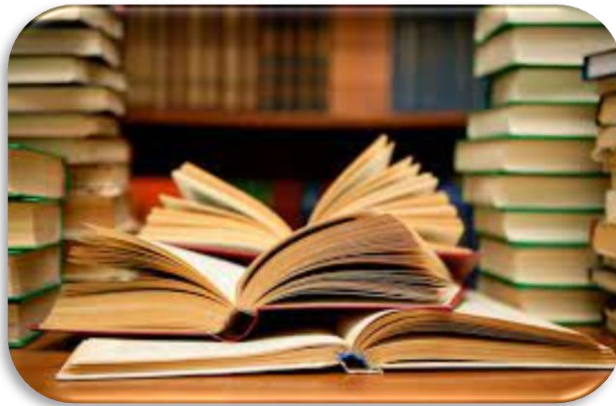## Research Paper

Effects of Clinical Supervision on EFL Teachers' Critical Thinking Disposition and Learners' Overall Language Achievement

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ABSTRACT

Although research on clinical supervision and teachers' critical thinking has been separately carried out by many scholars, their integration in a unified study has been demanding, particularly in an English as a Foreign Language (EFL) context. Investigation of learners' language achievement affected by doing clinical supervision appears to have been taken for granted. The present study was an attempt to figure out the effects of the clinical supervision model proposed by Gall and Acheson (2011) on EFL teachers' critical thinking disposition and learners' overall language achievement. The present study constituted two sets of participants: 60 teachers and 66 learners selected through convenience sampling and were divided into two groups namely experimental. Clinical supervision was conducted for the experimental group teachers within three cycles of planning conference, classroom observation, and feedback conference. Those learners whose teachers took part in the clinical supervision constituted the experimental group while the remaining were the control group whose teachers were not provided with any teacher education program. Data were collected through the Critical Thinking Disposition Scale and learners' pre-and post-tests. By running one-way analysis of variance (one-way ANOVA) and independent samples t-tests, clinical supervision was significantly effective regarding EFL teachers' critical thinking disposition and resulted in the learners' significant improvement as well. Findings demand the practice of clinical supervision as an effective and awareness-raising teacher education program to help teachers reflect upon their strengths and weaknesses and self-regulate their teaching practicum.

Keywords: Clinical supervision, Critical thinking, Learners' overall language achievement, Teacher education

تاثیر نظارت بالینی برگرایش تفکر انتقادی معلمان زبان انگلیسی و پیشرفت کلی زبان آموزان

اگرچه تحقیقات در مورد نظارت بالینی و تفکر انتقادی معلمان توسط بسیاری از محققان به طور جداگانه انجام شده است، ادغام آنها در یک مطالعه یکپارچه، به ویژه در زمینه انگلیسی به عنوان یک زبان خارجی (EFL) بسیار ضروری بوده است. به نظر می رسد که بررسی پیشرفت زبان زبان آموزان تحت تأثیر نظارت بالینی امری بدیهی تلقی شده باشد. مطالعه حاضر تلاشی برای کشف تأثیرات مدل نظارت بالینی ارائه شده توسط گال و آچسون (2011) بر گرایش تفکر انتقادی معلمان زبان انگلیسی و پیشرفت کلی زبان آموزان بود. پژوهش حاضر شامل دو گروه شرکت‌کننده بود: 60 معلم و 66 زبان‌آموز به روش نمونه‌گیری در دسترس انتخاب و به دو گروه آزمایشی تقسیم شدند. نظارت بالینی برای معلمان گروه آزمایش در سه دوره کنفرانس برنامه ریزی، مشاهده کلاس درس و کنفرانس بازخورد انجام شد. آن دسته از فراگیرانی که معلمان آنها در نظارت بالینی شرکت کردند، گروه آزمایش و بقیه گروه کنترل بودند که معلمان آنها هیچ برنامه آموزشی معلمی نداشتند. داده ها از طریق مقیاس تمایل به تفکر انتقادی و پیش آزمون و پس آزمون فراگیران جمع آوری شد. با اجرای آنالیز واریانس یک‌طرفه (ANOVA یک‌طرفه) و آزمون‌های تی نمونه‌های مستقل، نظارت بالینی به طور قابل‌توجهی بر گرایش تفکر انتقادی معلمان زبان انگلیسی مؤثر بود و منجر به بهبود قابل توجه زبان‌آموزان نیز شد. یافته‌ها مستلزم اجرای نظارت بالینی به عنوان یک برنامه آموزشی مؤثر و آگاه‌کننده برای معلمان است تا به معلمان کمک کند تا در مورد نقاط قوت و ضعف خود فکر کنند و تمرینات آموزشی خود را خود تنظیم کنند.

واژگان کلیدی: نظارت بالینی، تفکر انتقادی، پیشرفت زبان عمومی فراگیران، آموزش معلمان

INTRODUCTION

Teachers are conceptualized as critical thinkers when they attempt to develop self-efficacy, confidence, and coping strategies in overcoming challenging situations (Tyson, 2015), which is in strong alignment with their teaching success (Birjandi & Bagherkazemi, 2010). In terms of critical thinking, the teacher is encouraged to consistently take over the existing challenges and difficulties taken place during his/her professional experience. By doing so, it results in successful adaptation despite obstacles and personal well-being is maintained (Facione, 2013). To investigate the effect of critical thinking on language learning, the components that affect the development of learners' critical thinking need more concentration. Critical thinking has been explicitly or implicitly involved with several abilities that help language learners become critical thinkers by a teacher who has been armed with critical thinking (Facione, 1990).

Throughout the years, there have been many efforts to provide a distinct clarification of critical thinking. However, as stated by Facione (2013), seeking out an abstract definition of critical thinking would almost be counter-productive. Critical thinking has no single definition because it spans across a variety of disciplines and is structured according to the different perspectives of those disciplines. Three of such disciplines are the philosophical, psychological, and educational disciplines. The philosophical approach focuses on the characteristics of critical thinkers, rather than the actions or behaviors they can perform. This school of thought focuses on the ideal critical thinker and what individuals have the capacity to do under the best circumstances. Similarly, Paul (2012) claimed that the ideal critical thinker is someone who is flexible, open-minded, and fair-minded, has the willingness to understand different viewpoints, and considers different perspectives. The approach also focuses on the qualities of thought on truth-seeking. To see the truth, critical thinkers must accept ambiguities. The cognitive psychological point of view is different from the philosophical approach in two ways. First, cognitive psychologists focus on how individuals actually think rather than how they could think under the best conditions. Second, unlike the philosophical approach which points to the standards of good thought or the qualities of the ideal critical thinker, cognitive psychologists tend to focus on the behaviors or actions critical thinkers can do. From a psychological point of view, critical thinking means seeing both sides of an issue, solving problems, accepting different perspectives, willingness to accept reason, and inferring conclusions from the facts (Willingham, 2007). Finally, the educational approach focuses on learning how to learn; that is, 'knowing how', rather than 'knowing what'. This approach is important in helping learners to develop their thinking abilities. The final use of critical thinking as an aspect of education is found within Bloom's taxonomical hierarchy, that is, analysis, synthesis, and evaluation (Ennis et al., 1991). Unlike the two previous approaches (psychological and philosophical), this approach is based on the observations of student learning and classroom experience.

