

## **Transformation of an EFL Teacher's Cognition Underlying Oral Corrective Feedback: A Case of Reflective Inquiry**

**Zahra Shafiee<sup>1</sup>**

*PhD Candidate of TEFL, Alzahra University*

**Hassan Nejadghanbar**

*PhD Candidate of TEFL, Kharazmi University*

**Seyyedeh Fahimeh Parsaiyan**

*Assistant Professor of TEFL, Alzahra University*

### **Abstract**

This qualitative longitudinal case study investigated the transformative contribution of reflective inquiry to a language teacher's cognition underlying his provision of oral corrective feedback. The data were collected through semistructured interview, classroom observation, and reflective verbal recollection during an educational year. Thematic analysis of the data led to the emergence of four major themes guiding the teacher's oral error treatment, namely Theoretical and Pedagogical Knowledge, Informed Online Decision Making, Critical Reflection, and Expressing Beliefs and Philosophies. Further analysis of the data revealed instances of transformation in the teacher's cognition underlying error correction. Accordingly, the teacher's new approaches revealed an increased awareness towards his pedagogical knowledge and online decision making as informed by his theoretical knowledge regarding corrective feedback whereas his theoretical and pedagogical knowledge did not indicate remarkable changes. Moreover, this teacher's critical reflection and evaluation of constraints influencing oral error treatment revealed a remarkable transformation, and his latest concerns illustrated his transformed beliefs and enhanced confidence. In addition to the researchers' suggestion for further inquiry and replication, the findings, imply that reflective inquiry has a transformative role in reconstruction of language teachers' cognition on oral corrective feedback.

**Keywords:** Oral Corrective Feedback, Teacher's Cognition, Reflective Inquiry

*Received on February 5, 2017*

*Accepted on March 2, 2018*

---

<sup>1</sup>Corresponding author: zahra.shafii@yahoo.com

## 1. Introduction

The empirical evidence in recent decades continues to witness a heightened interest for investigating the social and interactional role of oral corrective feedback (CF) in the effectiveness of second language pedagogy. Oral CF is defined as "an interlocutor's interactional move that indicates explicitly or implicitly any non-target like feature in the learner's speech" (Mackey, 2006, p. 309). This recent attention is essentially informed by seminal underpinnings on oral CF taxonomies, types, and strategies (e.g. Aljaafareh & Lantolf, 1994; Ellis, 2009; Lyster & Ranta, 1997). This body of literature has centralized oral error correction as a subject of inquiry focusing primarily on oral CF types and strategies for the effectiveness of interlanguage growth (e.g., Goo & Mackey, 2013; Li, 2013; Russell & Spada, 2006; Sato & Lyster, 2012). However, research has been less inclined to highlight the effects of contextual variations which question the "dichotomous comparisons of CF strategies that isolate oral CF from other relevant instructional variables" (Lyster, Saito, & Sato 2013, p. 30). In other words, the socially-situated and inherently-cultural nature of second language classroom has not sufficiently underscored the importance of teachers and the kind of scaffolding that they provide to the learners in the form of oral error treatment (Lyster et al., 2013). That is, the postmethod teachers' nonprescriptive error correction policies and strategies should be formulated and constructed by their own conceptualizations, thoughts, and beliefs (Ellis, 2009, 2010), namely, teachers' cognition. Teachers' cognition is defined by Borg (2003) as "what teachers think, know, believe, and do, [and views teachers as] active, thinking decision-makers who make instructional choices by drawing on complex, practically-oriented, personalized, and context-sensitive networks of knowledge, thoughts, and beliefs" (p. 81). Moreover, given teachers' learning as a lifelong developmental process, and considering the importance of in-service teachers' professional and cognitive growth (Borg, 2006; Freeman & Johnson, 1998), there is an urge for investigating and developing language

teachers' cognition as an essential factor contributing to their pedagogical and evaluative decisions makings (Borg, 2003, 2006). That is to say, teachers' awareness, skills, and abilities to deal with the classroom's multidimensional issues, specifically regarding oral error correction, require setting a social constructivist ground for teachers to reflect on their own beliefs, opinions, and conceptualizations about learning and teaching (Freeman & Johnson, 1998). However, in this respect, literature indicates scanty attempts mostly addressing EFL teachers' knowledge of oral CF, preservice language teachers and designed as cross-sectional studies (e.g., Atai, & Shafiee, 2017; Baleghizadeh & Rezaei, 2010; Simard & Jean, 2011; V´asquez & Harvey, 2010). In addition, undue attention has been paid to the longitudinal underpinnings addressing the role of reflective inquiry on dynamics and transformations of in-service teachers' cognition underlying their oral error treatment. To further elaborate on the points mentioned above, a brief outline of the theoretical framework and empirical background of the related literature are provided in the following section.

### **1.1 Theoretical Framework and Empirical Background Oral Corrective Feedback**

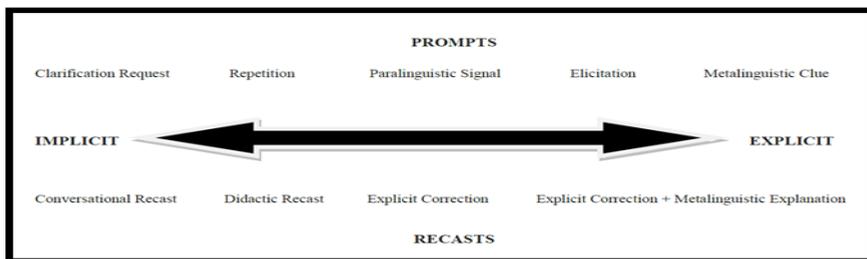
Until the late 1960s and the early 1970s that Pit Corder, among other scholars, identified language learners' errors as an indicative of interlanguage development and hypothesis testing, the learners' nontarget-like utterances were regarded as signs of failure, which could predict learning difficulties a priori. Since then, findings of experimental and ethnographic studies have highlighted the importance of error correction as an indispensable means to facilitate language learners' transition from their current level of interlanguage to the desired level of target language competence (Ellis, 2009; Lyster, 1998). Informed by sociocultural theory, Aljaafreh and Lantolf (1994) proposed a developmental criterion by forming a collaborative and dialogical frame between tutors and learners to provide feedback for interlanguage growth. According to this criterion, namely regulatory scale, learners'

#### 4 Teaching English Language, Vol. 12, No. 1

##### Transformation of an EFL Teacher's ...

transition from other-regulation to self-regulation ranges through levels 0 to 12; that is from the most implicit, strategic, and learner-regulated to the most explicit and tutor-regulated. As maintained by the authors, except for level 0 which is common for specifying the scaffolding that each learner requires, the learners' need for other-regulation determines the levels (i.e., the degree of implicitness or explicitness, at which they need to receive feedback).

