Continuing Professional Development (CPD): Development of a New Scale to Measure EFL Teachers' CPD

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Abstract

Teachers' continuing professional development (CPD) is currently an engrossing area worldwide. Nevertheless, despite the growing range of literature concentrating on certain aspects of CPD, there is a paucity of literature addressing a measurement scale to know where teachers are standing and act as a motivating role. The purpose of this study was to construct and validate a new scale for measuring EFL Teachers' CPD. This scale is considered pristine because of the added characteristics of Dynamic Assessment (DA) as another aspect of improving teachers' CPD. The present study further sought to establish the validity and reliability of the developed scale (questionnaire), and add more value and precision to the pre-existing inventories available. Moreover, in this study, the developed scale was validated by piloting the items and factor analysis which was run to confirm the five-factor question-naire. With reference to the final results, the questionnaire was found to be reliable and have internal consistency. Cronbach's alpha of .91 indicated a high internal consistency. The most important impli-cation of this study is that teachers who are concerned about their professional knowledge and attempt to keep themselves up to date in their teaching practices, significantly communicate their sense of col-laboration among their colleagues.

INTRODUCTION

A repeated complaint of many teachers is that they devote too much time to workshops and meetings which are not focused on instruction, curriculum, or their needs. On many occasions, teachers remark their loathing of an upcoming professional development event with barely to show for their time when these days are finished.

The evaluations and assessments of profes-sional development activities are rare and infrequently published (Pedder & Opfer, 2010). As a matter of fact, it is barely known about the impact of professional development on learner outcomes since evaluating the effect of professional development on learners is infrequent (Guskey, 2002; Allen & Nimon, 2007). There are more than a few terms associated with professional development that exist in the

current literature, including career development, in-service education, continuing education, staff development, and professional learning (Mizell, 2010). One of the main intentions supporting all the processes linked with these terms is to ease and develop knowledge for principals, teachers, and students in the long run. A practitioner's work life along with several types of educational experiences comprise Continuing Professional Development (CPD). Considering the word professional development in education, it may be used concerning numerous particular formal training and education, or high-level professional learning to develop the professional skill, capability, knowledge, and efficiency of school administrators, teachers, and other educators (Glossary of Educational Reform, 2017). The notion of Teacher Professional Development emphasizes that teachers are individuals with massive potential and ongoing development expecting teachers to become learners, researchers, and cooperators; it motivates teachers to reflect on and shape their teaching practices more rationally, promote professional standards, demonstrate maintainable professional quality, and achieve a professional standard (Jiang, 2017).

Waniganayake et al. (2008) identify the term 'professional development' as continuous professional learning that permits professionals to not only affirm current abilities but also to achieve new knowledge and competencies, in this manner, staying up-to-date with the newest developments in the field. Professional development is likewise connected with personal growth. Professional development is commonly defined as carrying out formal practices such as seminars or workshops, training programs, conferences, collaborative learning or training courses at a university or college; on the other hand, it should be noted that people also learn informally by means of questions and discussions among colleagues, independent reading, peer teaching/learning, or research (Mizell, 2010). Day and Sachs (2004) stated that "… all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school..." also shape a portion of professional development. One of the significant

concerns in teacher education is the concern of teacher professional development; it is an issue that is positioned initiating at the very beginning of their preparation for this profession. According to Zuheer (2013), expanding EFL teachers' performance in relation to many associated fields and needs such as skills and abilities turn out to be very essential. Consequently, in order for the teachers to improve their quality, professional development programs held in satisfying teachers' needs can be priceless.

On the basis of the conceptual framework, there is also a solid need for a methodological framework that provides opportunities for theory approval or falsification. This paper presents a methodological framework for the psychometrical reliability and validation of underlying, latent, non-observable constructs in CPD research. Consequently, using reliable and validated constructs may indicate supplementary fine-grained CPD theories, from which testable hypotheses can be derived. Given that the test of the construct validity of an operationalized scale includes the presence of related scales and constructs (Babbie, 2001; Netemeyer et al., 2003; Reinard, 2001; Spector, 1992), four concepts based on former studies were considered to validate the created CPD scale: Updating, Reflection, Decision-making, and Collaboration. Moreover, in this study, dynamic assessment (DA) is considered to have a partial to full effect on teachers' CPD by reviewing the related literature (Eun, 2008; Shabani et al., 2010; Shabani, 2012; Shabani, 2016). As a result, items related to DA were added to the scale to examine if they could fit in the item pool.