To foster learners' critical thinking, teachers responsible for developing their interpretation, analysis, inference, evaluation, explanation, and self-regulation abilities (Facione, 2013). Critical thinking has been assumed to be an integral part of language learning success in ELT studies, which demand more elaboration in the second and foreign language contexts (Tyson, 2015). Last but not least, critical thinking can help learners improve their autonomy in language learning, which can positively affect their learning outcomes (Birjandi & Bagherkazemi, 2010). Hence, the pre-requisite for a teacher to be a critical thinker is taking an active part in a teacher education awareness-raising program (Facione, 2013).

Not surprisingly, teaching has its own psychological issues that have to be taken into account, which can be fulfilled by adopting various teacher education programs to improve both teachers' and learners' development (Darling-Hammond, 2000). When teacher education targets quality teaching, the teachers' critical thinking is concerned as they are trained in a way that is able to meet the challenges encountered in their work and lives and be successful facilitators for the learners' language achievement. The learners' language achievement is one of the main concerns of education systems. What determines the learners' language achievement has always been an interesting issue in language pedagogy and educational psychology (Callahan, 2005). Certainly, a set of individual, environmental, cognitive, and non-cognitive factors affects learners' academic performance (Abedi & Gandara, 2006). The variable of language achievement performance is a multidimensional variable and impresses numerous factors the most important of which is the teacher. The teacher and the way he/she interacts with students and, in other words, how to communicate with students should be included in students' academic achievement (Lee, 2005). If the teacher can behave in such a way as to draw the attention of all students to class activities and respect their views, and speak in a class so that each student feels the audience of the teacher's speech, he/she can have positive effects on behavioral performance and students' language achievement (Darling-Hammond, 2000). Considering the teacher's key role in student language achievement, the discussion of the teacher's characteristics is important, one of which is critical thinking. The teacher's critical thinking can affect learners' language achievement since thinking critically can provide a supportive learning environment for the learners to be more engaged in the classroom and enjoy more autonomous learning (Hirschkorn, 2009).

In order for teachers to be critical thinkers, they have to take part in efficient teacher education programs to develop their psychological and practical expertise. Such developments can be gained by clinical supervision. Clinical supervision and feedback in the supervisory process provide both reflection and quality teaching for language teachers, particularly novice ones to improve their practice teaching of language skills (Akcan & Tatar, 2010; Kahyalar & Yazici, 2016). Clinical supervision is a type of teacher education program to support teacher development, being considered as one of the challenging dimensions of teacher education (Rahmany et al., 2014). Clinical supervision by teacher educators is a key aspect of the practicum (Ochieng' Ong'ondo & Borg, 2011). Clinical supervision as an effective model for teachers' professional education can change the culture and environment of the educational setting to create organizational learning (Hamilton-Ekeke & Matthew, 2018). Clinical supervision is a process aimed at helping teachers in the classroom to provide opportunities for learning so that teachers and educational observers distribute educational experiences beyond the scope of assessment and inspection (Akcan & Tatar, 2010). This is one of the most effective processes for empowering teachers to help them learn in action, overcoming the fear of change, promoting creativity and critical thinking, and examining mental prejudices (Hamilton-Ekeke & Matthew, 2018). The supervisory process should be conducted in the context of the professional development of teachers, and commonly known cases of teacher progress and their relationship with supervision practices and techniques should be considered (Ochieng' Ong'ondo & Borg, 2011). Educational experts believe that supervision can increase and improve the quality of teaching and learning in the classroom (Gürsoy et al., 2016), and as a specialized discipline help teachers and students grow (Reid & Soan, 2018). Clinical supervision is simply defined

by Flanders (2000) as the following:

A special case of teaching in which at least two persons are concerned with the improvement of teaching and at least one of the individuals is a teacher whose performance is to be studied. It seeks to stimulate some change in teaching to show that a change did, in fact, take place and to compare the old and new patterns of instruction in ways that will give a teacher useful insights into the instructional process (p. 47-48).

Concerning the significance of teacher education programs, they are effective on the part of the teachers' development both in theory and practice, helping them be critical thinkers. Additionally, the learners' language achievement can take place when teachers, particularly critical thinkers, are provided with sufficient and high-quality teacher education (Darling-Hammond, 2000), leading them to perform their best in the classroom (Ordem, 2017). Ellis (2004) also stated that in classes where teachers provide critical support to students, students are encouraged to express their ideas and hear the opinions of others, and their success increases in learning. Researchers believe that by supporting students and encouraging their interpretation, analysis, inference, evaluation, explanation, and self-regulation abilities, teachers can provide an environment for students' engagement, assisting them to have an active effort to solve problems and increase their collaboration in the problem-solving learning environment (Facione, 2013; Lowden, 2005). Hence, the value of the teachers' critical thinking in quality teaching and learning is undeniable since it holds many advantages for teachers and learners alike. Although it might be difficult for teachers to cope with the challenges involved in their teaching experience, it is important, therefore, to identify which aspects influence their critical thinking negatively, so that they can adopt a more positive outlook toward both themselves and their learners. Such an enhanced critical thinking ability might lie in the teachers' development, which occurs through teacher education. Thus, one of the most vital and rather taken-for-granted issues in EFL contexts can be clinical supervision, leading to learners' optimal development in a foreign language setting as pointed out by Putra et al. (2021).

EFL teacher supervision plays a critical role in the improvement of the education system and teaching quality. Nowadays, an extending scope of supervisory practices is conducted in EFL classrooms. The supervisors' duties are mainly judgmental and evaluative. Therefore, most teachers cannot benefit from this process as much as they require. However, the principal objective of implementing the clinical supervision model is to establish a collaborative relationship between supervisors and teachers to maintain a responsive educational environment that promotes students' holistic learning.

