Revisiting Reflection Levels among Iranian EFL Teachers: The Interactional Effects of Teachers' Experience and their Academic Degree

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Abstract

The present mixed-method study examines the effect of Iranian EFL teachers' teaching experience and academic degree on five dimensions of reflective teaching. In this line, a 29-item Likert scale Reflective Teaching Questionnaire composed of practical, metacognitive, critical, cognitive, and affective dimensions was administered to a convenient sample of 142 male/female B.A., M.A., and Ph.D. EFL teachers with 4-30 years of teaching experience. Moreover, a semi-structured interview was conducted with 16 EFL teachers yielding more in-depth triangulated data on their reflection levels and the related problems. The MANOVA results indicated the significant effect of teachers' experience and academic degree on their reflective teaching with the least effect reported on the affective dimension. The results indicated significant interaction of the two research variables with the dimensions of reflective teaching. Moreover, the interview results indicated that lack of time, prescribed syllabi, and ineffective teacher training programs were the main obstacles of reflective teaching. The findings may bear implications for Iranian curriculum developers, materials writers, teacher trainers, administrators, and EFL instructors.

Keywords: levels of reflection, academic degree, teaching experience

Introduction

Globalization, technological advances, intercultural communication, and the need for valid scientific resources are some factors necessitating learning a second language (Dahmardeh & Kim, 2020), which seems to be time-consuming and costly; therefore, there is a need for improved techniques for learning English, a global lingua franca today.

Furthermore, reflection or deep thinking on a given activity, first suggested in 1990s, seems to be effective in all lines of human endeavor. In fact, it has gained prominence in aiding educators to deeply contemplate over their teaching, leading to improved learning. Reflective approaches to teaching also encourage critical thinking, decision-making, and problem-solving (Calderhead, 1989; Zeichner, 1983). Reflection is also a critical component of learning (Moon, 2006), encouraging learners to connect new and old information as a common practice.

The significance of reflective teaching has been explored by some forerunning scholars (e.g., Akbari, 2007; Farrell, 2007, Gheith & Aljaberi, 2018, Kömür & Gün, 2016; Pazhoman, & Sarkhosh, 2019) who were also inspired by the theoretical contributions of some key theorists, including Dewey (1933) and Schon (1983) who much later coined '*reflection-in-action*' and '*reflection-on-action*', the former being concerned with 'thinking and doing' simultaneously, which may help rethink about teaching so that it may lead to improved learning. '*Reflection-on-action'*, however, describes teachers' retrospective analysis of their teaching, which may lead to improved teaching and resolving learning problems. In this regard, Schon (1983) believed that reflection occurs on the face of a learning problem. Reflective teaching is a circular process of thought and action on teaching (Wellington, 1991). It also enhances teachers' ability to ponder, plan, manage, observe, and create (Ahmad & Khan, 2013). Competent reflective teachers think about their practice, goals, and methodologies, which can remarkably enhance their self-knowledge and practice (Bartlett,1990).

Mathew, Mathew, and Peechattu (2017, p. 126) also stress that "When student teachers carry out systematic enquiry into themselves, they understand themselves, their practices, and their students", which also contributes to their professional development, a point also endorsed by Ashraf and Zolfaghari (2018).

Reflective practice has also proved to be beneficial in other ways, including helping teachers to evaluate their beliefs and teaching knowledge (Cirocki & Widodo, 2019), developing an awareness of instructional processes and learners' progress (Farrell, 2011), and increasing their capacity for personal judgments in the classroom (Pollard et al.,2008) through refining and developing knowledge about the profession (Loughran, 2002). It also leaves positive psychological impacts, namely preventing teachers' distress, improving learning-related decisions, inspiring teachers to overcome pedagogical challenges, and preventing teachers' burn-out (Mahmoodi & Ghaslani, 2014, Shirazizadeh & Mordakhani, 2018). Numerous experimental studies on reflective teaching have also been reported, including the contributions of reflection to teaching and teacher development (Ogberg & McCutcheon, 1987), more effective self-evaluation (Jung, 2012), better performance (Tillema, 2000), and stronger reasoning (Abednia, Hovassapian, Teimournezhad, & Ghanbari, 2013). Similarly, in their mixed-methods research with Iranian EFL teachers, Moradkhani and Shirazizadeh (2017) examined the relationship between EFL teachers' reflective practices and their self-efficacy and found a significant positive relationship between reflective teaching and teachers' self-efficacy. Moreover, Pazhoman and Sarkhosh (2019), examining the relationship between English teachers' reflective practices and their self-regulation, found a positive relationship between teachers' reflective practices and their self-regulation. Hassan and Mojtaba (2018) also investigated EFL teachers' perception of their own reflective teaching and indicated that due to knowledge inadequacy as well as emotional and contextual inhibitors, reflective teaching has gone unhindered. Reflection also helps questioning and sharing underlying assumptions and improving team performance (Gordijn, Eernstman, Helder, & Brouwer, 2018). Also, teachers are agents of enacting educational policies. As such, teachers' agency, affected by their knowledge and experience, has recently been the focus of attention (Rezaee & Seyri, 2021). Academic degree also helps teachers to actively revisit the key elements in their respective educational setting (Ojure & Sherman, 2001). Furthermore, the literature shows that language teachers' beliefs mainly stem from their own language learning experiences (Phipps & Borg,

2007; Dewy, 1938), and experience is an invaluable asset not be dispensed with easily.

