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## Learner Engagement with Structuring and Problematizing in Scaffolded Writing Tasks: A Mixed-Methods Multiple Case Study

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### Abstract

The present study set out to delineate to what extent five intermediate learners engaged in structuring and problematizing scaffolding in two writing tasks. The study aimed at illuminating how the participants engaged with structuring and problematizing scaffolds cognitively, behaviorally, and affectively. Learners' written essays, think-aloud protocols, and interviews shaped the data sources which were analyzed both quantitatively and qualitatively. Modifications made in the final drafts were quantitatively analyzed to provide insight into the behavioral engagement of participants with scaffolds. The profundity of cognitive engagement was gauged by the interview questions designed to elicit the depth of processing and illuminate whether participants had merely noticed the existence of a problem or they had understood what was required to be done. The Researcher also compared the use of cognitive and metacognitive operations after learners were presented with structuring and problematizing scaffolds through the analysis of think-aloud protocols generated in final drafts each session. Finally, the attitudinal and affective engagement was gauged qualitatively through interviews. The results indicated that structuring scaffolds engaged learners more behaviorally, cognitively, and affectively compared to problematizing scaffolds. Implications for instructors and material developers are discussed.

**Keywords:** Learner Engagement, Structuring Scaffolds, Problematizing Scaffolds

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## **1. Introduction**

In recent years, active learner engagement has turned into a major concern for instructors and policy makers and a popular research area for researchers and its absence has been reported to be concomitant with low achievement (Fredricks, Blumenfeld, & Paris, 2004). Foreign language teachers have also been seeking ways to prompt and maintain language learners' engagement during instruction and feedback provision. Yet learner engagement with feedback has not been adequately addressed in the context of foreign or second language learning as most studies centering around feedback have targeted to probe into its impact on subsequent production (Han & Hyland, 2015).

Only recently has Ellis's (2010) multi-dimensional perspective on learners' reaction to feedback stirred research into engagement with oral/written feedback. Arguing that learning outcome is mediated by the level at which learners engage with the feedback they receive, in a componential framework for corrective feedback Ellis defines learner engagement as the ways in which learners react to corrective feedback. This framework acknowledges three dimensions namely, cognitive, behavioral, and affective/attitudinal for the ways learner engagement with feedback can be explored. Cognitive engagement implies "how learners attend to" the feedback they are provided with (Ellis, 2010, p. 342). It encompasses three sub-components: a) depth of processing (noticing vs. understanding), b) metacognitive operations, and c) cognitive operations. The behavioral engagement refers to learners' uptake reflected in the revisions made after the feedback. The two sub-components of this type of engagement are a) revision operations triggered by the feedback, and b) observable strategies deployed to improve the accuracy. Finally, attitudinal engagement is pertinent to changes in attitude and affective factors brought about as the result of the feedback. Feedback provoking more constructive and

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encouraging sentiments is believed to engage learners more attitudinally (Ellis, 2010).

The framework has been reported to be commensurate with the socio-cultural perspective of learning as it recognizes the fact that individual and contextual factors can mediate the ways an individual engages with feedback (Han & Hyland, 2015). The socio-constructivist model of learning was set forth by Vygotsky (1978), who iterates that the appropriate amount of help should be provided for learners to enable them to progress on their own without the aid. Such support, Vygotsky notes, should be gradually dismantled as learners' competence increases. Since scaffolding, a central element in socio-cultural theories has been identified as a type of corrective feedback (Finn & Metacalfe, 2010), the three-component framework promulgated by Ellis (2010) shapes and has been selected as the basis for this study. In fact, engagement with feedback, in this study, is permeated to encompass the way learners cognitively, behaviorally, and attitudinally react to and involve with scaffolds.

Wood, Bruner, and Ross's (1976) ideas on one-on-one interaction resulting in learning along with Vygotsky's (1978) socio-constructivist model of learning gave rise to the introduction of the term "scaffolding" into educational contexts. Wood et al. contended that learning requires one-on-one interactions with a more knowledgeable or more skillful peer who is to provide the less knowledgeable or skillful one with support. Effective scaffolding results in the internalization of the knowledge, concepts, and skills in line with any instructional goal (Bruner, 1984).