On the other hand, supervision in EFL contexts does not enjoy a rich basis and the literature requires more than descriptions and analyses of supervisory approaches. Although there is an extensive range of language education research on the features of successful language teachers, and the ways language teacher education programs can induce the enhancement of such features, the integration of these variables has not been studied within the field. Consequently, to the best of the researcher's knowledge, the existing literature fails to gain a deep insight into the possible relationship among clinical supervision, teachers' critical thinking, and learners' language achievement, particularly in EFL contexts. Thus, this research topic has remained under-researched.

In an attempt to productively improve the current literature on the impact of clinical supervision on EFL teachers' critical thinking disposition and learners' overall language achievement, this study could be a very significant initiative in order to compensate for the absence of similar studies in terms of

variables and settings.

The findings of the present study can reduce the benefit of EFL programs and help uncover critical areas in the educational process that many teachers might not be able to explore. Thus, the current study presents a new perspective and makes a unique contribution to the field, as it uncovers the significance of critical thinking and clinical supervision in teachers' classroom management ability. The information gathered through the integration of these variables could be of significance to learners, teachers, supervisors, the educational environment, and administrators in their mission to implement better supervisory practices. Accordingly, this investigation could serve as significant material for comparative research on supervisor and teacher relationships and their implications for the improvement of teaching quality.

LITERATURE REVIEW

Theoretical Framework: Social Constructivism

Constructivism is in favor of the students' knowledge that has to be considered by their teachers and then helps the students to put their knowledge into practice (Mvududu& Thiel-Burgess, 2012). In other words, as argued by Mvududu and Thiel-Burgess (2012), constructivism is considered one of the prominent educational theories. There is not a general consensus regarding an integrated definition of constructivism, it is usually considered a theory of learning, while a theory of knowledge is assigned to the notion of constructivism. Piaget and Inhelder (1969) highlight the role of discovery as the basis of learning. Vygotsky (1978) states that Piaget might exaggerate the role of internal processes. Vygotsky (1978) highlights the learners' cognition as a function of external factors such as cultural, historical, and social interaction regardless of individual construction. Vygotsky (1978) implies that psychological tools play a key role in the learners' cognitive development. Many educators hold the same position as Vygotsky (1978) regarding the importance of culture in the construction of knowledge (Bailey & Pransky, 2005). Bailey and Pransky (2005) criticize constructivism as ignoring the impact of culture on learning and knowledge.

Piaget's (1973) constructivism relies on the individuals' psychological development insisting on discovery learning. Piaget (1973) believes that understanding is in direct relationship with discovery. Piaget discusses that children are exposed to stages of development in which they might accept such development or try to alter it. Therefore, understanding takes place gradually by involving the individuals in participation.

Contrary to Piaget, Bruner (1973) points out that the social process plays an important role in learning, and the students' development can be reconstructed based on the learners' current knowledge affected by the learning environment. In this view of constructivism, the learners can feel independent in their doing the tasks and initiate conversations with their peers. Cognitive structures are emphasized by Bruner (1973) as they can equip learners with the potential to activate their mentality in restructuring their meaning-making process. For him, effective education is one that leads to independent learning that can be increased when the students are engaged in the learning environment. Moreover, the curriculum also matters and should be attended in order to promote the learners' interaction.

Teachers' Critical Thinking and Learners' Language Achievement

English Language Teaching (ELT) research has been concerned with various areas of language pedagogy one of the most important of which can be teacher development. Teacher development lies in the teachers' expertise to take advantage of the available resources to have quality teaching (Muñoz-Martínez et al., 2020; La Velle et al., 2020). The professional development of teachers has been emphasized as one of the important components of the education system, and it is currently being discussed how to monitor the activities of instructors to help them succeed in fulfilling their tasks and roles with every opportunity and have a good deal of professional problems (Fickel, 2002). Teacher development can be achieved by holding efficient teacher education programs in language schools (Darling-Hammond, 2000; La Velle et al., 2020). In fact, the schools of education are responsible for furnishing the target candidates with available tools and helping them perform their duties (Education Trust, 1998). Besides, teacher education programs have to guarantee that the candidates are provided with the best opportunities to do the related tasks of teaching in practice (Lowden, 2005). Furthermore, teacher education programs can be successfully done to fulfill the needs of professionalism defined as "…being considerate of others, adhering to rules of confidentiality, being punctual, and demonstrating other such conventions of commonly accepted civility" (Darling-Hammond et al., 1992, p. 37). Finally, teacher candidates, particularly novice ones, can be equipped with particular education to gain the required skills and experiences during the time in order to possess the potential to encounter the challenges in teacher education (Bettinger & Loeb, 2017; Sparks, 2001).

EFL teachers can play the most important role in improving students' language achievement in educational settings because they are the most crucial factor in the education process (Henderson & Milstein, 2003). They will be able to perform such a task if they have the necessary abilities and are an appropriate model for students (Farahani et al., 2009). Critical thinking in teaching has been considered important by researchers for three reasons: First, the teacher has the role of a model for students, and therefore, having a high level of critical thinking that promotes reflection in students (Dummett & Hughes, 2019). Second, the teaching process is difficult and complex, and it requires the management of encountering and identifying challenging conditions (Facione, 2013). Third, critical thinking is the sustained return capacity and the rapid and effective promotion of strengths in dealing with classroom-surrounded problems – learners' lack of analytical capability and interpretive potential – and can strongly influence teachers' teaching motivation (Ordem, 2017). Myers (2009) stated that critical thinking "does not blindly accept arguments and conclusions but examines assumptions, uncovers hidden values, weighs evidence, and assesses conclusions" (p. 5). Paul and Elder (2008) defined critical thinking as "the art of analyzing and evaluating thinking with a view to improving it" (p. 4). Generally, there is overlap between researchers on what abilities constitute critical thinking, including interpretation, analysis, inference, evaluation, explanation, and self-regulation which play a major role in shaping critical thinking for teachers.

