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Cover Page Footnote

This paper and the research behind it would not have been possible without our teamwork. We wish also to thank the principal as well as the participants who took part in this study.

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Exploring the Role of Reflective Diaries as a Formative Assessment Strategy in Promoting Self-Regulated Learning Among ESL Students¹

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This qualitative study was conducted in a private school in Abu Dhabi, the United Arab Emirates, to explore the role of reflective diaries as a form of formative assessment in promoting self-regulated learning (SRL) among English as a Second Language learners. Specifically, the study aimed to discover the impact of reflective diaries on students' cognition and metacognition as well as the role they play in increasing students' motivation. Data were collected via semi-structured interviews with six students from grade six and reflective diaries from twenty students. Zimmerman's cyclic model of self-regulated learning and Vygotsky's Social Constructive theory were used as frameworks for understanding the role of reflective diaries in promoting self-regulated learning. Using a thematic analysis, two categories of themes emerged as research questions one: what is the effect of a reflective diary on students' cognition/epistemological beliefs? (comprehension of knowledge and utilization of knowledge); and two categories of themes emerged as research question two: what is the effect of a reflective diary on students' metacognition? (awareness of knowledge and regulation of cognition); one theme emerged as research question three: what is the role of reflective diaries in increasing students' motivation? (attending to feelings). The study identifies its limitations and recommendations for future research.

Keywords: Reflective diaries, self-regulated learning, Vygotsky's Social Constructive theory, cognition, metacognition

Introduction

Effective educators help students to learn.; however, this goal is best achieved not only through improving students' competencies in content, knowledge, and attitude, but also through formative assessment—training students to reflect on their

learning experience (Boekaerts, 1999; Tang, 2002). A powerful adjunct to formative assessment is self-regulated learning (SRL), a student's ability to be "meta-cognitively, socially, motivationally, and behaviorally active in problem solving processes (Clark, 2012, p. 217)." We believe reflective diaries combined with formative assessment is particularly

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effective in the English as a second language classroom. Self-regulation enables students to take control of their own learning process through setting targeted goals, as well as self-evaluating their skills, knowledge, and progress as they learn (Butler & Winne, 1995).

Although reflective diaries are common among graduate and undergraduate students (Wallin & Adawi, 2018), they are rarely used as a formative assessment methods in elementary and secondary classrooms (Gourlet et al., 2016). Since educators at the elementary and secondary level have challenges related to adjusting student strategies to learn intentionally, the researchers suggested this could be achieved by self-regulation. Few of the previous studies of SRL explored the role of formative assessment in promoting self-regulation (Wallin & Adawi, 2018). The limited number of research studies focusing on the use of reflective diaries with elementary and secondary ESL students, therefore, calls for more investigation of the use of this method of assessment at this level.

This study examined the promotion of SRL through planned activities. The subjects were eleven-year-old students of English as a Second Language (ESL) in a private school in Abu Dhabi/United Arab Emirates (UAE). Foremost among these activities was the fostering of student reflection on their personal cognition, thoughts, beliefs, and learning process as they wrote reflective diaries. Through the use of these reflective diaries, the researchers employed formative assessment techniques to study their effect in promoting self-regulated learning. The researchers also investigated how teachers' efforts affected student cognition and metacognition and the role cognition played in increasing motivation.

Research Questions

To achieve this research objective, three questions were posed:

- (1) What is the effect of a reflective diary on students' cognition/epistemological beliefs?
- (2) What is the effect of a reflective diary on students' metacognition?
- (3) What is the role of reflective diaries in increasing students' motivation?

Significance of the Study

Reflective diaries were used as a formative method to gain an understanding of learning progress and processes that are usually invisible. Using reflective diaries helped the teachers to recognize student skills, epistemological beliefs, and motivation, enabling them to provide students with more effective feedback. Moreover, reflective diaries facilitated teachers to adapt at their teaching strategies to stimulate motivation and self-confidence. The proposed methods have the potential to promote self-regulation among these students. The researchers believe the findings will also be useful evidence for more consistent use of reflective diaries in ESL classrooms. Other researchers will benefit from the results by gaining insights for further study of the use of reflective diaries and formative assessment in classrooms.

