Exploring Task Environment for Online Academic Writing: The Case for Coloured Scaffolds

Noor Hanim Rahmat

Akademi Pengajian Bahasa, Universiti Teknologi MARA Cawangan Johor, Kampus Pasir Gudang
Email: noorh763@uitm.edu.my

Abstract

Besides speaking, writing skills is another important skill that university students need to master. Students need to develop their writing skills in order to cope with their university coursework. Nevertheless, writing is more than just converting oral thoughts into written form. Online learning has pushed many changes to take place for the teaching and learning of academic writing. The use of technology facilitates the teaching of writing. On the other hand, sometimes, teachers are unable to see their student's body language in the online setting. This means that there is a lack of nonverbal hint expression of confusion on the students' faces and these hints could help the teacher measure their students' understanding of the teaching of academic writing online. This quantitative research is done to investigate how learn academic writing using colour codes. The instrument used is a survey The survey has 5 main sections. With reference to Table 1, section A has items on the demographic profile. Section B has 8 items on Transcribing Technology, section C has 22 items on Task materials, section D has 7 items on Collaborators and Critics, and section E has 7 items 7 items on Text Written so far. A summary of the findings show interesting information on (a) transcribing technology, (b) task materials, (c) collaboration, and (d) text written so far in terms of learning academic writing online using coloured scaffolds. Findings of this study bear interesting pedagogical implications in the teaching and learning of academic writing online.
Keywords: Academic Writing, Online, Task Environment, Transcribing Technology, Task Materials.

Introduction
Background of Study
Besides speaking, writing skills is another important skill that university students need to master. According to Bacha (2010), students need to develop their writing skills in order to cope with their university coursework. Nevertheless, writing is more than just converting oral thoughts into written form. According to Haron and Rahmat (2020), writing is a conversation between the writer and reader. The reader wants to convey information to the writer through

a non-face-to-face way; hence, the written text was used to interact. Good writers try their best to consider the audience when they write (Rahmat, 2016) and the most basic audience of an academic essay is that of the writing teacher. The learning of writing was one taught through face-to-face where the instructors would meet up with the writers to evaluate and help to improve on the written text.

According to Rahmat, et.al (2021), in the traditional face-to-face classroom, the writing instructor monitors the working memory (planning, translating and reviewing) by marking and making comments on the drafts. The comments and recommendations for changes made acted as scaffolds to the learners to guide them to improve on their writing.

Online learning has pushed many changes to take place for the teaching and learning of academic writing. Haron and Rahmat (2020) reported that the use of technology facilitates the teaching of writing. On the other hand, Loan (2022) mentioned that teachers are unable to see their student's body language. It means that there is a lack of nonverbal hint expression of confusion on the students' faces and these hints could help the teacher measure their students' understanding. Loan (2022) reported that online learning lacks an organized schedule, hinders repeated studying, and lowers learners self-motivation. Learning writing online can add to learners fear of writing (Aripin & Rahmat, 2021) and writing anxiety leaves great impact on teaching and learning of academic writing.

Loan (2022) suggested that future research should explore strategies that students can use to overcome the challenges in online writing class. This will increase their confidence and help them reduce their anxiety level to control unnecessary gestures that may hinder them from performing better. Hence, this study is done to explore yet another approach to teaching academic writing online. Specifically, this study is done to answer the following questions,

- How does transcribing technology facilitate the learning of academic writing online?
- How do task materials facilitate the learning of academic writing online?
- How do collaborators critics influence the learning of academic writing online?
- How does text written so far facilitate the learning of academic writing online?

Literature Review
    This section presents issues of teaching academic writing, theory of activity, past studies and conceptual framework of the study.

Teaching Writing
Over the years, many have reminded instructors of the many challenges of teaching of academic writing. Selvaraj & Abdul Aziz (2019), some approaches have not really worked because the writing classroom have moved in multiple directions ad; thus, the goal set of the particular lesson will not be achievable. Ali & Ramana (2018) listed several challenges of teaching writing. Firstly, due to the complication of the writing process, some students have lost motivation to learn to write. This has caused them to see writing as a "natural" language skill and therefore ends up not wanting to put much effort in the learning process. Next, the use of technology has hindered some to want to learn to write because internet can supply with ample writing "samples".

Teaching writing is already not an easy talk. The inevitable change into online has added more difficulties in the teaching of writing. Rahmat (2018) introduced the selective attention approach to the teaching if writing. According to Broadbent (1958), selective attention is the process of directing the learners' awareness to relevant stimuli while ignoring irrelevant stimuli in the environment. The concept of selective attention approach is focused to the use of colour codes in the ESL academic classroom. The writing teacher uses the concept of (a) modelling to teach the initial part of the lesson. Next, (b) graphic organizers are used as templates for learners to understand how the concept of colour codes can be used in paragraph writing. Finally, the learners are guided to write their own paragraphs using the technique of (c) scaffolding.
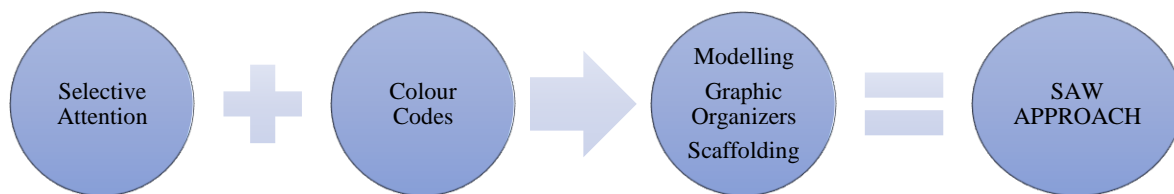