Another substantial endeavor was conducted by Lyster and Ranta (1997) which highlighted the effects of oral CF on the learners' target structure accuracy. This study resulted in the development of the taxonomy of oral corrective feedback. Accordingly, based on the pattern and strategies of correction, two major categories of oral CF were classified as first, recasts, i.e. input provision, and second, prompts (i.e., output elicitation. Each of these categories, then, ranged from the most implicit to the most explicit). Development of this classification aroused remarkable scholars' interest which resulted in the development of modified versions of the taxonomy (e.g., Ranta & Lyster, 2007; Sheen & Ellis, 2011). Figure 1 illustrates taxonomy of oral correction types and strategies.



*Figure 1.* Continuum of Correction Types Based on Taxonomy of Oral CF Types and Strategies by Lyster & Ranta 1997 (Ranta & Lyster 2007; Sheen & Ellis 2011)

In line with this avenue of inquiry, Lyster (1998) carried out an observational study to analyze the teacher-learner interactions during subject-matter lessons. The findings revealed that when it becomes crucial to focus on target forms, the teachers' feedback bridges the gap between the learners'

current state of interlanguage and their expected level of target structure (Lyster, 1998). So far, oral CF has received scholars' attention from various perspectives including the effects of feedback on language acquisition (e.g. Russell & Spada, 2006), oral correction types and strategies (e.g., Goo & Mackey, 2013; Sheen & Ellis, 2011), the teachers' preferences of implicit versus explicit oral error correction (e.g. Li, 2013; Sato & Lyster, 2012; Yilmaz, 2013), and timing of feedback, that is, whether feedback is immediate or delayed (e.g. Révész, Sachs, & Mackey, 2011). See also Lyster et al., 2013, for a comprehensible review.

Highlighting the importance of teachers' awareness towards their own pedagogical strategies, Vasquez and Harvey (2010) investigated beliefs of a group of preservice teachers about oral CF provision. The results revealed remarkable increases in the teachers' awareness that led to the reexamination of their beliefs and modification of their strategies regarding their policies and strategies for providing oral error correction. Alongside the same line of research, Yoshida (2010) examined the perceptions of both language teachers and learners about oral CF. Findings indicated the influence of the learners' individual differences on the teachers' type and strategies of oral error correction. To examine contextual and socio-cultural variables determining the implementation of oral CF types and strategies, Simard and Jean (2011) carried out a descriptive observational study, and explored different preferences of intervention strategies across EFL and ESL contexts. Among the studies addressing oral CF in Iran, Baleghizadeh and Rezaei (2010) investigated the role of teacher training courses in a preservice language teacher's cognition regarding error correction, and found the course effective in the modification of the teacher's beliefs and opinions about oral corrective feedback. Relatively recently, Atai and Shafiee (2017) investigated the knowledge base guiding Iranian EFL teachers in providing oral CF

incorporating "19 pedagogical thought categories which were classified into three major themes of professional knowledge, procedural knowledge, and personal knowledge" (p. 580).

### **1.2 Teachers' Cognition**

Up to the 1970s, field of teacher cognition regarded teachers merely as 'decision-makers' similar to the way physicians make decisions while diagnosing diseases (Freeman & Johnson, 1998). Later in the 1980s and onwards, however, views towards teachers developed to 'decision-makers' as well as 'sense-makers' who integrate the pedagogical concerns of classroom with their "social, psychological, physical, political, and metaphysical actions embedded in the word and affected by it" (Clark, 1986, p. 12). Manifestation of these perspectives are known as teachers' cognition which is defined as "what teachers think, know, believe, and do" (Borg, 2003, p. 81). This mental construct, as maintained by Borg (2003, 2006), is gained throughout years of schooling, classroom practice, teacher development programs, professional coursework, theoretical knowledge, beliefs in learning to teach, and contextual factors. Accordingly, teachers develop a kind of conceptualization and knowledge which guides them "in cogent analysis and self-understanding within the social, cultural, and political contexts and consequences of language teaching and language learning" (Freeman & Johnson, 1998, p. 407).

As stated by Johnson (2009), research into teachers' cognition, explores an essential kind of knowledge and perspective underlying teachers' pedagogical decision making. Borg (2003) highlights the following key questions which are addressed by researchers to make this hidden side of teaching explicit:

- \_ What do teachers have cognitions about?
- \_ How do these cognitions develop?

- \_ How do they interact with teacher learning?
- \_ How do they interact with classroom practice? (p. 81)

These questions guide researchers via application of methodological tools such as self-report, verbal commentaries, observation, and reflective inquiry (Borg, 2006).

Borg (2003) characterizes five major strands of inquiry incorporated by research on language teachers' cognition, including the influence of 'prior language learning experience' (e.g., Harper & Rennie, 2009), 'teacher education' (e.g., Baleghizadeh & Rezaei, 2010; Borg, 2011), teachers' cognition underlying their 'classroom practice' (e.g. Nunan, 1992), 'teacher cognition in teaching grammar' (e.g., Underwood, 2012), and 'teacher cognition on literacy instruction' as well as theoretical beliefs guiding teachers' classroom practices (e.g., Johnson, 1992). Among the myriad of endeavors on the effects of teacher education programs on teacher's cognition, Borg (2011) conducted a qualitative longitudinal study to address beliefs of six English language teachers during a teacher education program. Results revealed shifts in the beliefs concerning classroom practices that teachers disposed prior to the course.

### **1.3 Reflective Inquiry**

Reflective inquiry is an approach to education which is defined by Dewey (1933) as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it" (p. 16). Dewey (1933) views development in teachers' awareness as a result of "reconstruction of experience" (p. 87), which is achieved by reflecting on teaching experiences, with 'open-mindedness', 'responsibility', 'directness', and 'wholeheartedness'. Furthermore, to enhance teachers' awareness and to transform their assumptions, reflective inquiry should go beyond isolated introspections of teaching experiences; rather, teachers should involve in systematic, evidence-based practices about their teaching experiences (Farrell, 2012). Burton (2009) attributes transition of the reflective teachers'

awareness to reviewing the data collected from their pedagogical practices. That is, as teachers ask themselves the three essential questions of what they do; how they do it; and what these actions mean to them and to the communities for whom and with whom they work. The collected data, then, provides ground for making pedagogical decisions, and accordingly, reexamining their concerns. Burton (2009) characterizes a three-stage transition for these awareness raising questions, which includes moving from technical, to practical stage, and finally, to the stage of critical reflection.