Literature Review

Formative Assessment

Formative assessment is assessment for learning. It is an ongoing process which takes place through interaction between teachers and students (Gattullo, 2000). It is an integral part in both the learning and teaching process as it provides appropriate feedback for teachers and students. It helps teachers modify their teaching strategies in order to achieve targeted objectives and meet student needs (Black & William, 2009).

Formative assessment enables students to construct their knowledge through analyzing their teachers' feedback and evaluating their own progress through the process of informed scaffolding. A considerable number of studies support this conclusion. Formative assessment helps guide students to self-regulated learning (Brown, 2004). According to Clark (2012), feedback helps students to improve their skills, attitude, motivation, and cognition. It enables both students and teachers to overcome their weaknesses and highlight their strengths (Nicol & Macfarlane-Dick, 2006). Panadero et al. (2018) found that formative assessment positively impacts students' cognitive and motivational capabilities.

Self-Regulation

Self-regulation is a self-directed process incorporating three components: cognition, meta-

cognition, and motivation. Self-regulated learners control their learning environment, set their own goals, monitor their learning progress, reinforce different strategies to achieve targeted goals, manage their resources, and react to feedback (Zimmerman & Schunk, 2001). Formative assessment can be an integral component of learning that promotes self-regulation among students as it generates both internal and external feedback (Nicol & Macfarlane-Dick, 2006). According to Zimmerman (2000), motivation is aligned with cognitive and metacognitive components. Self-regulated learners are meta-cognitively, motivationally, and behaviorally active in their own learning processes. Learners who are actively engaged in their learning tasks and activities are able to integrate feedback more deeply, and they are more likely to use this feedback to achieve their goals (Butler & Winne, 1995).

Reflective Diaries

Students need to develop two vital skills for self-regulated learning: reflection and metacognition (Flavell, 1979). A reflective diary, also referred to as a learning journal, is one of the tools that can be used to promote metacognitive strategies (Tanner, 2012). In writing a reflective diary, students express their internal thoughts which, in turn, enable teachers to hear their students' voices (Wolf, 1989). Through this reflection process, students learn to critically analyze content. This analysis provides an expanded ability to use their newly acquired attitudes and approaches toward knowledge acquisition as a means to achieve their targeted goals (Duke & Appleton, 2000). Gardner (2001) provides further evidence that self-regulated learning helps students control their learning and stimulate self-awareness. The use of reflective diaries, therefore, helps educators gain significant information about student learning experiences not easily unveiled through other formative assessment methods (Ifenthaler, 2012).

Related Literature

Tang (2002) conducted a qualitative study to explore how reflective diaries can be used as part of an assessment portfolio as well as how they may facilitate and assess reflective learning. The researcher asked a group of Master of Education students to write reflective diaries of their learning process. The finding of this study showed that reflective diaries improved

reflective learning. Similarly, Wallin and Adawi (2018), in order to investigate the learning impact of reflective diaries, conducted a qualitative study and thematic analysis of the reflective diaries of four master's students. The results indicated that reflective diaries also helped these students to become more self-regulated learners.

The results of Wallin and Adawi were supported by Ozan and Kincal (2018), who examined the impact of formative assessment on 45 students from grade five. The researchers used a mixed data collection method manifested in an SRL skills scale, interviews, and observation. The data analysis indicated that formative assessment positively impacted SRL. In addition to previous studies, Fung et al. (2019) conducted a quantitative study with 54 undergraduate students to examine the effect of a personalized weekly "e-learning journal" on students' self-regulated learning. The researchers used a quasi-experimental method, and this revealed that SRL was improved through the use of the weekly e-learning journal.