Figure 1- Selective Attention Approach to the teaching of Writing (SAW)
(source: Rahmat, 2018)

Theory of Activity and Online Writing
One worry for the online classes would be the issue of engagement. For learners to feel connected in online classes, the need engagement with their peers, the instructor and also the content of the lesson. One way to encourage engagement at different levels would be to have activities well planned in online classes. The activity theory (Engestrom, 1987 & Wilson, 2006) is presented in Figure 2. It shows that for the activity to be successful, factors like instruments, subject, rules and community need to work hand-in-hand through the division of labour to achieve the object (outcome).
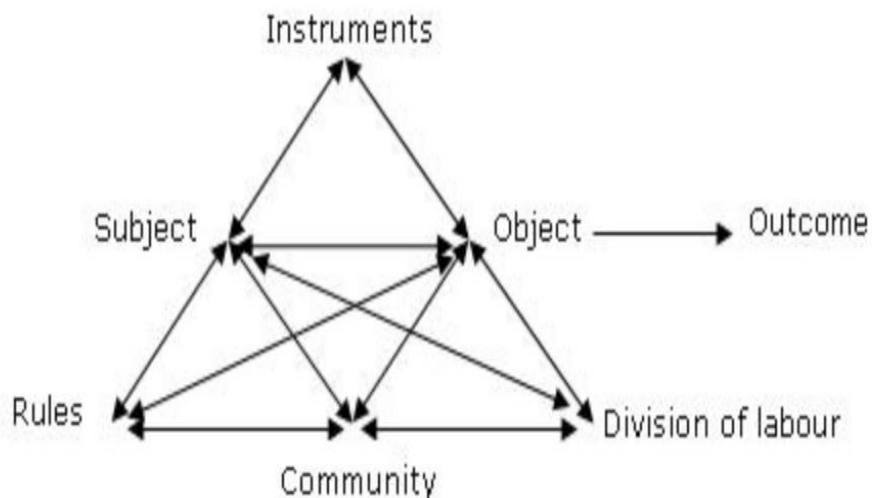

Figure 2- Activity Theory (Source: Engestrom , 1987)

One criteria of a good activity in the class is group work. Interaction during group work facilitates more than just the sharing of knowledge. According to Vygotsky (1978), learning is a social process and the origination of human intelligence in society or culture. The major theme of Vygotsky's theoretical framework is that social interaction plays a fundamental role in the development of cognition.

Past Studies
The qualitative study by Kamaruddin, Daneil & Eng (2021) explored the reported experience of nine students who are taking the writing course through an online medium, namely Telegram. The students are prompted with a list of interview questions focusing on writing anxiety. Their responses were analysed, and two major themes were generated. The results revealed that the participants in this study described external and internal reasons as the causal factors to their writing anxiety. The internal reasons can be classified further into somatic anxiety, cognitive anxiety, and avoidance behaviour. The participants suggested a few major coping strategies to overcome their writing anxiety such as taking a deep breath, taking some time off from writing task, getting some entertainment and practising relaxation

Next, the study by Loan (2022) was done to investigate the challenges that EFL learners at Van Lang university faced when they learned writing in an online course via Microsoft Teams. 96 third-year students from two classes were required to complete a 10-item questionnaire for their online 10-week writing course. The findings revealed that they faced nine kinds of challenges related to technical problems, lack of concentration, lack of interaction, time management, health problems, gaining knowledge, motivation, psychological problems, and collaboration.

Li & Mak (2022) conducted a 10-week intervention using a cloud-based technology application to support students' collaboration in reading-to-write learning tasks. The intervention focused on systematically helping students develop distinct expository writing skills progressively with embedded reading strategies. 69 first-year students enrolled in an English course at a large Canadian community college participated in the study. The scores of pre- and post-writing tests and standardized reading tests measuring three reading attributes were analyzed to examine the control and treatment groups' performance. A statistically significant result was found in the writing scores of the treatment subgroup with lower language proficiency levels, indicating that the instructional framework with the technology-supported collaborative setting had a positive effect. This study provides evidence that college students with underdeveloped language skills can benefit from a well-structured, online intervention supporting a collaborative learning environment for academic writing.

