



The University of  
Tehran Press

## Journal of Foreign Language Research

Online ISSN: 2588-7521

Journal Homepage: <https://jflr.ut.ac.ir/>



### Which Corrective Feedback to Privilege for Elderly Language Learners: A Mixed-methods Study of Peer Feedback Variations

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#### Article Info

**Article type:**  
Research Article

**Article history:**  
Received: 28 September 2025  
Received in revised form: 22  
February 2026  
Accepted: 28 February 2026  
Available online: 8 April 2026

**Keywords:**

elderly language learners,  
grammar development, peer  
feedback, implicit feedback,  
explicit feedback, cognitive  
decline

#### ABSTRACT

**Objective:** Although the research subject of corrective feedback has proliferated recently, the appropriateness of error treatment for elderlies (aged over 50) is considerably undertreated. To bridge the gap, this study examined the efficacy of explicit and implicit peer feedback for grammar development of this age bracket.

**Method:** Some intermediate language learners aged over 50 (M= 64.5) at a non-profit retirement institute sat for a pretest, four posttests, a group interview, and member checking sessions. They exchanged explicit peer feedback on grammar errors in the first four sessions and implicit peer feedback in the next four sessions (i.e. counterbalanced design).

**Results:** Following data pruning via mean imputation, univariate outlier detection, and normality tests, the ANOVA results manifested that implicit feedback was significantly more helpful in grammar development for the participating elderly learners. Overall, the interviewees appreciated peer feedback as a supportive approach, arguing that correcting others' errors created a mutual opportunity for both partners. They also enjoyed the group work and scaffold which prompted their language development.

**Conclusions:** The study concluded that implicit peer feedback was significantly more effective for elderly language learners' grammar development, while they seemed to be slightly more in favor of explicit peer feedback for easier and more efficient noticing.

**Cite this article:** Zolala, F. , Ghahari, S. and Ebrahimi, F. (2026). Which Feedback to Privilege for Elderly Language Learners: A Study of Explicit and Implicit Peer Feedback. *Journal of Foreign Language Research*, 16(1), 61-86  
[https://doi.org/ 10.22059/jflr.2026.403239.1248](https://doi.org/10.22059/jflr.2026.403239.1248)



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**Publisher:** The University of Tehran Press.

**DOI:** [https://doi.org/ 10.22059/jflr.2026.403239.1248](https://doi.org/10.22059/jflr.2026.403239.1248)

## 1. INTRODUCTION

Contemporary scholars maintain that it is the first time to realize that humanity is becoming older as a whole (Antoniou & Wright, 2017; Lezaic et al., 2020). In recent years, the population aged above 50 years is growing most rapidly all around the world, and by 2050, the number of the population aged above 60 years will reach to 2.1 billion, according to the World Health Organization (WHO, 2024). As long as the geriatric population is growing so fast, improvement of this stage of life and learning may matter more (Klimova & de Paula Nascimento Silva, 2024). Nowadays, life expectancy and hopefulness have increased in the elderly population (Jacobs et al., 2021). Nevertheless, this phenomenon is in tandem with some new challenges: the most significant challenge is the endeavor to enhance their quality of life and to increase the satisfaction levels of autonomy throughout their lives (Steptoe, & Wardle, 2017; Zaninotto et al., 2016). Additionally, lifelong learning courses can serve as an effective strategy for health promotion by reducing health and social inequities, thereby helping older adults maintain a high quality of life and support their ongoing development and personal autonomy within their communities (Bar-Tur, 2021; Narushima et al., 2018).

By aging, cognitive decline pertaining to brain atrophy is inevitable. However, educational interventions enable older adults to engage in cultural and social practices that enhance brain activity and health outcomes (Hong et al., 2023). Second language (L2) learning in older population is perceived as the best solution to age-related cognitive decline “because language learning engages an extensive brain network that is known to overlap with the regions negatively affected by the aging process” (Antoniou & Wright, 2017, p.1). Research indicates that foreign language learning (FLL) offers significant advantages for enhancing cognitive functions, including working memory, and contributes to various aspects of life such as travel and communication (Klimova, 2021). Advanced proficiency in a foreign language is still achievable for individuals in this age group (Wang et al., 2023), even though complete mastery of a second language is less likely for adult learners (Nilsson et al., 2021).

Corrective feedback (CF) is defined as a reaction toward learners’ written or spoken utterances to make them notice their errors and try an accurate form. There are different manners of CFs that fall within the implicit-explicit spectrum (Lyster et al., 2013; Lyster & Ranta, 1997; Sheen & Ellis, 2011). In addition, over the past few years, there has been a significant shift from teacher-centered to learner-centered teaching methodologies. One of the important approaches of this learner-centered style, which highlights the role of collaboration, is peer assessment (Ghahari & Farokhnia, 2017). Peer feedback is defined as “an arrangement in which individuals consider the amount, level, value, worth, quality, or success of the products or outcomes of learning of peers of similar status” (Topping, 1998, p. 250). Consequently,

addressing different kinds of errors necessitates employing various types of feedback tailored to specific needs and situation (Tsang, 2004); there are many debates over supplying appropriate CF types in different pedagogical contexts and to different learner groups. Proper selection of error treatment is highly influenced by the age of learners (Ghahari & Farokhnia, 2017; Lyster & Saito, 2010). However, there is a lack of studies investigating the effectiveness of CF in the context of older language learners. In what follows, previous studies into CF variations and elderly learners' L2 acquisition are reviewed, followed by the research gaps and questions.