On the other hand, learners' success at school largely hinges upon teachers' qualifications, leading to governments' focus on hiring qualified teachers mostly through carefully-planned teacher education programs, which serve as the bridge between theory (knowledge) and practice of teaching (Freeman, 2016). Teachers are the agents of this link; in this light, one criterion for teachers' qualification can be their academic degrees. In fact, a qualified teacher either holds a teaching certificate or, passes certain courses and subsequently earns an academic degree (Usman, 2012); in fact, having at least a B.A. degree in the field of teaching is mostly a prerequisite for becoming a teacher. Knowledge, mainly gained while working for a university degree, coupled with teaching experience may contribute to reflective teaching (Ansarian, Farrokhi, & Rahmani 2015; Ojure & Sherman, 2001; Rezaee & Seyri, 2021). Ansarian et al. (2015), for instance, exploring the effects of experience on reflection level of Iranian EFL teachers, indicated a significant relationship between years of professional experience and pedagogical and critical reflection. However, less experienced teachers avoid reflective practice and are more willing to use several techniques and strategies to tackle with their problems (Gelfuso & Dennis, 2014; Hatton & Smith, 1995). However, another study conducted by Unal and Uhan (2012) revealed significant differences in terms of experienced teachers' attitudes toward behavioral and instructional management of the classroom. Accordingly, a study focused on the probable effect of academic degree and teaching experience on reflective teaching, seems to be justified.

With a global orientation towards reflective teaching (O'Donnell, Reeve, & Smith, 2012), as a detour away from traditional teaching, examination of the factors affecting instructional reflection, including their experience and educational degree, seems to be of crucial significance. To the researchers' best knowledge, there is a serious dearth of studies in this regard. Moreover, to cater for the researchers' interest in the topic, the following research questions are posed:

RQ1: Does teaching experience have any significant effect on Iranian EFL teachers' reflection?

RQ2: Does academic degree have any significant effect on Iranian EFL teachers' reflection?

RQ3: Is there any significant interactional effect between experience and academic degree of Iranian EFL teachers and their reflective teaching?

Method

Participants

From an original convenient sample of 177 male/female Farsi/Azeri speaking Iranian public-school EFL teachers participating in a workshop held by Tabriz Education Office, 142 teachers finally participated in the study. The workshop (lasting for two hours) focused on reflective teaching, its five dimensions, and justifying it as a teaching and evaluation tool. Later, the researchers categorized the participants into three groups according to their experience in teaching. Demographically speaking, 23, 48, and 71 participants belonged to low, middle, and high experience teachers, respectively. Moreover, 49% (70 teachers), 38% (54 teachers), and 13% (18 teachers) held B.A., M.A., and Ph.D. degrees, respectively.

Instruments

Reflective Practice Questionnaire (RPQ): The first part of RPQ, designed by Akbari, Behzadpoor, and Dadvand (2010) (Appendix A), collected demographic information (including academic degree and teaching experience); the second part included 29 Likert scale items. The questionnaire addressed five dimensions of critical teaching (Appendix B): *Practical* dimension (items 1-6) includes activities like journal writing, lesson reports, surveys, and questionnaires, audio and video recordings, observations, teaching portfolios, and group discussions, as well asexchanging classroom observations; *Cognitiv*e dimension (items 7-12) includes efforts for professional development through conferences or professional journals. *Affective* dimension (items 13-15) refers to teachers' reflection on learning and learners' emotional reactions. *Meta-cognitive* dimension (items 16-22), encompasses teachers' personal beliefs and characteristics, perceived definition of teaching, and emotional construct. *Critical* dimension (items 23-29) involves teachers' awareness of socio-political aspects of their performance and its classroom applications.

Moreover, Akbari et al. (2010) reported Cronbach's Alpha of 0.82 for RPQ, and the reliability of practical, cognitive, affective, meta-cognitive, and critical components calculated to be 0.78, 0.66, 0.54, 0.83. 0.69, and 0.82, respectively. Acceptable construct validity was also reported following Varimax rotation factor analysis.

Semi-structured Interview: A semi-structured interview, as described by Dorniyei (2007), encompassing eight questions (Appendix C) was designed and subsequently reviewed and revised by four expert teachers, including two school teachers and two university professors, all competent Ph.D. scholars with experience in reflective teaching. For feasibility considerations, eight male and eight female teachers (four Ph.D., six M.A., and six B.A. holders) were randomly selected. The interviews were recorded and transcribed for subsequent three-step analysis delineated by Miles and Huberman (1994), namely data reduction, display, and interpretation.