Conceptual Framework of the Study
This study is rooted from task environment by Hayes & Berninger (2014) and scaffolding by Wood, Bruner & Ross (1976). For this study, only the task environment (figure 3) is explored. In the online academic writing class, the teaks environment is identified with 4 main sections and they are (a) transcribing technology, (b) task materials, (c) collaborators and critics and (d) text written so far.
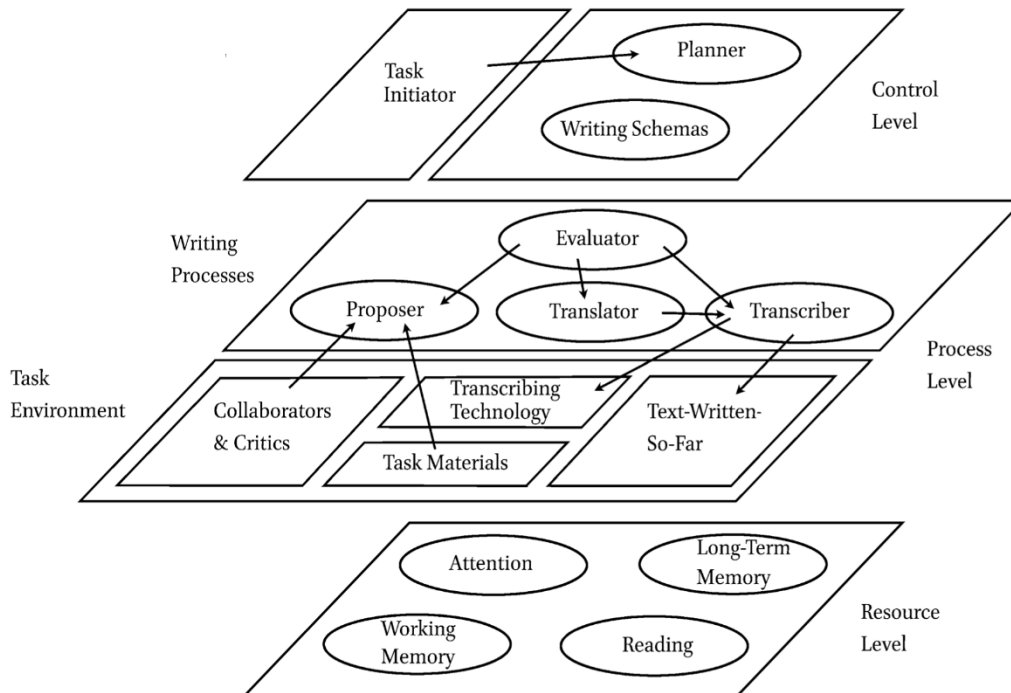
Figure 3- Cognitive Process in Writing (source: Hayes & Berninger; 2014)

In the context of this study, (a) transcribing technology is reflected in the writers' participation in online learning. Next, (b) task materials refer to the use of coloured scaffolds. According to Wood, Bruner & Ross (1976), scaffolding is a process through which an instructor adds supports. In this study, the supports are in the form of colour coded templates. (c) Collaborators and critics refer to the group writing and (d) text written so far refer to the reviewing stage in the group writing process.
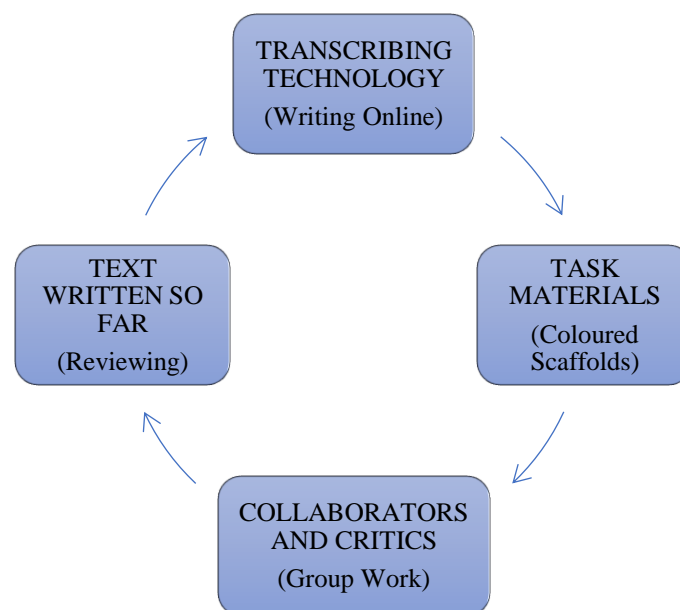

Figure 4- Conceptual Framework of the Study-
Task Environment and Coloured Scaffolds

Methodology

This quantitative research is done to investigate how learn academic writing using colour codes. The instrument used is a survey adapted from Hayes & Berninger (2014). 62 respondents were purposively chosen to answer the survey. The respondents are undergraduates learning English as a second language attending a course in academic writing for a whole semester. The survey has 5 main sections. With reference to Table 1, section A has items on the demographic profile. Section B has 8 items on Transcribing Technology, section C has 22 items on Task materials, section D has 7 items on Collaborators and Critics, and section E has 7 items 7 items on Text Written so far.

Table 1- Distribution of Items in the Survey

SECTION		STAGE	NO OF ITEMS
B	TRANSCRIBING TECHNOLOGY	Writing Online-Planning	8
C	TASK MATERIALS	Scaffolding	13
		Colour Codes	9
D	COLLABORATORS AND CRITICS	Group Work	7
E	TEXT-WRITTEN SO-FAR	Reviewing	7
	Total number of Items		44

Table 2 presents the reliability statistics for the instrument. SPSS analysis revealed a Cronbach alpha of .798 thus showing a high internal reliability of the instrument used. Data is collected online via goggle form. Data is then analysed using SPSS version 26. Analysed data is presented in the form of percentages and mean scores to answer the 2 research questions.