As reflected in the related literature, reflective inquiry has received a substantial attention in the language teacher development research, especially regarding pre-service teachers (e.g., Farrell, 2009; see also Farrell, 2013a; Richards & Lockhart, 1996, for comprehensible theoretical and empirical reviews). Among the increasing bulk of related research, the facilitative role of reflective inquiry and practices in language teachers' professional development has recently been accentuated (e.g. Engin, 2013; Eröz-Tuğa, 2013; Suárez-Ortega, 2013). For instance, informed by sociocultural theory and the concept of zone of proximal development, Engin (2013) addressed the scaffolding and feedback that teacher educators provided to pre-service language teachers for (re)constructing their conceptualization of knowledge of teaching. As indicated in the findings, this knowledge (re)construction contributed to the trainees' pedagogical decision making competence. In addition, Eröz-Tuğa (2013) approached self-reflection as an essential element for the professional development of preservice teachers when teachers were assigned to reflect on their teaching performances.

Considering this brief review of related literature, in spite of the resurgence of empirical findings on the role of error correction in the effectiveness of language learning, there is a paucity of research on investigating language teachers' cognition guiding their oral CF provision. In addition, contribution of reflective inquiry to teachers' cognition underlying

provision of oral corrective feedback calls for further longitudinal investigations.

#### **1.4 The Purpose of the Study**

The theoretical and empirical evidence noted above highlight the importance of investigating teachers' cognition regarding their provision of oral error correction, as well as the transformative role of reflective inquiry for in-service teachers as an ongoing developmental vehicle. Given the gap in the review of literature mentioned above, we were motivated to investigate dynamics and transformations of an Iranian in-service language teacher's cognition underlying his oral error treatment as a function of reflective inquiry. To provide an in-depth, analytical inquiry, as recommended by Duff (2008), we decided to conduct a longitudinal case study which was guided by the following research question:

How can reflective inquiry contribute to a language teachers' cognition underlying his provision of oral corrective feedback?

## **2. Method**

### **2.1 The Participant and Context of the Study**

The present study was conducted within an educational year, at a state junior high school located in Karaj, Alborz province, Iran. The study addressed potential transformations in a male EFL teacher's cognition underlying his provision of oral error correction. For the purpose of confidentiality, hereafter the participant is referred to with the pseudonym 'Amin'. Amin held a Master of Arts (MA) in applied linguistics, was 28 years old, and had 9 years of teaching experience in both mainstream formal education and language intuitions. The purpose behind selecting an experienced teacher with post-graduate educational background, from among several volunteers, was that length of teaching experience and education are believed to be of major factors in developing teachers' cognition and well-established pedagogical perspectives (Borg, 2006). Thus, focusing on reflective practices during the academic year of data collection procedure would be the least intervened by

developing pedagogical knowledge or increasing teaching experience, which is the case among novice teachers. The context of the study was a classroom with 28 male students at the third grade of junior high school, and their average age was 14. The class ran two 90-minute sessions a week. The instructional course book included formal textbooks for the third grade of junior high schools, designed and authorized by the *Ministry of Education* in Iran. First language of Amin and the students was Persian. The data were collected from the fall, 2013 to the spring, 2014.

## 2.2 Design

Investigating mental constructs underlying individuals' actual performance (in this case a language teacher's oral error correction) requires a holistic and in-depth analysis of the data collected from one or a small number of participants (Cohen, Manion, & Morrison, 2007; Duff, 2008). Thus, we attempted to conduct a case study employing a grounded theory approach. Such a design, as demonstrated by Merriam (1988) incorporates "intensive, holistic description and analysis of a single entity, phenomenon, or social unit [and is] particularistic, descriptive, and heuristic and [relies] heavily on inductive reasoning in handling multiple data sources" (p. 16).

## 2.3 Data Collection Procedure

The data were collected from multiple sources, namely semistructured interviews, classroom observations, observation notes, and reflective verbal recollections. Prior to collection of data, both Amin and school's administration announced their consent for the presence of a researcher (the first author of this study) in the classroom, audiotaping and videotaping of the lessons, and using the data for research purposes. As mentioned in 3.1, educational year in Iran consists of two semesters which provided a framework for two phases of data collection. The first author conducted three semi-structured interviews with Amin once before the advancement of the study, then, at the end of the first semester, and finally, at the end of the second semester. The interviews addressed Amin's knowledge of types and

strategies of oral CF, the assumptions behind his decision making in this respect, and his opinions and beliefs regarding contextual and social aspects of error correction. As summarized in Table 1, classroom observations included eleven sessions within equal intervals, observed by the first author. Of these, eight sessions were audiotaped and three sessions were allowed to be videotaped. During videotaping, to avoid the observer paradox and the over-presentation issue (Cohen et al., 2007), we were not present in the classroom, and the camera was situated on a tripod on the back corner of the classroom to record all activities of Amin. Due to new administration policies and limitations at the school in the second semester, videotaping was not allowed and this phase was limited to 3 observation sessions (Table 1). During these entirely audiotaped observation sessions, thorough note taking was conducted to reduce the absence of data gathered from videotaping and the smaller number of permitted observed sessions. This phase came to its end by conducting the third semi-structured interview probing the same issues as the ones addressed in the two previous interviews.

Table 1  
*Summary of Data Collection Procedure*

Phase 1	Phase 1.1 (the First Half of Semester 1)	<ul style="list-style-type: none"> <li>• Semi-structured Interview 1</li> <li>• 4 Sessions of Classroom Observation Followed by Verbal Recollection Session (Sessions 1 and 2 were audiotaped, and sessions 3 and 4 were videotaped.)</li> </ul>
	Phase 1.2 (the Second Half of Semester 1)	<ul style="list-style-type: none"> <li>• 4 Sessions of Classroom Observation Followed by Verbal Recollection Session (Sessions 1 was videotaped, and sessions 2, 3 and 4 were audiotaped.)</li> </ul>
Phase 2	(the Second Half of Semester 2)	<ul style="list-style-type: none"> <li>• Semi-structured Interview 2</li> <li>• 3 Sessions of Classroom Observation Followed by Verbal Recollection Session (All sessions were audiotaped.)</li> <li>• Semistructured Interview 3</li> </ul>

To increase reliability of the teacher's recall, as recommended by Gass and Mackey (2000), each observation session was immediately followed by a reflective verbal recollection session applying stimulated recall protocols. More specifically, during each verbal recollection session, the videotaped or audiotaped record of that session was played via a computer, and then the recording was paused upon approaching each correction episode so that Amin could recollect the knowledge, concern, thought, or belief guiding him while providing that oral error correction. Then he further reflected on these beliefs and thoughts by elaborating on his recollections and explaining the reason behind his thoughts. These sessions, taking 45 to 60 minutes each, were audiotaped and later transcribed for the purpose of analysis. In order to provide a detailed record of Amin's thoughts, we transcribed his utterances, which were all in English, without any correction for grammatical or semantic inaccuracies, and in cases of ambiguities, statements for clarification are provided in brackets.

