

The effect of teacher- and peer-assisted evaluative mediation on EFL learners' metacognitive awareness development

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ABSTRACT

Rooted in the heart of Vygotsky's Sociocultural Theory, mediation has recently received considerable attention in the field of TEFL. The existing literature suggests that mediation can play an essential role in language learners' performance development. In addition, learners need to know about their thinking process which is interpreted as metacognition. This study aimed to investigate the effect of teacher- and peer-assisted evaluative mediation on learners' metacognitive awareness development. To this end, 40 homogenized intermediate EFL learners were selected using a test of English language proficiency. The participants were then randomly divided into teacher-assisted (n=20) and peer-assisted (n=20) groups. Before the instructional phase, a metacognitive awareness questionnaire was given to the participants. At the instructional phase, the learners in the teacher-assisted group received teacher-assisted mediation. The learners in the peer-assisted group, however, were exposed to mediation provided by their peers. After the instructional phase, the metacognitive awareness questionnaire was given to the participants as the posttest of the study. SPSS was used to analyze the data. The descriptive statistics, the Shapiro-Wilk test of normality, and the Paired Sample T-test for inferential statistics were used to analyze the data. The findings showed that peer-assisted evaluative mediation had positive effects on

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developing students' level of metacognitive awareness, whereas teacher-assisted evaluative mediation did not reveal such effects. It could be concluded that peer-assisted evaluative mediation is an effective tool for improving students' metacognitive awareness.

Keywords: *Teacher-assisted evaluative mediation; Peer-assisted evaluative mediation; Metacognitive awareness*

1. Introduction

Arguably, a teacher's primary professional responsibility is to ensure that his/her students learn. Therefore, measures of students' learning should play a predominant role in teacher evaluations. This does not denote, however, that teacher evaluations should be based solely on the results of standardized tests or the results of any single assessment and evaluation. It does, nonetheless, entail that teachers should be accountable for helping students make measurable progress against the defined learning standards. Teacher-assisted evaluative mediation refers to teacher actions in the classroom for the purpose of helping students in their learning task and mediating them towards better learning experiences (Markley, 2004). Teacher evaluative mediation can help learners learn better by increasing teachers' interaction with them. It can facilitate the process of learning by enhancing students' participation and involvement in language learning. The teacher-assisted mediation in the classroom has certain characteristics that can lead students to productive engagement in the tasks (Engle & Conant, 2002).

Peer-assisted evaluative mediation is a collaborative and cooperative learning strategy, which offers close interaction between peers in the teaching and learning processes. This close relationship could be facilitated by peers' assistance, which may not easily happen in the context of a teacher-focused classroom and formal teaching atmosphere (Gaias, Johnson, Bottiani, Debnan, & Bradshaw, 2019; Lantolf, 2000). This approach can activate students' involvement and responsibility in the teaching process. This type of mediation can improve peers' understanding of the syllabus and as a result provide them with an opportunity to gradually increase their self-confidence enabling them to promote their language performance (Shao, Pekrun, Marsh, & Loderer, 2020; Topping, 1998). Peer-mediated learning is an instructional approach that emphasizes student-student interaction and is intended to provide an alternative to teacher-centered or individualistic approaches to learning. Metacognition ability for an individual includes items such as cognitive awareness, self-monitoring, and self-regulation abilities (Flavell, Miller, & Miller, 2002). It is the collaborative feature that provides a context in which discussion and argument could promote the appropriate metacognitive skills to boost the learning process, social awareness, and social skills (Vygotsky, 1962).

Ample studies corroborate the positive and significant correlation between students' metacognitive awareness and their academic success (Mevarech & Fridkin, 2006; Rezvan, Ahmadi, & Abedi, 2006; Vrugt & Oort, 2008). Students who use and

improve their metacognitive ability are believed to be more successful in self-regulating learning activities and the application of their knowledge in their learning process (Zimmerman, 2002). Therefore, when students become more competent in metacognitive abilities, their language performance can be more successful (Flavell et al., 2002). Development in metacognitive skills is a crucial formative intellectual objective regarding the education of learners. Metacognitive awareness supposes that students are aware of their own cognitive activity for their learning and self-adjustment mechanisms in their learning process (Goswami, 2008).