It is worth mentioning here that most of the studies conducted in the realm of highlighting CPD activities in teacher education had their primary focus on some specific categories and items, which were almost repeated throughout the related literature. Accordingly, the present research has mentioned some of them to display the main guidelines in the reviewed literature. The questionnaire items were selected and revised based on the following studies. In a Dutch secondary education setting, an exploratory study conducted by de Vries et al. (2013) explores the relationship between

teachers' CPD and their beliefs about teaching and learning. The findings of this study have substantial implications for encouraging trainee orientation and promoting teachers' participation in CPD. In another corresponding study by Peacock (2009), which reports a novel technique for evaluating EFL teacher-training courses based on principles of course evaluation and foreign-language teacher (FLT), it was concluded that all teacher-education courses should integrate a built-in technique to use regularly for overall internal evaluation. Most of the items were chosen from the aforementioned studies, given that some were changed to align with the aim of the study, and some items were excluded due to unsuitability. The remaining items were constructed with reference to the following studies. In order to include items on DA and the professional development of the teachers, another study by Davin et al. (2017) was constructive. The mentioned study examines how four second-language (L2) teachers' discussion-based practices reformed as they struggled with implementing DA in their classrooms, and the results demonstrated that the four teachers appropriated DA to diverse levels, implying that some may have required more mediation to appropriate all of the discriminating characteristics of DA. Several studies were reviewed in the process of developing and finalizing the questionnaire items, but some items found in the studies were not entirely relevant to the purpose of the current study. These studies include REZAEE and Ghanbarpour, (2016), Shabani et al. (2010), Khanjani et al. (2016). Accordingly, items about DA and assessment were included in the questionnaire considering the notions and practices included in the reviewed literature. Ultimately, the developed questionnaire included five categories including CPD components of updating, reflection, collaboration and decision-making in addition to the items related to the DA characteristics.

A fundamental solution to the validity and reliability problems of scales is to develop valid measures to tap into the construct. Suppose we want to precisely portray teacher CPD level or skills and address the reliability and validity concerns in diverse teachers'

circumstances (age, experience, level of teaching, etc.). In that case, it is imperative to construct a teacher CPD scale considering different perspectives. But first of all, we should examine how to conceptualize a teacher's CPD. Hence, the following research questions were addressed in the present study:

RQ1. What are the different dimensions of teachers' continuing professional development (CPD)?

RQ2. Is it possible to have a new scale for measuring teachers' CPD, with an acceptable index of reliability and validity?

LITERATURE REVIEW
The Role of CPD
Professional development starts with initial training and sustainability, assuming that a teacher persists in the job and can be defined as a repeated and ongoing teacher education sequence (Alibakhshi & Dehvari, 2015). Among the main reasons teachers seek to participate in activities aimed at professional development are to learn different skills and enhance their knowledge and abilities (Bailey, Curtis, & Nunan, 2001). EFL professionals similar to teachers in other fields argue that CPD should be valued, particularly in today's world that is changing quickly, technologically, and persistently growing. Constant changes in educational and innovational technologies cause EFL teachers to try them with their students (Allwright, 2005) and pave the way to constantly grow in the application and adaptation of their abilities and art of teaching essential for professional development.

Providing teachers with professional development programs and occasions can raise their motivation to defeat limitations, continue to improve, and set up self-controlled desires for academic growth. With reference to the results, planning some academic courses by institutes, supervisors, and teacher educators, organizing workshops to advise teachers to improve their reflectivity, trying to implement the techniques, and giving them feedback to boost their motivation and raise their quality and confidence to make EFL teachers conversant with theoretical in addition to the practical foundation of CPD skills.