Interpretation is the ability of the learners to develop their comprehension and expression of the meaning on different occasions based on various criteria (Facione, 1990). Dymock (2007) believes that when learners' interpretive abilities are developed, they possess the potential to critically respond to the tasks. In other words, when a learner is able to interpret a concept, he/she can reveal the critical aspect of his/her thought in developing ideas. Therefore, learners' interpretation ability should be developed by

teachers who are aware of such an ability that constitutes their critical thinking potential. An analysis is identifying the relationships among concepts, statements, descriptions, questions, or other forms of representation intended to express information, reasons, experiences, beliefs, or opinions (Facione, 1990). Analyzing arguments is a sub-skill to analysis, which examines how a claim can achieve support or opposition. This sub-skill is crucial to critical theory because critical theory is concerned with investigating a textual work through a particular lens to see if it supports the selected perspective (Tyson, 2015). Inference is stated by Facione (1990) as the ability to identify elements needed to consider relevant information, to form hypotheses, and draw conclusions from statements, data, principles, beliefs, opinions, concepts, descriptions, and other current evidence.

Evaluation is the ability of the learners to have a logical assessment of the discussed issues and provide further evidence to develop their ideas accordingly (Facione, 1990). A large part of the evaluation is determining what makes a source or person credible and if that changes with regard to the given topic (Kurland, 2000). When learners try to evaluate the given topic, their analytical capabilities will be developed, which enables them to maneuver on the subject more critically. Critical thinkers according to Ordem (2017) can improve their evaluation abilities in learning language skills when they are required to assess their weaknesses and strengths monitored by the teacher. Learners' evaluation ability needs to be enhanced by the teachers' artistic use of tasks that help learners construct their critical potential and enjoy their learning atmosphere.

The explanation is the ability of the learners to have a statement and justification of the peers' reasoning in terms of conceptual, methodological, evidential, and contextual considerations (Facione, 1990). The explanation is the post-production of critical thinking (Zhou & Lin, 2019). When learners explain a phenomenon and try to justify their arguments logically, it can be a positive indicator of their development of critical thinking (Paul, 2012). When learners' explanation abilities are being developed by exposure to an interactive learning environment, and they are stating their comments reasonably to persuade their peers, critical thinking can be formed (Wale & Bishaw, 2020). Thus, explanation ability is one of the building blocks of critical thinking for success in language learning. Finally, self-regulation refers to monitoring one's cognitive activities in a self-conscious way (Facione, 1990). It means having an awareness of the consequences of your personal bias and monitoring your comprehension when you listen and read. According to Harris and Eleser (1997), self-regulation shapes autonomous learners who are in control of their learning and understanding.

Clinical Supervision

Given the crucial role and significance of supervision in EFL contexts, the process has captured the attention of some scholars in this line of research. Azizpour and Gholami (2021) focused on the language school managers' attitudes toward EFL teacher supervision in Iranian language schools. The findings indicated that managers had no transparent rubrics and criteria for selecting supervisors, and supervisors were mostly selected based on their teaching experience and potential. Furthermore, it was revealed that apart from providing feedback, too many other responsibilities were assigned to supervisors in Iranian EFL classrooms.

Similarly, Estaji and Ghiasvand (2022) scrutinized the perceptions of Iranian EFL teachers toward

different supervisory practices and their contribution to teacher pedagogical growth using a questionnaire and a semi-structured interview. The qualitative findings indicated that both experienced and novice teachers had a negative view concerning the existing supervision system in Iran. EFL teachers considered supervision as confidence-minimizing, fault-seeking, and with little instructional worth.

In contrast to traditional supervision, clinical supervision uses a facilitative approach. Clinical supervision has been the focus of teacher education scholars in various sciences, strongly urging the teacher education program to maneuver on its practical application in second or foreign language education. McGhee and Stark (2018) investigated the effect of promoting collegial teacher supervision and applying solution-focused strategies in a clinical supervision cycle. There was an instructional supervision course for graduate college students who were taught solution-focused strategies. They were requested to apply these strategies in their classroom. Data analysis of the participants' in-depth interviews and written clinical supervision reports resulted in the extraction of the key themes: view positively, letting the teacher lead, solution-focused techniques used, confidence, and need for practice. The researchers called for more research in the area of clinical supervision to acknowledge its effectiveness. Solution-focused strategies can be practical in assisting teachers in improving their decision-making in the classroom and taking the most beneficial measures to enhance learning opportunities.

In a qualitative study by Reid and Soan (2018), it was found that when teachers are exposed to a teacher education program through clinical supervision intervention, it, to a vast extent, leads to better performance in the classroom. The researchers' analysis of the qualitative questionnaires revealed that clinical supervision can trigger the teachers' professional and personal performance in the classroom, which has the potential to enhance the quality of teaching. Pitkänen et al. (2018) and Putra et al. (2021) acknowledged the implementation of a clinical learning environment for healthcare students and explored their points of view regarding the intervention. The treatment was found to be effective regarding the participants' competence in the profession. The participants' views were positive when they were asked to give their comments on the treatment. It was recommended that clinical-based treatment could pave the way for teachers to identify their weak and strong points, and try to do their best in their profession.

In an attempt to study the clinical supervision model in EFL student teachers' teaching practice, Gursoy and Eken (2019) investigated the teachers' perceptions of professional development with regard to the feedback they received. The data were collected from 12 EFL teachers via different questionnaires, researchers' field notes, and reflection sessions. The findings of the study indicated that most of the student teachers had positive perceptions regarding feedback during the clinical supervision model.

In a similar vein, Bello and Olaer (2020) studied the effect of clinical supervision on teachers' competence, and it was revealed that clinical supervision significantly influenced the pedagogical competence of teachers.

Another case study in the EFL context was conducted by Khaef and Karimnia (2021), who investigated the potential effects of implementing the Clinical Supervision Model on supervisors' philosophy of teaching. Two experienced supervisors were recruited to collect the required data. Two distinct phases of classroom observations, accompanied by semi-structured interviews were conducted. The findings of the inquiry demonstrated that the Clinical Supervision Model could be effective in

encouraging critical thinking, providing more constructive feedback in post-observation meetings, and fostering the teaching quality of both supervisors and teachers.

During years of teaching, teachers might have noticed issues that negatively affect their performance in the classroom. The feeling of no progress and lack of critical thinking can be harmful to a teacher who prefers to improve his/her educational and psychological variables. Facing unexpected conditions in the classroom demands teachers' flexibility to take over the classroom atmosphere masterfully by being critical thinkers. Controlling these challenging conditions calls for teacher education programs to help teachers do their best in these situations, which could be effective for both teachers to have quality teaching and for learners to develop their knowledge of language skills more successfully (Cochran-Smith, 2005). Thus, teachers' critical thinking disposition seems to have been a hidden variable inside every teacher that needs to be developed (Facione, 2013).

