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Implicit form-focused instruction: The impact on the implicit and explicit knowledge of Malaysian ESL learners

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ABSTRACT

Considering that previous research had predominantly focused on explicit FFI as the preferred method to enhance explicit and implicit knowledge, This study examined the impact of implicit form-focused instruction (FFI) on learners' explicit and implicit knowledge. This quasiexperimental study was conducted at a selected international school in Malaysia, with 30 participants divided into two intact groups: an experimental group and a control group, each comprising 15 participants. The explicit and implicit knowledge of learners were assessed utilizing four tests: Elicited Oral Imitation Test (EOIT), Timed Grammatical Judgment Test (TGJT), Untimed Grammatical Judgment Test (UGJT), and Metalinguistic Knowledge Test (MKT). ANCOVA and Scheffe's tests were used to analyse the obtained data. The findings demonstrated that implicit FFI, like applying input enhancement techniques and recasting, significantly affected learners' implicit and explicit knowledge. This finding suggests that learners do not need to improve explicit knowledge to enhance their implicit knowledge. Therefore, the significant role of implicit FFI in second language acquisition (SLA) should not be underestimated. Thus, teachers could consider the effectiveness of implicit FFI when crafting impactful lessons that consider implicit and explicit knowledge. Also, this study has provided reliable support indicating that L2 learners would substantially benefit from pedagogical activities, such as input enhancement and recasting.

Keywords: Explicit knowledge, form-focused instruction (FFI), implicit knowledge, input enhancement, recasting

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INTRODUCTION

Given the fact that FFI has a beneficial effect on second language acquisition (SLA), evaluating implicit knowledge as an outcome of FFI is necessary since previous studies have mostly focused on explicit instruction and measuring explicit knowledge (Hojjat & Hasim, 2022; Kim et al., 2022; Zhao & Ellis, 2022). The absence of structure awareness is what sets explicit FFI apart from implicit FFI (Ellis, 2001; Hojjat & Hasim, 2022; Kang et al., 2019). Consequently, more studies focusing on the effect of implicit FFI on implicit knowledge that helps learners in effective communication are necessary (Hojjat & Hasim, 2022). Considering the historical sketch of FFI, it is clear that the researchers' emphasis on the type of knowledge and the way FFI has been implemented has shifted (Chen & Li, 2022; Ellis et al., 2019; Kang et al., 2019; Khezrlou, 2019; Kisselev et al., 2020; Lee, 2021; Schenck, 2019; Sun & Zhang, 2021; Xu & Li, 2021; Zhou & Lü, 2022). However, there is a substantial gap, indicating that most of the FFI experiments have concentrated on students' explicit knowledge, urging further inquiry. It also

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draws attention to the fact that only a few studies have sought to evaluate and analyze learners' implicit knowledge. Previous research has primarily focused on explicit FFI and explicit knowledge, including grammatical ability while ignoring implicit knowledge, which assists students in communicative competence (Ellis, 2008; Kang et al., 2019; Nguyen et al., 2012; Qian & Li, 2022; Spada, 2011). Along with the type of knowledge, two essential factors (length of treatment and number of tests) need to be considered to have more accurate results measuring implicit and explicit knowledge of learners as the outcome of implicit FFI. There are not enough tests that can measure implicit and explicit knowledge separately, and consequently, tests that have the distinct parameters of two forms of knowledge (explicit and implicit) should be developed and used to measure implicit and explicit knowledge separately (Bowles, 2011; Ellis & Loewen, 2007; Ellis et al., 2006; Hojjat & Hasim, 2022; Kang et al., 2019; Ranta & Lyster, 2018).