Teachers appraise CPD as an effective tool for advancing EFL teachers' professional abilities, which also has a beneficial impact on their students. Additionally, empowering EFL teachers to go through recent technologies, improve their knowledge and redecorate instructions, support their students in recognizing high-quality values, and obtain more details about students' advancement while also keeping in touch with their parents. Reflection facilitates teachers to deal with issues they run into in the context of teaching and evaluate their experience in order to discover approaches that run smoothly in their classroom (Mckay 2005).

Going through the CPD Components
After their primary education, in nearly all Western countries, teachers are required to continue learning during their careers to adapt to the varying needs of their society and its children (Day & Sachs, 2004). Such CPD is perceived as an essential way to develop schools, enhance teacher quality, and improve student learning (Day, 1999; Hargreaves, 2000; Opfer & Pedder, 2011; Verloop, 2003). Important CPD activities for teachers include updating their knowledge and skills, reflective activities, and collaboration (Schraw, 1998; Timperley et al., 2007; Verloop, 2003). Moreover, updating activities prepare a fundamental grounding for collaboration and reflection (Cheetham & Chivers, 2001); reflective activities, in turn, appear necessary for professional development (Eraut, 1994; Schön, 1983). Nevertheless, there is also an increasing awareness of the potential of teacher collaboration for inspiring teacher learning (Cordingley et al., 2005; Levine & Marcus, 2010; Westheimer, 2008).

In order to analyze the relationships between the CPD constructs (updating, collaboration, reflection, and decision-making), the constructs need to be further discussed. Based on Byrne (2006), becoming aware of the theory and practical research should align with model qualifications. For that reason, teachers' process of updating their experiences and knowledge ultimately shapes their decision considering diverse teaching circumstances

that may come across in the course of their teaching, which is in line with Gong (2008) and Jiang (2016). Furthermore, decision-making is directly related to typical teaching ability. By reviewing the literature in this area, it is corroborated that experienced instructors make decisions relatively compared to novice instructors (Nunan, 1992; Breen et al., 2001).

Teachers' knowledge [Updating] is another component of CPD that is also effective in how teachers reflect on teaching situations and various issues. In accordance with Geng et al. (2016), teachers should learn the latest knowledge and skills to encourage them to work out the challenges they face, hence guiding them on a channel to develop into teachers who are reflective in their teaching careers.

According to Tanghe and Park (2016), and Dooly and Sadler (2013), learning took place within culturally and socially situated collaborations. Therefore, having updated knowledge also allows teachers to constructively fulfill teachers' sense of collaboration. Teachers' collaboration is influenced by their reflectiveness (Korthagen et al., 2006 cited in Yanping & Jie, 2009). Following the study, it is asserted that reflective teaching can be fostered through collaboration among in-service teachers. Therefore, collaboration among teachers significantly affects their decisions on critical issues in educational contexts (Mckay, 2005; Farrell, 2008). According to Mckay (2005), teachers' reflection assists them in evaluating their experience and cooperation with other teachers in an attempt to discover solutions that work best in the classroom and helps them tackle problems they encounter in the educational contexts. In Motallebzadeh et al. (2016), it is also mentioned that reflective teaching is known as an efficient and helpful way to empower and promote teachers, and considering this point of view, it can be associated with CPD.

Dynamic Assessment and its Relation to Professional Development
Following Vygotsky's framework, it is presumed that by digging through the professional development practices, several

sensible and thorough predictions in real educational settings could be made regarding the recognition of teachers' professional development (Table 1).

Table 1
Vygotskian theoretical framework surrounded by Professional development (Eun, 2008. p. 144)

Main theoretical views	Associated CPD practices
Social communication	Mentoring, seminars, workshops, colloquia, events
Internalization	Self-directed actions (journal writing; video-based self-evaluation and assessment)
Mediation	Ongoing consequential support consisting of three forms of mediators: Signs (journals and newsletters); instruments (material resources); and additional human resources (professional connections)
Psychological practices	Designing PD programs to address pedagogical practices along with adjusting teachers' approaches

