Exploring Differences in Novice and Experienced Teachers' Self-efficacy: A Mixed Methods Study¹

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Abstract

Self-efficacy refers to teachers' beliefs in their own abilities. Although there are many studies on teacher self-efficacy, there is a need for more research on teachers' self-efficacy in light of their experience. This study explored differences between novice and experienced teachers' self-efficacy. Data were collected qualitatively and quantitatively through interviews and questionnaires. Content analysis was used to analyze qualitative data, and the quantitative data were analyzed via Wilcoxon test. The findings indicated that the experienced teachers held more efficacious beliefs as compared to the novice teachers. While the novice teachers were more concerned about syllabus-related issues than about shaping their efficacy, the experienced teachers held more general views about considering students' needs as a factor in shaping their efficacy beliefs. The study concludes with implications for more attention to self-efficacy in preservice and in-service teacher education settings.

Resumen

La autoeficacia se refiere a las creencias de los profesores sobre sus propias habilidades. Aunque existen muchos estudios sobre la autoeficacia de los profesores, es necesario realizar más investigaciones sobre su autoeficacia a la luz de su experiencia. Este estudio exploró las diferencias entre la autoeficacia de los profesores novatos y los experimentados. Los datos fueron recolectados cualitativa y cuantitativamente a través de entrevistas y cuestionarios. Se utilizó el análisis de contenido para analizar los datos cualitativos y los datos cuantitativos se analizaron mediante la prueba de Wilcoxon. Los resultados indicaron que los profesores experimentados tenían creencias más eficaces en comparación con los profesores principiantes. Mientras que los profesores experimentados tenían puntos de vista más generales sobre la importancia de considerar las necesidades de los estudiantes como un factor que configura sus creencias de eficacia. El estudio concluye con implicaciones para una mayor atención a la autoeficacia en los entornos de formación docente antes y durante el servicio.

Introduction

Over the past decades, teacher self-efficacy has become a fundamental concept in studying teachers and their functioning. As Tschannen-Moran and Hoy (2001) hold, "teachers' efficacy beliefs are also connected to their behavior in the classroom. Efficacy influences the attempt they invest in teaching, their goals, and their level of aspiration" (p. 783). The major reason is that teachers' beliefs in their abilities is important in their classroom practices and the learning outcomes. Moreover, there is now a large body of research exploring similarities and differences in teachers' beliefs and practices as a function of their experience (e.g., Karimi & Nazari, 2019; Karimi & Norouzi, 2019; Klassen & Chiu, 2010). However, there is little research (e.g., Akbari & Moradkhani, 2010) exploring differences in English as a Foreign Language (EFL) teacher self-efficacy considering differences in teachers' self-efficacy across different stages of their work. This study aims to address this gap by exploring differences in novice and experienced teachers' self-efficacy. It, thus, addresses the following questions:

- 1. Is there a significant difference between novice and experienced teachers' self-efficacy?
- 2. How do novice and experienced teachers perceive self-efficacy in their professional teaching?

Literature Review

Teacher self-efficacy

Teacher self-efficacy is teachers' belief in their ability to meet the learning outcomes and deal with difficult and less-active learners (Bandura, 1977). In addition, it is considered significant in learning outcomes (Chacón, 2005). Teachers' self-efficacy influences many dimensions of learning, such as learner achievement (Ashton & Web, 1986; Ross, 1992), motivation (Midgley et al., 1989), learners' self-efficacy (Anderson et al., 1988), teachers' classroom behavior like flexibility, adaptability, and perseverance

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(Guskey, 1988; Tschannen-Moran & Hoy, 2001), classroom planning and organization (Allinder, 1994), and many other aspects of learning. Bandura (1977) holds that perceived self-efficacy has a direct impact on teachers' choice of activities. Moreover, efficacy expectations determine the degree of teachers' attempt in teaching and their perseverance in difficult situations and aversive experiences. The more powerful self-efficacy is, the more influential the attempts.