## **2. LITERATURE REVIEW**

### **Feedback Variations: Explicit vs. Implicit**

Provision of CF and its impact on language development have increasingly received significant attention (Akbari, 2021; Alkhawajah, 2022; Bitchener & Storch, 2016; Lee, 2013; Li, 2010; Liu & Feng, 2023; Lyster & Saito, 2010; Mao, et al., 2024; Pan, et al., 2023; Pawlak, 2013; Sato & Lyster, 2012). Numerous studies have compared the effectiveness of explicit and implicit corrective feedback (CF) across various pedagogical contexts. Some studies disclosed that explicit CFs are more helpful than implicit ones such as recasts. Seyyedrezaie et al. (2016), for example, claimed that explicit CFs are more practical since they prevent confusion in understanding the erroneous piece of language. Lyster (1998) argued that implicit CF, like recasts, is ambiguous for young learners, particularly in communicative classes. Besides, Ellis, Loewen, and Erlam (2006) tried to compare the efficacy of metalinguistic feedbacks with recast on intermediate learners' proficiency of English regular past tense. It was concluded that learners provided with metalinguistic feedbacks exceeded others who received recasts.

Additionally, Egi (2010) considered implicit feedback as less advantageous strategy for correcting erroneous utterances and that is because of fewer rates of learners' uptakes or reaction to CF. Also, Varnosfadrani and Basturkmen (2008) accounted explicit feedbacks more amenable for learners. They claimed that explicit reactions are clearer and more intelligible, and they can easily attract learners' attention. Finally, Lee (2013) asserted that learners tend to prefer explicit and instant CFs provision during teacher-student interactions and during their conversations.

On the other hand, some studies (e.g., Han, 2002; Iwashita, 2003) considered recasts or implicit CFs as a practical technique of corrective moves. If assuming students' uptake as usefulness of supplying feedbacks, Lee (2013) regarded recasts, which provoked 92.09% learner uptake, the most frequent CF according to his research. Sheen (2004) who studied the amount of recast usage in immersion, communicative English as a second language, declared that almost 60% of corrective feedbacks are recasts. Panove and Lyster (2002) also claimed that

recasts are the most prevalent feedbacks and can prevent negative effects. Ghahari and Piruznejad (2016) strived to investigate the suitable CF for young learners' grammar uptake and willingness to communicate. It was concluded that implicit CFs are more effective in willingness to children's classroom activity and unconscious L2 learning. They claimed that recasts are more compatible for young children because "(a) linguistically by their inherently unobtrusive and communication-friendly properties and (b) affectively as a result of being less face-threatening and anxiety-provoking than many other corrective moves." (p. 203).

Rassaei and Moinzadeh (2014) analyzed learners' perceptions and attitudes toward recasts and metalinguistic feedback and concluded that metalinguistic ones are more compatible to students' ability to construe the mismatch of correct form and incorrect utterance. Furthermore, they also asserted that elicitation type mostly leads to students' repair, but recasts are considered more putative. Another study tried to test the declarations of Truscott (2007) about corrections not being practical for grammatical errors and impede complex compositions made by learners in writing skill. As the findings revealed a stark contrast to Truscott's claims, it was also resulted that shrewdly selective of comprehensive CF can help the pupils to improve L2 language writing skill (van Beuningen et al., 2012). Additionally, Tsang (2004) asserted that regardless of classroom contexts, teacher should wisely choose different typed of CF contingent on different types of errors made by learners. In line with Lyster and Ranta (1997), he also added that 1. recasts are more appropriate for phonological errors, while grammatical errors favor negotiation facilitations; 2. the most prevalent *student-generated repair* is repetition; 3. the most widespread types of feedbacks are recasts and explicit feedbacks.

#### **Feedback Provider: Peer vs. Teacher**

As mentioned before peer feedback is "an arrangement for learners to evaluate and define the quality of performance of other similar-status learners" (Tseng & Tsai, 2010, p. 169). Recently, peer feedback in L2 writing has been of interest to L2 scholars (e.g., Chang, 2015; Hu, 2005; Wu et al., 2022; [Xu et al., 2023](#); Yu, 2016; Yu & Lee, 2015; Zhu & Mitchell, 2012). Several studies have compared peer and teacher feedback (Bitchener & Ferris, 2012; Niu et al., 2021; Miao et al., 2006; Ruegg, 2015; Shekarabi, 2023; Tsui & Ng, 2000; Yang et al., 2006), with Tsui and Ng (2000), Bitchener and Ferris (2012), Ruegg (2015), and Yang et al. (2006) reporting that learners attach greater significance to teacher feedback compared to peer feedback.