Research on teacher education has been the focus of attention during the past four decades, including research on teacher preparation and teacher education programs (Cochran-Smith, 2005). However, possible gaps still exist in the related research areas concerning teacher education programs, particularly clinical supervision, and how they possibly lead to the teachers' reflection on their critical thinking as well as the learners' improvement in learning language skills. Therefore, the following gaps may deserve sufficient attention:

First, research on teacher education programs has extensively focused on their effectiveness on teachers' knowledge of language skills (Martinez, 2008; Zeichner, 2008), while the researchers could not come across studies in Iran regarding exploring the teachers' critical thinking affected by the target teacher education program. Second, as the names suggest, teacher education and development studies (Cochran-Smith, 2005; Kahyalar & Yazici, 2016; Sharp & Rhinehart, 2018) were mostly concerned with providing a well-organized educational program for teachers to have a reflection on their teaching. Accordingly, it will be worth investigating whether learners could probably improve their development of language skills when their teachers take part in teacher education programs in the form of clinical supervision. Third, while studies on teachers' critical thinking in the field of ELT have been conducted in the last few years, there still seems to be a need for more research to further investigate critical thinking among EFL teachers as this construct is strongly associated with teachers' performance (Birjandi & Bagherkazemi, 2010; Putra et al., 2021). Last but not least, previous related studies reported the effectiveness of teacher education programs and the impact of clinical supervision on teachers' professional development (Hamilton-Ekeke & Matthew, 2018). However, there seems to be a need for further studies to examine the effect of clinical supervision on teachers' critical thinking and learners' language achievement in an EFL context. Therefore, the current study addressed the following questions:

RQ1: Does clinical supervision significantly affect EFL teachers' critical thinking disposition?

RQ2: Does clinical supervision significantly affect EFL learners' overall language achievement?

METHOD

This study employs a quasi-experimental (Dornyei, 2007) comparison group pretest-posttest design where clinical supervision serves as the independent variable, while teachers' critical thinking disposition and learners' overall language achievement are the two dependent variables. The teachers' demographic

data such as gender, age, years of teaching experience, and university degree/major are the probable intervening variables.

Participants

The present study comprises two sets of participants: 60 teachers and 66 learners. The groups were teaching/studying at two language institutes of Tehran, Iran, and were selected non-randomly through convenience sampling. The first researcher invited teachers who were willing to participate in this study and randomly divided them into two comparison groups (i.e., those who took part in clinical supervision and teachers who were not exposed to any clinical supervision training). It was ensured that there were at least 30 teachers in each group to take care of the probable issue of subject mortality. All teachers were asked to sign a consent form before participating in the research. There were 38 female and 22 male teachers with teaching experience of four to 20 years. The participant teachers taught learners with different levels of proficiency and all were teaching intermediate learners at the time of the study.

Once 60 teachers were selected, a sample Preliminary English Test (PET) developed by Cambridge Assessment English was administered to the approximate population of 85 students of each of the 60 teachers sitting in their intermediate classes among whom around 66 learners scored one standard deviation above and below the mean were selected for the study. It is worth noting that learners took private classes with their teachers, leading the researchers not to have a larger sample. They would be randomly divided into two groups: the learners whose teachers underwent clinical supervision (n = 33) and those attending the classes of teachers who did not participate in clinical supervision (n = 33). The learners, whose L1 was Persian, were 35 female and 31 male participants within the age range of 14 to 22.

Materials and Instruments

The following instruments were used to collect the required data.

Preliminary English Test (PET): Homogenizer and Pre-Test

PET was initially administered in the beginning to ensure the learners' homogeneity regarding their proficiency levels and act as the pre-test of the study. As to the purpose of the study, PET was used to select intermediate language learners. The score obtained from the test showed the level of proficiency so that learners who could pass the exam with scores between 70 to 89 were considered suitable for the intermediate level. In other words, PET was used to select intermediate learners with the scores being at B1 level since the exam is targeted at level B1 of the Common European Framework of Reference for Languages (CEFR). It is necessary to mention that among participants who passed the exam, the ones who could obtain a score of one SD above and below the mean were selected for the study.

PET has four parts with 25 multiple-choice and fill-in-the-blank items. Part one contains seven items in which participants have to choose an appropriate picture. The second part of PET includes six situation-based items in which learners are supposed to listen to a conversation and select the correct answer according to the target question. In part three, there are six items in which participants fill in the blanks that best complete the sentence. Part four has six items that are based on an interview with a person and learners have to choose the best answer to each question.

Overall Language Achievement Test: Post-Test

To probe the effects of clinical supervision on the learners' overall language achievement, the same version of PET with reshuffled items was used as the post-test in order to reduce the effect of the pre-test. More specifically, the questions for the post-test included reading comprehension, listening comprehension, writing, and speaking based on the course content covered in the target language schools for the intermediate level.

Critical Thinking Disposition Scale

EFL teachers' critical thinking dispositions were examined through the Critical Thinking Disposition Scale, which was developed by Sosu (2013). It contains 11 items divided into two main components of critical openness (items 1-7) and reflective skepticism (items 8-11). The internal consistency of the scale was found to be 0.81, which denotes an acceptable measure of reliability. The scale was also piloted with 10 participant teachers of the same language institute and the measured Cronbach's alpha was calculated as .79, which denoted an acceptable consistency score (Fulcher & Davidson, 2007).

Procedure

The necessary coordination with the managers and supervisors of language institutes was conducted to get official permission. Participant EFL learners were selected by convenience sampling and through the administration of sample PET. Volunteer EFL teachers were invited to participate in this study. The teachers and learners were provided with a detailed explanation of the objectives of the study. The researcher would of course observe confidentiality by preserving the anonymity of the teachers/learners and not sharing their data and scores with anyone. The Critical Thinking Disposition Scale was administered among the participant teachers and the pre-test was also taken by the learners to check their initial language achievement. Then, clinical supervision was done for the participant teachers in the experimental group as follows:

Participant teachers were provided with nine-week clinical supervision based on Gall and Acheson (2011) on their teaching performance in the classroom focusing on the way skills and sub-skills were taught. Each cycle was repeated twice and included the planning conference, classroom observation, and feedback conference. In sum, the second, third, and fourth researchers were thoroughly involved in the supervision process and the procedures of supervision were done and monitored by them. They were Ph.D. holders of TEFL who had been teaching for more than 20 years and had participated in various conferences on teacher education and teacher development since 2015. The three researchers:

1) met the participant teachers individually and planned for classroom observation; 2) observed a lesson and recorded information related to the objectives set during the planning conference; and 3) met the teacher to (a) jointly analyze the data recorded by the observer, (b) interpret the meaning of the provided information from the teacher's perspective, and (c) reach decisions about the next steps. "One of the next steps might well be to initiate another classroom observation, which becomes part of the next clinical supervision cycle. Many such cycles might occur during a supervisor's work with a teacher" (Gall & Acheson, 2011, p. 7). Each of the three cycles is explained below:

Islamic Republic of
Iran-Kerman

As to the planning conference, "the supervisor begins the process of supervision by holding a conference with the teacher. In the conference, the teacher has an opportunity to state personal concerns, needs, and aspirations" (Gall & Acheson, 2011, p. 7). In fact, the planning conference can be a guide on how to perform observations in the next step. The supervisor's role is to probe the teachers' perception regarding their ideals in teaching to have a clear picture of their current instructional technique. After that, "the supervisor and teacher explore new techniques that the teacher might try to move the teachers' instruction closer toward the ideal" (p. 7). In the planning, general arguments about teaching are exchanged by teacher-supervisor interactions for efficient consequent procedures of clinical supervision in the observation and feedback sessions (Gall & Acheson, 2011)

The observation cycle was handled by the clinical supervisors to further discuss points of weakness and strength in the feedback conference session. It is worth mentioning that nine observation sessions were organized. Here, the supervisor defined some indicators (e.g., teacher feedback, teacher-learner talks, peer interaction) regarding the observation of the teacher's performance. As to the observation cycle, clinical supervision played a neutral role in the data collection process because the supervisor mainly attempted to carefully record the teachers' performance (Gall & Acheson, 2011). In other words, observation sessions involve one phase of the whole clinical supervision procedure. It helps the supervisor to perform clinical supervision more efficiently (Gall & Acheson, 2011). To do the observations more effectively, classroom observation techniques such as transcription, setting observation records, and creating portfolios and work samples were used. The observers in this study transcribed the most important elements of teacher-learner talks to be discussed further. Observation records were also provided regarding the above-mentioned indicators identified by the supervisor. Portfolios were prepared by the observers to make the process more systematic and critical concerning teachers' performance (Gall & Acheson, 2011). After each observation, there would be a meeting to provide feedback (Gall & Acheson, 2011), which constituted the next cycle of clinical supervision, as explained below.

In the final phase of clinical supervision, i.e., the feedback conference, "the teacher and supervisor meet to review the observational data, with the supervisor encouraging the teacher to make her inferences about teaching effectiveness" (Gall & Acheson, 2011, p. 8). For example, the teacher and supervisor discussed the areas of improvement for the teacher based on his/her performance. They were also informed about how much talk they could have to succeed in conveying their message more clearly but in an interactive way (Gall & Acheson, 2011). The teacher would review the observational data, trying to reach self-improvement when feedback conferencing was done collegially through the teacher-supervisor professional interaction based on the information gained through observation.

After exposure to clinical supervision, the post-test was given to measure the EFL learners' development of language skills, and the Critical Thinking Disposition Scale was administered to check the effectiveness of clinical supervision on EFL teachers' critical thinking disposition.

As to the learners' overall language achievement, the materials covered in two language schools were Touchstone Series (second edition) and Kish Air Cultural Institute (KACI) Series. Teachers were also allowed to benefit from supplementary materials to boost the learners' learning process. They included Grammar in Use and Vocabulary in Use employed in both language schools.

Grammar in Use (intermediate level) was used to provide more grammar activities for learners. They

were asked to work with peers and carry out the exercises in pairs or groups. Similarly, Vocabulary in Use (intermediate level) was utilized to help learners enhance their vocabulary knowledge aligned to the textbooks covered during the term. Learners were requested to do the vocabulary activities and share their answers with the class to develop their vocabulary learning.

Data Analysis

Quantitative approaches were employed to address the research questions of the study. In doing so, a one-way analysis of variance (one-way ANOVA) was run to examine the effects of clinical supervision on EFL teachers' critical thinking disposition. Independent samples t-test was also conducted to analyze whether teachers' participation in clinical supervision could affect EFL learners' overall language achievement.

RESULTS

The current study aimed to address the following research hypotheses:

H01: Clinical supervision does not have any significant effect on EFL teachers' critical thinking disposition.

H02: Clinical supervision does not have any significant effect on EFL learners' overall language achievement.

For testing the first hypothesis, the teachers' responses to the scale were taken into account. Initially, the normality distribution of data had to be checked as shown in Table 1.

Table 1

Normality Distribution for the Pre- and Post-Tests

	Statistic	df	Sig.
Experimental Pre-Critical Thinking Disposition	.111	30	.200*
Experimental Post-Critical Thinking Disposition	.137	30	.157
Control Pre Critical Thinking Disposition	.120	30	.200*
Control Post Critical Thinking Disposition	.160	30	.054
Experimental Pre-Overall Language Achievement	.119	33	.105
Experimental Post-Overall Language Achievement	.100	33	.192
Control Pre Overall Language Achievement	.123	33	.183
Control Post Overall Language Achievement	.110	33	.199

Table 1 indicates that p values for the pre- and post-tests of critical thinking and overall language achievement were more than .05, concluding the normal destruction of data for running parametric tests of one-way ANOVA and independent samples t-test. Table 2 below shows descriptive statistics for the pre-and post-tests of critical thinking disposition.

Table 2

Descriptive Statistics for the Pre-and Post-Tests of Critical Thinking Disposition

Islamic Republic of
Iran-Kerman

		N	Range	Mean	Std. Deviation
Experimental	Pre Critical Openness	30	9	17.20	2.578
	Pre Reflective Skepticism	30	9	10.00	1.781
	Pre Critical Thinking Disposition	**30**	**16**	**27.20**	**3.468**
	Post Critical Openness	30	6	28.40	1.754
	Post Reflective Skepticism	30	5	15.77	1.040
	Post Critical Thinking Disposition	**30**	**7**	**44.17**	**1.840**
Control	Pre Critical Openness	30	11	17.60	2.527
	Pre Reflective Skepticism	30	8	9.73	1.874
	Pre Critical Thinking Disposition	**30**	**15**	**27.33**	**3.294**
	Post Critical Openness	30	8	16.60	2.159
	Post Reflective Skepticism	30	6	9.53	1.548
	Post Critical Thinking Disposition	**30**	**11**	**26.13**	**2.649**

Table 2 reveals that EFL teachers' critical thinking disposition were subjected to development from the pre-test (M = 27.20, SD = 3.46) to the post-test (M = 44.17, SD = 1.84) compared to the teachers in the control group whose critical thinking did not change descriptively. In order to compare the pre-and post-test scores of the experimental and control groups' critical thinking disposition, one-way ANOVA was conducted for the inferential investigation. Initially, the homogeneity of variances had to be checked as in Table 3.