Form-focused instruction incorporates all types of explicit or implicit instruction that aims to direct second language learners' attention to linguistic forms (Ellis, 2001). This concept goes beyond mere grammar and includes the meaning of language as well. The term "FFI" encompasses various related terms used in this field, such as "focus on form" and "focus on forms" proposed by Long (1991), along with "corrective feedback" and "negotiation of form" suggested by Lyster and Ranta (1997). Including both traditional teaching methods and communicative approaches, FFI allows students to focus on language form through exercises that address language's lexical, grammatical, phonological, and pragmatic components (Ellis, 2001). Instructors guide learners through cues and feedback, helping them recognize the connections between forms and their functions (Doughty & Williams, 1998, as cited in Ellis, 2001). Implicit FFI, unlike explicit instruction, focuses on the linguistic structure in context and allows for its free usage within that context (Lee, 2022; Nguyen et al., 2012). Implicit FFI does not require learners to specifically attend to the structure or provide a formal definition of the form (Ellis, 2015; Spada & Tomita, 2010; Zhao & Ellis, 2022). Owing to the interface between implicit and explicit knowledge (probability for explicit knowledge to transform into implicit knowledge) and the assumption that L2 development is substantially different from L1 development, corrective feedback, as a means of FFI to enhance implicit and explicit knowledge and to make the evaluation process more manageable, has become more prevalent in recent years (Bryfonski, & Ma, 2020; Ebadi, 2015; Godfroid & Kim, 2021; Lee, 2022; Suzuki & DeKeyser, 2017; Wang, 2017). It needs to be considered that the effectiveness of FFI and its measurement is related to the impact of various types of corrective feedback as techniques of teaching both implicit and explicit FFI on different language features and forms, and further research is needed to directly evaluate the effects of corrective feedback as means of implicit and explicit FFI on students' implicit and explicit knowledge (Ellis,2005; Ebadi, 2015; Lee, 2022; Suzuki & DeKeyser, 2017).

Scholars believe that evaluating pupils' implicit knowledge as the research outcome is essential. Norris and Ortega (2000), along with others (e.g., Kang et al., 2019; Lee, 2021; Nassaji, 2016: Ranta & Lyster, 2018: Schenck, 2019: Tedick & Young, 2016; Yang & Ren, 2019; Zhou & Lü, 2022) have provided ample data to support FFI and its effect on SLA, especially enhancing explicit knowledge. The majority of FFI research has focused explicit instruction on and explicit outcomes (Qian & Li, 2022; Ranta & Lyster, 2018; Spada, 2011). The concern is whether FFI helps students acquire implicit knowledge as the spontaneous skill that helps them in communication (Ellis, 2005; Qian & Li, 2022; Ranta & Lyster, 2018).

To measure implicit and explicit knowledge accurately, it is essential to use tests that integrate the different criteria of these two types of language knowledge (Cetin, 2022; Ebadi, 2015; Kang et al., 2019; Xiong, 2022). It is difficult to measure implicit and explicit knowledge independently (Ellis, 2015; Kang et al., 2019; Xiong, 2022), and experimental studies to measure these two types of knowledge separately by applying an adequate number of tests can provide benefits to evaluate explicit and implicit knowledge independently. Experimental data in linguistic knowledge assessment have provided compelling evidence that there is a difference between implicit and explicit knowledge; however, precise tests of either implicit or explicit knowledge are difficult to develop (Cetin, 2022; Ellis, 2005). "Most of the studies that investigated the relative effectiveness of implicit and explicit instruction [specifically corrective feedback] relied on methods of measuring acquisition that favoured explicit instruction" (Ellis, 2009, p. 20). "It can be argued that they were biased in favour of explicit corrective feedback" (Ellis et al., 2006, p. 351). Assessments that test students' explicit knowledge are considered to benefit explicit instruction, and three-quarters of available tests have evaluated learners' explicit knowledge, not their implicit knowledge (Qian & Li, 2022; Spada, 2011; Wang, 2021). Due to the evaluation difficulty of explicit and implicit knowledge separately, few researchers have examined it so far (Ebadi, 2015; Wang, 2021;). The debate over the effectiveness of explicit instruction was enlivened by this measurement difficulty (Ebadi, 2015; Hulstijn, 2005; Suzuki & DeKeyser, 2017; Wang, 2017; Wang, 2021; Zhao & Ellis, 2022).