Reiser (2004) identifies two scaffolding mechanisms through which a myriad of scaffolding techniques support and benefit learners. He points out that all scaffolding means and strategies are aimed at either diminishing the task load and facilitating the process of task accomplishment or making the

learner grapple with the significant points and bringing those aspects to the learner's attention. To him, the techniques classified under the umbrella term of the *structuring* mechanism are aimed at reducing the complexity of difficult tasks by providing additional structure to the tasks. Providing directions and models, narrowing choices, helping the learners to decompose a task and organize their work, assisting them to recognize important goals to pursue, and guiding them to monitor the learning process and the achievement of goals by helping them keep track of their plans and monitor their progress are among ways to structure the tasks (Reiser, 2004). The *problematizing* mechanism, on the other hand, entails techniques which "make some aspects of students' work more problematic in a way that increases the utility of the problem-solving experience for learning" (Reiser, 2004, p. 287).

One arena in which scaffolds are needed to expedite the internalization of knowledge and skills is writing in another language, a multifaceted and intricate problem-solving activity (Flower & Hayes, 1981) that entails cognitive, affective and metacognitive aspects (Hidi & Boscolo, 2006). Scaffolds can benefit learners making attempts to accomplish the grueling and complicated task of writing in another language.

Literature is replete with evidence on the usefulness of scaffolds in different aspects of the writing skill. Scaffolds could reportedly promote learners' journal writing skills (Lai & Calandra, 2010), the transferability of genre-based knowledge in writing (Mortazavi, Jafarigohar, & Rouhi, 2017), and self-regulatory and essay writing skills (Mortazavi, Jafarigohar, Rouhi, & Soleimani, 2016). However, the way and extent to which scaffoldees engage with scaffolds in writing tasks have not been previously studied. Yet engagement is a determining factor in the extent to which learners benefit from the offered feedback (Ellis, 2010), and thus knowing what type of scaffolds can

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lead to more profound learner engagement can shed lights into what scaffolding tools and techniques can benefit learners. Knowing how the engagement with scaffolds can be affected and mediated by their nature can affect instructors' decisions pertaining to the choice of scaffolds. In addition, Hyland (2010) calls for more research into the learners' engagement with feedback introducing it as an under-researched area. Hence, the present study sets out to examine how the type of scaffolds (structuring or problematizing) can trigger learners' cognitive, affective, and behavioral engagement with the scaffolding technique. Han and Hyland (2015) reported that engagement with feedback may vary across individuals; therefore, the present study did not restrict itself to the examination of a single case and instead scrutinized the engagement of multiple cases with scaffolds. The study sought to find the answers to the following question: Do learners engage more cognitively, behaviorally, and attitudinally with a specific type of scaffolds?

## **2. Method**

This study reports a multiple case study employing both qualitative and quantitative data to investigate the levels at which five learners engage cognitively, behaviorally, and attitudinally with structuring and problematizing scaffolds when engaged in the process of writing narrative and argumentative essays in four writing tasks. Narrative writing is the simplest mode of writing, which requires the learners to narrate an event or to tell a story (Richards & Schmidt, 2010). Argumentative writing which necessitates developing ideas and organizing them into logical, convincing arguments, however, is one of the most challenging types of writing for learners (Hyland, 1999). To better probe into the ways scaffolds are processed by learner's and to make sure the results would not be affected by the amount of energy excreted to deal with the text type, in

this study, the researchers examined how learners engaged with scaffolds in these types of writing which are considered to be of different levels of difficulty for learners.

### **2.1. The Context and Participants**

The data collection episode took place in a language institute in Iran. To ensure the homogeneity of participants in terms of proficiency, the researchers made use of the Oxford Placement Test (OPT) which was administered to 78 female Intermediate learners of English. From among 57 learners who scored one standard deviation from the mean ( $M=105$ ,  $SD=4.54$ ), five were randomly selected as the participants of this case study. Their age ranged from 16 to 22 ( $M=17.13$ ,  $SD=4.67$ ) and had all enrolled in a general English course with a focus on the four main language skills. For the purpose of this study, the five learners were offered to participate in a free 4-session writing course, which they all consented to attend. The sessions, each of which lasting for 90 minutes, were taught by one of the researchers and included scaffolded writing.

### **2.2. Procedure**

During the treatment, which included 4 sessions, the five participants were asked to write two narrative and two argumentative essays in two drafts. During the first two sessions, learners were required to write a narrative and an argumentative essay while being provided with problematizing scaffolds. The third and fourth sessions were, on the other hand, dedicated to the provision of structuring scaffolds as learners engaged in writing two drafts of other narrative and argumentative essays.