### **3. Data Analysis Procedure**

As Cohen et al. (2007) remark, "case studies can penetrate situations in ways that are not always susceptible to numerical analysis" (p. 253). Thus, by opting for an analytical approach, instead of merely statistical generalizations of quantitative data, we adopted a qualitative analysis of the data. The theoretical and conceptual frameworks informing the coding of the data were primarily based on Amin's personal (re)conceptualizations stated in reflective verbal recollection sessions but at the same time were compared with the existing literature on oral CF, teachers' cognition, and reflective inquiry (e.g. Borg, 2006; Burton, 2009; Lyster et al., 2013). Accordingly, the coding scheme incorporated Amin's conceptualizations, views, and beliefs regarding his decision makings during his actual provision of oral error correction. As such, to identify the unit of analysis, we segmented the data gathered from transcripts of semi-structured interviews and reflections in verbal recollection sessions as well as observation notes. Thus, each thought or concern reported

during each correction episode was identified as a unit of analysis. These units, then, were coded based on open, axial, and selective coding (Strauss & Corbin, 1998). That is, first, we labeled the units based on their common ground regarding Amin's decisions for providing them. Then, we thoroughly categorized these codes according to their shared references indicating core concerns respectively. Next, our more specific analysis of these shared concerns revealed four major themes or characteristics of Amin's cognition, namely, Theoretical and Pedagogical Knowledge, Informed Online Decision Making, Critical Reflection, and Expressing Beliefs and Philosophies. Subsequently, to ensure our accurate interpretation and categorization of the codes, a third party, holding PhD in applied linguistics, experienced in thematic analysis, and specifically trained for the purpose of the present study, coded 10% of the randomly chosen transcripts, and the inter-rater reliability of 91% was achieved. The points of disagreement were discussed and coding procedure was revised. Finally, for identifying potential variations in the patterns of codes during the course of study, the extracted themes were compared against the existing literature on transformational effects of reflective inquiry. It is important to mention that, due to the socially-situated nature of error correction and its root in theory and practice, there seems to be some degree of overlap between the categories. However, analysis of data from Amin's reflections indicated his utterances as the closest representative of each of the themes.

#### **4. Results**

The overall analysis of the data led to the emergence of four major themes illustrating characteristics of Amin's cognition on oral corrective feedback. These include: Theoretical and Pedagogical Knowledge, Informed Online Decision Making, Critical Reflection, and Expressing Beliefs and Philosophies. To address the role of reflective inquiry in Amin's cognition underlying his provision of oral error correction, the emergent themes were

analyzed based on their potential transformations of concerns and approaches across the study. The four themes are defined and tabulated in order of their frequency of occurrence in Table 2, and the following subsections further elaborate on instances of Amin's cognition corresponding to each theme.

Table 2

*Characteristics of Amin's Cognition Guiding His Provision of Oral Corrective Feedback*

Themes	Definitions	Frequency
Theoretical and Pedagogical Knowledge	This theme emerged from Amin's statements referring to setting classroom's norms, determining types of correction according to theoretical and pedagogical perspectives, and concerns about the learners' individual differences.	346
Informed Online Decision Making	This theme indicates the Amin's situation-based and online decisions determining feedback strategies and his concerns for classroom's immediate needs.	318
Critical Reflections	This theme emerged from the Amin's utterances and remarks about his critical evaluation of the status quo, including facing administration constraints, criticizing teacher recruitment standards and teachers' development programs, evaluation of his own and his colleagues' error treatment.	167
Expressing Beliefs Philosophies	This theme incorporates the Amin's expression of personal maxims, theories, beliefs and assertions regarding provision of oral error correction.	82

Before we outline how each characteristic of Amin's cognition was influenced by his reflective practices, it should be noted that the frequencies reported in Table 2 are provided to indicate his concentration on each theme regardless of his approaches to each one. That is, Amin's underlying concerns while reflecting on his oral error treatment revealed to change during the

course of study, and the same theme could be reported almost equally across different verbal recollection sessions though approached from different perspectives. Hence, instead of relying on quantification and frequency counts as an indicative of change in Amin's cognition, the qualitative analysis adopted in the following sub-sections will outline his approaches to each theme.

#### **4.1 Theoretical and Pedagogical Knowledge**

The most frequently reported theme, Theoretical and Pedagogical Knowledge, emerged from the statements addressing Amin's theoretical and pedagogical approaches and perspectives as the basis for setting general frameworks for classroom's norms, determining types of correction to enhance accuracy of form, and meeting classroom's curriculum-based needs. This theme also incorporated Amin's attention to the learners' individual characteristics influencing his provision of oral CF. Among references to theoretical perspectives, Amin exhibited his concern for three areas which remained his major concerns across the study. First, specifying correction strategies appropriate for the learners' cognitive domain and considering context-based variables; second, avoiding behaviorist views in correction and emphasizing sociocultural and interactive aspects of oral corrective feedback as a means of scaffolding; and third, considering the learners' individual characteristics, affective domain, motivation, and pedagogical needs influencing his provision of oral CF.