Bandura (1977, 1997) held that individuals develop their self-efficacy from four impetuses: (a) efficacy beliefs are generated from successes and failures when performing a task (Bandura, 1997); success solidifies beliefs in one's ability while failures weaken them; (b) vicarious learning experiences (modeling): seeing others do an activity helps people appraise their abilities to do the same activity. Bandura (1997) held that when noticing others' achievements, people compare themselves as doers in the same condition; (c) verbal persuasion: as people receive factual evaluations from important people, i.e., "evaluative feedback" (Bandura, 1997, p. 101) as verbal persuasion, as to their achievements, people appear to solidify their beliefs on their potentials to attain their wish; (d) physiological arousal: affective states influence people's beliefs of self-efficacy. Physiological arousal as emotional states influences individuals' performance (Bandura as cited in Chacón, 2005).

Because of the importance of the effect of teachers' self-efficacy on learning quality, Chacón (2002) contended that developing self-efficacy among teacher candidates is a major imperative in their developmental pathway. Phelps (2006) emphasized this point, noting that "When teachers believe that their actions can make a difference and act on this belief, their students benefit. Cases offer a way to enhance this vital attitude. Helping teacher candidates to accept responsibility for student learning and not to blame external factors is a potent use of cases" (p. 176). The higher the teacher's self-efficacy, the more effective teacher is. Teachers' self-efficacy is influenced by some contextual factors such as culture, social status, teachers' personal attributes, as well as the education they receive. The effect of education is a determining one. In other words, as education increases, self-efficacy and effectiveness may increase.

Teacher experience

Experience has repeatedly been considered as a fundamental factor in shaping teachers' beliefs and practices. As Borg (2003) argued, "classroom experience influences cognitions unconsciously and/or through conscious reflection" (p. 82). Experience is likely to lead to what Tsui (2005) labeled as expert performance, defined as "a state that is reached after years of experience and thousands of hours of practice", whereas expertise involves "the processes which mediate or support experts' superior performance" (p. 184).

Regarding novice teachers, Maynard and Furlong (1995) held that they practice several stages of development including "(1) early idealism, (2) survival, (3) recognizing difficulties, (4) reaching a plateau, and (5) moving on" (pp. 12-13). Rice (2010) held that the "impact of experience is strongest during the first few years of teaching; after that, marginal returns diminish" (p. 1). Klassen and Chiu (2010) concluded that "teachers' years of experience have nonlinear relationships with self-efficacy factors, increasing from early career to mid-career and then falling afterwards" (p. 741).

There is a body of research on novice and experienced teachers. For instance, Fallah and Nazari (2019) examined novice and experienced teachers' beliefs about corrective feedback. They used a questionnaire and interviews and found that "novice teachers were disposed toward immediate feedback provision, and their experienced counterparts preferred peer and delayed feedback" (p. 1). The results of Akbari and Moradkhani's (2010) study on novice and experienced teachers' self-efficacy beliefs indicated that "experienced teachers had greater global efficacy, efficacy for student engagement, efficacy for classroom management, and efficacy for instructional strategies in comparison to their novice counterparts" (p. 25).

Karimi and Norouzi (2019) investigated differences in pedagogical thought units of novice, experienced, and highly experienced teachers. They distributed twenty teachers into five groups of different experience ranges. Data collection included classroom video-taping and running stimulated recall interviews. The results of the study showed differences among the experience groups and indicated "the more noticeable role of experience in (re)structuring teachers' cognitions in the initial years of teaching and declines in its influence at later stages of the teaching career" (p. 1).

In spite of this body of knowledge, there is little research on differences in teacher self-efficacy across novice and experienced teachers like Akbari and Moradkhani's (2010) study. The present study purports to deal with this gap.

Methodology

Participants

The participants of the study were forty EFL teachers selected through convenient and snowball sampling techniques. Their ages ranged from 25 to 40 and they had BA and MA degrees in Teaching English as a Foreign Language (TEFL), literature, translation, and linguistics. The participants were teaching at the intermediate level of proficiency, or B1 and B2 based on CEFR standards. From these forty teachers, nine were selected to take part in the interviews. The forty participants were divided into three groups: novice (1-3 years), experienced (5-10 years), and highly experienced (over 10 years). Fifteen teachers were novice, thirteen were experienced, and twelve were highly experienced teachers. As for the interviews. It must be mentioned that before the research process, the participants signed a consent form that involved information on the nature of the study, its purpose, and the procedures of data collection. Once the participants signed this form, the process of data collection started.