On the other hand, a study conducted by Genua (2019) indicated that students may be dishonest while writing their reflective journals. Genua argues that students often confound results by writing what they think their teachers want to hear rather than their honest reflections. This concern was also found by McGarr and O'Gallchóir (2020) who emphasized the necessity for authenticity and honesty. In other words, students need to be honest reflectors in order to benefit from this practice.

As this literature review indicates, a variety of studies support the use of reflective diaries as a form of formative assessment to improve SRL. These studies show that the strategy of self-reflective diaries improves student cognition, meta cognition, and motivation. Provided students are honest in their writing, self-reflective diaries are an effective approach to promote self-regulated learners. However, other than the work of Ozan and Kincal (2018), there are few studies investigating the impact of reflective diaries on ESL elementary or secondary school students' self-regulation. Our hope is that this study adds a piece to the jigsaw puzzle as this study was conducted in the Gulf context.

Theoretical Framework

Vygotsky's Social Constructivist Theory

Social constructivism can be described as collaborative learning—a technique of gaining skills and knowledge by shifting learning from an individual endeavour to a group interaction learning model (Sivan, 1986). Social constructivism views cognitive development on a macroscopic scale. It is a collection of core concepts driven by personal interaction. It aims to understand the needs and motives fundamental to learning by recognizing that accumulation of knowledge may be powerfully constructed from our cooperation with society (Sivan, 1986).

Feedback, in the form of social interaction, is integral to formative assessment (Vygotsky, 1978). Sivan (1986, p. 226) describes learning as a “socially negotiated process.” Its goal is meaning-making developed through internal and external knowledge and norms. Therefore, feedback and support from teachers helps in shaping new knowledge and skills (Sivan, 1986). Surprisingly, Vygotsky's (1978) groundbreaking research in this field was conducted between 1930 and 1934, and it did not reach the West in translation until the mid-twentieth century. It is a testament to Vygotsky that studies since then continue to support and reinforce his theory. Specifically, his claims that we best acquire knowledge through social context and that this ability is innate.

Formative assessment can be used as the social platform for teacher-student interaction. Vygotsky (1986) asserted that learning in an isolated environment will not lead to cognitive development, whereas teacher-student interaction improves student cognitive development. The social constructivists maintain that language can create opportunities to develop student cognition by interacting with others who are more talented. The result is an expansion of each other's concrete potential (Vygotsky, 1978). Social, cognitive, and affective patterns can be a result of socializing via a thinking process, and, within this context, learning is enhanced (Sivan, 1986).

Social constructivism holds that communication is an essential requirement for engaging in self-regulation, and through writing reflective diaries students may discover their authentic voice through a problem-solving process and by using the tools of language (Nyikos & Hashimoto, 1997). In other

words, through formative assessment, teachers provide students with feedback to bridge the gap between their current level of understanding and their desired goals. Together, they identify the obstacles that are blocking achievement. Student-centered formative assessment helps generate new knowledge, experiences, and thoughts.

The dynamic interaction between teachers and learners establishes the scaffolding of support, helping the more knowledgeable member of the learning process, the teacher, elevate the learners' knowledge and abilities to a higher level of proficiency (Sivan, 1986). Vygotsky (1978, p. 86) illustrated the role of the constructivist teacher in his identification of the “zone of proximal development” (ZPD). Students working with teachers or more progressive peers come to understand ideas and skills they cannot master by themselves (Schrieber & Valle, 2013). Chen (2012) explained that the constructivist teacher does more than assign projects; when teachers nurture a supportive learning environment through asking appropriate questions and stimulating students to look at problems passionately and analytically, they play an essential role in how students learn. The connection between ZPD and formative assessment cannot be ignored. Teachers recognize students' level of understanding through the formative assessment process, and in turn, ZPD and scaffolding can be determined. (Torrance, 2012; Vygotsky, 1978).