Whereas education and theoretical knowledge are essential for developing teachers' cognition (Borg, 2003, 2006; Johnson, 1992, 2009), reflective inquiry is a vehicle to bring teachers' thoughts, perspectives, and knowledge to the level of awareness (Farrell, 2013b). As revealed in the results, although Amin's focus was primarily, and more frequently (Table 2) on his theoretical and pedagogical knowledge, analysis of the data didn't indicate remarkable

increase in this characteristic across phases of data collection. However, he appeared more aware of his theoretical and pedagogical approaches and concerns guiding his implementation of the three mentioned areas. For example, with regard to the first area, in which Amin initially referred to the context-based aspects of correction types and strategies, in his early reflections, he remarked: "Sometimes presenting the target form gains the best result, and sometimes eliciting it. Based on our theoretical approach, we consider many factors in a specific situation, and then decide whether to go with the first or the second one". In his later reflections, however, he addressed more aware of cognitive domain and emphasized raising the learners' awareness via attracting their attention to the target form, and keeping them alert about the accuracy of form. In this respect, he stated: "To help our students to link form, meaning, and function, we should create a context-rich task that helps them come to a better understanding of this link" (Phase 1.2). Towards the end of study, his reflections reported more attention to a function-based approach in accuracy of form. In this respect, in the last interview he raised the example of teaching how to behave in a bank, and went on to say:

If like a lecturer, I just talk about it, I do not provide them with any real situation to put what they learn into practice ... But if I ask two of them to come to the front of class and play the role of a clerk and a client, then, [they learn] the forms they use can serve different functions, and the functions they are assigned to determine different forms. (Phase 2)

Among references to theoretical perspectives, Amin exhibited his concern for sociocultural views and referred to a goal-oriented approach to correction for determining type of scaffolding and encouraging problem solving approaches among the learners. Emphasizing his avoidance of behaviorist

views, rote learning, and verbatim repetition in one of the early reflective verbal recollection sessions, Amin explained the reason behind repetition in a case of recast, and stated:

As soon as my student said "I will" I repeated it to reassure him that he is right. This online repetition makes this student more confident to continue his answer. As you see my help, somehow my scaffolding, helped him to answer me. (Phase 1.1)

Holding the same view towards the middle of the study, he appeared more aware of empowering the learners while reflecting on his aim behind repetition of the target form in another case of correction. In this respect he said: "Spoon feeding our students makes them dependent learners for their whole life and hurts their creativity. But here I repeated his correct answer just to make him sure his answers were correct" (Phase 1.2). Towards the end of the study, account of classroom observations and verbal reflections indicated Amin's more emphasis on self-correction and peer-feedback. In his final interview, highlighting the socially situated and interactional aspects of peer-feedback, he also added: "When students receive feedback from a peer, because the inhibition is lower, they are more open to accept them".

The learners' individual differences constituted another area of Amin's concerns for his error treatment informed by his theoretical and pedagogical knowledge. His early reflections in this regard mainly incorporated references to his theoretical knowledge. As an example, in this regard he mentioned:

I read in a book that we have different types of learners. Some of the learners, when they make error, instantly correct it. Some of the learners, when you try to make them aware of their errors, they do not recognize their errors or mistakes... So regarding my familiarity with students, I provide them with different types and amounts of feedback. (Phase 1.1)

Later in the study, Amin presented his deeper concerns for his learners' affective domain and motivation. This view is indicated in the following statement: "There are some students who are introverted or shy, and if we correct them explicitly, they may lose motivation and confidence" (Phase 1.2). This increased awareness which extended to the end of the study, is indicated in his reflections during one of the last recollection sessions: "Here we have an easy exercise. I usually ask the weaker students to do this type of tasks. It is like killing two birds with one stone: first, boosting weak students' self-esteem, and second, involving all the class". Consequently, as reflected in the three mentioned areas of concern, although Amin's theoretical and pedagogical knowledge did not reveal remarkable reformulations, he appeared increasingly aware of the variables guiding his pedagogical practices in his provision of oral error treatment as informed by his theoretical knowledge.

#### **4.2 Informed Online Decision Making**

The second most prevalent theme, Informed Online Decision Making, highlighted Amin's sensitivity to situation-based decisions and his concerns for his classroom's immediate needs leading to the flexibility of his feedback strategies. Although these decisions were informed by his theoretical knowledge and instructional experiences, unlike the theme Theoretical and Pedagogical Knowledge, these were not preplanned and fixed decisions. They, rather, varied dynamically according to classroom situations and students' needs. Central to Amin's reflections was making online decisions regarding correction issues including choice of corrector (teacher/peer/self), choice of oral CF types and strategies (recast/prompt/no correction), manner of correction (implicit/explicit), and timing of correction (immediate/delayed). This theme also incorporated treatment of fossilized

errors and correction of errors based on the length of exposure to the target form (new/previous lessons).

Improving teachers' cognition provides for constant development of their active decision making competence and strategies for provision of corrective feedback based on their knowledge and beliefs as well as the multidimensional aspects of classroom atmosphere (Borg, 2003; Ellis, 2010). Reflective enquiry is known as a major contributor to this developmental process (Burton, 2009; Dewey, 1933; Farrell, 2013a). Comparing Amin's actual practices in classroom observations with his reflections and interviews across the study showed that his decisions during later phases were more increasingly informed by his on-the-spot recognition and awareness of context-sensitive issues and the classroom's immediate needs. Accordingly, analysis of Amin's early reflections indicated that his decisions for online treatment of errors were guided by his prior education and experiences as well as his learning background. In the first interview, Amin stated factors that help teachers make on-the-spot decisions. Emphasizing that these factors are not generalizable to all situations, he added: "First of all, I should know who the learner is, what type of personality he or she has, and what level he is studying. Next, I decide how to approach that incorrect form". Later and towards the middle of the study, he more frequently represented his awareness towards choice of corrector. For instance, regarding the priority he gave to self-repair over peer-feedback and teacher correction, he pointed to the learners' competence to correct themselves, and added: "Although I prefer self-correction over peer-feedback and teacher correction, my choice depends on the situation and is not gospel truth. If I see the learners are not proficient enough to correct themselves, I will correct them" (Phase 1.2). During reflecting on one of the correction episodes, he highlighted the students' needs, and remarked:

Transformation of an EFL Teacher's ...

He is a very weak student and I just realized I had to again review the lesson for him. So I asked him a question but I looked at the other students for eliciting the answer because I knew he couldn't deal with it. Other students provided the correct answer, and this helped him understand it. (Phase 1. 2)

In his final reflections, he appeared further competent in making on-the-spot decisions, and in the final interview, he elaborated on getting closer the ideal state of making online decisions regarding error correction. He explained this level as follows: "I think the ideal way would be the ability to pinpoint the right moment to decide to start scaffolding and, considering all the intervening factors, to make the best on-the-spot decision at the right moment". As such, Amin's systematic reflection on his oral error correction enhanced his awareness towards classroom's immediate needs. This increased awareness, in effect, further improved his online decision making competence regarding provision of oral error correction.