Procedure

Initially a convenient sample of 177 male/female B.A., M.A., and Ph.D. Iranian EFL teachers in a reflective teaching workshop, were selected and debriefed about the rationale behind the study. After administrating RPQ (Akbari et al., 2010), 35 candidates withdrew from the study leaving 142 completed questionnaires, which were scored and statistically analyzed.

Moreover, to triangulate the data, the researchers conducted a semi-structured interview with 16 male/female participants with different university degrees. Initially, the participants were debriefed about reflective teaching to prepare them for the interview. Then, questions were posed in individual face-to-face interview sessions to obtain information about their problems in reflective teaching as well as their solutions for the related challenges. Each session, conducted in English, lasted for about 10-15 minutes. This yielded documentable recorded (and later transcribed) data about Iranian EFL teachers' reflective practice (in line with five dimensions of RPQ), their challenges, and solutions.

Design

This mixed-method study was survey-based research using a questionnaire and a semi-structured interview in an attempt to revisit the notion of reflective teaching in the Iranian EFL context and examine the five

components of RPQ in interaction with learners' university degrees and teaching experience

Results

Preliminary Statistics

KMO and Bartletst's test results on sample size are presented in Table 1.

Table 1
KMO and Bartlett's Test of Adequacy of Sampling

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin measure of sampling adequacy.		.639
Bartlett's Test of Sphericity	Approx. Chi-square 120.837	
	Df	10
	Sig.	.000

Table 1 shows that the results of Bartlett's test of Sphericity were significant ($\chi2 = 120.83$, $p < .05$). In Table 2, KMO =.63>.05 indicates sample size appropriacy. Moreover, the correlation matrix shows that the dimensions did not suffer from multicollinearity (i.e., too high or too low correlation among them).

Table 2
Correlations among the Dimensions

		Practical	Cognitive	Affective	Meta-cognitive	Critical
Correlation	Practical	1.000	.513	.186	.201	.119
	Cognitive	.513	1.000	.279	.375	.121
	Affective	.186	.279	1.000	.538	.197
	Meta cognitive	.201	.375	.538	1.000	.214
	Critical	.119	.121	.197	.214	1.000

a. Determinant = .418

As represented in Table 2, the determinant was higher than .00001 which indicates lack of multicollinearity.

To check the normality of the distributions, the descriptive statistics of the data were obtained, and kurtosis and skewness ratios were calculated. Table 3 presents Kolmogorov-Smirnov and Shapiro-Wilk tests results.

Table 3
Result of Normality Tests of Kolmogorov-Smirnov

Tests of Normality

	Kolmogorov-Smirnov [a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Practical	.102	142	.101	.977	142	.076
Cognitive	.122	142	.087	.981	142	.082
Affective	.134	142	.094	.966	142	.091
Meta Cognitive	.113	142	.068	.938	142	.070
Critical	.085	142	.113	.967	142	.092

a. Lilliefors Significance Correction

The p-value for all sets of the scores in Table 3 was higher than 0.05, indicating normal distribution of the scores.

Descriptive statistics of the participants' scores after completing RPQ for 142 participants are displayed in Table 4.

Table 4
 Descriptive Statistics of the Five Components of the Questionnaire

Total Rows	Mean	Std. Deviation
Practical	15.20	6.463
Cognitive	13.27	6.183
Affective	6.85	3.721
Meta-Cognitive	20.19	6.453
Critical	20.78	7.499

The mean scores for practical, cognitive, affective, metacognitive, and critical dimensions were 15.2, 13.27, 6.85, 20.19, and 20.78 with a standard deviation of 6.45, 6.18, 3.72, 6.45, and 7.49, respectively.

The First Research Question

To answer the first research question on the probable effect of experience on Iranian EFL teachers' reflection, descriptive and inferential statistics

were used. The mean scores of groups with high $(20\text{-}30^+)$, average (11-20), and low (4-10) levels of teaching experience are shown in Table 5.

Table 5

Descriptive Statistics for Reflection Levels Based on Years of Experience

Experience		N	Minimum	Maximum	Mean	Std. Deviation
Low	Practical	23	13	28	21.04	4.117
	Cognitive	23	10	26	19.74	4.731
	Affective	23	9	14	10.65	1.496
	Metacognitive	23	18	33	26.17	3.950
	Critical	23	24	35	28.39	2.536
Mid	Practical	48	11	27	16.69	3.827
	Cognitive	48	7	25	14.29	4.658
	Affective	48	3	15	7.81	3.559
	Metacognitive	48	16	33	21.62	3.923
	Critical	48	12	35	23.35	5.941
High	Practical	71	2	25	12.31	6.911
	Cognitive	71	2	26	10.48	5.747
	Affective	71	1	15	4.96	3.110
	Metacognitive	71	7	30	17.28	6.848
	Critical	71	6	33	16.58	6.786

In low and average experience groups, 'critical' dimension had the highest mean score (i.e., 28.39 and 23.35, respectively); whereas, in high experience group, 'metacognitive' dimension had the highest mean score.