Zimmerman's cyclic model of self-regulated learning

Many researchers have tried to create a specific model regarding SRL to provide insight into its impact on student academic achievement (Pintrich, 2000; Zimmerman, 2000). Zimmerman's cyclic model was revised in 2009 and has three phases: forethought, performance, and reflection. His model views SRL from a social constructivist perspective. Building on the previous research, Zimmerman and Moylan (2009) identified more processes in the performance phase, added more details to all the processes in each phase, and explained the way they interact. The first phase is *forethought* in which students analyze their view of a task and place a value on how it will help them reach their goals. The second phase is *performance* where the students control and regulate their effort while completing the task. The last phase is *self-reflection* in

which students evaluate outcomes and the level of satisfaction they feel with their achievement.

Method

Research Approach

To understand the role of reflective diaries as a formative assessment in enhancing SRL among ESL elementary-school learners in Abu Dhabi/UAE, this qualitative case study followed the recommendations of Creswell (2012) to study subjects over a specified time and in a common space in order to gain rich information and details. Contrary to the quantitative approach which does not require researcher intervention into the subjects' activities (Yin, 2016), this study theories emerged through Creswell's (2012) recommended inductive approach. In accordance with Creswell's (2012) recommendations for data collection, two sources were used: interviews, and reflective diaries. As encouraged by Stake (2010), guided exploration, involving depth of the research process, its activities, and documentation, helped the researchers determine the effect of reflective diaries on students' cognitive development. The researchers' background in the field of education was, therefore, significant and beneficial (Patton, 2002).

The aim of the study, as mentioned above, was to understand the effect on learning outcomes through the combined use of reflective diaries and formative assessment. The researchers specifically examined their combined role in modifying teacher feedback and its degree of effectiveness in assisting students achieve their goals. In this qualitative case study, the researchers collected data via interviews and analyzed and documented data from students' reflective diaries. They also used interpretivist/constructivist approaches to find profound reality and rich data through interactions with participants and the examination of their reflective diaries. To ensure validity, the researchers maintained consistency among the practices and methods of all the researchers through every step of the study (Creswell, 2012).

For the sake of pertinence and scope, subjects were chosen from a heterogeneous sample consisting of 20 sixth-grade students from a private English-language school. Subjects included both genders and were drawn from several nationalities. In accordance with Yin (2016), the researchers established this purposive

sample to intentionally select participants who would provide ample, relevant information.

Semi-Structured Interviews. Six of these subjects were chosen to take part in a semi-structured interview (see Appendix A). According to Patton (2002), interviewing helps provide the researcher with an understanding of participant perspectives. Usually, the researcher starts with the assumption that the participants' perspectives are profound and revealing; these perspectives are identified and converted to rigorously coded themes. The process allowed the researchers to identify participants' thoughts, beliefs, cognition, motivation, and attitude.

Verbal consent was secured, and face-to-face, individual, semi-structured interviews of 30 to 45 minutes in length were audio recorded in November of 2020 at the students' private school. The researchers asked participants a series of prepared, open-ended questions allowing them to elaborate on answers and allowing the researchers to ask clarifying questions (Johnson & Christensen, 2014). Table 1 shows how participants were coded by number, nationality, age, and gender.

Table 1. Participant Demographics (N=6)

Codes	Nationality	Age	Gender
01	Jordanian	11	Male
02	Emirati	11	Male
03	Sudani	11	Female
04	Jordanian	11	Male
05	Emirati	11	Female
06	Egyptian	11	Female

Immediately following each session, the interviewer reviewed the audio recordings. In order to preserve reliability and validity, only one researcher had information connecting participants' names with their coded identifiers in the recordings and transcripts. Since credibility is dependent on consistency in the patterns of data gathered from the different sources (Patton, 2015), comparisons were done to ensure congruence; each data source was compared with the

others and checked for consistency. As a part of ensuring validity, all transcripts were sent back to the six participants for confirmation that the transcriptions accurately reported their comments, and thoughts.