Instruments

Two instruments were used for data collection: questionnaire and interview.

The questionnaire was adopted from Tschannen-Moran and Hoy (2001). The questionnaire has 24 items scored from "nothing" to "a great deal" across a 9-item Likert scale. It has three major subscales: efficacy for instructional strategies, efficacy for classroom management, and efficacy for student engagement.

Semi-structured interviews were carried out with the teachers to explore the teachers' self-efficacy in more depth. These interviews were conducted in Persian and using the app *WhatsApp*. The teachers were asked the following questions:

- How do you see the role of your instructional strategies in your beliefs about yourself?
- How do you see the role of classroom management in your beliefs about yourself?
- How do you see the role of student engagement in your beliefs about yourself?

Procedure and data analysis

The first step in running the study was administering the questionnaire to the forty participants. The questionnaire was fed into *Google Docs* and the participants were required to fill it out. Their demographic information was also obtained along with the questionnaire. Then, from among the forty participants, nine were selected as convenience sampling to take part in the interviews, which were done via *WhatsApp*.

The data from the questionnaire were analyzed via Wilcoxon as the number of participants in each group was low, the nonparametric test was driven to compare the three groups. For the interviews, content analysis (Cohen et al., 2007) was run in which the themes were extracted from each response and were categorized. These were supported by sample extracts from the teachers, as illustrated below.

Results and Discussion

The results of the reliability analysis of the adapted scale are provided in Table 1. The results indicated that the Cronbach's Alpha for the whole scale was 0.953, which indicates a high reliability. Further analysis of the reliability of the three sub-scales, (1) efficacy for instructional strategies, (2) efficacy for classroom management, and (3) efficacy for student engagement were also high and acceptable.

	Reliability Statistics	
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.953	.954	24

Table 1: Reliability indices of the adapted scale

The first research question addressed differences in the teachers' self-efficacy. The following results show the analyses for this question.

		Std			Percentiles			
Experience	Ν	Mean	Std. Deviation	Minimum	Maximum	25th	50th	75th
			Deviation			2511	(median)	7500
Novice	15	3.1100	.48778	2.15	3.85	2.7500	3.2000	3.4500
Experienced	13	3.9359	.69506	2.83	4.83	3.3125	3.9167	4.5625

 Table 2: Descriptive Statistics addressing differences in novice and experienced teacher selfefficacy.

Table 2 indicates the descriptive statistics of the groups' self-efficacy. This table shows that the experienced group showed a higher mean in their self-efficacy than the novice group (M = 3.11, 3.93; SD = .48, .69). To check whether this difference was significant, the Wilcoxon test was run, which produced the following results.

		Ranks		
	Group	Ν	Mean Rank	Sum of Ranks
Self-Efficacy	Novice	15	10.27	154.00
	Experienced	13	19.38	252.00
	Total	28		

Table 3: Novice and experienced teachers' self-efficacy

Test Statistics		
	Self-Efficacy	
Mann-Whitney U	34.000	
Wilcoxon W	154.000	
Z	-2.926	
Asymp. Sig. (2-tailed)	.003	
Exact Sig. [2*(1-tailed Sig.)]	.003 ^b	
a. Grouping Variable: Group		

b. Not corrected for ties.

Table 4: Wilcoxon test results for group differences

The findings indicate that there is a significant difference between the two groups with moderate effect size (Sig. = 003, r = 0.46). Thus, the experienced group outperformed the novice group in their self-efficacy. These findings are congruent with the body of knowledge on the better performance of experienced teachers as compared to novice teachers (e.g., Fallah & Nazari, 2019; Karimi & Norouzi, 2019; Tsui, 2003, 2005, 2009). It appears that as the teachers become more experienced, their beliefs in their abilities is likely to increase.

The second research question addressed qualitative data about the teachers' self-efficacy. The analysis of data obtained via semi-structured interviews revealed all teachers believed in their efficacy potentials regardless of their teaching experience, however, some differences were observed among the novice and experienced teachers.

The analysis of data obtained via semi-structured interviews highlighted some differences in the way that novice and experienced teachers perceive self-efficacy in their teaching. One notable difference was in designing classroom activities. The novice teachers indicated that they rely mostly on syllabus and school policies, as shown in this extract: "I think that if I can implement the syllabus, I have done what I should do" (T2). The experienced teachers emphasized their own knowledge of teaching, and the students' needs.

