx.doi.org/10.21832/GRIFFI9740>
- Griffiths, C., & Cansiz, G. (2015). Language learning strategies. *Studies in Second Language Learning and Teaching*, 5(3), 473-493. <https://doi.org/10.14746/ssl.t.2015.5.3.7>
- Gu, Y., Hu, G., & Zhang, L. (2009). Listening strategies of Singaporean primary pupils. In R. Silva, L. Alsagoff & C. Goh (Eds.), *Language Learning in New English Contexts: Studies of Acquisition and Development* (pp. 55-74). Continuum.
- Guo, X., & Huang, L. (2018). Are L1 and L2 strategies transferable? *The Language Learning Journal*, 48(6), 715-737. <https://doi.org/10.1080/09571736.2018.1435710>
- Hu, H., & Nassaji, M. (2014). Lexical inferencing strategies: The case of successful versus less successful inferencers. *System*, 45, 27-38. <https://doi.org/10.1016/j.system.2014.04.004>
- Ikeda, M. & Takeuchi, O. (2006). Clarifying the differences in learning EFL reading strategies. *System*, 34(3), 384-398. <http://dx.doi.org/10.1016/j.system.2006.04.007>
- Kao, C.-W., & Reynolds, B. (2017). A study on the relationship among Taiwanese college students' EFL writing strategy use, writing ability and writing difficulty. *English Teaching & Learning*, 41(4), 31-67. <https://doi.org/10.6330/ETL.2017.41.4.02>
- Karim, K., & Nassaji, H. (2013). First language transfer in second language writing. *Iranian Journal of Language Teaching Research*, 1(1), 117-134.
- Maarof, N., & Murat, M. (2013). Writing strategies used by ESL upper secondary school students. *International Education Studies*, 6(4), 47-55. <https://doi.org/10.5539/ies>
- Macaro, E. (2006). Strategies for language learning and for language use. *Modern Language Journal*, 90(3), 320-337. <https://doi.org/10.1111/j.1540-4781.2006.00425.x>
- Manchón, R. (2001). Trends in the conceptualizations of second language composing strategies. *International Journal of English Studies*, 1(2), 47-70. <https://doi.org/10.6018/ijes>
- Manchón, R. (2008). Taking strategies to the foreign language classroom. *International Review of Applied Linguistics*, 46(3), 221-243. <https://doi.org/10.1515/IRAL.2008.010>
- Manchón, R. (2018). Past and future research agendas on writing strategies. *Studies in Second Language Learning and Teaching*, 8(2), 247-267. <https://doi.org/10.14746/ssl.t.2018.8.2.4>
- Mu, C. (2005). A taxonomy of ESL writing strategies. *Proceedings Redesigning Pedagogy*. Singapore, 1-10. <https://doi.org/eprints.qut.edu.au/64/1/64.pdf>
- O'Malley, J., & Chamot, A. (1996). *Learning strategies in second language acquisition*. Cambridge University Press. <http://dx.doi.org/10.1017/CBO9781139524490>
- Oxford, R. (1990). *Language learning strategies*. Heinle & Heinle.
- Oxford, R. (2017). *Teaching and researching language learning strategies: Self-regulation in context*. (2nd edition). Routledge. <http://dx.doi.org/10.4324/9781315719146>

- Oxford, R. (2021). Consciously keeping watch: Self-regulation and learning strategies. In Z. Gavriilidou & L. Mitits (Eds.) *Situating language learning strategy use* (pp. 25-34). Multilingual Matters. <https://doi.org/10.21832/9781788926720-007>
- Pavičić, V. (1999). Model strateškog pristupa učenju vokabulara engleskog jezika. *Strani jezici*, 28(3-4), 209-217.
- Pon, L., & Bagarić Medve, V. (2021). Kohärenzherstellung in schriftlichen Texten von DaF-Studierenden. *Zagreber germanistische Beiträge: Jahrbuch für Literatur- und Sprachwissenschaft*, 30(1), 153-172. <http://dx.doi.org/10.17234/ZGB.30.8>
- Pon, L., Pavičić Takač, V., & Bagarić Medve, V. (2021). Repetition in non-native texts: A comparison of argumentative essays written by L2 learners of English and German. *ZFF. Zeitschrift für Fremdsprachenforschung*, 32(2), 229-251.
- Raimes, A. (1987). Language proficiency, writing ability, and composing strategies. *Language Learning*, 37(3), 439-468. <https://doi.org/10.1111/j.1467-1770.1987.tb00579.x>
- Raofi, S., Binandeh, M., & Rahmani, S. (2017). An investigation into writing strategies and writing proficiency of university students. *Journal of Language Teaching and Research*, 8(1), 191-198. <http://dx.doi.org/10.17507/jltr.0801.24>
- Rose, H. (2012). Reconceptualizing strategic learning in the face of self-regulation. *Applied Linguistics*, 33(1), 92-98. <https://doi.org/10.1093/applin/amr045>
- Sasaki, M. (2000). Toward an empirical model of EFL writing processes. *Journal of Second Language Writing*, 9(3), 259-291. [https://doi.org/10.1016/S1060-3743\(00\)00028-X](https://doi.org/10.1016/S1060-3743(00)00028-X)
- Sasaki, M., Mizumoto, A., & Murakami, A. (2018). Developmental trajectories in L2 writing strategy use. *The Modern Language Journal*, 102(2), 1-18. <https://doi.org/10.1111/modl.12469>
- Simeon, J. (2016). Learner writing strategies of Seychellois ESL (English as a second language) secondary school students. *Language, Culture and Social Interaction*, 8, 1-11. <https://doi.org/10.1016/j.lcsi.2015.11.002>
- Teng, L. (2022). *Self-regulated learning and second language writing*. Springer. <http://dx.doi.org/10.1007/978-3-030-99520-1>
- Tian L., Liu, Q., & Zhang, X. (2022). Self-regulated writing strategy use when revising upon automated, peer, and teacher feedback in an online English as a foreign language writing course. *Frontiers in Psychology*, 13, 873170. <https://doi.org/10.3389/fpsyg.2022.873170>
- Vandergrift, L. (2003). Orchestrating strategy use. *Language Learning*, 53(3), 463-496. <http://dx.doi.org/10.1111/1467-9922.00232>
- Wang, I. (2018). *Learning vocabulary strategically in a study abroad context*. Palgrave Macmillan. <http://dx.doi.org/10.1007/978-3-319-65963-3>
- Wigglesworth, G., & Storch, N. (2012). What role for collaboration in writing and writing feedback. *Journal of Second Language Writing*, 21, 364-374. <https://doi.org/10.1016/j.jslw.2012.09.005>
- Zhang, L., Gu, Y., & Hu, G. (2008). A cognitive perspective on Singaporean primary school pupils' use of reading strategies in learning to read in English. *British Journal of Educational Psychology*, 78, 245-271. <https://doi.org/10.1348/000709907X218179>
- Zhang, L., & Qin, T. (2018). Validating a questionnaire on EFL writers' metacognitive awareness of writing strategies in multimedia environment. In A. Haukås, C. Bjørke & M. Dypedahl (Eds.), *Metacognition in language learning and teaching* (pp. 157-177). Routledge. <https://doi.org/10.4324/9781351049146-9>