The current study aims to emphasize the importance of implicit FFI in raising ESL learners' awareness of linguistic forms. This awareness plays a crucial role in enabling learners to convey their and improve their messages accuracy in communication effectively (Kang et al., 2019; Lee, 2022). By focusing on implicit instruction, this study investigated whether learners who actively notice and attend to linguistic forms can enhance their implicit and explicit knowledge. Considering the measurement issue (number of tests) in previous studies and also addressing the length of treatment issue (e.g., Lan & Wu, 2013; Shintani & Ellis, 2013), the current study tried to fill the gap between theory and practice by measuring the effect of implicit FFI, in form of implicit corrective feedback (recast and input enhancement) on implicit and explicit knowledge independently by using four tests, two to measure the implicit knowledge, Elicited Oral Imitation Test (EOIT) and Timed Grammatical Judgment Test (TGJT), and two to measure the explicit knowledge, Untimed Grammatical Judgment Test (UGJT) and Metalinguistic Knowledge Test (MKT). The two implicit knowledge tests, adapted from Ellis et al. (2009), were used in the current study after obtaining permission to employ them.

Given that the target form of the study, passive form with modal verbs, had not been previously examined, the researcher formulated the test items. The Elicited Oral Imitation Test (EOIT) was conducted as the initial assessment, followed by the Timed Grammatical Judgment Test (TGJT). These tests were administered in three phases: pretest, posttest, and delayed posttest, sharing similar formats but different item sequences. In the EOIT, students were presented with 24 sentences incorporating the target grammatical feature. Half of these sentences were grammatically correct, while the other half were incorrect. Students were tasked with indicating their agreement or disagreement with each statement and subsequently retelling the sentences using the correct grammatical structures. Their responses were recorded and evaluated, with correct answers receiving one point and incorrect responses receiving none. In the case of the TGJT, students were placed under a time limit to determine the grammaticality of statements. This test contained 24 items, with half of them being ungrammatical and the other half grammatical. All of these items involved the target structure of passive voice with modals. While the items in the TGJT differed from those in the EOIT, they shared a similar structure.

Additionally, two tests adapted from Ellis et al. (2009) were employed to assess explicit knowledge. The first test was the Untimed Grammatical Judgment Test (UGJT), and the second was the Metalinguistic Knowledge Test (MKT). Unlike the UGJT, the MKT examination was untimed and had two sections. In the initial part, students received 12

grammatically incorrect statements related to the target structure. Each sentence contained a linguistic error, and students were tasked with selecting the most appropriate rule from four options, which best described each error. The second section comprised 12 sentences, each displaying a grammatical rule enclosed in brackets. In this section, students were required to identify the item within the given sentence that corresponded to each rule and subsequently highlight it. It is worth noting that this test had been developed by Alderson et al. (1997) and was previously utilized by Ellis et al. (2009). The items in the UGJT (a written assessment) and TGJT (assessing implicit knowledge) were the same but presented in a different order. Pupils were given instructions to assess the sentences for grammaticality without any time constraints.

Another factor that needs to be considered to have more accurate results as the outcome of FFI is the length of treatment. The literature recommends that the length of treatment and the number of tests used in FFI studies play an important role in finding more accurate outcomes (Hojjat & Hasim, 2022). In order to obtain more reliable outcomes, more research is needed to measure two types of knowledge as the outcome of FFI utilizing suitable tests that analyze implicit and explicit knowledge independently in longer than two-week treatments (Kang et al., 2019). In the last 20 years, only a third of FFI researchers have concentrated on implicit FFI and its effects on implicit and explicit knowledge, and the majority of those studies took less than two weeks to complete and studies with longer treatment times can contribute to more accurate results (Hojiat & Hasim, 2022; Kang et al., 2019). In addition, for the implicit knowledge to develop as the outcome of implicit teaching, studies with more than two weeks of treatment can contribute to the accuracy of the outcome (Ellis, 2015; Kang et al., 2019).

Moreover, by allocating a ten-week treatment time, the current study aimed for more accurate results by examining whether a longer treatment time can contribute to the effect of implicit FFI on learners' implicit and explicit knowledge. It is worth mentioning that the target grammatical form of this study had not been previously investigated in studies measuring implicit and explicit knowledge through the application of implicit FFI.