Table 2- Reliability Statistics

Cronbach's Alpha	N of Items
.954	44

Findings

Findings for Transcribing Technology

This section presents data to answer research question 1: How does transcribing technology facilitate the learning of academic writing online? In the context of this study, transcribing technology refer to the writing activity sone online.
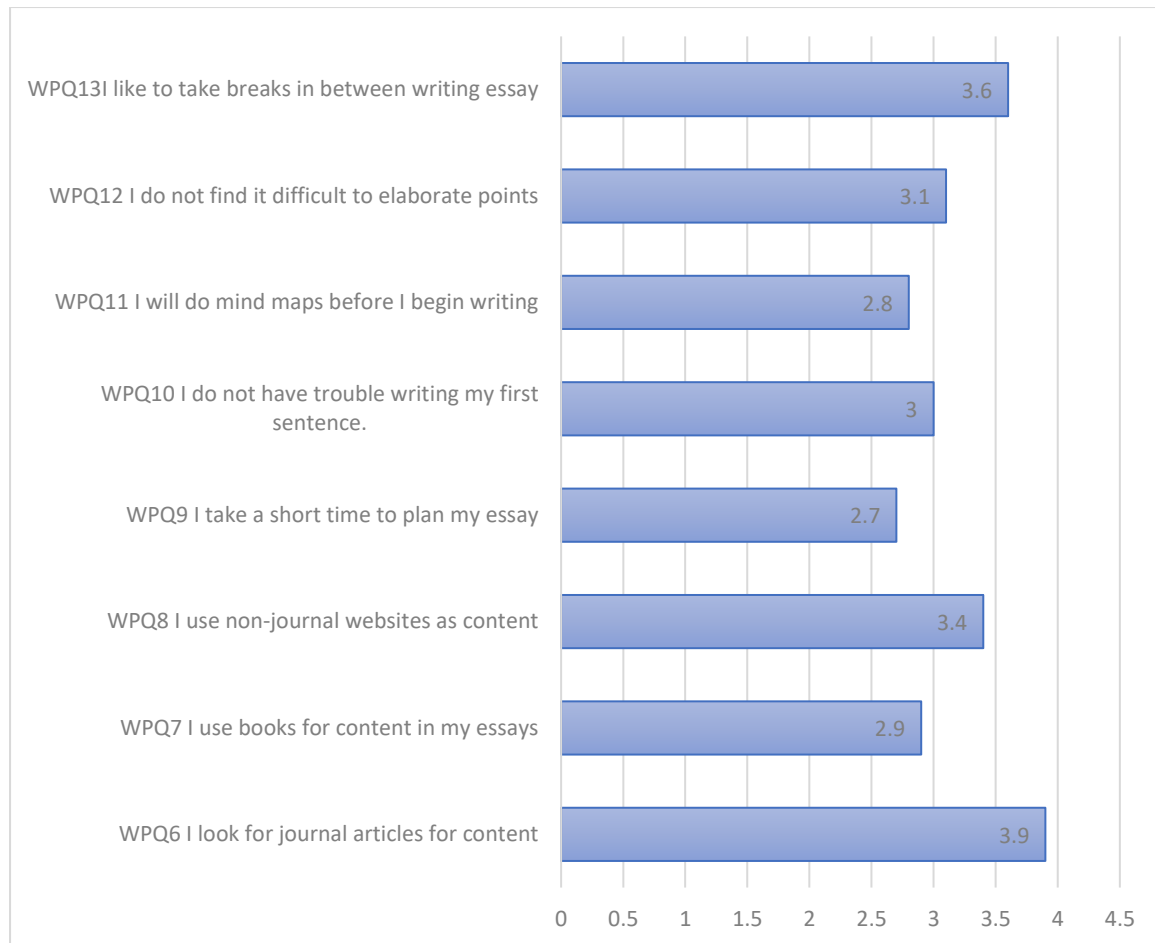
Figure 5- Mean for Transcribing Technology

Figure 5 presents the mean for transcribing technology. The highest mean at 3.9 is for "look for journal articles for content". This is followed by a mean of 3.6 for "like to take breaks in between writing essay", "use non-journal websites as content" (mean=3.4).

Findings for Task Materials
This section presents data to answer research question 2: How do task materials facilitate the learning of academic writing online? In the context of this study, task materials refer to (a) using scaffolding and (b) using colour codes.
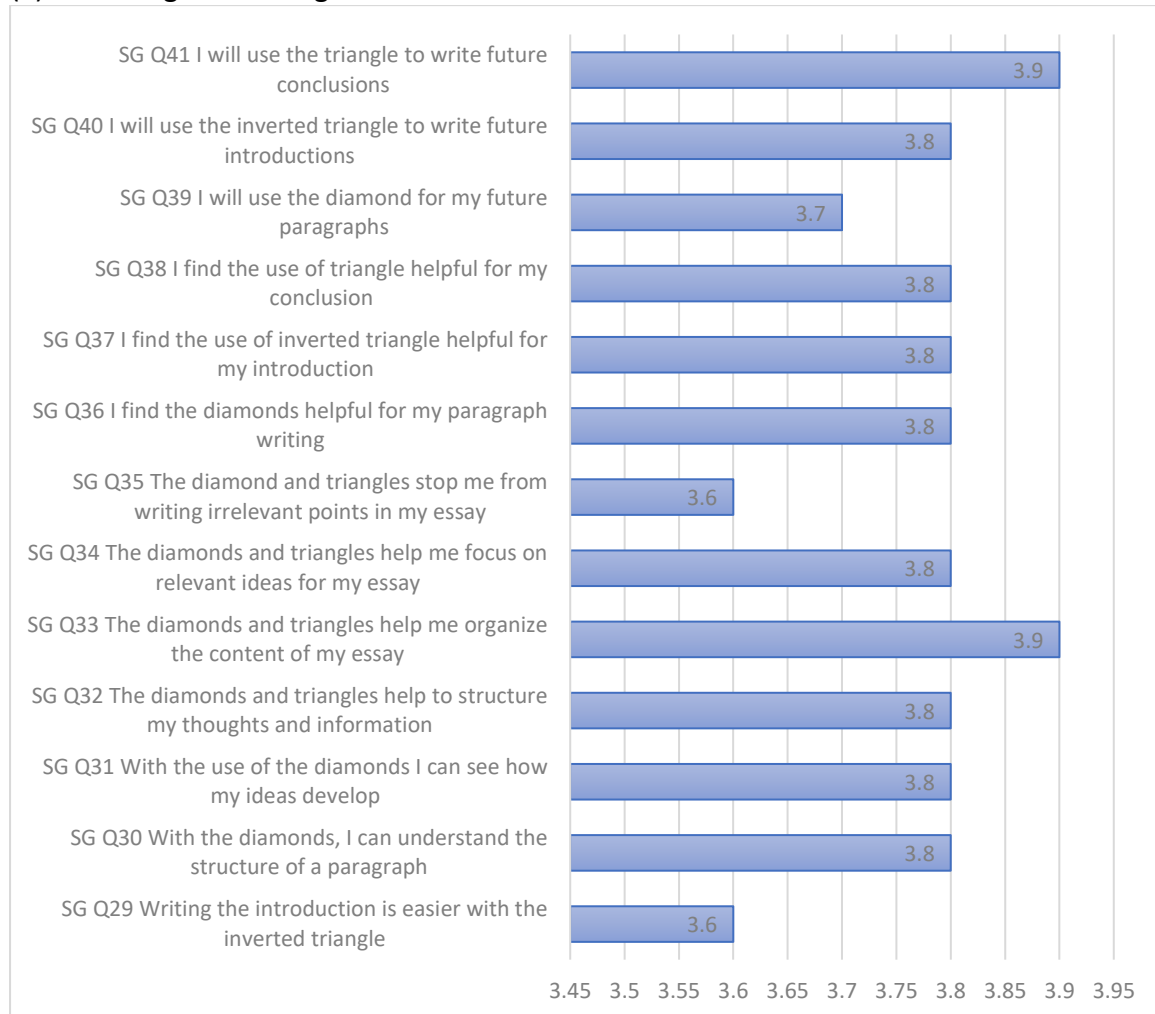
(a)   Using Scaffolding