It was discovered that higher-order thinking processes begin at the inter-mental level among people and are fundamentally social, and they are required for excellent professional training. Therefore, the teacher should take part in social events and activities to realize the ideal CPD approach. According to Blanton et al. (2005) and DuFour (2005), ZPD of the instructor as a learning gap between his/her current level of instructional knowledge includes his/her content (theoretical) and pedagogical knowledge and competencies and with the support of others, his/her subsequent (potential) knowledge can be achieved. The teacher trainer or educator is responsible for the scaffolding and participating in joint professional transformation as the extra knowledgeable companion. The CPD course organizer and the teacher trainer should initially detect the goals and needs of the teacher trainees in an attempt to make sure that the more knowledgeable trainers supervise less knowledgeable trainees to experience the upper stages of ZPD. Examples of practices through which novice instructors could go through PD under a more substantial other's collegiality and supervision are peer coaching and mentoring. School principals and authorities in the ministry of education could reconsider planning specific CPD programs so that novice instructors are provided with occasions to take advantage of their experiences, knowledge, and contributions.

Another noteworthy point is to have enough time for the teacher as a learner to benefit from the PD program. As the name suggests, CPD does not happen overnight; it is described as a continued, time-consuming, and prolonged process which is realized following numerous trials and errors. The novice instructors should practice and reflect on their recently acquired ideas and skills in authentic contexts. Participating in teacher education courses, conferences, and in-service workshops could play the role of a crucible for them to constantly evaluate and adjust their developing educational practices and skills, which ultimately improves their CPD. The in-/pre-service instructors who seek to undergo CPD so as to produce a lifelong professional transformation in their ZPD could take advantage of a variety of possibilities such as having peers and mentors in collaboration, electronic dialog journal, diary writing, TEFL/TESOL discourse programs, workshops, conferences, and technological scaffolding.

As a final point, Vygotsky's sociocultural framework has a significant contribution to teachers' CPD, which is its particular interest in the role of social interaction and setting. Learning in an educational setting is realized as a collection of social practices established within a certain classroom and does not take place in a social vacuum (Wenger, 2007). The teachers' competence, psychological skills, knowledge, performance, and attitudes toward learners are formed in their teaching context. As a result, easily-reached and accessible contextual factors are essential items when organizing a CPD program.

METHODOLOGY

The primary aim of the current study was to construct and validate a scale of CPD for teachers, to enable researchers to practice more CPD skills and use the scale as a stage to start off, as well as teachers to reach a better understanding of where they are standing in their career. Based on the related literature, five constructs were used to develop the items for the scale (questionnaire). Four of the constructs had been somehow discussed in other studies, but one of them was entirely untouched. Based on the determined associations in previous studies and findings, hypothetical correlated constructs were all included in the scale. The scale needed to be validated through statistical approaches, and piloting was imperative to reach a concluding stage of items and construct measures.

Participants

A total of 103 in-service teachers (27 female and 76 male) participated in this study. The participants were selected from different pedagogical contexts, including private language institutes, schools, and universities; some worked in more than one sector. The following table presents the participants' demographic information:

Table 2
Demographic Information of the Participants

		Frequency	Percentage
Years of Teaching Experience	Less than 5 years	36	35
	6-10 years	58	56.3
	More than 10 years	9	8.7
Level/Grade of English language teaching	Beginner	8	7.7
	Intermediate	11	10.6
	Upper-intermediate	38	36.8
	Advanced	46	44.9
How good is your English proficiency	Excellent	34	33
	Very Good	46	44.8
	Good	18	17.4
	Average	5	4.8
Gender	Male	76	73.7
	Female	27	26.3
Age	below 20	3	2.9
	21-30	69	67
	31-40	25	24.3
	Over 40	6	5.8
Educational Status	Diploma	0	0
	Associate Degree	0	0
	B.A.	55	53.5
	M.A.	45	43.6
	Ph.D.	3	2.9
Field of study	TEFL	68	66
	Translation	23	22.4
	Literature	9	8.7
	Others	3	2.9
Total Participants		103	100%

As Table 2 demonstrates, 103 teachers in total, consisting of 76 males (73.7%) and 27 females (26.3%), took part in this study. Their level of proficiency, based on their own opinion, also varied: 34 (Excellent), 46 (Very Good), 18 (Good), and 5 (Average). Teachers' years of teaching experience had diverse ranges: 36 (Less than 5 years), 58 (between 6-10 years), and 9 (More than 10 years). They have been teaching different levels, including Beginner (7.7%), Intermediate (10.6%), Upper-intermediate (36.8%), and Advanced (44.9%).