In the current study, the implicit FFI group received implicit FFI through the use of input enhancement techniques and recast. In this approach, the instructor asked students to identify the bolded phrases in the reading texts and provided prompts without explicitly clarifying the lesson's target grammatical structure. Additionally, during recasting, the teacher corrected students' errors when they produced the target structure without explicitly describing the grammatical rule or pointing out the error. On the other hand, the control group did not receive any implicit FFI. They were instructed to read the given text and answer comprehension questions. When provided with prompts containing the target form (the passive form with modals), they were asked to produce their own responses, and their errors were not corrected by the teacher.

METHOD

Research design

The present study adopts a quasi-experimental design with two intact groups: an experimental group and a control group, each comprising 15 participants, making a total of 30 participants. A quasi-experimental design is chosen when researchers have limited control over certain variables due to ethical or practical reasons, such as in educational research where a random assignment of students to different instructional methods may not be feasible or ethical (Creswell, 2014). The quasi-experimental design is well-suited for situations where participants are from distinct groups or conditions, as seen in international schools where pre-existing intact groups of learners can be compared (Creswell, 2014). Due to restrictions imposed by the school authorities preventing random assignments and in order to maintain the school's program, the researchers did not randomly categorise the students. Consequently, this study was classified as quasi-experimental research, involving two intact groups consisting of intermediate-level students from an international school in Malaysia.

Research site and participants

The current study was conducted over a ten-week program with 30 intermediate-level students from an international school in Subang Jaya, Malaysia. The participants were all Malaysian students whose second language was English. The researcher, who is also a teacher at the selected international school and familiar with its educational programs, conducted the study in this educational setting. The participants were between 12 and 13 years old, at the secondary school level, and possessed an intermediate level of formal language skills. The decision to exclude lower-level learners stemmed from Ellis (2002). According to Ellis (2002), evaluating the impact of FFI on beginners should be avoided, as their language acquisition primarily involves extracting patterns and formulas from the input. In this international school, students undergo the Oxford Online Test as a placement assessment, enabling the school authorities to determine their English proficiency level. All participants willingly agreed to participate in this study and provided their parents' signed consent letters.

Data collection techniques

Intervention

The primary objective of the present study was to investigate the impact of implicit form-focused instruction (FFI) on the implicit and explicit knowledge of ESL learners. The study spanned a period of ten weeks, with each teaching session lasting approximately one hour per week. Two intact groups were involved: the experimental group, which received implicit FFI, and the control group, which did not receive any form of implicit FFI. Both groups received instruction on the passive voice with modal verbs and underwent evaluations using pretest, posttest, and delayed posttest measures, which were identical for both groups. Table 1 presents a comparison of the lesson procedures between the implicit FFI (experimental) group and the control group.

Table 1

Lessons' Procedure of Implicit FFI (Experimental) Group and Control Group

Groups		Lessons'	procedure
1. Implicit 1. 2.			input enhanced reading comprehension learners' prompt production of modal verbs
		3.	implicit corrective feedback in form of recast
4. (Control		answering reading comprehension questions of the provided texts without input enhancement
		2.	learners' prompt production of modal verbs without receiving implicit feedback

The grammatical structure of the current study was the passive voice with modal verbs (can, could, might, should, have to, must+ be+ past participle). This grammatical structure was selected as the study's target structure because it had not yet been included in students' lessons at the time this research was carried out. Furthermore, the researcher noted that students had difficulty using this grammatical structure accurately. The researcher provided different clarifications for each modal verb's applications in order to teach pupils the three essential applications (1. possibility & ability, 2. advisability, 3. necessity) for different modals. The three applications of modal verbs used in this study were taken from the Summit 1 textbook (Saslow & Ascher, 2006). Table 2 shows the modal verbs and their applications.