Figure 6- Mean for Task Materials-Scaffolding

Figure 6 presents the mean for task materials-using scaffolding. The highest mean of 3.9 are reported form 2 items and they are "diamonds and triangles help me organize the content of my essay" and "will use the triangle to write future conclusions". 8 items share the same mean of 3.8- "With the diamonds, I can understand the structure of a paragraph", "With the use of the diamonds I can see how my ideas develop", "The diamonds and triangles help to structure my thoughts and information", "diamonds and triangles help me focus on relevant ideas for my essay", "find the diamonds helpful for my paragraph writing", "find the use of inverted triangle helpful for my introduction", "find the use of triangle helpful for my conclusion", and also "the inverted triangle to write future introductions'.
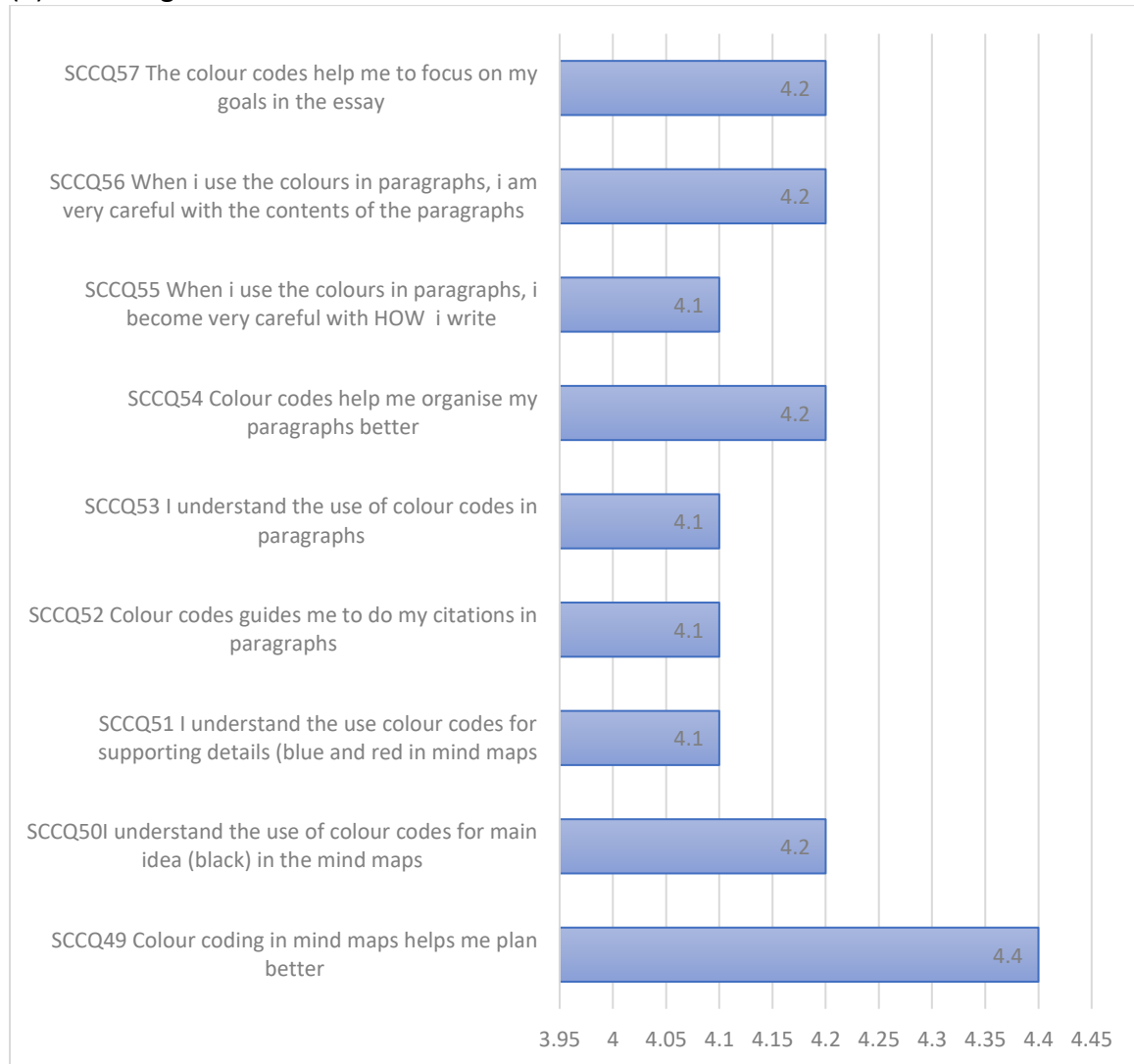
(b)   Using Colour Codes