Teachers had dissimilar academic majors: 68 English Language Teaching (66%), 9 Literature (8.7%), 23 Translation (22.4%), and 3 other majors (2.9%). Moreover, they were in different age ranges: 3 (below 20),69 (21-30), 25 (31-40), and 6 (Over 40). Moreover, participants had different degrees: 55 B.A. (53.5%), 45 M.A. (43.6%), and 3 Ph.D. (2.9%).

Instrumentation

A questionnaire composed of scales measuring teachers' CPD was developed. The developed questionnaire sought to measure five constructs considered to be related to a measuring scale for CPD, including the CPD activities of reflection, updating, collaboration, and decision-making in addition to some DA features including mediation, ZPD, scaffolding, and variations of feedback and error correction. The developed questionnaire was expert-validated and judged by three university professors as experts in the field to assess and revise some item formulations. The panel of experts reported an acceptable validity considering the items. Anonymity was guaranteed in the construction and validation phase of the study. Respondents specified the degree to which every individual item was applied to them, which appeared as five separate sets, measured with five-point Likert scales (1 = Strongly Agree, 2 = Agree, 3 = Neither Agree nor Disagree, 4 = Disagree, 5 = Strongly Disagree).

The questionnaire was developed considering several studies and instruments with multiple modifications to construct a well-organized scale. By means of exploratory factor analysis, the authors searched for different data orientations to find which items were best suited for the teachers to evaluate their CPD status and advancement. Reliability analysis of the items was conducted to confirm reliability.

Procedure

Data collection was carried out by means of online distribution of the CPD questionnaire using Google Forms. 103 teachers completed and submitted the form to be used for data analysis. The sampling was a mixture of purposive and convenience since the participants were expected to be in-service teachers who had at least attended one professional development course, program, seminar, workshop, conference, or any other event on the subject of professional development. The selected participants were required to answer the questions with regard to the course, program, or event they had recently attended to maximize the scale's performance, validity, and reliability. The questionnaire also incorporated demographic questions at the commencement of the questionnaire.

For item-trimming purposes, it was imperative to perform pilot testing on a constructed instrument, since pilot testing on a scale earlier than it is widely employed in a study helps ensure face and content validity and lets the researcher recognize poor items and refine them (DeVellis, 1991; Pett et al., 2003; Spector, 1992).

The data for all trainees in the experimental and control groups were entered into the preselected software for further analysis. SPSS version 26 was utilized in the analytical process to analyze the survey data. The gathered data were transformed into SPSS version 26, and the psychometric properties of the developed questionnaire were checked through statistical procedures. In piloting the questionnaire, in order to make sure of its reliability, Cronbach's alpha was run, and to ascertain the construct validity of the test, exploratory factor analysis (EFA) including varimax rotation and principal component analysis (PCA) was run to extract the components and reach a final stage for the scale.

RESULTS

Analytical statistical techniques including PCA, EFA, and Cronbach's alpha to present the index of internal consistency were utilized and calculated using SPSS 26 to provide answers to the research questions.

Constructing the questionnaire and investigating validity and reliability was the question of the study, and as previously mentioned, 103 participants cooperated with the authors to conduct the scale. Moreover, the KMO was utilized to discover whether using factor analysis to extract latent variables was applicable or

not. There are assumptions to be met regarding EFA, which tend to be conceptual instead of statistical, and all of them were satisfied in this study. As it can be seen in Table 3, KMO was .813, and Bartlett's test of sphericity is statistically significant at $p < .05$ too. Eigenvalues above 1 and scree plots were analyzed to establish the total factors. Therefore, the results indicate that EFA is a fitting choice to recognize the number of latent constructs underlying the items on the CPD questionnaire and

thus the correct statistical measurement for assuring the construct and face validity of the questionnaire. Additionally, to reach a final relation between the item and factor, the highest loading for every single item was taken into account as the relevant factor connected with that item. Some items were removed due to loadings less than .30 and cross-loadings. The obtained results of KMO and Bartlett's Test and EFA are presented in Tables 3 and 4 below.