Reflective Diary as a Document

According to Bowen (2009, p. 27), “Document analysis is a systematic procedure for reviewing or evaluating documents—both printed and electronic.” This approach helped the researchers to examine and understand the data in order to create meaning and to establish empirical knowledge. Prior to writing the reflective diaries, the researchers prompted students with predetermined questions such as: What did you like the most about today’s lesson? Why? How will you apply the learned concept in a real-life context? Students were given fifteen minutes to finalize their diary entries.

The researchers used the reflective diary entries to provide feedback, encourage the reflection process, and adjust teaching strategies with a view to guiding students toward their targeted objectives. Data from the reflective diaries helped to identify students’ understanding of concepts as well as gain insight into their learning processes, attitudes, and feelings about learning. Students understood that their diaries were not graded; they were assessed on pass or fail basis.

Data Analysis

During the analysis, deliberate attention was given to the purpose and original design of the study (Patton, 2015). After all interviews were completed, the recordings were transcribed by the researchers. All transcriptions were completed within one week of the interviews, reviewed and compared to the recordings before sending them to the participants as a further check for accuracy. The transcripts were used in all phases of the coding analysis.

Qualitative data analysis is a systematic process where the researcher organizes and synthesizes information from various sources (Fraenkel et al., 2015). The researchers read and reviewed all 20 reflective diaries twice to become familiar with the participants’ perceptions. Using thematic analysis, the

researchers identified, reported, and analyzed patterns within the data aligning these with Vygotsky’s social constructivist theory and Zimmerman’s self-regulation theory. As recommended by Braun and Clark (2006), the goal was to synthesize the data from the interviews and reflective diaries into themes. Well-defined themes emerged from the data sources. Themes were highlighted and verified through a rigorous process of data familiarization, data coding, pattern development, and revision.

Results

The researchers collected the data from the sources described to get a holistic picture. The analysis of the qualitative data occurred simultaneously with the data collection phase of the study. As the researchers analyzed the reflective diaries, the interviews were scoped for patterns and themes. Trustworthy themes were identified and labeled as the researchers undertook a precise synthesis of the data. For data analysis, various strategies as described above enhanced credibility—in particular, triangulation of data sources and member checking (Creswell, 2012; Patton, 2015).

Research Question One

Two themes emerged in the analysis of research question one: *What is the effect of a reflective diary on students’ cognition/ epistemological beliefs?*

- *Comprehension of knowledge*—identifying knowledge and how it is created and recalled.
- *Utilization of knowledge*—modifying knowledge, skills, and strategies to reach the goals.

As seen in Table 2, students’ epistemological beliefs could be identified from their reflective diaries. The diaries show how students reflected on their internal knowledge.

These diaries helped both students and teachers to explore their knowledge and to mutually develop meaningful insights and feedback allowing for the construction of even more sophisticated epistemological beliefs.

Table 2. Question 1: Diary and Interview Excerpts – Theme

Themes	Reflective Diary Excerpts	Illustrative Quotations from Interviews
Comprehension of knowledge	In my English class I learned what is a learning strategy. I was surprised that I used some learning strategies before.	Writing this amazing reflective diary helped me to write what I know on a piece of paper and this made me understand more
	Today English class was fun as we learned how to use visualization to understand the text better.	I really liked writing what I know on my diary as it helped me to put all what I know on a paper.
	Learning about different learning strategies was so helpful as I can use it to make my understanding better.	Practicing writing what I know on diary was new to me but I enjoyed it because I knew exactly now what I learned.
Utilization of knowledge	Today I learned about punctuations and I am sure that I will use it in my homework.	I liked this experience because when I read my reflective diary I can use what I know to complete any activity.
	In the English class, I learned how the use of punctuation correctly can change the meaning of sentences and how it is important to use it in my writing.	I found writing a reflecting diary enjoyable activity as it was helpful to use my information to complete the tasks asked by my teacher.
	During my English class, I learned all kinds of punctuations and I will try to use them when doing my assignments.	I want to do reflective diaries again as it opened my eyes to know how to put what I know in my work with classmates.