2. Literature review

In recent years, studies have shed light on the fact that peers could play a significant role in the learning process through the practice of mediation. Peer mediation practice is considered as an effective way of improving success rates in high-risk courses and also has proven to produce beneficial effects on learners' academic performance development (Arendale, 2014; Cheng & Johnston, 2014; Topping, 2017). Regarding the concept of mediation and its function in TEFL/TESL, many researchers assume an undeniable role for mediation in the learning and teaching process (Alsaadi & Mahdi, 2013; Engin, 2014; Lave & Wenger, 1991; Mason, 2000; Rogoff, 1990; Turuk, 2008; Xiongyong, 2012). They believe that learning in every form and format is not an isolated act of cognition, but rather a process of interaction through mediation whether provided by teachers or trained peers.

Based on Feuerstein's point of view concerning mediation in child development, Structural Cognitive Modifiability Theory, it is suggested that mediation provides an opportunity for socialization, durable internalization, and cognitive development for children (Seng, Pou, & Tan, 2003). According to Bakhtin's theories of learning viz Language Socialization Theory and Critical Theory, mediation is considered an indispensable and vital part of the learning process. Moreover, Vygotsky, in his Socio-cultural Theory, paid special attention to the role of mediation and regarded it as the core part of the learning process. In emphasizing the essential role of mediation, he even believed that without mediation, an effective form of learning could not be expected.

As the main concept of Sociocultural Theory, mediation is viewed as the most influential factor in all human activities especially learning processes in their unique social contexts (Wertsch, 1991). In learning L1, it was revealed that peer-mediation can help learners develop their knowledge exploration and internalization capability. By analogy, in L2 learning where generally the role of a teacher is arguably more significant than the L1 learning, the peering process in the form of mediation can be more facilitative in the learning process (Guerrero, 2007).

According to Vygotsky (1981), when the classroom practice integrates with mediation, not only the learning quality is enhanced, but the cognitive and mental function of learners' minds in the process of learning is stabilized. Hence, the development in learning is principally promoted through a form of mediated

apprenticeship with the interaction of students and teachers or students and peers, which leads them to boost their level through their Zone of Proximal Development (ZPD). Based on Vygotskian pedagogy, teachers can facilitate effective interactions in their classroom when mediation is applied. By playing the mediator role, teachers can provide the learners with the opportunity of gaining more meaningful and internalized knowledge through classroom interactions from their teacher or even their peers (Lantolf, 2000).

Here in this study, evaluative mediation refers to the interventions, which are managed and regulated, based on the specific evaluation criteria to enhance learners' test performance. The teacher pre-determines the evaluation criteria based on the objectives of lessons and tests. Also, learners are taught how to apply and interpret them.

Teacher evaluative mediation is defined as a process of assessment by the mediator (teacher) about the strengths and weaknesses of the students and a prediction of learning outcomes (Senget al., 2003). Teacher-assisted evaluative mediation seeks to provide teachers with useful information for decision-making and monitoring students' improvement in their learning process (Appel & Lantolf, 1994). The teacher-assisted evaluative mediation process enables language teachers to help students understand and internalize new knowledge through the negotiation of meaning in their interaction in the classroom (Victori & Lockhart, 1995). Teacher evaluative mediation actions can promote students' engagement in a productive way and give authority to students to keep them on the right track towards effective learning outcomes (Lantolf, 2000). Effective assessment of students and the subsequent feedback through evaluative mediated action can help learners to improve their level of autonomy (Gibbons, 2003). Using mediated evaluation can enable teachers to analyze the relationships between students' learning inputs, processes, and outputs to develop and improve their practice (Li, 2005).

Peer-assisted evaluative mediation refers to an instructional approach that emphasizes the student-student interaction and meditative assistance in doing the learning tasks and activities. In practice, it refers to a variety of collaborative and interactional approaches between peers to facilitate their performance. Peer-mediated learning is a student-centered process with a dialogic nature of instruction, which is based on the Vygotskian sociocultural theories of language development. Peer-assisted learning is a general term for various strategies to facilitate learning efficiency through active and interactive social engagement and interactional mediation among peers. In this approach, learning takes place through a constructivist, cumulative, peer-regulated, purposeful, situated, and collaborative learning process which facilitates students' learning capability and performance (Topping & Ehly, 2001; Topping, 2005).