Table 3

Levene's Test of Variance Homogeneity

	Levene Statistic	df1	df2	Sig.
pre-test	2.502	3	116	.035
post-test	2.728	3	116	.057

According to Table 3, p values for the pre-and post-tests were more than .05, indicating that variance homogeneity was met. Table 4 presents the results of one-way ANOVA.

Table 4

One-Way ANOVA for the Pre-and Post-Tests of Critical Thinking Disposition

		Sum of Squares	df	Mean Square	F	Sig.
pre	Between Groups	31.309	3	10.437	0.243	0.849
	Within Groups	3965.279	116	41.205		
	Total	3996.588	119			
post	Between Groups	6742.692	3	2247.564	270.145	.000
	Within Groups	965.100	116	8.320		

	Total	7707.792	119

Table 4 illustrates the significant difference between EFL teachers' critical thinking disposition between the experimental and control groups at the specified p < .05 level (p < .001, F3.116 = 270.14). The groups' comparisons are shown in Table 5.

Table 5

Multiple Comparisons for the Groups' Pre-and Post-Tests of Critical Thinking Disposition

(I) code1	(J) code1	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Experimental Pre-Critical Thinking Disposition	Experimental Post-Critical Thinking Disposition	-16.967^*	.745	.000	-18.44	-15.49
	Control Pre Critical Thinking Disposition	-.133	.745	.858	-1.61	1.34
	Control Post Critical Thinking Disposition	1.067	.745	.155	-.41	2.54
Experimental Post-Critical Thinking Disposition	Experimental Pre-Critical Thinking Disposition	16.967^*	.745	.000	15.49	18.44
	Control Pre Critical Thinking Disposition	16.833^*	.745	.000	15.36	18.31
	Control Post Critical Thinking Disposition	18.033^*	.745	.000	16.56	19.51
Control Pre Critical Thinking Disposition	Experimental Pre-Critical Thinking Disposition	.133	.745	.858	-1.34	1.61
	Experimental Post-Critical Thinking Disposition	-16.833^*	.745	.000	-18.31	-15.36
	Control Post Critical Thinking Disposition	1.200	.745	.110	-.28	2.68

Control Post Critical Thinking Disposition	Experimental Pre-Critical Thinking Disposition	-1.067	.745	.155	-2.54	.41
	Experimental Post-Critical Thinking Disposition	-18.033*	.745	.000	-19.51	-16.56
	Control Pre Critical Thinking Disposition	-1.200	.745	.110	-2.68	.28
* The mean difference is significant at the 0.05 level.						

As indicated in Table 5, at the specified $p < .05$ level, clinical supervision had a statistically significant effect on EFL teachers' critical thinking disposition ($p < .001$), which rejected the first hypothesis of the study. After reporting the results of the first research question, the second research question of the study investigated whether teachers' participation in clinical supervision could have a significant effect on EFL learners' overall language achievement. Table 6 shows descriptive statistics for the pre-and post-tests of EFL learners' overall achievement in the two groups. The pre-test results are representative of learners' responses to PET.

Table 6
Descriptive Statistics for the Pre-and Post-Tests of the Experimental and Control groups

		N	Mean	Std. Deviation	Std. Error
pre	Experimental	33	64.11	5.635	.939
	control	33	63.61	5.239	.873
post	Experimental	33	69.64	6.207	1.034
	control	33	64.17	5.135	.856

Table 6 shows that the experimental group (M = 64.11, SD = 5.63) appeared to perform better than the control group (M= 63.61; SD = 5.23) in the pre-tests. In addition, there was almost a large difference between the post-test mean scores of the experimental group (M = 69.64, SD = 6.20) and the control group (M = 64.17, SD = 5.13). To inferentially compare the experimental and control learners' overall language achievement before and after the treatment sessions, independent samples t-test was run as provided in Table 7.

Table 7
Independent Samples T-Test for the Pre-and Post-Tests of the Experimental and Control Groups

		Levene's Test for Equality of Variance		t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	95% Confidence Interval of the Difference	
								Lower	Upper
pre	Equal variances assumed	.153	.693	.390	64	.698	.500	1.282	-2.058
	Equal variances not assumed			.390	64	.698	.500	1.282	-2.058
post	Equal variances assumed	.150	.691	4.076	64	.000	5.472	1.343	2.794
	Equal variances not assumed			4.076	64	.000	5.472	1.343	2.794

The results of the independent samples t-test in Table 6 demonstrated that, at the specified p < .05 level, clinical supervision had a statistically significant effect on EFL learners' overall language achievement (t (64) = 4.07, p < .001), thus rejecting the second hypothesis of the study.

DISCUSSION

The present study examined the impact of clinical supervision on EFL teachers' critical thinking disposition and EFL learners' overall language achievement. According to the data gathered through the pre-and post-tests of the Critical Thinking Disposition Scale, it was found that clinical supervision had a significant effect on EFL teachers' development of their critical thinking disposition, and learners' overall language achievement was also significantly affected by teachers' participation in clinical supervision.

Comparing and contrasting the results of the study with the related literature, it can be inferred that findings were in alignment with studies representing that teacher education through sessions of planning, observation, and feedback conferencing indicated that EFL teachers could develop their practicum by raising their awareness of positive and negative points in teaching (Hamilton-Ekeke & Matthew, 2018; McGhee & Stark, 2018), leading to their improvement of critical thinking disposition, such as interpretation, analysis, inference, evaluation, explanation, and self-regulation (Facione, 2013). In other words, the underlying objective of clinical supervision was to help teachers promote their facilitative role

in the classroom (Reid & Soan, 2018), and such development can be gained when their potential for critical thinking disposition is enhanced (Wale & Bishaw, 2020).