Figure 7- Mean for Task materials-Colour Codes

Figure 7 shows the mean for using colour codes. The highest mean of 4.4 is for "Colour coding in mind maps helps me plan better". This is followed by "understand the use of colour codes for main idea (black) in the mind maps" (mean=4.2), "Colour codes help me organise my paragraphs better" (mean= 4.2), and "When i use the colours in paragraphs, i am very careful with the contents of the paragraphs" (mean=4.2).

Findings for Collaborators and Critics

This section presents data to answer research question 3: How do collaborators and critics influence the learning of academic writing online?
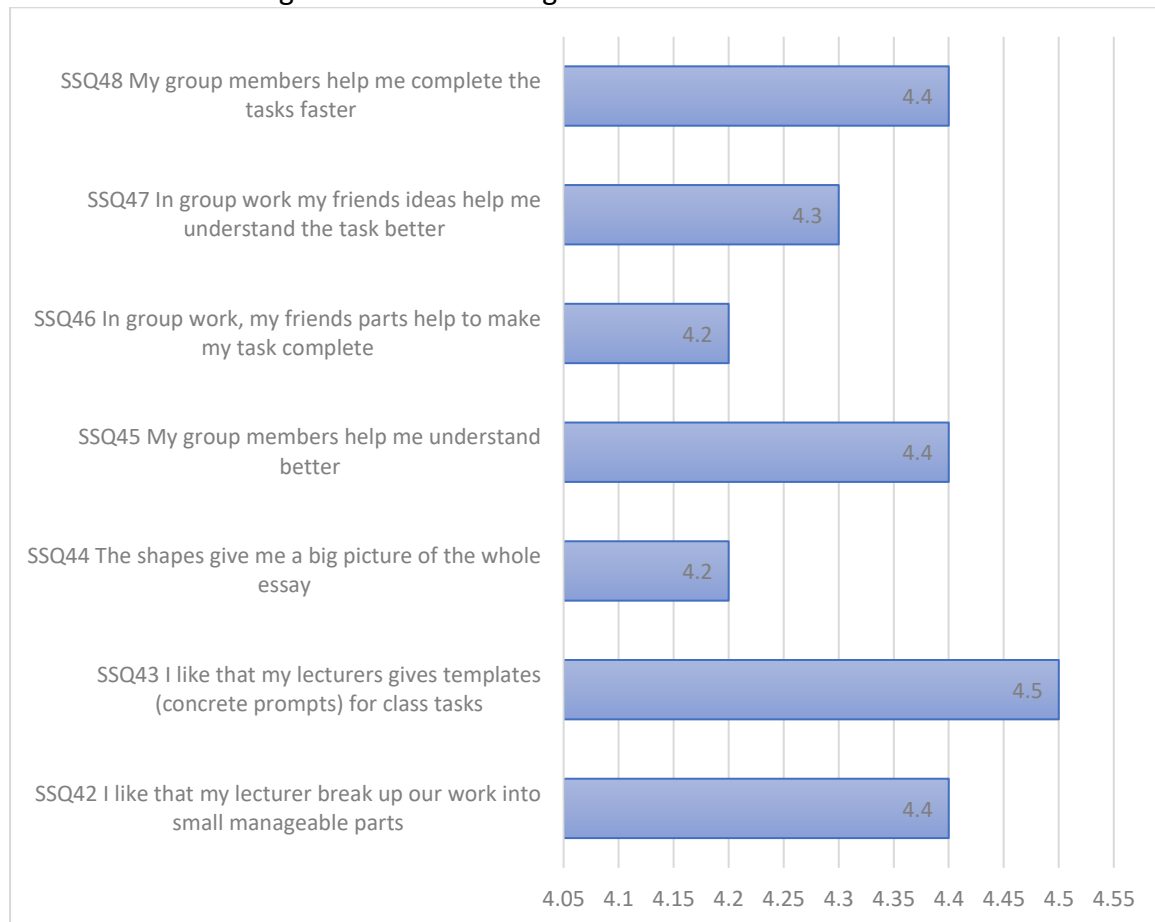

Figure 8- Mean for Collaborating and Critics

Figure 8 shows the mean for collaborating and critics. The highest mean is 4.5 for "like that my lecturers gives templates (concrete prompts) for class tasks". This is followed by "like that my lecturer break up our work into small manageable parts" (mean=4.4), "My group members help me understand better" (mean =4.4) and "group members help me understand better" (mean=4.4) and also "group members help me complete the tasks faster" (mean=4.4).