Topping (2017) considered peer-mediation as a reciprocal process in which the learners (peers) play both the role of the mediator and the mediation receiver. Accordingly, this two-sided relationship between peers enables them to negotiate their

understanding and meaning and fosters their thinking quality and socialization process. Peer-assisted evaluation is a form of learning entailing two peers assisting each other to work towards a specified goal and has the potential to improve learners' cognitive, logical, and communicative abilities (Miao, Badger, & Zhenc, 2006; Min, 2006). Also, it can spur learners to evaluate their performance compared to their peers' performance. For such a comparison to occur, they are required to evaluate their peers' work by reflecting on their weaknesses and strengths for the purpose of improving them. These ways of interactional learning experience facilitate their performance (Topping & Ehly, 2001). Collaborative assistance and mediation between peers can promote their language growth. Learners can fulfill their learning tasks and activities within their ZPD and model evaluative interaction, which appears to be more constructive than their individual performance (Slavin, 1996).

In the peer-assisted mediation process, both sides of the interaction (i.e. peers who mediate one another's works) can enjoy this type of collaboration. Peers cooperate and provide reflective feedback on their performance, which can promote their learning efficacy. In addition, peers in this process find the opportunity to integrate new learning experiences into the curriculum content (Falchikov, 2002). Studies show that students enjoy and value their learning when situated in an assisted mediation process with other students and this reduces their psychological pressure and promotes the quality of their learning, and provides them with an effective way of language learning (Dangwal & Kapur, 2009; Shamir & Steven, 2005). In learning through the mediation process, peers have a chance to assume responsibility for their learning and their ability to work out the problems without the teacher's supervision. Peer-mediation also gives them a sense of self-respect and encourages them to be autonomous learners (Duran & Monereo, 2005).

Peer-mediation can provide learners with the ability and skill for exchanging essential information, feedback, and reflection for a successful learning performance. In other words, through using this approach, peers can provide, and be provided with, one-to-one instruction for overcoming their challenges in learning and struggling side by side with one another to achieve the desired learning objectives (Gentry & Benenson, 1992). Peer-assisted evaluative mediation programs have positive impacts on the peers as both are mediators (Bloxham & West, 2004). It gives them the opportunity to experience and practice the teachers' role, make effective cooperative relationships, and bring essential skills for problem-solving (Shulman, 1996). In peer-assisted mediation, each peer has the choice to control the learning situation and resolve potential problems in a productive way. The process of mediation puts them in a win-win game of learning and evaluating each other's works (Topping, Peter, Stephen, & Whale, 2004).

There have been possible benefits of peer mediation, disagreement management, and idea emersion, discussed in the literature. According to Johnson and Johnson (2004), implementing peer-mediation in the classroom practice enables students to manage the potential conflicts in their learning process and judgment about their peers'

performance. Such a practice instructs them to settle their disagreement in a constructive manner and promotes the value of democracy among students. Schoerning and Hand (2013) believe that the process of peer-mediation engages students in the negotiation of information about the quality of their works' strengths and weaknesses. These negotiated interactions allow teachers to enrich the classroom discussions whereby students begin to express their judgments and corresponding reasons via questioning and defending their ideas and as a result, new ideas will emerge on the part of students during the discussion.

Implementing peer-mediation practice among students is not an easy practice and has its own challenges. One of the most critical requirements for establishing successful peer mediation is training student mediators with an acceptable quality for mediation who know how to exhibit mature judgment and communicate them with their peers. The tough part of this job is that the teacher should train students effectively to enable them to monitor the problem-solving process, respect each other's confidentiality, and evaluate one another's work in an unbiased, empathetic, and respectful manner (Daunic, Smith, Robinson, Landry, & Miller, 2000). Also, for conducting such a practice efficiently, the availability of competent and well-trained teachers in the peer-mediation implementation, whether as a mediator or the trainer of peers, is necessary.

There seems to be an increasing interest among researchers in TEFL and language teaching and learning in investigating different aspects of metacognition, metacognitive instruction, and metacognitive awareness in their disciplines and fields of research (Bozorgian, 2014; Bozorgian & Alamdari, 2018; Goh & Hu, 2014; Mahdavi & Miri, 2017). Flavell (1979) first theorized metacognition as an individual's knowledge concerning the cognitive processes and his or her capability to handle the use of appropriate applicable processes to enhance learning. O'Malley, Chamot, Stewner-Manzanares, Russo, Rocco, and Kupper (1985) defined metacognition as thinking about the learning process, planning for learning, monitoring for comprehension or production, and evaluating learning after the language activity is complete. Based on Schraw (2001), metacognition is defined as an individual's knowledge regarding cognition and regulation of cognition. The cognition insight concerns what an individual knows regarding the cognitive processes or learning strategies in general.