Findings empirically support the results of previous research that insisted on the efficiency of clinical supervision in providing assistance for teachers to recognize their self-regulatory role in teaching by providing effective support for learners, which is also in alignment with teachers' self-monitoring capabilities that can constitute their critical thinking (Putra et al., 2021). The results of the study indicated learners' significant improvement in their language achievement affected by clinical supervision for their teachers, which were acknowledged by studies carried out by Pitkänen et al. (2018) and Putra et al. (2021). Furthermore, a significant component that can be achieved by clinical supervision is teachers' creativity and benefitting from materials in an innovative fashion (Pitkänen et al., 2018) that enables learners to feel more autonomous in doing peer interaction and enjoy the learning environment (Putra et al., 2021). The results of the study can also be supported by research papers that have recognized the practical role of clinical supervision in paving the way for teachers to enhance their teaching performance through self-reflection and self-evaluation of their teaching practicum (McGhee & Stark, 2018; Ochieng' Ong'ondo & Borg, 2011).

By comparing and contrasting the results with studies conducted on the efficiency of clinical supervision on learners' performance, the current study revealed that EFL teachers' clinical supervision could improve learners' overall language achievement. When teachers become aware of their points of strengths and weaknesses and attempt to develop his/her theoretical and practical knowledge by resolving deficiencies, learners' language achievement can be obtained. As stated by the supporters of clinical supervision, teachers' involvement with their performance in feedback conferencing can provoke their teaching in practice, leading to the awareness-raising of their progress in the practicum (Akcan & Tatar, 2010; Gürsoy, et al., 2016). To put it simply, teachers' participation in clinical supervision broadens their insights regarding what they are doing in the classroom, and what measures they are strongly recommended to take in order to self-regulate their teaching (Putra et al., 2021). In sum, the results of the study supported previous research that has acknowledged the effectiveness of clinical supervision on teachers' success in doing their jobs efficiently (Hamilton-Ekeke & Matthew, 2018; Ochieng' Ong'ondo & Borg, 2011).

As no studies appear to have been conducted concerning the effect of clinical supervision on teachers' critical thinking disposition, particularly in the EFL context, the results can be promising in various aspects. It can be reflected in their critical thinking disposition when teachers try to interpret and justify the teaching materials to enhance their hypothesis formation to benefit from the novel elements in the classroom (Paul, 2012). When teachers are engaged in feedback conferencing sessions, their self-reflection abilities can be developed as they are encouraged to interpret, analyze, infer, evaluate, explain, and self-regulate their teaching behavior more systematically (Dummett &Hughes, 2019; Zhou & Lin, 2019) in the way that clinical supervision and critical thinking can overlap and complement their objectives that are quality teaching, teachers' success, and enhanced commitment (Birjandi & Bagherkazemi, 2010). Accordingly, the findings of the study were in agreement with studies concluding that critical thinking disposition can help teachers make their best decisions in encountering challenging conditions in the classroom (Paul, 2012; Tyson, 2015), and such action can be taken by an aware teacher who is willing to take part in teacher education programs, such as clinical supervision.

Finally, the use of clinical supervision to develop teachers' critical thinking and learners' language achievement can be justified by social constructivism. The social structuralist view depicts education as self-awareness or social consciousness. That is why environmental influences occupy an important place in the theory of social structuralism. As a manager and organizer of educational activities, the teacher can manipulate the situation of the learning space based on the positive or negative reactions of the students (Mvududu& Thiel-Burgess, 2012). For example, if the students do not react positively to the teacher's explanations, he can plan practical activities and work in small groups to guide students to effective learning. Such cooperation between teachers and learners is strongly dependent on teachers' awareness of their teaching quality which can be achieved by effective clinical supervision. According to Vygotsky (1978), learning is obtained from the social interaction of learners. Therefore, the teacher should try to prepare activities in which both he and the students will work in mutual communication for the emergence of learning.

CONCLUSION AND IMPLICATIONS

This study was an attempt to broaden the researchers' insights regarding the effects of clinical supervision, as an effective teacher education treatment, to develop teachers' critical thinking and learners' overall language achievement. The prerequisite for success is the efforts made in the field of educational improvement, professional development, and increasing the knowledge and skills of teachers. Therefore, in the last decade, the focus of discussion about effective educational quality has increasingly focused on the professional development of teachers. The importance of quality of professional development is due to the intensification of challenges faced by teachers in the teaching profession and the increase of expectations regarding the quality of education. Clinical supervision is a process that takes place between the supervisor and the teacher. The two meet and discuss professional matters for the professional development of the supervisee. The communication is close and face-to-face, and its main activity is to help the professional growth and excellence of the teacher by making him aware of what is needed for improvement. The existence of clinical programs and their continuity quality plays a decisive role in the realization of educational goals. By implementing clinical supervision to improve the educational situation, supervisors are involved with teachers as educational leaders, and with their help, and through professional cooperation, they try to improve the quality of teachers' performance and solve their problems in the classroom context.

The findings of the study are significant for teacher educators, teachers, and learners. Teacher educators are responsible for enhancing the theoretical and practical knowledge of teachers regarding the factors that influence the quality of teaching. Thus, clinical supervision can be a regular practice for teacher educators. In other words, it is the teacher educators' responsibility to raise such concern that clinical supervision has to be demonstrated as a regular practice for language schools. Hence, teachers' awareness of being clinically supervised matters. Teachers have always been concerned with "what" and "how" in teaching, which demands their purposeful participation in teacher education through clinical supervision. It is one of the supervision options and direct assistance for teachers. Clinical mentoring is a specific process, method, and style to approach teachers. In order for the supervisor to make this process effective, his thoughts, feelings, and actions must be in harmony with each other. Clinical supervision

Islamic Republic of
Iran-Kerman

aims to improve the teaching and learning process through mutual professional cooperation between the supervisor and the teacher. Actually, clinical supervision is the monitoring of the teachers' behavior in the classroom in a systematic and orderly manner in an atmosphere of cooperation and mutual respect and is a set of activities designed to improve the teaching and learning process. The final implication of the study informs learners as beneficiaries of teachers' participation in clinical supervision and similar teacher education programs since they target quality teaching, and effective teaching most likely leads to enhanced learning.

This study suffers from some constraints that serve more thoughtful attention. Only one teacher education program was focused. Besides, the qualitative performance of teachers was not taken into account. Furthermore, teachers' gradual development of their beliefs about clinical supervision was not explored. Finally, teachers' critical thinking dispositions were merely examined. Inspired by these limitations, it is recommended to carry out a qualitative study and comparatively explore the effect of various teacher education programs on teachers' critical thinking, self-efficacy, or metacognitive skills on one hand, and explore teachers' development of beliefs about the target teacher education programs on the other.

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