Table 3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.813
Bartlett's Test of Sphericity	Approx. Chi-Square	7179.504
	df	1326
	Sig.	.000

Table 4

Factor loadings of the CPD questionnaire items after conducting EFA

	Components				
	1	2	3	4	5
2. …avoided overlapping information between professional development contents.	.871				
42. …. encouraged me to talk about the way I deal with events in my lessons with colleagues.	.857				
22. …. encouraged me to visit lessons of colleagues to learn from them.	.839				
11. …. encouraged me to read more professional resources such as journals and books.	.772				
28. …. gave me the ability to decide how to adapt, foreign-language-teaching materials	.760				
8. …increased my abilities in self-evaluation.	.744				
20. …. encouraged me to discuss with my students what they experience in my lessons, in order to improve my teaching practice.	.403				
19. …. taught me to analyze video recordings of my lessons to improve my teaching practice.	.587				
3. …gave me adequate training in teaching all the four skills.	.456				
12. …. led to participate in schooling and training sessions.		.861			
14. …encouraged me to reflect on my past experiences as a language learner.		.841			
21. …. created the need to ask students to fill out surveys for feedback on my lessons.		.780			
17. …. taught me to reflect on my lessons after class.		.683			
37. …. created the idea to participate in peer review meetings to learn from colleagues.		.654			
15. …encouraged me to be a reflective teacher (when I start teaching).		.604			
35. …. encouraged me to ask my colleagues to attend some of my lessons to get feedback on my teaching.		.547			
13. …. helped me visit conferences and meetings pertaining to professional development or hosted by my professional association.		.500			
4. …gave me adequate training for the needs of the local context (teaching in English institutes in Iran).		.308			

Item					
24. …. taught me to use student performance data to, where needed, adjust my teaching.	.325				
29. …prepared me to function and make correct decisions in the sociocultural context.	.336				
30. … gave me the idea to decide on the selection of instructional materials such as textbooks, exercise books, lesson study		.866			
41. …. taught me to share learning experiences with colleagues.		.859			
1….had good linkage between the presented contents.		.857			
34. …promoted the ability to make a suitable choice on the feedback I receive from the colleagues/students.		.559			
18. …taught me how to evaluate myself as a teacher.		.530			
33. … promoted my flexibility in choosing different teaching approaches for different situations.		.404			
9. …taught me foreign language assessment skills.		.379			
49. …. taught me to help learners answer the questions being asked.		.360			
43. …. instructed to construct testing and examination materials with colleagues.			.818		
39. …. persuaded me to support colleagues in their teaching problems.			.817		
32. … helped me to attend staff meetings to discuss the vision and mission of the school/ institute.			.804		
23. …. helped me to deal with problems in my teaching by looking at what the literature says about them.			.785		
38. …. encouraged me to talk about teaching problems with colleagues.			.708		
27. …. encouraged me to analyze a problem in my practice thoroughly before choosing a solution.				.850	
7. …taught me classroom management skills.				.844	
50. …. taught me to repeat learners' mistakes to make them understand what's wrong.					.867
52. …. taught me to do immediate error correction.					.794
10. …taught me how to integrate instruction with assessment.					.791
48. …. caused to provide my students with feedback.					.659
51. …. taught me to provide learners with corrective feedback.					.635
31. …. inspired me to use colleagues' teaching materials in my lessons.					.627
47. …taught me how to provide learners with feedback to assess and evaluate.					.835

Initially, there were 52 items developed for the questionnaire, and so EFA was run to reach a conclusion on the final number of items. In the preliminary table output, ten components were extracted, but after evaluating and examining the items, there was a shrinkage in the number of components and items as the final results of the rotated correlation matrix after conducting EFA. Moreover, ten items (q36-q16-q5-q25-q45-q40-q44-q6-q26-q46) were removed because of low loadings (negative or lower than .3) or cross-loadings; hence, five components remained. Therefore, five subscales were deleted, and five subscales remained for further analysis. In view of Table 4, 42 items concluded the final questionnaire items. The five remaining components can be regarded as the five constructs that the questionnaire claims to measure, namely: Updating (9 items), Reflection (11 items), Decision-making (8 items), Collaboration (7 items), and DA Attributes (7 items).