It is worth mentioning that Miao et al. (2006) regarded peer feedback as an advantageous approach even in cultures that the absolute authority is given to the teachers. Yu and Hu (2017) stated that contextual factors and individual differences highly influence peer feedback practices; "students' peer feedback practices are also historically embedded, socially

negotiated, and subject to the influences of an array of contextual factors such as examination-driven learning culture, group dynamics, and students' personal beliefs and motives" (p. 33). DeKeyser (1993) also claimed that the characteristics of the learners may play a vital role in effectiveness of CF. Besides, Azarnoosh (2013) put forward that peer feedbacks are contingent upon some factors such as learners' proficiency level, attitudes, acquaintance with the assessing criteria, the kind of skill being assessed, and some biases among students including friendship and gender. Moreover, peer feedback maintains authenticity and inclusiveness of the learners in the learning process (Alias et al., 2015). It is also claimed that peer feedback reinforces societal mastery, cognitive mastery, meta-cognitive strategy (De Guerrero & Vilallamil, 2000). Finding no notable difference between peer and teacher feedback, Azarnoosh (2013) uttered that peer writing assessment allows learners to have exposure to new opinions and new perspectives. Ruegg (2015) maintained that teachers and peers put emphasis on different aspects of writing; peers provide feedback on organization and academic style, but teachers provide feedback on grammar and content. Furthermore, some other studies (Chen, 2010; Cho & Sohn, 2007; Hedgcock & Lefkowitz, 1992; Yang, Badger, & Yu, 2006) suggested that surface-level errors be left to teachers and meaning-level to peers, whereas the opposite was found in recent studies (Lee, 2015; Tian & Zhou, 2020). One study was launched to compare the genuine execution and preferential attitude of pupils in three modes of assessment (peer, teacher, summative) by observing the improvement of writing skills ability after experimentation. The mismatch was found between the genuine performance and attitudinal beliefs of the participants under the very three assessments. The pupils opt for teacher feedback which is perhaps by virtue of the "culture-bound nature of educational" (p.286) system and Asian students' persistence in teacher-centered phase. Nevertheless, the results manifested that peer assessment group progressed in writing skill (Ghahari & Farokhnia, 2017).

Further, Diab (2016) traced the effects of different CFs (teacher, peer, self) on minimizing the percentage of pronoun agreement and lexical errors made in essays (The participants' age was between 18 to 23). The findings revealed that all groups had equal performance on pronoun agreement regardless of the received feedback. However, in self-feedback group, errors on lexical errors were diminished in comparison to other two groups. Cheng and Warren (2005) consider peer feedback as more commonly used in English writing classrooms. Although, Ferris (2006) claimed that the kinds of errors made by learners play more important role in accuracy than the types of feedback rendered by teacher, peers or self. Overall, it is difficult to strongly deduce that one feedback is superior over the other CFs and selection of suitable CF in different classroom contexts is an open-ended debate to investigate (Rassaei & Moinzadeh, 2014).

Peer feedback has been recognized as a valuable approach in L2 learning, allowing learners to evaluate each other's performance and engage actively in the learning process. Although some studies suggest that learners may assign greater value to teacher feedback due to its perceived authority and grammatical accuracy (Tsui & Ng, 2000; Bitchener & Ferris, 2012), research also indicates that peer feedback promotes cognitive engagement, exposure to diverse perspectives, and metacognitive strategy use (De Guerrero & Villamil, 2000; Alias et al., 2015). Its effectiveness depends on factors such as learners' proficiency, familiarity with assessment criteria, task type, and social dynamics. Moreover, peers often emphasize organizational and stylistic aspects of writing, complementing the teacher's focus on grammar and content. Taken together, these findings suggest that peer feedback can provide unique benefits in fostering learner autonomy, collaborative skills, and reflective thinking—factors particularly relevant for elderly learners, who may gain cognitive and social advantages from engaging in structured peer-mediated activities.

### **L2 Learning in Geriatric Population**

It is estimated that by the year of 2050 people aged over 60 will outnumber the young generation in developed countries and the number of people aged over 50 will be trebled (Olshansky et al., 1993). As stated formerly, by aging, Indispensable cognitive turmoil hijacks the feeling of independence and quality of life. The governments struggle is to apply a non-pharmacological approach to avert and eradicate cognitive atrophy in order to hinder the future social and economic costs (Statista, 2017). This non-pharmacological strategy consists three categories: cognitive rehabilitation, physical activities, and healthy diet (Klimova & Kuca, 2015). Teaching L2 as a cognitive intervention is the best solution to postpone cognitive decline and it may annihilate the intense dementia. It is due to the fact that teaching L2 will work on and improve the same parts in the brains which are negatively affected by aging process; aging is associated with collapse through variant regions of cognitive function and memory deterioration (Antoniou & Wright, 2017; Martensson et al, 2012).

In their systematic review, Klimova and de Paula Nascimento Silva (2024) analyze effective foreign language teaching approaches for older adults. The review reveals that the primary benefit for seniors is the subjective satisfaction gained from learning rather than achieving high proficiency levels. Additionally, foreign language learning enhances cognitive functions and promotes social engagement, contributing to healthier aging. The authors emphasize the need for tailored teaching strategies that create supportive environments and adapt to the specific needs of older learners, highlighting the crucial role educators play in fostering cognitive maintenance and overall well-being in this group. This research underscores the potential of

foreign language education as a means to improve quality of life for older adults (Klimova & de Paula Nascimento Silva, 2024).

The article by Kacetyl and Klímová (2021) explored effective teaching methods for foreign languages aimed at older adults, or third-age learners, through a literature review. Instruction should be student-centered and communicative, focusing on familiar topics and enhancing listening comprehension, while incorporating real-life experiences to engage intrinsically motivated learners. Learning a foreign language can lead to improved cognitive skills, greater social inclusion, and enhanced well-being, particularly in travel contexts (Kacetyl & Klímová, 2021). Mårtensson et al. (2012) tried to figure out how learning L2 influences the structure of the brain. Three months of intense language studies were applied which paved the way to the following result in structure of the human brain: “increases in hippocampus volume and in cortical thickness of the left middle frontal gyrus, inferior frontal gyrus, and superior temporal gyrus for interpreters relative to controls”. Additionally, teaching L2 for the older adults may enhance thinking skills, delay brain aging and increase mental legerity (Mårtensson et al, 2012, p. 240).