To test the probability of significant effect of teaching experience on reflective teaching dimensions, one-way MANOVA was used. Wilks' Lambda row of Table 6 displays the results.

Table 6
The Results of Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Level of Experience	Pillai's Trace	.994	4465.842	5.000	135.000	.000	.994
	Wilks' Lambda	.006	4465.842	5.000	135.000	.000	.994
	Hotelling's Trace	165.402	4465.842	5.000	135.000	.000	.994
	Roy's Largest Root	165.402	4465.842	5.000	135.000	.000	.994

The p-values were lower than 0.05, indicating significant dependence of reflective teaching dimensions on teaching experience, F (5, 135) = 4465.84, $p < .05$; Wilk's $\Lambda = 0.006$, partial $\eta^2 = .99$ (Table 6).

To determine how the dependent variables (i.e., dimensions of reflective teaching) differ for the independent variable (i.e., level of experience), the researchers used Tests of Between-Subjects Effects (Table 7).

Table 7
Tests of Between-Subjects Effects Regarding Years of Teaching Experience

Source	Survey Parts Dependent Variable	Type III Sum of Square	df.	Mean Square	F.	Sig.	Partial Eta Squared
Level of Experience	Practical	1484.625	2	742.313	23.427	.000	.252
	Cognitive	1565.761	2	782.881	28.457	.000	.291
	Affective	631.188	2	315.594	33.198	.000	.323
	Metacognitive	1522.946	2	761.473	24.338	.000	.259
	Critical	2904.451	2	1452.226	40.181	.000	.366

In Table 7, for all dimensions of reflective teaching, p-values were lower than 0.05, indicating a significant difference in the use of the dimensions of reflective teaching among teachers with different experience levels. Therefore, a post-hoc analysis was conducted for multiple comparisons between each pair of experience levels. The results of Tukey HSD test are shown in Table 8.

Table 8

Multiple Comparison of Reflective Teaching Dimensions across Levels of Experience

Dependent Variable	(I) Experience	(J) Experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Practical	Low	Mid	4.36*	1.428	.008	.97	7.74
		High	8.73*	1.351	.000	5.53	11.93
	Mid	Low	-4.36*	1.428	.008	-7.74	-.97
		High	4.38*	1.052	.000	1.89	6.87
	High	Low	-8.73*	1.351	.000	-11.93	-5.53
		Mid	-4.38*	1.052	.000	-6.87	-1.89
Cognitive	Low	Mid	5.45*	1.330	.000	2.30	8.60
		High	9.26*	1.258	.000	6.28	12.24
	Mid	Low	-5.45*	1.330	.000	-8.60	-2.30
		High	3.81*	.980	.000	1.49	6.13
	High	Low	-9.26*	1.258	.000	-12.24	-6.28
		Mid	-3.81*	.980	.000	-6.13	-1.49
Affective	Low	Mid	2.84*	.782	.001	.99	4.69
		High	5.69*	.740	.000	3.94	7.45
	Mid	Low	-2.84*	.782	.001	-4.69	-.99
		High	2.85*	.576	.000	1.49	4.22
	High	Low	-5.69*	.740	.000	-7.45	-3.94
		Mid	-2.85*	.576	.000	-4.22	-1.49
Metacognitive	Low	Mid	4.55*	1.418	.005	1.19	7.91
		High	8.89*	1.342	.000	5.71	12.07
	Mid	Low	-4.55*	1.418	.005	-7.91	-1.19
		High	4.34*	1.045	.000	1.87	6.82
	High	Low	-8.89*	1.342	.000	-12.07	-5.71
		Mid	-4.34*	1.045	.000	-6.82	-1.87
Critical	Low	Mid	5.04*	1.525	.003	1.43	8.65
		High	11.81*	1.442	.000	8.40	15.23
	Mid	Low	-5.04*	1.525	.003	-8.65	-1.43
		High	6.78*	1.123	.000	4.12	9.44
	High	Low	-11.81*	1.442	.000	-15.23	-8.40
		Mid	-6.78*	1.123	.000	-9.44	-4.12

In Table 8, reflective teaching dimensions were statistically different for all experience levels (p-values < 0.05), indicating the significant effect of teaching experience on reflection levels.

The Second Research Question

The goal was checking the probable relationship between the participants' university degrees and reflective teaching dimensions. The mean scores based on university degrees are shown in Table 9.