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In the first and second sessions, participants were presented with problematizing scaffolds. In the first session, problematizing scaffolds were offered to learners as they engaged in picture-cued narrative writing. Following Reiser's (2004) theoretical suggestions and Jafarigohar and Mortazavi (2017), and Mortazavi et al.'s (2016) operationalization of problematizing scaffolds in the context of teaching writing in another language, problematizing scaffolds were operationalized as the provision of question prompts devised to elicit explanations pertinent to decisions as to the to-be-taken steps. At the outset of the session, the participants were asked to use four pictures to write a narrative. Then, the researchers provided the learners with problematizing scaffolds on the prompt sheet which contained 15 prompts eliciting decisions such as how to start the essay, how to employ time expressions and what tense to use. Not being obliged to articulate their answers to the prompts, participants were asked to think about the answers to the problematizing prompts. They used the same picture cues to produce their final drafts of the narrative essay writing task. They were also asked to think aloud, for which they received a brief training. Including explanations and models about how to verbalize thoughts while engaged in a writing task, the training lasted for twenty minutes. The learners were asked to record their voices to create think-aloud protocols to be later analyzed.

The second session involved the provision of problematizing scaffolds during an argumentative task. The session began with participants being asked to generate an argumentative essay. The prompt read "Some say cell phones should not be allowed in schools. Others believe students should be allowed to take their cell phones to school. Which group do you agree with? Why?" Then, they were offered 10 scaffolding prompts. Similar to the prompts given in the first session, these prompts elicited steps required to generate the text.

Examples of such prompts are “How are you going to start your introduction and have a specific statement of position? How are you going to state your reasons and how many reasons are you going to present?” Learners were asked to think about the answers to the prompts and to produce the final draft of the same argumentative essay while generating a think-aloud protocol.

In the third session, the five learners were provided with structuring scaffolds as they engaged in picture-cued narrative writing. Following Reiser’s (2004) postulations and Mortazavi et al. (2016), and Jafarigohar and Mortazavi’s (2017) operationalization of structuring scaffolds in the context of teaching writing in another language, structuring scaffolds were offered in the form of explanation regarding linguistic structures, the purpose of the activity provision of a model, as well as directions limiting the choices. Firstly, the participants were provided with a set of 4 pictures and were asked to write a narrative based on the cues individually. This was regarded as the first draft of the narrative essay generated prior to receiving the structuring scaffolds.

Then another set of pictures was pinned to the board the process of using the cues to write a story using the past tenses (past simple, past perfect, and past continuous) and time expressions was modeled. Explanations were also given with regard to the formation and application of the tenses. For the scaffolds to be dismantled, the researcher modeled the process once again with another set of pictures. The explanations were, however, not offered in the second presentation of the picture cues. Next, the learners were given the same set of the pictures they had used to write a narrative at the beginning of the session to think-aloud and produce the final draft of the narrative essay.

In the final session, participants received structuring scaffolds in an argumentative essay writing activity. At the start of the session, learners were required to write an essay on the following topic: “Some say people have



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become overly dependent on technology. Others believe that there is no harm in using technology too much. Which group do you agree with? Why?” Then, participants were presented with structuring scaffolds through modeling the generation of two argumentative essays and received explanations regarding the reasons for using structures and expressions. When providing scaffolds for the second topic, the researchers merely modeled the construction of an argumentative text. Then, learners were given the opportunity to produce the final draft while thinking aloud and recording their voice.

After each session, the researchers interviewed participants to collect information on their cognitive and attitudinal engagement. Cognitive engagement questions were intended to reveal whether participants had merely noticed the existence of a problem or had understood what remedies were needed. Attitudinal engagement questions illuminated the affective and attitudinal changes as the result of receiving structural and problematizing scaffolds.

### **2.3. Data Collection**

Fredricks and McColskey (2012) argue that while behavioral engagement can be perceived through inspecting behavior, emotional and cognitive engagements are not directly observable. Thus, in the study at hand, data pertinent to behavioral engagement were gleaned through scrutinizing and comparing behavioral changes as reflected in modifications made in final drafts. Drafts were analyzed and scores to offer insights into the effect of scaffolds on the relationship between the nature of scaffolds and the behavioral engagement of the scaffoldees. Interviews were, on the other hand, used to probe into the effect of scaffolding type on participants' cognitive and attitudinal engagement with scaffolds. Interviews were transcribed and

qualitatively analyzed to throw lights on the role of the scaffolding type in attitudinal engagement as well as depth of processing as a component of cognitive engagement. Moreover, think-aloud protocols were transcribed and analyzed to help the researchers collected information on the use of cognitive and metacognitive operations as components of cognitive engagement.