Bak, Long, Vega-Mendoza, and Sorace (2016) asserted that the intervention of L2 teaching to the older adults is better to be minimally 5 hours per week in order to affect the cognition of each individual. Besides, L2 learning in older adults should evoke motivation which makes the learning a challenge, a fun approach, a way to socialize and communicate, an opportunity for learning better, and a mode to run away from daily routine (Diaz-Orueta et al., 2012). Cheng et al., (2015) elucidated that L2 teaching to the older individuals in a period of time will change the ongoing process in the neurons of brain because brain stays plastic throughout whole life. Plus, Bellander et al. (2016) stated that learning L2 has favorable ramifications both on gray and white matter structure of brain.

Furthermore, Klimova (2018) declared that L2 learning in the older adults brings about some massive advantages including cognitive rehabilitation (amelioration in cognitive functioning), increase in self-esteem, and a way of socializing. In terms of cost-effectiveness, it brings about some ramifications in public health. It is also emphasized to teach foreign language in a way that it doesn't give rise to extreme anxiety and self-confidence annihilation. Examining the idea of regarding teaching L2 to older adult as a supreme solution for delaying cognitive atrophy (Antoniou et al., 2013), a survey in Sweden managed the intervention of 11 weeks' language teaching to 160 people aged 65-75. After juxtaposing pretest and posttest, they discerned that there were no significant changes and amelioration in the participants' cognition (Berggren et al., 2018).

Research on corrective feedback (CF) demonstrates that both explicit and implicit feedback can influence language learning, but their effectiveness may vary depending on learner characteristics and instructional context. Explicit CF, such as metalinguistic feedback or direct corrections, has been found to facilitate comprehension and prevent confusion, particularly by clarifying errors and attracting learners' attention (Seyyedrezaie et al., 2016). This form of feedback tends to be preferred by learners because it provides immediate and intelligible guidance. In contrast, implicit CF, such as recasts, can be effective in promoting uptake, especially in communicative settings, and may be less threatening or anxiety-provoking (Han, 2002; Iwashita, 2003; Sheen, 2004; Ghahari & Piruznejad, 2016). Van der Ploeg et al. (2023) compared implicit and explicit English instruction for older adults during a three-month course. Their results showed that learners who received explicit grammar instruction made greater improvements in working memory, and these gains remained at the three-month follow-up. Other mental skills did not differ between groups, but both groups improved in verbal fluency, suggesting that learning a new language in later life can have general cognitive benefits. Overall, the study indicates that explicit instruction may be especially helpful for supporting older adults' memory-related skills.

Despite extensive research on corrective feedback, few studies have examined how elderly EFL learners engage with explicit and implicit peer feedback in grammar-focused tasks. Previous findings have mainly focused on children and young learners, leaving gaps in understanding older learners' affective responses, preferences, and perceived learning value. Age-related cognitive and affective characteristics—such as slower processing speed, reduced working memory, and heightened sensitivity to anxiety—may influence how older learners perceive and respond to feedback. Explicit feedback provides clear guidance and explanations, which can reduce confusion and support learners with cognitive limitations, whereas implicit feedback encourages noticing and self-correction, fostering deeper engagement, intrinsic motivation, and autonomy. Investigating both feedback types is therefore crucial to understand how they differentially support grammar learning and affective outcomes in older adult populations. In line with the identified gaps, the following research questions guided the study.

1. Is there any significant difference between implicit and explicit peer corrective feedback for grammar development of elderly EFL learners?
2. How do elderly EFL learners perceive and experience explicit versus implicit peer feedback during collaborative grammar-focused tasks?

### **3. METHODOLOGY**

#### **Sample**

Fifteen retired females with minimum age of 50 and maximum age of 79 ( $M=64.5$ ) took part in the study. The participants were selected from Mehr Retirement Institute of Kerman (Iran). Based on the institute's in-house test in the previous semester, their proficiency level was intermediate. They studied the last chapters of Touchstone series (McCarthy, McCarten, & Sandiford, 2014), which was compatible with their proficiency level. In order to maximize the participants' willingness and engagement in this research project (inducement factor), the classes were conducted during that term without compensation.

The initial sample size comprised 30 participants; however, following data collection, it was observed that some students either submitted incomplete responses or were absent in two or more testing sessions. Consequently, data from these participants were excluded from the final dataset ( $n=15$ ). Despite the reduction in sample size, the remaining number of participants still adheres to the criterion established by Mackey and Gass (2010), which stipulates that a minimum of 15 participants per group is sufficient for experimental studies. Furthermore, to prevent further reduction in the sample size, a counterbalanced design was implemented, wherein each participant completed both instructional conditions but at different time points. Figure 1 below summarizes the research design.