As Table 5 illustrates, the alpha value of .915 suggests a high internal consistency for the questionnaire. The Cronbach's Alpha reliaility of the remaining and final set of items after running EFA is as follows:

Table 5
Reliability statistics for the CPD questionnaire

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.915	.917	42

The Cronbach's Alpha reliabilities of each component in the questionnaire are illustrated in Table 6 (Updating), Table 7 (Reflection), Table 8 (Decision-making), Table 9 (Collaboration), and Table 10 (DA-Attribute) below:

Table 6
Reliability statistics for [Updating component] of CPD questionnaire

[Updating] Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.938	.936	9

Table 7
Reliability statistics for [Reflection component] of CPD questionnaire

[Reflection] Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.888	.889	11

Table 8
Reliability statistics for [Decision-making component] of CPD questionnaire

[Decision-making] Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.767	.779	8

Table 9
Reliability statistics for [Collaboration component] of CPD questionnaire

[Collaboration] Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.596	.604	7

Table 10
Reliability statistics for [DA-Attribute component] of CPD questionnaire

[DA- Attribute] Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.735	.738	7

DISCUSSION

The EFA results of the data obtained from the CPD scale administration revealed five factors that designated sensible validity evidence in favor of the scale. The factors contained updating, which elevates their experiences and knowledge, ultimately influencing their decision considering dissimilar teaching circumstances they may run into during their teaching practices (decision-making). Decision-making is to make decisions and changes in organizational plans, procedures, and activities and to tackle the issues that teachers may encounter. Reflection is about what the teacher was doing and how the teacher was performing in the class and finding the reason(s) why he/she was teaching like that and identifying methods to improve the way the teacher was acting in the class. Collaboration is about teachers who have an instructor or colleague with whom they can communicate and share knowledge and discuss learning opportunities. It also gives educators chances to discover solutions to usual problems by collaborating with peers

by engaging in discussions or conducting research and provides them with an option to acquire new skills and knowledge accompanied by opportunities. Regarding DA Attribute added to the CPD scale, professional development grounding within Vygotsky's developmental theories looks most appropriate, not only due to the reliance on the notion of development they have in common but also more prominently owing to the fact that both Vygotsky's developmental theories and professional development reflect social interaction to be the principal foundation underlying human development. The social interactions that take place among individuals during the CPD programs and teacher trainees are significant, and the varieties of programs similarly provide openings for teachers to initiate collaborations. Vygotsky exemplified that his notion of ZPD is the most effective type of social interaction for development. This zone is shaped by the interaction between a more competent member and a less competent member with the intention of supporting the latter member to his or her closest potential developmental level (related to both updating and collaboration in CPD). This is probable when the more competent member can precisely assess both the current and potential levels of development representing the less competent member. Both types of members are adjusted due to their reciprocal influences within this interaction. CPD programs, with the purpose of leading the teachers to their potential levels of development, must be capable of evaluating the goals and needs of the members ideally. Moreover, the process invoked to bridge the current needs to the upcoming goals must be through social interaction.

Lastly and possibly the most demanding is the learning context (school, university, etc.) which has to be altered to be congruent with the teachers' efforts to apply what they have obtained from their CPD practices. Considering Vygotsky's developmental framework, development continuously happens to surround a particular social setting. Furthermore, development is a continuous process that may comprise regressions along with progressions. Consequently, on a daily basis, the working

context of teachers has to be consistent with the situations conducive to the CPD of teachers. People which also includes teachers do not grow and develop in a social vacuum. Similar to any other human being, teachers develop through internalization processes and social interactions. Additionally, their unique work settings outline the psychological functions, competence, skills, attitude, and knowledge they need to reach out to the entire students efficiently. As a result, their CPD, fundamentally, may not be achievable without caring about the context in which their everyday internalizations and social interactions take place.