### **3. Data Analysis and Results**

#### **3.1. Behavioral Engagement**

To quantitatively analyze learners' drafts, the researchers identified errors in all four drafts. To confine the focus of the study to the elements highlighted in the scaffolds, for narrative essay first draft errors pertaining to verb tense and time expressions were focused and other types were excluded from the analysis as the scaffolds did not target them. Then the erroneous structures/phrases in the first draft were cross-linked to the ones in the final draft. The learner received a point if he had eradicated the error or substituted it with a correct form. In the argumentative essays, both first and final drafts were analyzed using the argumentative essay rubric proposed by Elson (2011) (Min=5, Max=20). This rubric assesses learners' argumentative writing in terms of the argument, logical presentation of viewpoint, style, and handling of topic, conclusion, and grammar and spelling on a scale of 1 to 4. Their first draft scores were subtracted from the one they gained in the final draft, and the result comprised their argumentative essay score.

Scores gained in the two essays written in the first and second sessions were tallied and generated participants' total score for the problematizing scaffolds. In a similar vein, their total score for the two essays written in the third and fourth sessions was also calculated and regarded as their structuring

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scaffolds total score. These structuring and problematizing scores were compared to provide evidence as which kind of scaffolding mechanisms triggered more behavioral engagement in the learners. A parametric t-test for dependent samples was employed to compare the two set of scores. Table 1 displays descriptive statistics for essays written when participants benefited from structuring and problematizing scaffolds.

**Table 1. Descriptive Statistics for Behavioral Engagement**

	N	Mean	SD	Std. Error Mean
Structuring	10	8.20	2.48	.78
Problematizing	10	4.20	1.75	.55

As illustrated in Table 1, learners made more revisions having received structuring scaffolds ( $M=8.40$ ,  $SD=2.48$ ). To discover whether the difference is statistically significant, the researchers ran a t-test the results of which are depicted in Table 2.

**Table 2. One-sample t-test to Compare Revisions after Problematizing and Structuring Scaffolds**

	T	df	Sig. (2-tailed)
Structuring/Problematizing	10.43	4	.00

As it can be seen in Table 2, the mean difference between the structuring ( $M=8.40$ ,  $SD=2.48$ ) and problematizing scaffolds ( $M=4.20$ ,  $SD=1.75$ ) was found to be significant  $t(4)=10.43$ ,  $p<.05$ , indicating that having received structuring scaffolds, participants were able to make more revisions in their papers. To delve more deeply into the impact of each scaffolding mechanism on the behavioral engagement of the participants with the scaffolds, the researchers examined the effect of the nature of scaffolds on each mode of writing separately.

The results of the t-test run on narrative papers revealed that the mean difference between structuring and problematizing scaffolds was statistically significant,  $t(4)=10.10$ ,  $p<.05$ , with the structuring scaffolds ( $M=9.80$ ,  $SD=2.16$ ) being more effective than problematizing scaffolds ( $M=5.60$ ,  $SD=1.14$ ) in resulting in behavioral engagement reflected in second draft modifications.

In the same vein, when argumentative papers were analyzed, the results of the t-test rendered the mean difference between structuring and problematizing scaffolds statistically significant,  $t(4)=8.82$ ,  $p<.05$ . The results indicated that having been offered structuring scaffolds ( $M=6.60$ ,  $SD=1.67$ ), the participants made more changes in their drafts compared to the times they received problematizing scaffolds ( $M=2.80$ ,  $SD=.83$ ).

### **3.2. Cognitive Engagement**

The second section of data collection and analysis was comprised of the analysis of the interviews after each writing session so that the passage of time would not affect the quality and accuracy of participants' explanations. The interview encompassed two sets of questions one of which was aimed at addressing the depth of processing as a sub-section of cognitive engagement and whether participants had noticed the existence of a problem and the need to make improvement or they had understood what the required changes were.

Questions were tailored for each participant and designed on the basis of the observable changes in their final drafts and also the errors they had failed to eliminate. In this section of the interview, which lasted between 20 to 30 minutes for each participant, they were presented with the two drafts they had generated in each writing task, with the erroneous sections in the first draft and the modified parts in the final one having been highlighted by the researchers.