#### **4.3 Critical Reflection**

The third theme, Critical Reflection, was inferred from Amin's utterances and remarks indicating his engagement in the critical evaluation of himself, his colleagues, and the educational system. More specifically, this theme encompassed Amin's twofold desire first, to evaluate his own and his colleagues' effectiveness of correction strategies, and second, to examine institutional factors like teacher recruitment standards and teacher training courses which pay undue attention to the teachers' decision making competence, especially regarding provision of corrective feedback.

Providing a social constructivist ground for teachers to reflect on their own perspectives and conceptualizations (Freeman & Johnson, 1998), develops critical 'sense-makers' who integrate their pedagogical concerns with their "social, psychological, physical, political, and metaphysical actions

embedded in the word and affected by it" (Clark, 1986, p. 12). This, in effect, helps teachers to deal with the multifaceted nature of classroom interaction and to reconstruct their own knowledge and beliefs regarding provision of oral CF (Ellis, 2009, 2010; Lyster et al., 2013). Along this line, as indicated in the analysis of early reflections, Amin primarily concentrated on criticism of theoretical books and scholars who go to extremes in their methodological and pedagogical approaches regarding correcting oral errors. This also included criticism of his colleagues' blind faith in theory regardless of the context-sensitive nature of classroom practices. About the latter concern he said:

There are many colleagues of mine or many scholars who say in the books that corrective feedback would not lead to students' learning. But if we do not pay attention to corrective feedback, even explicit corrective feedback which is not welcomed by many teachers and scholars, I think we put our students in the middle of nowhere; with no help, they would get lost. (Phase 1.1)

Amin's reflective statements towards the middle of the study indicated his awareness towards his colleagues' approaches, institutional constraints like heterogeneity of the learners' language proficiency in language classes in mainstream education, and insufficient content of instructional materials and textbooks. He also referred to the impacts of contextual constraints on teachers' theoretical perspectives, and mentioned:

I'm talking about our context, Iran, and the amount of exposure which our students have. It's a reality that our students just have a couple of hours per week for studying English in our classes. So we have got to keep a good balance between this reality and our ideologies and different methods of teaching. (Phase 1.2)

This awareness revealed a constant increase up to the end of the study in that Amin particularly expressed his concerns for contextual and institutional

Transformation of an EFL Teacher's ...

constraints affecting teachers' classroom practices including oral error treatment. Moreover, Amin appeared interested in a dialogical approach in discussing his concerns with his colleagues. In addition, he reported on his frequent observations of his colleagues' classrooms and his concerns for improving himself and his colleagues' classroom practices. In this respect, he went on to add: "Although I believe teachers' decisions are respectable, I believe no ones' work is perfect ... we should be of great help to ourselves and each other to grow professionally and make sensible pedagogical decisions" (Phase 2). In particular, in final reflections, he mentioned that while observing his colleagues' lessons, he sometimes encountered discrepancies between his colleagues' expressions of their beliefs and their actual classroom actions, and he elaborated on the ways he opened up potential problems and guided his colleagues when necessary:

My familiarity with my colleagues' personality helps me to be rather indirect or direct. If I find them less open to criticism I may adopt less direct strategies like telling stories about other teachers who are, probably, employing corrective feedback inappropriately. By doing so, I try to remind them of their, at least to me, inappropriate use of feedbacks. However, if I have more intimate relationship with my colleagues or if I find them more open to criticism I may adopt more direct strategies and talk directly about my ideas, experience, and knowledge about their stories or actions. (Phase 2)

As a consequence, Amin's critical evaluation of issues affecting classroom interactions including oral error correction appeared to transform from passively criticizing theories and administrations, to actively trying to improve awareness of himself and his colleagues. That is, his reflections regarding provision of oral CF was first directed to the biased theoretical implications and other teachers' lack of awareness. This attention was gradually inclined to criticism of contextual constraints that influence

teachers' decision making regarding treating accuracy of learners' oral production. In later reflections and the final interview, Amin appeared to be more critical of himself and more aware of the importance of dialog between teachers for improving teachers' professional development through reflective approaches. With regard to critical self-reflection and self-evaluation of Amin's own classroom instructions and provision of oral corrective feedback, he went on to say "... my awareness has changed to some extent, especially during participating in your project. Now, I think corrective feedback has occupied a greater space in my classes and I am more aware of them."

#### **4.4 Expressing Beliefs and Philosophies**

The fourth theme, Expressing Beliefs and Philosophies, reported on Amin's awareness, confidence, and assertiveness both in practice and in representation of his personal theories and philosophies regarding provision of oral error correction. Addressed in longitudinal studies, although transforming teachers' pedagogical perspectives and beliefs is enhanced through teacher education programs (e.g. Borg, 2011), this lifetime development is further achieved by reflective practices through "reconstruction of experience" (Dewey, 1933, p. 87). That is, systematic and evidence-based reflective practices help enhance teachers' assumptions (Farrell, 2012). As such, analysis of this theme revealed transformations in Amin's beliefs regarding decision makings for oral error treatment as well as his assertiveness and confidence in expressing these beliefs. Accordingly, in his early reflections, he addressed his theoretical knowledge and instructional experiences as the major factors for credibility of his beliefs. In this regard, he noted:

As a teacher who teaches in this context, knows the system, knows the procedure, knows the context, knows the exam, knows the expectations, and considers many others factors, I prefer to move

Transformation of an EFL Teacher's ...

moderately and to inject appropriate doses of implicit and explicit ways of teaching grammar, and I also use first language. (Phase 1.1)

Analysis of his subsequent reflections, towards the middle of the study, showed that he extended his concern to how teachers develop their own maxims and put their beliefs and theories into practice. In this respect, he remarked: "I can often see mismatches occurring between a teachers' maxims and contextual, institutional, sociocultural, and curricular issues. How a teacher deals with such mismatches is very important" (Phase 1.2). In later reflections, in addition to his conscious awareness of provision of oral CF, he more confidently expressed his maxims as part of his own established beliefs which were informed by his education and theoretical knowledge. Emphasizing this point, he added: "either intuitively or through experiment I have come to some good results regarding the effects of feedback on my students' learning, but my knowledge is the main basis" (Phase 2). Amin's final remarks indicated that he increasingly grew more reflective, confident, and aware of his self-constructed knowledge and perspectives, and more assertive regarding the way teachers' beliefs influence their classroom practices. In the final interview, indicating his resistance to institutional demands that would limit his practices against his beliefs, he mentioned:

[In addition to school] I teach at an institute in which the supervisor wants me not to use that much CF. I may to some extent reduce the number of corrections I provide my students but I do believe in CF, whether my supervisor likes it or not. (Phase 2)

Amin's theories and beliefs and his confidence in expressing them, revealed to change from generally referring to theory-based factors in Phase 1, to more confident expression of his maxims as part of his own established beliefs built upon theory, at the end of Phase 2. Encouraged by reflective practices, Amin appeared more aware of his underlying beliefs guiding his

decision making regarding oral error correction. In addition to the increased confidence in Amin's expression of his views, his self-developed maxims revealed instances of transformation through reflective inquiry.