Metacognition in cognitive psychology refers to the process of focusing on the active participation and engagement of an individual in their thinking process (Stewart & Landine, 1995). Metacognitive awareness refers to the learners' beliefs about their cognitive ability in choosing sufficient strategies for doing their learning tasks and activities (Efklides, 2006). According to Efklides (2006), metacognitive knowledge, metacognitive experiences, and metacognitive skills are the three components of metacognition. Improvement in learners' metacognitive awareness directs them toward better learning opportunities and facilitates their learning performance. As Pintrich (2002) asserts, metacognitive awareness is positively linked to students' learning, and

teaching it explicitly to learners can facilitate their language development process.

According to Ku and Ho (2010), the goal, which is determined for learning activities, makes cognitive and metacognitive activities different processes in learning. Cognitive activities consist of acquiring, retaining, and transferring knowledge for task execution, while metacognitive activities consist of monitoring and regulating this execution in doing learning tasks. Cognition refers to a variety of mental activities including perceiving, recognizing, classifying, remembering, and thinking (Richards, Platt, & Platt, 1992), while metacognition refers to thinking about the processes of thinking (White, 1999) or learners' awareness of their way of thinking and the effectiveness of their mental processes (Blatner, 2004). The pedagogical implications of metacognitive awareness-raising strategies are that, in attempting to solve problems, learners are engaged in reflection, transferring their learning experiences, and learning process, too (Krathwohl, 2002; Wilson & Smetana, 2011).

Arguably, it may not be reasonable to expect that every learner at any level of L2 proficiency demonstrates enough capability for metacognitive awareness or that every teacher in any educational context demonstrates sufficient ability and quality to teach the necessary requirements and strategies to his or her students for developing their metacognitive ability. At the level of establishment in the classroom context, learners need to learn how to think and react beyond their linguistic competence, which entails degrees of strategic competence *about* learning rather than *for* learning. Such a requirement should be provided by the teacher for learners, and it is regarded as a highly demanding responsibility on the teacher's shoulders. In short, the success of such a challenging practice is contingent upon the teacher's expertise and quality (Efklides, 2006).

Concerning metacognitive awareness, Goh (2014) believes that it helps learners to become more reflective and autonomous and that it provides the students with the opportunity for self-monitoring and self-satisfaction in their learning process. In addition, it facilitates their language proficiency development and gives them the ability to organize their learning process towards fulfilling their learning requirements. Furthermore, Boghian (2016) asserted that the metacognitive skill is the keystone of the learning process enabling learners to be autonomous and provides them with self-regulation ability. Also, lower proficient learners use their metacognition more frequently than those who have acquired higher levels of proficiency.

To compare teacher vs peer-assisted mediation effect on writing and speaking processes, Villamil and Guerrero (1996) conducted a longitudinal study, which indicated that peers play a more significant role than teachers in assisting the learning development and it is stronger when the mingling time is prolonged. Shamir, Zion, and Spector-Levi (2008) investigated the effect of peer-tutoring training embedded with the metacognitive processes required for problem-based learning on students' critical thinking. The findings of the study revealed that the peer-mediation practice has positive and constructive effects on learners' metacognitive competency, particularly

their critical thinking ability. Also, Cross (2010) studied the development of learners' metacognitive awareness during the process of second language listening comprehension under the peer-peer dialogic condition. The results suggested that through dialogic interactions, learners took opportunities to enhance their metacognitive awareness of their listening in a second language.

De Backer, Van Keer and Valcke (2012) conducted a study to examine the impact of reciprocal peer tutoring (RPT) on students' adoption of metacognitive skills and their approach to metacognitive regulation. The results did not indicate significant effects on learners' metacognitive planning. Although there was a significant evolution toward a more deep-level comprehension monitoring for RPT-students, all learners' metacognitive regulation continued to be dominantly low-level.