Table 9

Descriptive Statistics: Reflection Levels Based on Academic Degree

Academic Degree		N	Minimum	Maximum	Mean	Std. Deviation
B.A.	Practical	70	2	27	12.69	6.904
	Cognitive	70	2	25	11.56	6.538
	Affective	70	1	15	6.43	4.221
	Metacognitive	70	7	33	17.73	6.915
	Critical	70	6	35	19.34	8.868
M.A.	Practical	54	11	26	16.89	4.059
	Cognitive	54	9	24	14.11	4.377
	Affective	54	4	12	6.69	2.264
	Metacognitive	54	16	31	21.81	4.117
	Critical	54	16	31	21.39	4.195
Ph.D.	Practical	18	11	28	19.94	6.530
	Cognitive	18	7	26	17.39	7.180
	Affective	18	3	15	8.94	4.595
	Metacognitive	18	16	33	24.89	6.462
	Critical	18	12	35	24.56	8.219

Table 9 shows that for B.A. holders, 'critical' dimension had the highest mean score of 19.34 while for M.A. and Ph.D. teachers, the highest mean score belonged to 'metacognitive' dimension (21.81 and 24.89, respectively).

To examine the effect of academic degree on reflective teaching dimensions, MANOVA was conducted. The statistics in the Wilks' Lambda row of Table 10 displays the results.

Table 10
The Results of Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Academic Degree	Pillai's Trace	.647	13.015	10.000	272.000	.000	.324
	Wilks' Lambda	.398	15.794	10.000	270.000	.000	.369
	Hotelling's Trace	1.398	18.736	10.000	268.000	.000	.411
	Roy's Largest Root	1.311	35.670	5.000	136.000	.000	.567

The p-values were lower than 0.05, indicating that reflective teaching dimensions significantly depended on the teachers' academic degree, F (10, 270) = 15.79, $p < .05$; Wilk's Λ = 0.398, partial η^2 = .37.

To determine how reflective teaching dimensions differ for academic degrees, Tests of Between-Subjects Effects was conducted (Table 11).

Table 11
Tests of Between-Subjects Effects Regarding Academic Degree

Source	Survey Parts Dependent Variable	Type III Sum of Square	df.	Mean Square	F.	Sig.	Partial Eta Squared
Academic Degree	Practical	1001.714	2	500.857	14.245	.000	.170
	Cognitive	548.948	2	274.474	7.881	.001	.102
	Affective	92.856	2	46.428	3.470	.034	.048
	Metacognitive	964.097	2	482.049	13.653	.000	.164
	Critical	421.183	2	210.592	3.899	.023	.053

Table 11 shows that for all dimensions of reflective teaching, the *p* value is lower than .05 (*p<.05)*; therefore, a post-hoc analysis was conducted for multiple comparisons between each pair of academic degrees. The results of Tukey HSD test are shown in Table 12.

Table 12

Multiple Comparison of Reflective Teaching Dimensions across Academic Degrees

Tukey HSD

Dependent Variable	(I) Academic Degree	(J) Academic Degree	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Practical	B.A.	M.A.	-4.20*	1.074	.000	-6.75	-1.66
		Ph.D.	-7.26*	1.567	.000	-10.97	-3.55
	M.A.	B.A.	4.20*	1.074	.000	1.66	6.75
		Ph.D.	-3.06	1.614	.144	-6.88	.77
	Ph.D.	B.A.	7.26*	1.567	.000	3.55	10.97
		M.A.	3.06	1.614	.144	-.77	6.88
Cognitive	B.A.	M.A.	-2.55*	1.069	.048	-5.09	-.02
		Ph.D.	-5.83*	1.560	.001	-9.53	-2.14
	M.A.	B.A.	2.55*	1.069	.048	.02	5.09
		Ph.D.	-3.28	1.606	.106	-7.08	.53
	Ph.D.	B.A.	5.83*	1.560	.001	2.14	9.53
		M.A.	3.28	1.606	.106	-.53	7.08
Affective	B.A.	M.A.	-.26	.662	.921	-1.83	1.31
		Ph.D.	-2.52*	.967	.028	-4.81	-.23
	M.A.	B.A.	.26	.662	.921	-1.31	1.83
		Ph.D.	-2.26	.996	.064	-4.62	.10
	Ph.D.	B.A.	2.52*	.967	.028	.23	4.81
		M.A.	2.26	.996	.064	-.10	4.62
Metacognitive	B.A.	M.A.	-4.09*	1.076	.001	-6.64	-1.54
		Ph.D.	-7.16*	1.570	.000	-10.88	-3.44
	M.A.	B.A.	4.09*	1.076	.001	1.54	6.64
		Ph.D.	-3.07	1.617	.142	-6.91	.76
	Ph.D.	B.A.	7.16*	1.570	.000	3.44	10.88
		M.A.	3.07	1.617	.142	-.76	6.91
Critical	B.A.	M.A.	-2.05	1.331	.277	-5.20	1.11
		Ph.D.	-5.21*	1.942	.022	-9.81	-.61
	M.A.	B.A.	2.05	1.331	.277	-1.11	5.20
		Ph.D.	-3.17	2.000	.256	-7.91	1.57
	Ph.D.	B.A.	5.21*	1.942	.022	.61	9.81
		M.A.	3.17	2.000	.256	-1.57	7.91