The findings of this study are in line with the findings of subsequent studies. In Tabatabaee Yazdi et al. (2017), a CPD questionnaire was constructed and validated consisting of four subscales, including reflection, updating, collaboration, and decision-making. The researchers attempted to inspect the proposed model in the EFL context in general and the Iranian context, in particular, to establish significant interconnections among components of CPD and to discover the latent variables of the proposed model to demonstrate how and to what extent those subscales of CPD interact with one another. In another study conducted by Ravandpour (2019), The primary aim of the study was to study the relationship between Iranian EFL teachers' CPD and their self-efficacy. The results uncovered that the subscales of CPD are significant positive predictors of self-efficacy: updating, decision-making, collaborating, and reflecting. Moreover, considering the findings, CPD has the lowest positive correlation with student engagement and the most remarkable positive correlation with instructional strategies.

This is the first meticulous study to investigate the use of DA in the context of supporting EFL teachers' CPD and using its theoretical framework as the basis for constructing a scale. The study fills a gap by offering a well-defined picture of the landscape concerning earlier works limited to a few aspects of CPD. By strictly drawing results in an approachable and summarized format, practitioners, consumers, policymakers, and researchers are better positioned to make operational use of current re-

search findings. The reported results identify the significant characteristics of a varied body of proof in a way that encourages new visions and essential questions.

In the current study, the developed, 42-item questionnaire, with its five-scale framework, attempts to act as a reliable and validated scale for measuring EFL teachers' CPD. In fact, a high Cronbach's alpha value confirmed the internal consistency of the CPD questionnaire even considering five subscales separately along with significant intercorrelations between the subscales. On top of the validity evidence, a high-reliability indicator made the instrument a suitable scale for measuring teachers' CPD levels and providing a proper answer to the research questions of the study, i.e. the different dimensions of teachers' CPD and the possibility to have a scale for measuring teachers' CPD having an acceptable index of reliability and validity.

CONCLUSION

With regard to the existing conditions in most universities, language schools, and institutions, teachers are required to regularly assess and review their knowledge and teaching skills in accordance with the needs of the workplace. Moreover, some teachers may expect to serve as coaches and mentors to novice teachers, do action research, make plans for workshops, and present papers at conferences. Additionally, language institutes are expected to preserve high professional principles and standards and to arrange for opportunities for their instructors to develop and attain higher levels of CPD.

The present study takes into consideration the multi-faceted constructs and subscales of CPD among EFL teachers. Planning teachers' CPD programs appear commonly directed by

curriculum restructuring as well as policies and is observed by authorities and experts in the field. On the other hand, it is noteworthy that authorities including policy-makers, school administrators, supervisors as well as teachers be involved in the formation of both the content and the structure of these programs with the purpose of involving both teachers' and students' needs. Authorities and policy-makers in the field of ELT should be aware that CPD curricula would supportively improve teachers' self-confidence, satisfaction, and success. Consequently, such programs should be underlined and applied consistently so as to facilitate teachers in developing their classroom skills, improving classroom practice, and meeting teachers' needs.

The present study underlines a number of implications. Based on the findings and during the process of data collection, it was uncovered that teachers who are concerned about their professional knowledge and attempting to keep themselves up to date in their teaching practices, significantly and optimistically correlate with their sense of collaboration among their colleagues. Additionally, trying to develop up-to-date teachers interrelated with their reflection, which is demonstrated to be closely related to how and to what extent teachers collaborated with their co-workers. Moreover, supervisors and teacher educators should organize some educational or training courses to get EFL teachers familiar with both the theoretical and practical basis of CPD methods and ways to promote their weaknesses into strengths and plan for workshops to reinforce teachers to practically use those techniques, develop their reflection skill, and provided with feedback and mediation if needed (DA Attributes), to get motivated and add up to their qualifications.

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