In a study, Xiongyong (2012) investigated the EFL teachers' knowledge of mediation in a secondary school context and its effect on their teaching performance. The researcher found that most of the EFL teachers ignore the mediation role in their practice. The results of this study revealed that implementing a meditation practice in the classroom helps teachers conduct more meaningful and effective teaching performance. Tahir (2012) investigated peer evaluation benefits and challenges in college ESL students' writing. The results of the study revealed that the highest benefit stated by the students was that they felt less pressured and more relaxed while conducting peer evaluation. Furthermore, the pieces of advice offered by peers were found to be easy to use to revise essays, they reported that their peers were nice, they received useful advice, the comments given were found to be fair through peer review, and students were able to be involved in more discussions and practice activities.

The present study attempts to make a contribution to the views on evaluative mediation in general, and teacher- and peer-assisted evaluative mediation in particular. More specifically, the primary goal is to provide recommendations for teachers of foreign languages based on the results of the analyses of learners' metacognitive awareness development via teacher- and peer-assisted evaluative mediation. It seems that insufficient attention has been paid to the study of the teacher- and peer-assisted evaluative mediation and their effect on the learners' metacognitive awareness development in foreign language classrooms, and it is also possible to contend that metacognition and metacognitive awareness have not yet received the proper attention they deserve in the Iranian EFL language teaching programs considering their importance and their potential influence on the language learning process. Thus, this study was conducted as an attempt to investigate the effect of teacher- and peer-assisted evaluative mediation on the learners' metacognitive awareness development. To this end, three research questions were put forward:

1. Does teacher-assisted evaluative mediation have a statistically significant effect on learners' metacognitive awareness development?

2. Does peer-assisted evaluative mediation have a statistically significant effect on learners' metacognitive awareness development?
3. Is there any significant difference between the effects of teacher- and peer-assisted evaluative mediation on the learners' metacognitive awareness development?

Based on these research questions, the following null hypotheses were formulated:

1. Teacher-assisted evaluative mediation does not have a statistically significant effect on learners' metacognitive awareness development.
2. Peer-assisted evaluative mediation does not have a statistically significant effect on learners' metacognitive awareness development.
3. There is no significant difference between the effects of teacher- and peer-assisted evaluative mediation on the learners' metacognitive awareness development.

3. Method

3.1. Participants

For the purpose of this study, a convenience sampling method was used (Gravetter & Forzano, 2016). To do so, 40 homogenized intermediate EFL learners from 58 students available in English courses at the International College of Tehran University of Medical Sciences (TUMS) were selected through the Oxford Placement Test. They were all male learners whose ages ranged from 16 to 35 years old. All the participants of this study were assured about the confidentiality of the data. Also, there was no obligation imposed on them to participate in this study and all of them thoroughly consented to do so.

3.2. Instrumentation

3.2.1. OPT (The Oxford Placement Test)

OPT was used in the present study to homogenize the learners. It is comprised of 60 items in two parts. The first section is on vocabulary/grammar (40 items) and the second part on reading comprehension (20 items).

3.2.2. Metacognitive awareness questionnaire

This questionnaire was used for measuring learners' metacognitive awareness level (see Appendix). It is developed by Schraw and Dennison (1994) and consists of 52 statements, which learners should evaluate as false or true. This questionnaire measures students' metacognitive knowledge (i.e. declarative, procedural, and conditional knowledge) and their regulation of cognition in five dimensions (i.e. planning, information management strategies, comprehension monitoring, debugging strategies,

and evaluation). In this study, the mentioned questionnaire was used as the pretest and the posttest.

3.3. Data collection procedure

The participants were evenly and randomly divided into the teacher-assisted (n=20) and peer-assisted (n=20) groups. Before starting the instructional phase, the metacognitive awareness questionnaire was given to the participants as the pretest of this study. At the instructional phase, the students in the teacher-assisted group were exposed to teacher-assisted evaluative mediation for their learning tasks and activities in which the teacher evaluated and mediated the learners' performance. For this purpose, the teacher-assisted and mediated students' performances through interaction and monitoring their works and provided corrective feedback when needed for revising their erroneous performance. Also, the teacher guided them in all steps of their learning assignment and tasks as a mediator.

The learners in the peer-assisted group were exposed to the peer-assisted evaluative mediation for their learning tasks and activities. They were authorized to evaluate themselves and play the role of a mediator. In this regard, they were expected to think cooperatively and confer on their works and help each other to come up with better performances. They read their assignments or tests and tried to enhance their peers' works by providing useful guidance and showing their strengths and weaknesses as an evaluator. In fact, the peer-assisted group had been taught how to evaluate and mediate their peers' works. The participants were instructed for sixteen 90-minute sessions twice a week for eight weeks. After the instructional phase, the metacognitive awareness questionnaire was given to the students as the posttest of the study to measure the participants' metacognitive awareness level at the end of the instructional period.