Time 1 ( $n=15$ , four sessions): Pretest → EPF → Posttest 1 → Posttest 2

Time 2 ( $n=15$ , four sessions): IPF → Posttest 3 → Posttest 4 → Interview

Notes: EPF = explicit peer feedback, IPF = implicit peer feedback

### **Fig 1. Research design following counterbalanced procedure**

According to Field (2018), a counterbalanced design is primarily used in within-subject experiments to control for order effects, such as practice or fatigue. This is crucial when all participants are exposed to every level of the independent variable. By systematically varying the sequence of conditions across different participants, researchers ensure that any learning effects are distributed evenly across all treatments, rather than confounding the results for a single condition. This allows for a more precise isolation of the true effect of the experimental intervention. Moreover, this design allowed for direct comparison of the two feedback types within the same learners, controlling for individual differences in proficiency, motivation, and engagement. Of these participants, five were available for the interview.

### **Instruments**

There were four sets of parallel grammaticality judgment tests: a pretest, two immediate posttests, two delayed posttests, and a structured interview. In what follows each instrument is described in detail.

The pre-test and post-test were parallel tests consisting of 33 grammaticality judgment items and controlled production tasks. While the former was in the form of dichotomous items (true/false), the latter required the learners to convert verbs tenses. The tests were designed to assess participants' receptive and productive knowledge across sessions. To ensure clarity and accuracy, the test was reviewed and approved by a senior faculty member specializing in second language assessment. The comments were used to evaluate the test's comprehensibility, difficulty level, and item clarity, particularly to avoid tasks that might cause cognitive overload or writing stress for elderly learners. Minor revisions were made based on the review results, and the researchers reached full consensus. (Appendix A). In this study, the simple past and future tenses were selected because these grammatical points corresponded with the scheduled content in the textbook being used at the time. This alignment ensured that the tenses were not only relevant to the learners' curriculum but also timely for their instruction. By focusing on these specific tenses, the study allowed for targeted practice that directly reflected the material being taught.

The interview consisted of 7 items to gather qualitative data on learners' perceptions and experiences during the eight-session writing intervention. The interview explored five broad areas, including: perceptions of the assessment and writing process, experiences with explicit and implicit peer feedback, dyadic collaboration, affective responses such as anxiety and self-confidence, and classroom-related and practical issues. (Appendix B)

### **Data Collection Procedure**

The experimentation lasted 10 sessions with one session per week. The participants gave informed consent to attend the experiment. One of the researchers served as the classroom teacher. Each session was divided into four sections of reviewing, teaching new lessons, practicing, and finally writing for the purpose of this research, which took almost 20 minutes.

Prior to the peer feedback intervention, participants received a handout explaining how to provide corrective feedback. The handout included sample sentences, instructions on explicit and implicit feedback, and examples of brief explanations for corrections. The instructions were initially provided in English to familiarize participants with the procedure and terminology, and then translated into Persian (L1) to ensure comprehension and clarity.

After administration of the pretest, the participants were handed a paper to write down at least 5 sentences for each tense; for simple past tense, they were supposed to write down what they learnt and what happened previous session, that is to say they evaluated the previous session of English class. For future tense, they were asked to anticipate the next session of teaching; they wrote what would happen and what they guessed they would learn next session. This routine prolonged for eight consecutive sessions. The experimentation included two

phases of four sessions. For the first four sessions, the participants were corrected by explicit written feedback (the wrong sentence was underlined and the correct form was supplied). In the second four sessions, they received implicit written feedbacks (just the erroneous forms were underlined). The time given was 40 min, and pseudonyms were chosen by the participants.

During each session, the instructor briefly reviewed the target tenses and modeled the feedback process in English. Peer feedback was conducted in English, as the comments and correction notes on the written texts were in English. However, if a participant did not understand the feedback—particularly in the explicit feedback condition—a brief explanation was provided in Persian to clarify the grammatical point while maintaining the original corrective intent. This approach ensured that participants received cognitively appropriate guidance without disrupting the focus on the target language. Moreover, the focus on simple past and future tenses was maintained throughout the intervention to make the feedback manageable, cognitively appropriate, and clearly targeted for the study's purposes.

This study addressed writing errors because the error is obvious in writing and corrective feedbacks are more noticeable for the learners (Ferris, 2006). That is why peers were asked to react only on the erroneous forms which are not accurate in the case of simple past and future tense. Right after each phase (four sessions), an immediate posttest was administered, and the next week, a delayed posttest was run. One week after the last delayed posttest, an interview was conducted in order to perceive the attitudes and feelings of the learners during the survey. In order to save time and maximize comprehension, the interview was conducted in Persian and the responses to were then transcribed and translated into English. Five participants took part in the interview over a 15-minute session.

#### **4. RESULTS**

##### **Preliminary analyses**

The test scores were scanned for unusual response patterns and missing values. The items were found to be answered acceptably since there was no instance of identical response patterns. However, there were eight cases of nonresponses (9.66 %) in the raw data. Multiple imputation or deletion (listwise or pairwise) methods are not recommended here for the following reasons: (a) The number of the nonresponses was not large enough, thus violating the main assumption of multiple imputation (< 10%); (b) The missing values were of MCAR (missing completely at random) type, in which case respondents with missing data were not systematically different from those with complete response patterns.

Thus, in order to avoid reducing sample size and minimize the possibility of data bias, mean imputation method (Enders, 2010) was adopted for treating the nonresponses. It was done by replacing the missing values with the mean for each item (i.e. average score of the available

cases at the item level) in the following way: The two missing values in the pretest were substituted with 22; the three in the first posttest were replaced with 22; and the three in the second posttest were replaced with 23.