### **5. Discussion and Conclusions**

In this study we investigated contribution of reflective inquiry to an English language teacher's cognition underlying his knowledge, competence, concerns, and perspectives regarding provision of oral error correction. Thematic analysis of the data gathered over an entire educational year revealed different instances of transformation in the teacher's concerns and conceptualization. More specifically, whereas each of the four characteristics corresponding to Amin's cognition indicated different degrees of reconceptualization, in-depth analysis of the data revealed an ongoing process during the study across the four themes. This process began with Amin's reliance on his previous experiences and theoretical knowledge at the beginning of the study. Around the middle of the study, his reported thoughts and concerns revealed to be more focused on his awareness of the current situation and evaluation of himself and other stakeholders. Towards the end of the study, besides his increased awareness, he more confidently expressed his views, elaborated on his on-the-spot decisions, and mentioned his concerns for improving other teachers' related views. In addition, adopting a dialogical approach, he tried to raise his colleagues' awareness to their fallacies, and help them to approach an ideal level in making decision while correcting errors.

Regarding the two first themes, the observed consistent increase in decision making abilities underscores reflective inquiry as a vehicle for establishing and improving competence for recognizing contextual factors and applying online and informed pedagogical decisions respectively. Thus, it is assumed that reflective inquiry has resulted in partial transformations in Amin's competence regarding making online and informed decisions based on his theoretical and pedagogical knowledge. These findings are consistent

with the existing theoretical and empirical literature on teachers' cognition and the role of reflective inquiry (e.g., Borg, 2011; Engin, 2013; Farrell, 2012, 2013b; Johnson, 2009; Yoshida, 2010). In addition, the reconstructions in critical views observed in the third theme, and the reshaping of beliefs and confidence regarding the fourth theme, are supported by the existing theoretical and empirical literature on teachers' beliefs and cognition in language teacher development and corrective feedback (e.g., Atai & Shafiee, 2017; Baleghizadeh & Rezaei, 2010; Eröz-Tuğa, 2013; Farrell, 2009; Suárez-Ortega, 2013; Vasquez & Harvey, 2010). Although the majority of existing literature primarily support role of reflection in transformation of pre-service teachers' unestablished awareness, beliefs, and philosophies, this paper addresses the self-initiated reevaluation and reconceptualization of a teacher with relatively established awareness, concerns, perspectives and philosophies regarding oral error correction that is an important aspect of classroom instruction.

Consequently, the ongoing changes in Amin's cognition regarding informed decision making, awareness, critical reflectivity, reshaped beliefs, and established confidence, are consistent with the existing literature emphasizing the role of reflective inquiry in reestablishing and transforming teachers' beliefs. That is, Amin's raised awareness gains support from the literature that highlight contribution of reflective inquiry to teachers' awareness of their knowledge and competence (e.g., Burton, 2009; Dewey, 1933; Engin, 2013; Farrell, 2012, 2013b). Accordingly, reflective practices function as a vehicle that brings knowledge, concepts, and perspectives regarding "usually unarticulated concept to level of awareness" (Farrell, 2013b, p. 1072). Aligned with Dewey (1933), and as cited in Burton (2009), systematic reflection maintains teachers aware of teaching circumstances, and enhances their 'lifelong professional development' (p. 298). This in effect, empowers "them to critique teaching and make better-informed teaching decisions" (Burton, 2009, p. 298). Thus, Amin's active theorizing, online strategic decision making, heightened critical reflectivity and dialogical

approaches, and enhanced confidence, all informed by his theoretical and pedagogical knowledge, are assumed to be due to his integration of reflection and action. Such integration, in effect, possibly led him to deeper concerns and critical evaluations of his pedagogical practices, which resulted in reconstruction and reconceptualization of his own individual patterns in provision of oral error correction.

Regarding the limitations of our study, we suggest further inquiry into the transformative role of reflective practices in teachers' cognition on social and interactional aspects of classroom instruction. As one of the limitations, the study reported on the cognition of one experienced, junior high school EFL teacher with postgraduate education background. To increase dependability of our findings, it is suggested to replicate this study with multiple cases to compare transformations in cognitive patterns across instructional contexts. Also, more analytic replications delineate role of reflective inquiry across variations in teachers' length of service, academic degree, and major-related educational background. Moreover, in this study, the major themes characterizing the patterns of concerns underlying cognition of the participant emerged from oral reflective practices. In order to deeper examine the complex nature of teachers' cognition on oral CF, studies can be conducted incorporating other types of reflective practices including blogging, journal writing, narrative inquiry, and group discussion. In spite of its limitations, this study provides implications for second language teacher development programs and practicum courses to consider reflective inquiry as an effective vehicle for improving teachers' professional development in different areas including oral error correction. More specifically, encouraging reflective practices among pre- and in-service teachers as a systematic practice assists individual teachers to evaluate and reexamine their own instructional concerns. This self-reflection, in effect, results in the self-initiated reconstruction and transformation of individual teachers' concerns which are essential for a lifelong personal and professional development.