3.4. Data analysis

Having gathered the required data, the SPSS statistical program was used to analyze them. For each question in this study, first the descriptive statistics and then the normality calculation (Shapiro-Wilk), and finally the inferential statistics (paired sample *t*-test) were estimated.

4. Results

4.1. Questionnaire reliability analysis

Reliability analysis was carried out on the metacognitive awareness questionnaire. Cronbach's alpha showed the questionnaire to reach acceptable reliability, $\alpha = 0.79$.

4.2. Result of language proficiency test

In order to have homogenized participants in terms of their general English

language proficiency, the OPT was administered. The descriptive statistics for the OPT can be found in Table 1.

Table 1

The descriptive statistics of the placement test.

	N	Min	Max	Mean	SD	Variance
Placement Test	58	23.00	38.00	30.81	4.19	17.59

Table 1 above shows the descriptive statistics of the OPT test. As can be seen in Table 1 above, the mean and the standard deviation of the scores were 30.81 and 4.19, respectively. After administering the language proficiency test, out of 58 test-takers, 40 were considered homogenous based on their scores.

Table 2

The descriptive statistics of the homogenized participants.

	N	Min	Max	Mean	SD	Variance
Placement Test	40	28.00	36.00	32.55	2.24	5.02

As can be seen in Table 2 above, the mean and the standard deviation of the homogenized participants were 32.55 and 2.24, respectively.

4.3. Results of the first research question

First, the descriptive statistics of the teacher-assisted group’s scores on the pre and posttests were estimated which are presented in Table 3 below.

Table 3

The descriptive statistics of TA group’s pre and posttests scores.

Variable	N	Min	Max	Mean	SD
TA group pretest	20	19	40	28.50	5.71
TA group posttest	20	21	39	27.90	4.52

As can be seen in Table 3, the means for the teacher-assisted group’s pre and posttests’ were 28.50 and 27.90, respectively. The descriptive statistics show that the level of metacognitive awareness of the participants in the teacher-assisted group reduced from the pretest to the posttest. The Shapiro-Wilk test was used to check the normality of the teacher-assisted group’s pre and posttests’ scores. In Table 4 below, the statistics for the normality of data sets are presented.

Table 4

Shapiro-Wilk test of normality for pre and posttests scores.

Group	Shapiro-Wilk		
	Statistic	df	Sig.
TA group pretest	.98	20	.87
TA group posttest	.95	20	.35

According to Table 4, sig. values for teacher-assisted group's pre and posttests scores are 0.87 and 0.35, respectively. Both of the obtained sig. values are more than 0.05 ($0.896 > 0.05$; $0.350 > 0.05$). It means that these data sets are normally distributed, and as a result, a parametric test (Paired Sample *t*-test) for comparison of means can be used. The inferential statistics for comparison of means are presented in Table 5 below.

Table 5

The inferential statistics for TA group's pre and posttests means comparison.

		95% Confidence		t	df	Sig. (2-tailed)
		Interval				
		Lower	Upper			
Pair 1	TA group pretest	-.42	1.62	1.23	19	.235
	TA group posttest					

A paired-samples *t*-test was conducted to compare the teacher-assisted group's pre and posttests' scores. There was no significant difference in scores for the teacher-assisted group's pretest ($M=28.50$, $SD=5.71$) and the teacher-assisted group's posttest ($M=27.90$, $SD=4.52$; $t=1.23$, $p=.23$). The magnitude of the differences in the means was moderate (eta squared=.073). It means that the teacher-assisted group's pre and posttests means did not significantly differ from each other. Thus, it is possible to argue that teacher-assisted evaluative mediation did not have a statistically significant effect on the learners' metacognitive awareness development.

4.4. Results of the second research question

For answering this research question, first, the descriptive statistics of peer-assisted group pre and posttests scores are presented in Table 6 below.

Table 6

The descriptive statistics of PA group's pre and posttests scores.