Although language teachers face some problems in designing their own materials for teaching that include school policies and restricted lesson plans, what is really important for me is the needs of my students. For example, sometimes I add speaking activities to every task of reading, writing, and listening, as I know that my students need more practice on speaking. (T3)

These findings are in line with the stages of novice teacher development Maynard and Furlong (1995) propose. Novice teachers start their practice with ideals which then become replaced by classroom realities. Such ideals justify the level of expectation among the teachers, especially the novice teachers. It seems that the root of such efficacy is the teachers own previous language learning experiences in shaping their present cognitions and practices (Bandura, 1977; Borg, 2003).

Beside the primacy of the learners' language learning needs, the experienced teachers regarded their own knowledge of what works in the classroom as an essential guide in framing learning activities. For example, T5 explains that she has the ability to manage teenagers and the way she can adapt the syllabus to their needs:

Over the years I have worked with many learners. I know somehow by experience what works for a particular group like teenagers. So, I have to change syllabus in some ways, because learners are different from one class to the next. (T5)

Another difference in the novice and experienced teachers' self-efficacy in teaching was related to dealing with disruptive behavior in the classroom. Although the novice teachers were aware of the challenges they might face in such situations, they had no clear plan to address them effectively: "Sometimes, you don't know how to treat the students both not to agitate them and you're your own standards" (T2). Nevertheless, they regarded other teachers as valuable resources to consult with, get needed guidance, and advice to handle disruptive behavior. Tschannen-Moran and Hoy (2001) speak of the defining role of disruptive behaviors in teachers' efficacy potentials and argue that it takes time for teachers to deal with such problems. This illustrates the experienced teachers' better beliefs, as shown below:

When you enter a class, you are going to handle some difficult situations where everything is going to get out of hand. I think the teacher should prevent such behavior as they disrupt the natural flow of the class. I personally ask my colleagues and more experienced teachers for advice, as I don't know how to respond to such behavior without making the situations worse. (T2)

The experienced teachers talked about a variety of strategies in dealing with and preventing disruptive behavior. The expert teachers highlighted the significance of self-control and keeping calm in responding to such disruptions, and believed that in most cases there is a need to change the classroom atmosphere, and continue teaching:

In dealing with such situations, I try to stay calm, and don't let the student feel like they have been "victorious" in disrespecting me and my class, and then I decide on the best thing to do in order to prevent further problems and to continue teaching. (T3)

These findings corroborate Tsui's (2009) claim in that "experts can interpret classroom events, provide a deeper analysis of problems, and justify their practices in a *principled manner*" (p. 193). Tsui (2009) mentions four categories that distinguish novice and experienced teachers including pattern recognition, selectivity, automaticity, and reflectivity. Seemingly, experience has a direct link to increased efficacy as the teachers of this study mentioned the importance of students' learning than adhering to curricular demands, which is likely to problematize the teachers' work (Karimi & Nazari, 2017, 2019). Moreover, the teachers' strategic behaviors show experienced teachers develop strategies that function over the course of their experience and come to play a fundamental role in their classroom-level functioning.

Conclusions

This study investigated differences in novice and experienced teachers' self-efficacy. The results of the study showed that the experienced teachers showed more efficacy as compared to the novice teachers. These findings corroborate the role of experience in teachers' better understanding of teaching (Tsui, 2009) as their experience increases. The results showed that more attention should be given to self-efficacy in novice teachers' practice to prepare them for the challenges of their profession. In this sense, the findings of the study comply with the claim that due to the close connection between self-efficacy and effective instruction, professional development courses should highlight the primacy of self-efficacy both at theoretical and practical levels (Akbari & Moradkhani, 2010).

This study had a few limitations. First, the number of teachers both in the questionnaire and interviews was low. More research with a greater number of teachers should be conducted to better understand how levels of teaching experience shape teachers' efficacy. Exploring how teachers' reflection shapes their classroom actions through observation would better show their efficacy. This should be explored in further research. in addition, exploring differences in novice, experienced, and highly experienced teachers' work would be helpful for future research.

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