The next step was to check the data for statistical outliers. After computing the z-scores, they were scanned for the occurrence of any extreme, probable, and potential outliers. According to Field (2018), in normal distributions nearly 95% of the scores should fall in the acceptable range and the remaining 5% (or less) can be either potential or probable outliers; no extreme outliers should occur. To detect the outliers, Field's (2018) syntax was run in SPSS. The results revealed that the two assumptions were accurately met since more than 95% of all the cases fell within the normal range ( $z < 1.9$ ) and less than 3% were either potential or probable outliers ( $1.9 < z < 3.2$ ).

The outputs of the normality statistic suggested that the few outliers observed in the five tests (i.e. pretest and the four posttests) did not have a strong effect on the mean scores and that the data was normally distributed across the sample: (a) The original and the new trimmed means in all the five tests were not markedly different; (b) The skewness and kurtosis values were within the acceptable range defined for normal univariate distribution ( $+2 \leq X \leq -2$ ) (George & Mallery, 2010); (c) The Kolmogorov-Smirnov test results were non-significant ( $p > .05$ ), implying normality of the data (Table 1); and finally (d) In the normal Q-Q plot, the scores appeared to be reasonably normally distributed. Accordingly, the researchers could safely proceed with parametric statistics for data analysis.

**Table 1. Kolmogorov-Smirnov Results of the Five Tests**

Tests	Skewness	Kurtosis	Statistic	Sig.
Pretest	-.379	-.928	.156	.200
Posttest 1	-.309	-.067	.176	.200
Posttest 2	-.133	-.570	.106	.200
Posttest 3	-1.418	1.642	.210	.073
Posttest 4	-1.611	1.023	.215	.060

### Reliability and Descriptive Analyses

The reliabilities in this study were estimated using Cronbach's alpha coefficient. Cronbach's alpha is the most common test to estimate instrument reliability in L2 research, particularly with composite variables (Plonsky & Derrick, 2016). The reliability indices of the five tests fell, according to George and Mallery (2010), within the acceptable range ( $.8 \leq \alpha \leq .9$ ) and were as follows: pretest ( $\alpha = .927$ ), posttest 1 ( $\alpha = .874$ ), posttest 2 ( $\alpha = .906$ ), posttest 3 ( $\alpha = .881$ ), and posttest 4 ( $\alpha = .883$ ).

As Table 2 depicts, the performance of the sample experienced a consistent progress from pretest ( $M = 22.20$ ,  $SD = 6.95$ ) through to posttest 4 ( $M = 27.27$ ,  $SD = 5.81$ ), with the dispersion

being diminished along the way. This suggests that, all other things being equal, the treatment has steadily been effective in improving the sample's grammar (here tenses) knowledge.

**Table 2. Descriptive Statistics of Group Performance across Test Conditions.**

Tests	Mean	Std. Deviation
Pretest	22.20	6.95
Posttest1	22.33	5.98
Posttest 2	23.27	5.56
Posttest 3	27.20	5.46
Posttest 4	27.27	5.81

### Treatments Comparison Across Tests

Following the assumptions of counterbalanced design, the sample in this study exchanged peer feedback in two different forms: first explicitly (before posttests 1 and 2) and then implicitly (before posttests 3 and 4). As one and the same sample experienced the treatments and performed the tests, the one-way repeated measures ANOVA was used for comparing its performance across test conditions.

Table 3 summarizes the multivariate tests results. The index of Wilks' Lambda test, the most commonly reported statistic, is .125 ( $F 4, 11 = 19.177$ ) with a probability value of .000 ( $p < .05$ ). It implies then that there is a statistically significant effect for test factor; that is to say, the sample has performed significantly differently across the five test conditions. Moreover, following Cohen's (1988) criteria, the result suggests a very large effect size ( $\eta^2 = .875$ ).

**Table 3. Multivariate Tests Results.**

Effect		Value	Sig.	Partial Eta Squared
Test	Pillai's Trace	.875	.000	.875
	Wilks' Lambda	.125	.000	.875
	Hotelling's Trace	6.973	.000	.875
	Roy's Largest Root	6.973	.000	.875

Since a significant difference was observed between the results of the five tests (Table 3), pairwise comparison (i.e. comparison of each pair of test conditions) was needed in order to detect where exactly the differences lay. As Table 4 depicts, there are significant differences at five points: (a) between pretest and posttest 3 ( $MD = -5.00, p = .02$ ), (b) between posttests 1 and 3 ( $MD = -4.86, p = .00$ ), (c) between posttests 1 and 4 ( $MD = -4.93, p = .00$ ), (d) between posttests 2 and 3 ( $MD = -3.93, p = .03$ ), and finally (e) between posttests 2 and 4 ( $MD = -4.00, p = .02$ ). Thus, no significant differences were observed between pretest and posttests 1 and 2, on the one hand, and between posttests 1 and 2, on the other hand. It must be noted that posttests 1 and 2 were administered after explicit feedback provision, while posttests 3 and 4 were after implicit feedback.

While the sample has made a steady progress in tense development from the pretest through to the last posttest, the results suggest that the development is not statistically meaningful until posttest 3. It suggests that explicit peer feedback in the first half of the instruction (until posttests 2) was practically less effective than the implicit feedback in the second half (posttests 3 and 4). It can thus be claimed that for this age group (i.e. elderly learners) implicit feedback has been significantly more helpful in grammar development.