Group	N	Min	Max	Mean	SD
PA group pretest	20	24	41	32.10	4.76
PA group posttest	20	29	43	35.10	3.99

As can be seen in Table 6, the peer-assisted group's means of the pre and posttests are 32.10 and 35.10, respectively. The descriptive statistics table above shows that peer-assisted group participants' level of metacognitive awareness level increased from the administration of pretest to posttest. In order to check the normality of peer-assisted group's pre and posttests scores, the Shapiro-Wilk test was used. In Table 7 below, the statistics for the normality of data sets are presented.

Table 7

Shapiro-Wilk test of normality for pre and posttests scores.

	Shapiro-Wilk		
	Statistic	df	Sig.
PA group pretest	.94	20	.27
PA group posttest	.96	20	.66

According to Table 7, sig. values for peer-assisted group's pre and posttests scores are 0.27 and 0.66, respectively. Both of obtained sig. values are more than 0.05 ($0.27 > 0.05$; $0.66 > 0.05$). It means that these data sets are normally distributed and consequently, the parametric test (Paired Sample *t*-test) for comparison of means can be utilized. The inferential statistics for comparison of means are presented in Table 8 below.

Table 8

The inferential statistics for PA group's pre and posttests means comparison.

		95% Confidence Interval			t	df	Sig. (2-tailed)
		Lower	Upper				
		Pair 1	PA group pretest	-3.61			
	PA group posttest						

A paired-samples *t*-test was conducted to compare peer-assisted group's pre and posttests' scores. There was a significant difference in scores for peer-assisted group's pretest ($M=32.10$, $SD=4.76$) and teacher-assisted group's posttest ($M=35.10$, $SD=3.99$; $t=-10.34$, $p=.00$). The magnitude of the differences in the means was large (eta squared=.84). It means that the peer-assisted group's pre and posttests are significantly different from each other. Thus, it can be suggested that peer-assisted evaluative mediation had statistically a significant effect on learners' metacognitive awareness development.

4.5. Results of the third research question

With reference to the results and analysis of the first and second questions of this study, it is possible to suggest that there was a statistically significant difference

between teacher-assisted and peer-assisted groups' participants' performance on the metacognitive awareness questionnaire where the peer-assisted group performed significantly different in their posttest scores whereas the teacher-assisted group did not perform significantly different in their posttest scores. In other words, peer-assisted evaluative mediation meaningfully developed students' level of metacognitive awareness, but teacher-assisted evaluative mediation did not promote students' level of metacognitive awareness.

5. Discussion

The first finding of this study was that teacher-assisted evaluative mediation did not have a statistically significant effect on learners' metacognitive awareness development. In other words, teacher-assisted evaluative mediation did not develop students' level of metacognitive awareness. One possible reason for this finding could be that when the students are exposed to teacher-assisted evaluative mediation, the psychological blocking factors such as anxiety and fear of presence of an authority figure (the teacher) may interfere in the learning process and make them more nervous and anxious which, in turn, can corroborate the point that assisted mediation process with other learners tends to decrease their psychological barriers and promotes their learning quality (Dangwal & Kapur, 2009; Shamir & Steven, 2005). Students who have more metacognitive awareness should show a higher level of self-esteem and self-dependency (Cross, 2010).

This finding is in line with Shamir and Steven (2005) and Dangwal and Kapur (2009) which showed that students enjoy and value their learning when situated in an assisted mediation process from other students, and that this reduces their psychological pressure and promotes their learning quality and provides effective ways of language development for them. Also, the findings confirm Duran and Monereo (2005) who suggest that in the mediation process, peers have the chance to assume their learning responsibility and their ability to work out problems without teacher supervision developed. Peer-mediation also gives them a sense of self-respect and encourages them to be autonomous learners.

The findings of the present study, however, contrast with Engle and Conant (2002) who found that teacher-assisted evaluative mediation can facilitate the process of learning by enhancing students' participation and involvement in language learning and that it leads students to productive engagement in the tasks. Also, unlike the present research, Victori and Lockhart (1995) found that the teacher-assisted evaluative mediation process enables language teachers to help students understand and internalize the new knowledge through the negotiation of meaning in their interaction in the classroom.

The second finding of this study was that peer-assisted evaluative mediation had a statistically significant effect on learners' metacognitive awareness development. In other words, peer-assisted evaluative mediation meaningfully developed students' level

of metacognitive awareness. When a student is mutually mediated by his or her peer, they are given the opportunity to exchange their information and amend their weaknesses and enhance their strengths (Dangwal & Kapur, 2009). So, it can bring them self-confidence and a sense of self-respect and encourage them to think more about their learning process (Duran & Monereo, 2005).