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Each participant was given 5 minutes to read the two drafts and was then asked to answer the researchers' questions. The questions were designed to attract the learner's attention to their mistakes and learners were asked if having received scaffolds they had gained awareness of the existence of the flawed section and if they had been able to think of solutions and generate the correct form.

#### **3.2.1. Narrative Writing**

Participants were presented with the highlighted errors in their first drafts and were asked to state which errors had they been able to spot when reviewing the first draft to write the final one. They were also asked which of the detected erroneous phrases/sentences they knew how to modify correctly. The instances were marked by the researchers for calculating the percentages. The result of the interview of the first session in which participants had been offered problematizing scaffolds revealed that participants were able to notice between 40 to 65% of their tense related errors in their final drafts and in about 50% of the cases managed to correct the detected problems.

The results of the third session interviews, on the other hand, revealed that more cases had been noticed by the same participants when they were asked to revise their drafts having been given structuring scaffolds. Out of the five participants, four exhibited deeper levels of cognitive engagement with structuring scaffolds as they stated they could more easily detect the problem and understand how to alter the sentence to eradicate the problem. They reported that they had managed to spot more than 70% of the mistakes in the first drafts having received the structuring scaffolds. When these participants were asked what measures they had taken to remove the problem, they replied they could also come up with the ways the structure was to be modified in more

than 60% of the cases. In some cases, however, they reported an inability to find a way to correct the erroneous part and had hence left it unrevised. Table 3 shows the cognitive engagement of participants with problematizing and structuring scaffolds in the narrative writing reflected in the percentage of the noticed and corrected errors.

**Table 3. Cognitive Engagement with Scaffolds in Narrative Tasks**

Participant	Percentage of the Spotted Errors (Noticing)		Percentage of the Corrected Errors (Understanding)	
	Structuring	Problematizing	Structuring	Problematizing
1	71.42%	54.54%	60%	58.04%
2	80%	46.15%	70%	32.36%
3	76.83%	64.79%	73.02%	45.07%
4	80%	57%	85%	52.42%
5	43%	42%	35.47%	32.36%
Total mean	70.25%	52.89%	60.69%	44.05%

T-tests revealed significant differences between structuring and problematizing scaffolds in terms of drawing participants' attention to the flawed phrases (noticing),  $t(4)=9.86$ ,  $p<.05$ , and assisting them in finding ways to eradicate the problem (understanding),  $t(4)=8.69$ ,  $p<.05$ , with structuring scaffolds demonstrating an advantage in engaging learners cognitively.

### **3.2.2. Argumentative Writing**

To assess the cognitive engagement of participants with the two scaffolding mechanisms when writing argumentative papers in the third and fourth sessions, the researchers had marked the sections in which arguments were insufficiently presented, the stance was not convincingly presented in a rational way, and a grammatical mistake could be found. Participants were then asked

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to state whether scaffolds had enabled them to detect the deficiency in the aforementioned areas when revising their first draft to generate the final one, and whether they could also understand what was necessary to improve the quality of the paper with regard to those defects. The researchers highlighted the reported problems and put a check mark next to the corrected areas for the purpose of percentage calculation. Table 4 depicts the cognitive engagement of participants with scaffolds mirrored in depth of processing and the percentage of the noticed and modified erroneous sentences and instances of poor and insufficient argumentation in argumentative papers.

**Table 4. Cognitive Engagement with Scaffolds in Argumentative Tasks**

Participant	Percentage of the Spotted Errors (Noticing)		Percentage of the Corrected Errors (Understanding)	
	Structuring	Problematizing	Structuring	Problematizing
1	85.45%	45.41%	77.83%	30.46%
2	77.08%	41.37%	78.53%	42.43%
3	57.83%	36.81%	85.79%	53.14%
4	68.23%	20.84%	89.42%	64.54%
5	57.13%	13.74%	45.47%	42.51%
Total mean	69.14%	31.63%	75.40%	46.61%

As illustrated in Table 4, having received structuring scaffolds, participants noticed more areas to be improved in their papers and figured out ways to promote the quality of their argumentation and the accuracy of their sentences. T-tests rendered structuring scaffolds superior in terms of making participants detect the problems (noticing),  $t(4)=6.89$ ,  $p<.05$ , and aiding them to come up with solutions to those problems (understanding),  $t(4)=11.08$ ,  $p<.05$ .