**Table 4. Pairwise Comparisons across Test Conditions.**

Test		Mean Difference	Std. Error	Sig.
Pretest	posttest 1	-.133	1.463	1.000
	posttest 2	-1.067	1.378	1.000
	posttest 3	-5.000*	1.335	.022
	posttest 4	-5.067	1.544	.055
Posttest 1	Pretest	.133	1.463	1.000
	posttest 2	-.933	1.449	1.000
	posttest 3	-4.867*	.774	.000
	posttest 4	-4.933*	.954	.001
Posttest 2	Pretest	1.067	1.378	1.000
	posttest 1	.933	1.449	1.000
	posttest 3	-3.933*	1.115	.033
	posttest 4	-4.000*	1.108	.028
Posttest 3	Pretest	5.000*	1.335	.022
	posttest 1	4.867*	.774	.000
	posttest 2	3.933*	1.115	.033
	posttest 4	-.067	.300	1.000
Posttest 4	Pretest	5.067	1.544	.055
	posttest 1	4.933*	.954	.001
	posttest 2	4.000*	1.108	.028
	posttest 3	.067	.300	1.000

### Interview Results

The interviews were transcribed and analyzed following content and thematic analyses approach. They were later translated into English for reproduction in the present report. To make sure that the findings have credibility and validity, follow-up member checking (Corbin & Strauss, 2008) were applied, discussing individually with the interviewees their comments and justifications. Sample excerpts from the students' responses have been translated below.

*Extract # 1: I enjoyed the fact that my classmates and I were supposed to correct the erroneous compositions in a teamwork. This method allows me to pay more attention and learn the tenses. Also, giving feedback and read others' piece of writing make us more active.*

*Extract # 2: I liked the team work but I prefer the teacher feedbacks because I think some of my classmates do not have the knowledge that it takes.*

*Extract # 3: I prefer the explicit feedback because this allows us to construe the incorrect piece. In my opinion, the peer assessment was practical because it is useful for two people at the same time. The idea of correcting errors by classmates makes me reciprocate more for the next time.*

*Extract # 4: Peer feedback was a new, active and useful strategy. I think in listening skill it can be very helpful.*

*Extract # 5: Peer feedback makes me remember more the grammar point. Sometimes peer corrections are more helpful. Explicit peer feedbacks make us learn better. This technique is helpful in speaking too only if the peer correction supplied sentence by sentence. But after the peer feedback I prefer provision of teacher assessment too.*

Overall, the qualitative results were not in line with the quantitative analyses. The learners preferred explicit CFs over implicit ones by virtue of its easier way to notice the erroneous form. They also appreciated their mutual active role in classroom through giving peer feedbacks and considered this way of correction as a novel approach. Yet, claiming about the strength of this difference must be practiced cautiously.

## 5. DISCUSSION AND IMPLICATIONS

In this study, the efficacy of explicit and implicit writing feedback in elderly learners was examined. Learners were asked to supply explicit and implicit CFs on simple past and future errors of their classmates' writings (peer feedback). According to the tests results, for this age group (i.e. elderly learners) implicit feedback was significantly more helpful in grammar development. However, in the interview they favored explicit feedback due to its ease of noticing.

The qualitative findings derived from interview data reveal that elderly learners express a preference for explicit feedback, whereas quantitative data indicate that implicit feedback is more effective in promoting their grammatical development. This apparent discrepancy can be explained through several complementary theoretical frameworks. Krashen's (1982) *affective filter hypothesis* posits that learners' emotional states significantly influence language acquisition. According to this hypothesis, while explicit feedback provides clear and direct correction, it may induce anxiety or embarrassment in older learners, which in turn raises the affective filter and potentially limits their ability to process linguistic input. In contrast, implicit feedback tends to foster a less threatening learning environment, which may facilitate language development by maintaining a lower affective filter. Moving beyond affective considerations, Schmidt's (2001) *noticing hypothesis* underscores the necessity of conscious attention to

linguistic forms for acquisition to occur, which aligns with elderly learners' preference for explicit feedback as it renders errors and corrections more salient and accessible to conscious processing. Further supporting this perspective, Carroll's (2001) *autonomous induction theory* contends that feedback is effective only when learners recognize its corrective intent, thereby emphasizing the critical role of explicit feedback in promoting awareness. In light of these perspectives, although elderly learners may report a preference for explicit feedback due to its clarity and salience, the greater effectiveness of implicit feedback likely stems from its ability to lower affective barriers while still engaging the cognitive processes essential for grammatical development.

Some studies like Han (2002), Iwashita (2003), Sheen (2004), Ghahari and Piruznejad (2016), Hosseiny (2014), and Mujtaba et al. (2020) are on par with this finding. That is to say, they affirm that implicit feedbacks may promote L2 advancement. On the other hand, the results are in stark contrast to the results of other studies like Lee (2005), Ellis et al. (2006), Varnosfadrani and Basturkmen (2008), Egi (2010), Rassaei and Moinzadeh (2014), Yilmaz (2013), which displayed explicit CFs are more practical for L2 learners. There are still some studies which found no significant difference between explicit and implicit feedbacks (e.g., Goo, 2012; Loewen & Nabei, 2007). Given the growing geriatric population and their unique learning needs, it is crucial to explore effective feedback methodologies tailored to elderly learners.