Findings for Text Written so far

This section presents data to answer research question 4: How does text written so far facilitate the learning of academic writing online?
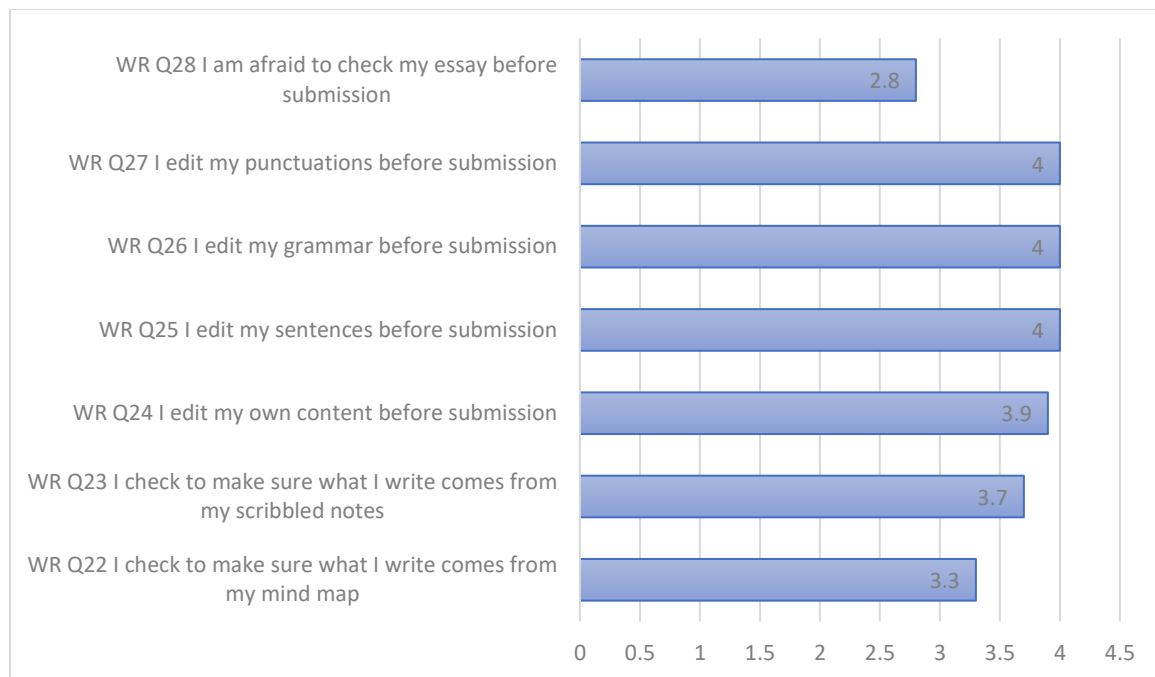
Figure 9- Mean for Text Written so far

Figure 9 presents the mean for text written so far. 3 items share the same highest mean of 4 and they are "edit my sentences before submission", "edit my grammar before submission", "edit my punctuations before submission". This is followed by "edit my own content before submission" (mean=3.9) and "check to make sure what I write comes from my scribbled notes" (3.7).

Conclusion
Summary of Findings and Discussion
A summary of the findings show interesting information on (a) transcribing technology, (b) task materials, (c) collaboration, and (d) text written so far in terms of learning academic writing online using coloured scaffolds.

For transcribing technology, writers used the online platform to look for journal and non-journal articles for content. They also liked to take breaks in between writing essay. Similar findings were also reported by Kamaruddin, Daneil & Eng (2021) who also reported that during online sessions, writers needed to take breaks while they searched for materials online.

For task materials, writers found that the graphic organisers and shapes are useful templates to guide them in the writing. The colours helped them plan and organise the content of the paragraphs better.

The collaboration helped writers divide the work and also complete the writing tasks faster. Finally, online sessions helped them edit grammar, punctuations and also sentences. This is also in accordance with the study by Li & Mak (2022) who also found that online platforms are good starts for writers to start being organized with their work. It helped make the task manageable.
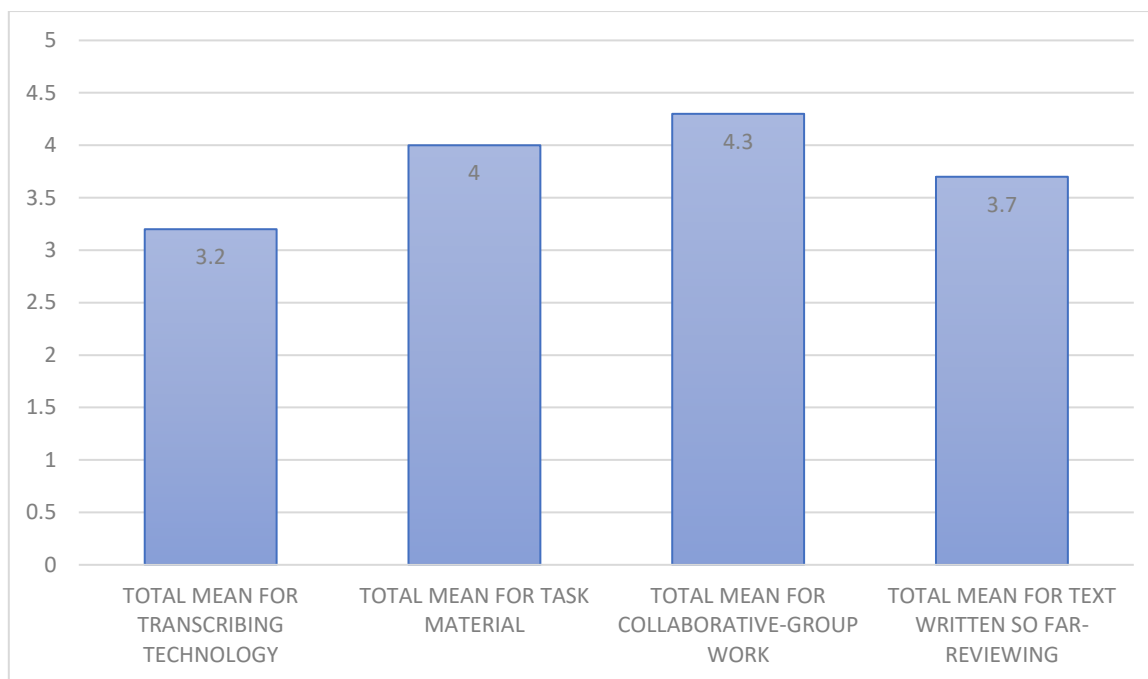
Figure 10- Total Mean for Task Environment