Researchers also made use of think-aloud protocols to detect the actual use of metacognitive operations by the participants while engaged in writing the final drafts. Wenden (1991) classifies clarification (self-questioning,

hypothesizing, defining terms, and/or comparing), retrieval (rereading aloud or silently what had been written, writing in a lead-in word or expression, rereading the assigned question, and/or summarizing what had just been written), resourcing (referring to a dictionary or asking the researcher), deferral, avoidance, and verification as cognitive, and planning, monitoring, and evaluating as metacognitive strategies exploited by writers. To eliminate bias while analyzing protocols, researchers made copies out of transcribed protocols and removed the identifying information assigned numbers to participants prior to scoring. Protocols generated in the first session were separately analyzed and coded by two of the researchers who identified sections signaling cognitive and metacognitive operations using Wenden's (1991) sorting, and the inter-coder's agreement was estimated (Cohen's Kappa =0.79). Differences were resolved through discussion, and the rest of the protocols were coded by one researcher, with the first researcher coding the protocols generated in the second session and the second researcher analyzing those produced in the third and fourth sessions. To calculate the frequency of the use of metacognitive and cognitive operations and strategies, researchers tallied the number of segments for each participant and obtained a total number in each session. Table 5 illustrates descriptive statistics pertinent to the use of cognitive and metacognitive operations in final drafts.

**Table 5. Descriptive Statistics for Cognitive and Metacognitive Operations in Final Draft**

	Session 1	Session 2	Session 3	Session 3
	Problematizing scaffolds		Structuring Scaffolds	
	Narrative	Argumentative	Narrative	Argumentative
Mean	20.16	25.79	46.84	53.67
SD	7.65	9.64	11.79	10.20



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Table 5 indicates that participants exploited more cognitive and metacognitive operations having received structuring scaffolds. A t-test comparing the sum of the instances reflecting the use of metacognitive and cognitive strategies in the first two sessions with the third and fourth sessions rendered the frequency of the employment of such strategies significantly higher when learners were presented with structuring scaffolds,  $t(4) = 6.13$ ,  $p < .05$ .

### **3.3. Attitudinal Engagement**

The second set of questions in the interview were intended to assist the researchers in gaining insights into the affective and attitudinal changes as the result of the receiving structural and problematizing scaffolds. This section of the interview included three questions directly eliciting the immediate affective states of learners as they received scaffolds and their attitude toward the writing task in the final draft compared to the first one. In the first and second sessions when learners were presented with problematizing scaffolds out of the five participants, four stated that upon the reception of problematizing prompts they found it a brainteaser.

Two participants explicitly stated that thought-eliciting questions made them “puzzled” and “a bit confused”. When asked if they had felt bad, they replied negatively, though stating that they could not define the feeling as encouraging. Participant three said she knew the questions were designed to assist her in writing, but she was not sure whether she was able to find the “right” answer to the questions in order to benefit from them. Participant one, similarly, stated that it took her a long time to decide whether she had found the “right” answer to the questions, and she felt “unable” at times. She also maintained in the first session she was not sure how she was supposed to use

the questions to improve her paper. One participant, however, reported that she liked the challenge even in the first session and believed the questions helped her “focus” on some parts of the paper and thought more deeply.

Participants’ affective reaction to structuring scaffolds, however, was more positive. In the second session, they all reported having enjoyed models. They all said models and explanations could facilitate their understanding of what they were expected to generate. In the third session in which learners were presented with structuring scaffolds for the first time, all of them stated that they had a more positive attitude while generating the second draft compared to the way they felt when writing the first draft in the previous sessions, reporting that models and explanations had simplified the task for them and thus increased their confidence. Participant four reported that she felt she “could make very effective changes” having been presented with models.

Similarly, in the fourth session when learners could benefit from structuring scaffolds while writing an argumentative paper, learners iterated that the explanation considerably assisted them in improving the quality of their paper and thus gave them the opportunity to experience a sense of achievement. Participant three contended that explanations had guided her in attending to “both the content and the form” in her paper. She stated she was more confident when making revisions in the fourth session and even believed she could write argumentative essays of higher qualities in similar future cases. Overall, structuring models and explanations were found to provoke more positive feelings in participants.