According to Ghahari and Piruznejad (2016), implicit feedbacks psychologically reduce negative filters and linguistically maintain *communication-friendly properties*. Terrel (1977) declared that affective factors are more important than cognitive factors in L2 learning classrooms. On this basis, Russell (2009) accounted explicit CFs inadequate.

Opposing to most studies, this study addressed the elder learners. The age range of 50-79 was chosen because geriatric population is growing rapidly around the globe (Jafari & Hesampour, 2017). Unavoidably, aging is concomitant with some cognitive impairment and neural collapse. This impairment of cognitive functions hijacks autonomy and independence whose negative impact has a great share in elderlies' quality of life (Cheng et al., 2015). It is predicted that shielding against age-related cognitive atrophy is going to become an important issue in the upcoming decades (Kazazi, 2017).

According to Mårtensson et al. (2012), learning a foreign language for elderlies is a very helpful cognitive intervention. It can highly prevent cognitive atrophy which is a concern for all the elder population (Antoniou et al., 2013). This claim is due to the fact that L2 learning is accompanied by a vast network of the brain involvement (Rodríguez-Fornells et al., 2009) that overlaps with the network of collapse due to aging. In other words, learning a foreign language

will work on and improve the same parts in the brain, which are negatively affected by aging process. Hence, it is maintained that learning a foreign language is an optimal solution for brain collapses (Antoniou et al., 2013). Thus, the number of elderlies who opt for attending English classes to rehabilitate cognition has increased. Having more free time after retirement and disposition to travel abroad can be other reasons for their L2 learning tendency.

As the geriatric population is growing so fast and the demand for foreign language learning in this stage of life has augmented, instead of neglecting this age range and trivializing the importance of effective learning methodologies, it is advisable to probe into suitable techniques germane to their needs and traits. That is why learners aged over 50 were selected here. The result showed a steady progress in tense development from the pretest through to the last posttest. However, the development is not statistically meaningful until Posttest 3. It implies that explicit peer feedbacks in the first half of the instruction (until Posttests 2) were practically less effective than the implicit feedbacks in the second half (Posttests 3 and 4).

Classroom observation demonstrated that in different situations different kind of CFs were used by the instructor. Explicit feedbacks were preferred in the circumstances in which it was aimed to (a) prevent overgeneralization (b) attract attention (c) clarify some difficult language points. But while learners were trying to communicate, the explicit CFs were not dispensed in order to create an incentive for conversation flow. It is worth mentioning that when learners themselves demanded corrections from the instructor, evidently explicit CFs were supplied. However, it was perceived that unwanted explicit CFs supplied by peers or the teacher made them unnerved and embarrassed.

The fact that learners notice the gap between incorrect utterances and correct ones, is not always fixed which transpires that it can be influenced of some factors such as age and other external and internal factors (Kim, 2004). In order to rest assured that everyone perceive and take advantage of CFs, language learners are recommended to

1. Apply different CFs for different kinds of errors and dispose different kinds of CFs for different individual characteristics.
2. Provide an intimate atmosphere and avoid building intimidating environments in classroom.
3. Put forth collaborative activities not only in assessments but in learning process in order to work and learn with peers.

## **6. CONCLUSION AND LIMITATIONS**

The current study tried to perceive the efficient peer feedback in elderly L2 learners. While implicit feedback was more effective in their test performance, explicit feedback was more appreciated by the learners in the interview. This contrast underscores the importance of

balancing cognitive and affective considerations in teaching older learners: even if implicit feedback is more effective for learning outcomes, learners may emotionally favor explicit guidance, highlighting the need for careful integration of both strategies in classroom practice. Teachers are recommended to provide explicit feedback selectively for difficult or ambiguous language points and use implicit feedback to maintain fluency and engagement, thus fostering collaborative peer environments and creating a supportive, low-anxiety classroom atmosphere.

The study has several limitations: the small, single-gender sample from a single Iranian retirement institute limits generalizability; the short duration of the intervention may not fully capture long-term effects; and the focus on grammar in writing restricts applicability to other language skills or age groups. Future research could expand to more diverse samples, longer interventions, and a broader range of tasks to strengthen methodological rigor and practical relevance.

**1. The author declares that this article did not receive financial support from any institution, educational center, or approved research project.**

**2. The author declares that there is no conflict of interest related to this research.**

**3. The author declares that no generative artificial intelligence was used in writing this article and that the entire work is their own creation.**

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### Appendix A: Sample test items

1- Past tense; (dichotomous items; put C (correct) and I (incorrect)):

- a) Last night, a small airplane flied over our house several times.
- b) I really enjoyed my last vacation.

2- Write the past form of the verbs;

- a) Talk about your father
- b) Wake up early

3- Future tense; (dichotomous items; put C (correct) and I (incorrect)):

- a) John will cook some chicken and rice for dinner tonight.
- b) I am going to look for a new apartment.
- 4- Change the phrases into future;
  - a) Rain tomorrow (be going to)
  - b) Paint my bedroom next week (will).

**Appendix B: Interview questions**

- (a) What is your idea about the type of writing assessment you practiced in this semester?
- (b) Do you prefer this method over the assessment types you have practiced before? (Explain why)
- (c) What (dis)advantages does it have compared with other methods?
- (d) Could you describe your feelings while receiving these forms of feedback?
- (e) Are you willing to practice the same assessment process in the next semesters?
- (f) Are you interested in applying the same process in your speaking and listening skills?
- (g) What suggestions do you have for better implementation of this type of assessment?