Although for all dimensions p value was lower than .05, pairwise analyses revealed that in practical and cognitive dimensions the difference between teachers holding M.A. and Ph.D. degrees were insignificant (p=0.14 and 0.11, respectively). In affective dimension only B.A. and Ph.D. holders showed a significant difference (p=0.03). In metacognitive dimension, the difference between M.A. and Ph.D. holders was insignificant (p=0.14) and in critical dimension only teachers with B.A. and Ph.D. academic degrees indicated a significant difference (p=0.02) showing the definite yet differential effect (for affective and critical dimensions) of university degree on reflective teaching dimensions.

The Third Research Question

The probable significant interaction of teaching experience and academic degree relative to reflective teaching dimensions was examined through two-way MANOVA (Table 13).

Table 13
The Results of Multivariate Tests for Two-Way MANOVA

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Experience Academic Degree	*Pillai's Trace	1.378	13.877	20.000	528.000	.000	.345
	Wilks' Lambda	.079	24.718	20.000	428.794	.000	.470
	Hotelling's Trace	6.461	41.190	20.000	510.000	.000	.618
	Roy's Largest Root	5.640	148.903	5.000	132.000	.000	.849

Wilks' Lambda indicates that the interaction effect between teaching experience and academic degree is significant F (20, 428.79) = 24.72, $p <$ .05; Wilk's Λ = 0.079, partial η^2 = .47.

To determine how dimensions of reflective teaching differ with regard to the interaction of teaching experience and academic degree, Tests of Between-Subjects Effects were conducted (Table 14).

Table 14

Tests of Between-Subjects Effects regarding the Interaction of Teaching Experience and Academic Degrees

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Experience Academic Degree	*Practical	2454.512	4	613.628	84.782	.000	.718
	Cognitive	2540.524	4	635.131	113.106	.000	.773
	Affective	922.898	4	230.725	99.892	.000	.750
	Metacognitive	2450.615	4	612.654	85.871	.000	.721
	Critical	3809.079	4	952.270	157.715	.000	.826

For all dimensions, p-values were lower than 0.05, indicating the significant interaction effect of teaching experience and academic degree on using the dimensions of reflective teaching.

Interview Results

The results of semi-structured interview (Appendix C) pointed to the teachers' awareness of reflective teaching (before, during, and after teaching) and its utility for teachers' professional practice. Reflective teaching helped pinpoint their instructional weaknesses and strengths, make well-versed judgments, and examine the consistency between theory and practice. It freed teachers from performing in automatic and routine ways, helped them to exercise creativity and improved learners' performance. They knew that reflection is not merely a picture of classroom actions and situations, but it also involves critical and analytical skills. As follows, thematic classification of the results is presented in line with the five dimensions of reflective teaching:

Practical Dimension

The interviewees were concerned about improving teaching and utilizing reflection tools. In answering the first interview question, the majority of the participants (90%) emphasized the significance of thinking about their own teaching and applying the findings in their teaching practice. They believed this helps them mirror on their own achievements and enrich their own knowledge and experience. One of the teachers commented that:

I've often had flashes of insight into how to teach a class in a better way while thinking deeply about my teaching and writing down my reflections.

Or another teacher said that:

I think, actually, during the class, or after the class and share my ideas with my colleagues. I try to do something better in my next class and try to appear with better opinions by sharing my experience with my colleagues.

Only one participant said that this procedure is time-consuming.

Cognitive Dimension

Reflective teachers try to use their cognitive dimension to improve their own professional performance and modify their teaching skills through studying books and articles.. As an instance, a teacher said that:

Every night I read the books or articles about different teaching methods because I want to learn more and design some kinds of task to recover my class routine.

They also emphasized the role of participating in conferences and scientific meetings in enhancing their understanding of teaching and learning issues. As a teacher commented:

I try to attend some helpful conferences and workshops in my field of interest, and they help me a lot.

Moreover, one of the participating teachers referred to his lack of knowledge about reflective teaching up to his participation in the study by saying:

To be honest, I didn't know anything about reflective teaching until you told me about it. It is an unusual chance to observe the class to get knowledge how to teach, what methods to use, how to recognize this teaching process correctly.

The problems mentioned in this category concerned lack of time and usefulness of conferences and gatherings.

Affective Dimension

The interviewees also attended to learners' emotions by listening to their feelings, receiving their feedback, encouraging cooperative learning, avoiding robot-like teaching, and considering their wants. A teacher commented that:

It could be necessary for teachers to make effective interpersonal relation in the classroom and progress their communication with students and pay additional attention to learner' wants.