#### **4. Discussion and Conclusions**

Hyland (2010) argued that activities for engaging with feedback are self-initiated, and learners engage with and are motivated to use the feedback with which they feel more comfortable. The results hence, render structuring scaffolds more motivating for learners. The results also echo Sadler's (1989) perception of effective feedback. Sadler contended that for learners to benefit from feedback, they must first realize the standards of good performance and then be encouraged to compare their current performance at the desired level. This can be achieved through model provision and explanation as two central techniques in structuring scaffolds. Structuring scaffolds aimed at lowering cognitive load through simplifying the activity, and modeling was employed to illuminate how similar activity should be done, and such scaffolds proved to engage learners more behaviorally, cognitively, and affectively.

Previous research has endorsed the positive impact of modeling and vicarious experience on attitudinal variables in writing (Schunk, 2003). The obtained results hence echo previous theoretical and empirical accounts of the role of modeling on promoting an attitude toward tasks. Vicarious experience and observing others perform a task has been reported to immensely contribute to the promotion of self-efficacy beliefs (Bandura 1982; Schunk & Hanson, 1985). Observing a model performing a task will develop a higher sense of self-efficacy and positive feelings (Bandura, 1982). The results of this study corroborate those introducing teachers as helpful models in learning contexts (Schunk & Hanson, 1985) as it was found that structuring scaffolds using models could engage learners more deeply affectively, and learners mentioned models as motivating teaching techniques in interviews.

The gained results with regard to the variation of learners' attitude toward problematizing scaffolds, with one of them demonstrating more positive

attitude toward the problematizing prompts while the other had expressed discontentment with such scaffolds and a preference for structuring techniques, are in line with Han and Hyland's (2015) findings regarding individual differences in learner engagement with feedback as attributable to and concomitant with learners' beliefs and experiences about feedback and writing in another language. The fact that out of five participants, one showed a positive attitude toward problematizing scaffolds indicates that while in the majority of cases problematizing scaffolds were not linked to deep attitudinal engagement, the role of learners' idiosyncratic characteristics in stirring and triggering affective engagement should not be overlooked.

Suggesting that learners engage more deeply behaviorally, cognitively, and affectively with structuring scaffolds, findings hint to the necessity of supplementing problematizing scaffolds with structuring ones. It seems plausible to recommend the use of structuring scaffolds along with problematizing ones to ensure deeper behavioral, cognitive, and affective engagement with scaffolding techniques. This would be commensurate with both theoretical views introducing the complementarity of the two scaffolding mechanisms (Reiser, 2004) and the empirical studies reporting high achievement when the two mechanisms were offered simultaneously (Mortazavi et al., 2016, 2017). Reiser (2004) theorized that structuring and problematizing scaffolds are complementary and are thus most effective when presented alongside each other. By the same token, in a series of studies Mortazavi et al. (2016, 2017) showed that L2 writers were able to generate better texts having been offered both scaffolding mechanisms simultaneously.

Writing teachers and material developers are thus encouraged to provide opportunities in which thought-provoking questions are accompanied by more task-simplifying explanations and models. In addition, the results suggest that

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the exploitation of problematizing scaffolds alone for learners demonstrating signs of demotivation and lack of affective engagement should be done with caution, and learner characteristics should be taken into consideration when opting for certain scaffolding techniques.

In the same vein, given the gained results with regard to the deeper cognitive engagement of learners with structuring scaffolds, instructors are advised to consider many factors when offering scaffolds to learners. The findings suggest that attention is required when designing scaffolds for a group of learners who do not show the ability to employ metacognitive strategies and/or notice/understand what feedback hints to. Provision of merely problematizing scaffolds does not appear to be sufficient for learners who do not possess high metacognitive skills as cognitive engagement includes three sub-components: depth of processing, as well as metacognitive and cognitive operations. Practitioners are encouraged to make use of metacognition/cognition promoting strategies while and/or prior to offering problematizing scaffolds to ensure adequate level of cognitive engagement.

The present study is expected to stir a line of research into learners' engagement with various scaffolding techniques when offered to enhance different skills. Future studies are needed to investigate whether learners engage differently with scaffolds of simplifying and problematizing nature in speaking, reading, and listening skills while learners are acquiring another language. Such studies can illuminate how and when scaffolds should be presented. These studies can explore what combination of scaffolding techniques can engage learners of certain cognitive and motivational characteristics, using multiple sources of data such as interviews and self-report along with the teacher's ratings and observation.

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