Such a peer-work makes them motivated to implement more effective learning strategies and to reflect on using these strategies in their learning process (Tahir, 2012), resulting in the successful development of their metacognitive awareness. This finding is consistent with Falchikov (2002) who argues that in peer-assisted mediation process, both sides of the interaction (e.g. peers who mediate each other's works) greatly enjoy this type of collaboration. Peers cooperate with each other and provide reflective feedback for their peer's performance, which can develop their learning efficacy, in turn. In addition, peers in this process become able to integrate new learning experiences into the curriculum context.

Also, this finding confirms Topping et al. (2004) who state that in peer-assisted mediation, each peer has the choice to control the learning situation and resolve potential problems in a productive way. The process of mediation puts them in a win-win game of learning and evaluation of each partner's works. It can be argued that the process of peer-mediation provides the students with the opportunity of problem identification through negotiating their judgments about the situation from their own point of view and hearing each other's ideas and opinions on their intended and preferred outcome (Liebmann, 2000). Also, Betegiorgis and Abiy (2016) believed that peer-assisted learning helps learners to engage in the cooperative learning process where they gain the opportunity to activate their roles whether in their own or peers' learning, and it can markedly improve their self-confidence.

According to Arendale (2014), the peer-mediated process promotes learners' learning performance through enhancing their communication capability and social skills where higher achievers facilitate the weaker peers' learning and achievement in a cooperative way. Thus, one part of this cooperation benefits from the assistance and monitoring abilities and the other side receives the opportunity to foster their academic success. Ginty and Harding (2014) proposed the idea that peer mediation promotes the information processing quality and rates, facilitates the process of knowledge transfer, enhances the occurrence of academic socialization, and fosters critical thinking and reflection among learners. Hence, their higher-order thinking ability, which is considered as a building block of metacognitive awareness, is tapped through utilizing peer-mediation.

Furthermore, peer-mediation could link with students' metacognitive awareness capabilities. As in peer-mediation, students' analytic thinking is required for evaluating the strengths and weaknesses of their peer's works. At the metacognitive level, too, language learners need to plan their own and their peer's learning behaviors, analyze the situation they find themselves in, and evaluate their own and peer's progress towards

learning (Wenden, 2002).

The third finding of this study was that there was a difference between the participants' performance in the teacher-assisted and peer-assisted groups on the metacognitive awareness questionnaire in which peer-assisted group performed significantly different in their posttest whereas teacher-assisted group did not perform significantly different in their posttest. In other words, peer-assisted evaluative mediation meaningfully developed students' level of metacognitive awareness, but teacher-assisted evaluative mediation did not develop students' level of metacognitive awareness.

6. Conclusions and implications

This study revealed that peer-assisted evaluative mediation had the potential to develop students' level of metacognitive awareness while teacher-assisted evaluative mediation did not increase their metacognitive awareness level. Based on the learners' responses to the questionnaire, it is suggested that peer-assisted evaluative mediation is an effective tool for improving students' metacognitive awareness. In this regard, students who have a higher level of metacognitive awareness show positive attitudes and motivation to be strategic learners in their learning process and accordingly become more successful learners.

Generally, assisted evaluative mediation whether on the side of the teacher or peers can help both sides of this process (i.e. teachers and students or peers among themselves). The cooperative nature of this process enables these two sides of interaction to show a better learning performance and hence can enhance their teaching and learning quality. When students engage in the process of evaluation and mediation, they become capable of identifying their learning strengths and weaknesses as well as those of their peers' in the process of learning while teachers' monitoring ability increases through using this evaluative mediation.

In addition, assisted evaluative mediation can be considered as a foundation for leading students towards autonomous language learning. The results obtained from the present study suggest teachers implement peer-assisted evaluative mediation practices in their classrooms if they look for a way to improve their students' metacognitive awareness and knowledge. Also, the findings of this research can help language learners, especially EFL learners, language teachers, language program developers, and language curriculum planners to create more effective situations for language learning in their field of work. If judiciously utilized, peer-learning can be considered as a valuable tool for language instructors and learners. So, it is recommended that language teachers trust the power of peer-learning in the learning process and use it more in their practice.

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