Research Question Two

Two themes emerged for research question two: *What is the effect of a reflective diary on students' metacognition?*

- *Awareness of knowledge*—understanding of abilities, cognition, skills, strengths, and weaknesses.
- *Regulation of cognition*—planning, monitoring, and evaluating the learning process.

As can be seen in Table 3, students described their own knowledge and performance.

Table 3 shows examples of how students were able to recognize their intended goals and critique their

learning. The diaries helped students monitor their efforts, develop a sense of responsibility for their own work, and control their learning to achieve the targeted aims.

Research Question Three

One theme emerged for research question three: *What is the role of reflective diaries in increasing students' motivation?*

- *Attending to feelings*—recognizing and maintaining motivation, self-efficacy, and beliefs about knowledge.

Table 3. Question 2: Diary and Interview Excerpts – Themes

Themes	Reflective Diary Excerpts	Illustrative Quotations from Interviews
Awareness of knowledge	In my class, I know the meaning of sequencing, but I think I need my teacher to explain how to use it when I write my paragraph.	I liked the experience of writing my reflective diary as I wrote all what I know about the topic. It helped me to know what I know exactly.
	Today I learned a new learning strategy and it was really fun but I think I need more practice to put the events in order.	I wrote an amazing diary that have all my knowledge and what I know during the lesson.
	I think I was able to complete the sequencing task which is new to me but I was able to use it correctly.	It was really nice and I asked the teacher to do it more often because I liked writing what I know on a paper so I can know what I don't know and know in class.
Regulation of cognition	During my English class my aim was to make enough effort and make sure to use correct capitalization in all my writing.	I think it was helpful because it helped me to exactly know my objective so I can concentrate on what is important.
	I know exactly what the learning objective of the lesson and I was making sure to be success in it by completing the task with correct punctaturtions.	It was really useful as I was able to know the target of the task so I can work on it hardly.
	In my English class, I recognized that I know all the punctaution marks but I noticed that some of them were hard to use in the correct way.	I want to write reflective diariied every lesson because it helped me to arrange my goals of what to do and what to think of.

Table 4 shows an example of one student's move toward self-efficacy and development of epistemological beliefs.

The student excerpts in Table 4 show how a high level of self-efficacy allowed this student to become more active in the learning process, which in turn, positively affected cognition and metacognition.

Discussion

The findings showed that using reflective diaries as a formative assessment was linked to a significant improvement in the three components of SRL:

Cognition, metacognition, and motivation. In support of these improvements, the data analysis identified five themes: *Comprehension of knowledge; utilization of knowledge; awareness of knowledge; regulation of cognition; and attending to feelings.*

Vygotsky (1986) emphasized that the learning setting plays an important role in shaping knowledge. He was a strong supporter of learning as experiencing, and he underlined the significance of building a learning environment to make students more active participants in the formation of their own knowledge (Jaramillo, 1996). This proved true in our analysis of the diaries and the interviews. The first two of the five themes, *comprehension of knowledge* and *utilization of*

Table 4. Question 3: Diary and Interview Excerpts – Theme

Theme	Reflective Diary Excerpt	Illustrative Quotation from Interviews
Attending to feelings	Today I really enjoy knowing how to spot the mistakes in my friend's writing and correcting them. It was like a game for me.	I was happy when my teacher asked me to write a reflective diary because now I am more sure about what I know and what to do and it also made me proud of myself.
	Completing today's task was enjoyable and I was very excited to be like a teacher and correcting the writing mistakes.	I was so confident when I was writing my diary and I want to repeat it because it made me recognize that I understood everything.
	The punctuations activity was really fun and I did not want the class to end and I asked the teacher to give us more like this activity.	I liked write a diary in my English class. I feel that I was engaged and this help me to love the lesson.

knowledge, aligned with RQ1: *What is the effect of a reflective diary on students' cognition/epistemological beliefs?* The data analysis supported that writing a reflective diary made students aware of their epistemological beliefs and able to make a connection between existing knowledge and new information. It also informed the teacher of these beliefs and helped to guide their social interaction and communication. Through social interaction and effective feedback, students were able to construct and co-construct knowledge.