Figure 10 shows the comparison of all total mean for all constructs in task environment. This study revealed that the task environment approach to academic writing online was most beneficial in terms of collaborative work. One thing that writers benefit from online activities would be the benefit of collaborative work online.

Pedagogical Implications and Suggestion for Future Research

Teachers and students need to get used to online learning. As hard as it may seem, academic writing online can benefit both teachers and students in many ways. More studies should be done to explore more method to making teaching and learning academic writing online less challenging and perhaps even more successful.

References

Ali, S. S., & Ramana, V. S. V. L. (2018) Academic Writing Challenges at Universities in Saudi Arabia and Solutions. International Journal of English Language, Literature and Humanities, Vol IV(X), pp 291-298. Retrieved from https://www.researchgate.net/publication/328449816_Teaching_Writing_Issues_and _Challenges

Aripin, N., & Rahmat, N. H. (2021). Writing Anxiety and its Signs: A Qualitative Study of a Female ESL Writer. *International Journal of Academic Research in Business and Social Sciences*, *11*(1), 334- 345. Retrieved from http://dx.doi.org/10.6007/IJARBSS/v11-i1/8399

Bacha, N. H. (2010) Developing Learners' Academic Writing Skills in Higher Education: A Study for Educational Reform,Language and Education, 16:3, 161-177, Retrieved from https://doi.org/10.1080/09500780208666826

Broadbent, D. (1958). *Perception and Communication.* London: Pergamon Press.

Engeström, Y. (1987). *Learning by expanding: an activity-theoretical approach to developmental research.* Helsinki: Orienta-Konsultit.

Haron, H., and Rahmat,N. H. (2020) Exploring the Theory of Activity in English Language Writing: The Case for Whatsapp. International Journal of Asian Social Science, Vol 10(11), pp671-684. Retrieved from http://doi.dx/org/10.18488/journal.1.2020.1011.671.684

Hayes, J. R., & Berninger, V. (2014) Cognitive Process in Writing: A Framework. In Arfe,B., Dockrell,J.E, & Berninger,V.W. (Eds), Writing Development in Children with hearing loss, dyslexia or oral language problems: Implications for Assessment and Instruction (pp 3-15). New York: Oxford University Press.

Kamaruddin, S. F., Daneil, I. L., & Eng, T. H. (2021). Exploring the Relationship between Writing Anxiety and the Pedagogical Use of Online Learning Medium among Malaysian University Students. *International Journal of Academic Research in Business and Social Sciences*, *11*(4), 1450–1468. Retrieved from http://dx.doi.org/10.6007/IJARBSS/v11-i4/9842

Li, J., & Mak, L. (2022) The Effects of Using an Online Collaboration Tool on College Students' learning of Academic Writing Skills. Systems, Vol 105, 102712. Retrieved from https://doi.org/10.1016/j.system.2021.102712

Loan, B. T. K. (2022) The Challenges of Online Writing Learning Via Microsoft Teams. AsiaCALL Online Journal. Vol 13(1), pp 132-149. Retrieved from https://asiacall.info/acoj/index.php/journal/article/view/115

Rahmat, N. H., Aripin, N., Razlan, Z., & Khairuddin, Z. (2021) The Influence of Metacognitive Scaffolding on learning Academic Writing Online. International Journal of Education, Vol 13(3), pp 48-63. Retrieved from http://dx.doi.org/10.5296/ije.v13i3.18902

Rahmat, N. H. (2018) Scaffolding Colour Codes and SAW Approach in ESL Academic Writing. European Journal of English Language Teaching, Vol 4(1), pp 22-34. Retrieved from https://oapub.org/edu/index.php/ejel/article/view/1881

Rahmat, N. H. (2016) Analyzing Audience Awareness in Academic Writing among Undergraduate. Jurnal Pendidikan Bahasa dan Sastra, Vol 16(1), pp 88-95. Retrieved from http://dx.doi.org/10.17509/bs_jpbsp.v15i2

Selvaraj, M., & Abdul Aziz, A. (2019) Systematic Review : Approaches in Teaching Writing Skills in ESL Classrooms. International Journal of Academic Research in Progressive Education & Development, Vol 8)4),pp450-473. Retrieved from http://dx.doi.org/10.6007/IJARPED/v8-i4/6564

Vygotsky L. S. (1978). Mind in Society: Development of Higher Psychological Processes.

Wilson, T. D. (2006) A Re-Examination of Information Seeking Behaviour in the Context of Activity Theory. Information Research, Vol 1194). Retrieved from http://informationr.net/ir/11-4/paper260.html

Wood, D. J., Brunner, J. S., and Ross, G. (1976) The Role of Tutoring in Problems Solving. Journal of Child Psychiatry and Psychology, Vol 17(2), pp 89-100. Retrieved from http://doi.dx./10.1111/j.1469-7610.1976.tb00381.x.