Getting feedback from the learners was also emphasized by some of the teachers. For example, one participant expressed her concern in the following words:

Asking students to comment on my teaching presentation. So I read their paper. I learn from their notes and advance my teaching practice in future.

Though, one of the problems was balancing affective relationships

Meta-cognitive Dimension

The interviewees highlighted the significance of teachers' awareness of teaching and its outcomes, standards, and achievements. One of the participants said:

As a teacher, all the time I think of my aims, and the outcome of my teaching, how I can teach students better, why I select these assignments for my students and what teaching method is better for them.

Similarly, another teacher believed that:

It's central only to stop yourself for some time and then think what you have achieved, what your targets are, where you are currently.

The problem mentioned by some was getting distant from yourself and pondering about your teaching.

Critical Dimension

Some participants highlighted the significance of *critical* dimension of reflective teaching by saying:

Reflective teaching makes it possible for teachers to act more intentionally and purposely, and release them from every day and impetuous acts. This creates an atmosphere of free and sincere talk about problems and offering.

However, they believed that all this demands an atmosphere of mutual confidence in the class. As a participant mentioned,

I think that it is better for teachers to create an atmosphere in the class that students freely talk about the social problems and learn about expressing themselves in this way. There must be a mutual trust between them.

Discussion

The goal of the present mixed-methods study was exploring the effect of teaching experience and academic degree on reflective teaching dimensions and their interactions. The data obtained from RTQ was statistically

analyzed indicating a significant effect of university degree and teaching experience on reflective teaching dimensions.

The results indicated that teaching experience improves reflective teaching, and leads to enhanced reliance on knowledge, thinking abilities, problem-solving, and decision-making in teaching. This is consistent with Hatton and Smith (1995) and Gelfuso and Dennis (2014) who believed that novice teachers are generally involved in their 'survival' in classroom with a tendency to focus on technical means of problem solving and reluctance for critical reflection. Moreover, novice teachers gradually learn a set of strategies for later use in their teaching (Richards, 2004).

The findings were also consistent with the findings of Ansarin et al. (2015) on the effect of teaching experience on reflection. The findings, however, were inconsistent with those of Unal and Uhan (2012) who did not find any significant indicator of the effect of experience on reflection. The results also showed that for low and middle levels of teaching experience the highest mean scores for dimensions of reflective teaching belonged to critical, metacognitive, cognitive, practical, and affective aspects. However, for high experienced teachers, the mean scores for metacognitive dimension were higher than those of the other dimensions. The reason may be traced back to the greater awareness that higher teaching experience may bring for the teachers. The other highest mean scores in this group belonged to critical, practical, cognitive, and affective dimensions, which was similar to the two other groups. The lowest mean score belonged to affective dimension showing an urgent need to cater for this rather-forgotten aspect in all experience groups.

Examining the effect of academic degree on reflection levels led to the conclusion that academic degree has a significant, yet differential, effect on all dimensions of reflective teaching. Although the mean score for BA holders was higher than that of the metacognitive component, the reverse was observed for M.A. and Ph.D. holders, indicating that academic degree affects teachers' awareness of their own teaching justifying their quest for attaining higher university degrees among Iranian EFL teachers. For B.A., M.A., and Ph.D. holders the mean scores of critical, practical, cognitive, and affective dimensions followed a similar trend indicating equal effectiveness

of educational degrees in these dimensions. For all educational degrees, the lowest mean belonged to the affective component demanding attention to this rather-ignored dimension. Normohammadi (2008) found conflicting results that might stem from teachers' personalities, priorities, or teaching methods they employ. Iranian EFL teachers had relatively low inclination towards using practical component possibly due to limited facilities available. This is in sharp contrast to the results reported by Dağkıran (2015) who showed that Turkish EFL teachers often engaged in 'practical' reflection. This may be explained by considering possible variables, including the sample size, cultural context, and different teacher education programs.

Moreover, the interview results pointed to the use of all five dimensions of reflective teaching in varying degrees. This was in line with Farrel's (2008), who found that reflective practice happens on a continuum with minor individual differences across teachers (Copeland, Birmingham, La Cruz, & Lewin, 1993), indicating the implausibility of reflective teaching for all teachers. The results of Dağkıran's (2015) investigation on the status of Turkish EFL teachers in reflective teaching were also consistent with those of the present study, since Turkish EFL teachers also adopted reflective practice. Generally, the teachers recognized social and critical aspects of the broader context in their perceptions of reflective teaching. They seemed to recognize that reflection did not exclusively represent classroom actions/situations, but it also addressed critical and analytical skills. The interviewees, meanwhile, mentioned several inhibitors for reflective teaching including time shortage, low motivation, contextual limitations, emotional barriers, prescribed syllabi, strenuous teaching tasks, class size, inefficiency of teacher training programs, and a lack of experience. These findings were in line with Shirazizadeh and Moradkhani (2018) who reported similar barriers on the way of reflective teaching.