Evans (2013) promoted feedback as one of the more effective means of accelerating the development of independent learners into planners, monitors, and evaluators of their own learning. Vygotsky (1978) too, demonstrated that students' motivation could be improved by offering guidelines and information feedback. Vygotsky (1978) also stated that cognitive development could be improved through formative assessment. This study supported the role of modeling for increasing expectations and improving student's self-efficacy. This found congruence with two more of the identified themes in this study. The third and fourth of the five themes: *awareness of knowledge* and *regulation of cognition*, aligned with RQ2: *What is the effect of a reflective diary on students' metacognition?* As diary excerpts showed, students were able to set goals, monitor their current knowledge and skills, and evaluate what they had attained. Again, the

examination of the diaries led to explicit discussions of reflection and concepts between teachers and students, thereby fostering the process of planning and evaluating the intended goals. These discussions promoted metacognition and self-reflection among students.

Finally, Zimmerman's Self-Regulation Cyclic Model provided this study with a solid insight to better comprehend the role of reflective diaries in promoting students' self-regulation. It became clear that the three major phases of this model, *forethought*, *performance*, and *reflection*, were indeed interrelated. It also became obvious that using reflective diaries allowed teachers to deepen their understanding of their students' knowledge, weaknesses, and motivations. Emotional motivation to learn can be affected by many factors. However, two factors: self-efficacy and epistemological beliefs proved especially relevant to this study. Becoming deeply involved in communicative feedback helped teachers employ strategies to help motivate their students to achieve their goals, to develop self-efficacy, and to take control of their performance through the three phases. This became clear in the fifth identified theme: *attending to feelings*, which, accordingly, aligned with RQ3: *What is the role of reflective diaries in increasing students' motivation?* Students' reflective diaries demonstrated they had a

high level of self-efficacy by indicating they were confident about their knowledge and achievement.

Limitation

While this study has provided insight to the role of reflective diaries in promoting SRL among secondary students in Abu Dhabi, the results of this study should not be generalized due to the limited number of participants in this study. Furthermore, authenticity of students while writing their reflective diaries may impact the results.

Conclusion and Recommendations

This study supported claims that reflective diaries helped students recognize the cognitive strategies and metacognitive skills they needed to complete tasks and achieve their goals. Formative assessments, specifically reflective diaries, promoted the main components of self-regulated learning (cognition, metacognition, and motivation) among elementary-school ESL students. Following their teachers' guidelines, self-regulated students were motivated to set reasonable goals, complete the tasks, and control their own learning process. The researchers found the constructivist process brought learning advantages by having the teacher become the "guide on the side" instead of "sage on the stage" (King, 1993) who helped students to explore their strengths and weaknesses and act as independent learners (Weimer, 2002). Pedagogical implications can be drawn from this study. It is challenging to find effective methods to help students develop productive self-assessment practices (Deneen, 2014). Since most students are not able to assess themselves on their own, so they need a facilitator or teacher to show them how (Yan, 2020). A reflective diary offers a standard tool that students can easily adapt to different teaching scenarios, as well as sufficient flexibility to address a variety of contextual variables. Having students maintain reflective diaries allows them to become familiar with evaluation criteria and feedback on their performance, which enhances their long-term evaluative judgements (Tai et al., 2018). This study revealed that the use of reflective diaries in classrooms proved valuable, productive, and enjoyable for both teachers and students, and that this approach deserves more investigation. The reflective diaries engaged students in self-regulated learning and

helped equip them with skills to succeed in acquiring knowledge. Reflective diaries in the classroom have the potential to create a foundation and establish a practice for life-long learning. This study might reveal more sights if it is broadened to other disciplines. Moreover, it would be beneficial to explore the effect of reflective diaries on SRL in online learning setting.

Conflicts of Interest

The authors declare that they have no conflict of interest.

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