## References

- Aljaafreh, A. & Lantolf, J. P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *Modern Language Journal*, 78(4), 465-483.
- Atai, M. R., & Shafiee, Z. (2017): Pedagogical knowledge base underlying EFL teachers' provision of oral corrective feedback in grammar instruction. *Teacher Development*, 21(4), 580-596.
- Baleghizadeh, S. & Rezaei, S. (2010). Pre-service teacher cognition on corrective feedback: A case study. *Journal of Technology & Education*, 4(4), 321-327.
- Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, 36(2), 81-109.
- Borg, S. (2006). *Teacher cognition and language education: research and practice*. London: Continuum.
- Borg, S. (2011). The impact of in-service teacher education on language teachers' beliefs. *System*, 39(3), 370-380.
- Burton, J. (2009). Reflective practice. In A. Burns & J. C. Richards (Eds.), *The Cambridge Guide to Second Language teacher education* (pp. 298-308). Cambridge: Cambridge University Press.
- Clark, C. M. (1986). Ten years of conceptual development in research on teacher thinking. In M. Ben-Peretz, R. Bromme, & R. Halkes (Eds.), *Advances of research on teacher thinking* (pp. 7-20). Lisse: Swets and Zeitlinger.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. London: Routledge.
- Corder, S. P. (1967). The significance of learners' errors. *International Review of Applied Linguistics*, 5(4), 161-170.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston, MA: Houghton Mifflin.
- Duff, P. (2008). *Case study research in applied linguistics*. New York: Lawrence Erlbaum Associates.
- Ellis, R. (2009). Corrective feedback and teacher development. *L2 Journal*, 1(1), 3-18.
- Ellis, R. (2010). Cognitive, social, and psychological dimensions of corrective feedback. In R. Batstone (Ed.), *Sociocognitive perspectives on language use and language learning* (pp. 151-165). Oxford: Oxford University Press.
- Engin, M. (2013). Trainer talk: levels of intervention. *ELT Journal*, 67(1), 11-19.
- Eröz-Tuğa, B. (2013). Reflective feedback sessions using video recordings. *ELT Journal*, 67(2), 175-183.
- Farrell, T. S. C. (2009). Critical reflection in a TESL course: Mapping conceptual change. *ELT Journal*, 63(3), 221-229.

- Farrell, T. C. (2012). Reflecting on reflective practice: (Re) Visiting Dewey and Schön. *TESOL Journal*, 3(1), 7-16.
- Farrell, T. S. C. (2013a). *Reflective practice in ESL teacher development groups: From practice to principle*. Basingstoke, UK: Palgrave MacMillan.
- Farrell, T. S. C. (2013b). Reflecting on ESL teacher expertise: A case study. *System*, 41, 1070-1082.
- Freeman, D., & Johnson, K. (1998). Reconceptualizing the Knowledge-Base of Language Teacher Education. *TESOL Quarterly*, 32(3), 397-417.
- Gass, S. M., & Mackey, A. (2000). *Stimulated recall methodology in second language acquisition*. Mahwah, NJ: Erlbaum.
- Goo, J. & Mackey, A. (2013). The case against the case against recast. *Studies in Second Language Acquisition*, 35(1), 127-165.
- Harper, H. & Rennie, J. (2009). I had to go out and get myself a book on grammar': A study of preservice teachers' knowledge about language. *Australian Journal of Language and Literacy*, 32, 22-37.
- Johnson, K. E. (1992). The relationship between teachers' beliefs and practices during literacy instruction for nonnative speakers of English. *Journal of Reading Behavior*, 24(1), 83-108.
- Johnson, K. E. (2009). *Second language teacher education: A sociocultural perspective*. London, UK: Routledge.
- Li, S. (2013). The interactions between the effects of implicit and explicit feedback and individual differences in language analytic ability and working memory. *The Modern Language Journal*, 97(3), 634-654.
- Lyster, R. (1998). Negotiation of form, recasts, and explicit correction in relation to error types and learner repair in immersion classrooms. *Language Learning*, 48(2), 183-218.
- Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake. *Studies in Second Language Acquisition*, 19(1), 37-66.
- Lyster, R., Saito, K., & Sato, M. (2013). Oral corrective feedback in second language classrooms. *Language Teaching*, 46(1), 1-40.
- Merriam, S. (1998). *Qualitative research and case study applications in education* (2<sup>nd</sup> ed.). San Francisco: Jossey-Bass.
- Nunan, D. (1992). The teacher as decision-maker. In J. Flowerdew, M. Brock & S. Hsia (Eds.), *Perspectives on Second Language Teacher Education* (pp. 135-65). Hong Kong: City Polytechnic.
- Ranta, L., & Lyster, R. (2007). A cognitive approach to improving immersion students' oral language abilities: The awareness-practice-feedback sequence. In R. Dekeyser (Ed.), *Practice in a second language: Perspectives from applied linguistics and cognitive psychology* (pp. 141-160). Cambridge: Cambridge University Pres.

- Révész, A., Sachs, R., & Mackey, A. (2011). Task complexity, uptake of recasts, and L2 development. In P. Robinson (Ed.), *Second language task complexity: Researching the cognition hypothesis of language learning and performance* (pp. 203-235). Amsterdam: John Benjamins.
- Richards, J. C. & Lockhart, C (1996). *Reflective teaching in second language classrooms*. Cambridge: Cambridge University Press.
- Russell, J., & Spada, N. (2006). The effectiveness of corrective feedback for the acquisition of L2 grammar. In J. Norris & L. Ortega (Eds.), *Synthesizing research on language learning and teaching* (pp. 133-163). Amsterdam: John Benjamins.
- Sato, M., & Lyster, R. (2012). Peer interaction and corrective feedback for accuracy and fluency development: Monitoring, practice, and proceduralization. *Studies in Second Language Acquisition*, 34(4), 591-626.
- Sheen, Y., & Ellis, R. (2011). Corrective feedback in language teaching. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (Vol. 2, pp. 593-610). New York: Routledge.
- Simard, D., & Jean, G. (2011). An exploration of L2 teachers' use of pedagogical interventions devised to draw L2 learners' attention to form. *Language Learning*, 63(1), 759-785.
- Strauss, A., & Corbin, J. (1998) *Basics of qualitative research: Grounded theory procedures and techniques* (2<sup>nd</sup> ed.) Thousand Oaks, CA: Sage.
- Suárez-Ortega, M. (2013). Performance, reflexivity, and learning through biographical-narrative research. *Qualitative Inquiry*, 19(3), 189-200.
- Underwood, P. R. (2012). Teacher beliefs and intentions regarding the instruction of English grammar under national curriculum reforms: A theory of planned behavior perspective. *Teaching and Teacher Education*, 28(6), 911-925.
- Vasquez, C., & Harvey, J. (2010). Raising teachers' awareness about corrective feedback through research replication. *Language Teaching Research*, 14(4), 421-443.
- Yilmaz, Y. (2013). Relative effects of explicit and implicit feedback: The role of working memory capacity and language analytic ability. *Applied Linguistics*, 34(3), 344-368.
- Yoshida, R. (2010). How do teachers and learners perceive corrective feedback in the Japanese language classroom? *The Modern Language Journal*, 94(2), 293-314.