To sum up, the findings of this study revealed the significant effect of both academic degree and teaching experience on five dimensions of reflective teaching though to different degrees. The dimension commonly least affected by the two variables was affective dimension. The effect of higher academic degree and experience on using metacognitive dimension was also observed. Generally, reflective teachers need time, knowledge, and

experience to increase their professional understanding. As the most invaluable human capital, they can be considered as active dispensers of knowledge, skills, and values, calling for attention to teacher training programs with their irrefutably significant role in modifying and enriching education. Teachers need to be supported by teacher educators, administrators, school committees, politicians, and citizens.

This study may be replicated using other data collection instruments, with university professors or private school teachers, or teachers of other educational subjects. The results of this study have pedagogical implications for Iranian EFL teachers, teacher educators, and curriculum and materials designers.

Declaration of interest: none

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Appendix A

Means, Standard Deviation, and the Overall Scores of the Five Components of RPQ devised by Akbari et al.

Element	Questions	Definitions	$\bar{x}$	SD
Practical	1-6	Actual act of reflection by using different tools, such as keeping journals, talking to colleagues	3.03	1.01
Cognitive	7-12	Conscious efforts for professional development by attending conferences and reading professional books and journals	3.10	1.26
Learner	13-15	Deals with Knowledge of learners and their affective/ cognitive states	3.57	1.09
Meta-cognitive	16-22	Deals with teachers' knowledge of their personality their definition of learning and teaching, their view of their profession	3.98	0.85
Critical	23-29	Deals with socio-political dimension of teaching	3.20	1.05
Overall	29		3.37	1.05

Appendix B
Reflective Practice Questionnaire (RPQ)
Demographic Information

Field of study	Code	Gender	Female	Male
Age: state high schools		**Private high schools**		
Years of experience:	1-10 ☐1-20	☐ 21-30⁺	☐	
Degree of educational attainment: BA	☐MA	☐D	☐	
E-mail address: cell. Phone No.				

Items	Never 1	Rarely 2	Sometimes 3	Often 4	Always 5
1.I have a file where I keep my accounts of my teaching for reviewing purposes.					
2. I talk about my classroom experiences with my colleagues and seek their advice/feedback.					
3. After each lesson, I write about the accomplishment failures of that lesson or I talk about the lesson to a colleague.					
4. I discuss practical/theoretical issues with my colleagues					
5. I observe other teachers' classrooms to learn about their efficient practices.					
6. I ask my peers to observe my teaching and comment my teaching performance					
7. I read books/articles related to effective teaching to improve my classroom performance.					
8. I participate in workshops/conferences related to teaching/learning issues.					
9. I think of writing articles based on my classroom experiences.					
10. I look at journal articles or search the internet to see the recent developments in my profession are.					
11. I carry out small scale research activities in my classes to become better informed of learning/teaching processes.					
12. I think of classroom events as potential research to think of finding a method for investigating them.					
13. I talk to my students to learn about their learning style preferences.					
14. I talk to my students to learn about their family backgrounds, hobbies, interests, and abilities.					
15. I ask my students whether they like a teaching task not.					
16. As a teacher, I think about my teaching philosophy way it is affecting my teaching.					
17. I think of the ways my biography or my background affects the way I define myself as a teacher.					
18. I think of the meaning or significance of my job as Teacher					

| 19. I try to find out which aspects of my teaching provide me with a sense of satisfaction. |
| 20. I think about my strengths and weaknesses as a tea |
| 21. I think of the positive/negative role models that I l as a student and the way they have affected me in my practice. |
| 22. I think of inconsistencies and contradictions that o my classroom practice. |
| 23. I think about the instances of social injustice in my surroundings and try to discuss them in my classes. |
| 24. I think of ways to enable my students to change th social lives in fighting poverty, discrimination, an gender bias. |
| 25. In my teaching, I include less-discussed topics, su as old age, AIDS, discrimination against women a minorities, and poverty. |
| 26. I think about the political aspects of my teaching a the way I may affect my students' political views. |
| 27. I think of ways through which I can promote tolera democracy in my classes and in the society in general. |
| 28. I think about the ways gender, social class, and rac influence my students' achievements. |
| 29. I think of outside social events that can influence n teaching inside the class. |

Appendix C
Interview Questions

1. Are you familiar with reflective teaching? If so, please provide a definition of the concept in your
own words.

2. Have you received any training on reflection in your teacher education programs?

3. How does the experience of reflection inform your teaching and learning?

4. What do you think are the barriers to employing reflective teaching in an Iranian EFL context?

5. Do you talk about your teaching problems with your colleagues?

6. Do you try to read some recent articles to get in touch with new trends in the field or not?

7. How can reflection be used in the classroom?
8. What are some of the benefits and limitations to reflection in the classroom?

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