Modal Verbs and Their Applications		
Modal Verbs	Application	
Can, could, might	Possibility, ability	
Should	Advisability	
Have to, must	Necessity	

Table 2

Instructed task

A reading text with certain comprehension questions was provided to both implicit and control groups to help them focus on the meaning. Examples of the target form were highlighted in the reading texts for the implicit FFI group (input enhancement); however, the control group received the texts without any highlights. Afterward, the teacher elicited comprehension questions' answers before writing the selected prompts on the board. These prompts comprised the target structure of the study animals should never be (e.g., killed for entertainment). Students were then invited to review the prompts, take their turns, and try to make and say their prompts out loud before the teacher gave them implicit feedback in the form of recast (the teacher produced the correct form of their errors without any further explicit rule explanation of the target form). This was applied to promote the use of the target structure implicitly. At this stage of the lesson, learners had sufficient time to prepare their

Table 3

Tests to measure implicit knowledge	Tests to measure explicit knowledge
1. Elicited Oral Imitation Test (EOIT)	1. Metalinguistic knowledge test (MKT)
2. Timed Grammatical Judgment Test (TGJT)	2. Untimed grammaticality judgment test (UGJT)

Pilot test

Before conducting the main study, a pilot study was carried out to assess the time limit, as well as the validity and reliability of the tests. Sixteen pupils of the same intermediate level were involved in testing the items related to the passive voice with modal verbs to determine the appropriate time limit for the instruments. The number of participants for the pilot study was influenced by the availability of intermediate-level students at the school. To determine the time limit for the instrument, the average reaction times of the participants to TGJT items were calculated; an additional 20% of the time was added to the estimated time to account for students with slower processing abilities, following the approach of Ellis (2005, 2006 cited in Kamiya, 2014).

Data analysis *Reliability*

To assess the reliability of the tests, Cronbach's alpha was calculated for each of them. The students' implicit knowledge was evaluated using the Timed Grammaticality Judgment Test (TGJT) and the Elicited Oral Imitation Test (EOIT), both of which had a time limit. These tests comprised a total of 48

prompts and answers. They were instructed to read the prompts written on the board to be able to utilise the target form in their own prompts. It is necessary to mention that at the feedback stage, the control group did not receive any feedback on their errors.

Research procedures

The posttest was administered after ten weeks of instruction, followed by a delayed posttest conducted two weeks later to assess the learners' retention of the acquired knowledge over an extended period. The researcher, who also served as the instructor, performed all four tests, including two tests to evaluate implicit knowledge and two tests to assess explicit knowledge. Furthermore, the students were not informed about the type of FFI they received, whether it was explicit or implicit. Table 3 provides an overview of the types of tests employed to measure the implicit and explicit knowledge of the learners.

items. To evaluate their explicit knowledge, the participants took the Untimed Grammaticality Judgment Test (UGJT) and the Metalinguistic Knowledge Test (MKT), with no time limit on these tests. Similar to the implicit knowledge tests, these explicit knowledge tests consisted of 48 items. To ensure the quality of the results, the Inter-Item Correlation Matrix was measured, and any negative values were checked, as they could indicate issues with the test items (Pallant, 2016).

Validity

To ensure the content validity of the assessments, three teachers from the English department of the same international school where the research was conducted were consulted. Additionally, before administering the tests to all participants in the study, the tests were administered to a pilot group of students. To further validate the tests and verify that they measured the expected type of knowledge in this study, a Principal Component Analysis was performed using SPSS version 21. Moreover, a bivariate correlation matrix was examined using SPSS to ensure that the value range for evaluating the between-item correlation was appropriate.

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FINDINGS

To analyse the data, the authors utilized SPSS version 21, and to ensure the accuracy of the analysis techniques, random checks were performed on the research findings after entering the data into SPSS, as described by Pallant (2020). To guarantee homogeneity of the participants and highlight

discrepancies between the two groups, the authors used a parametric test to conduct preliminary assumption testing. Using SPSS version 21, this study employed numerical methods to assess the normality of implicit and explicit scores. Table 4 shows the descriptive data for implicit and explicit posttest scores of participants.

Table 4

Descriptive data to assess the normality of implicit and explicit posttest scores

	Implicit Statistics	Explicit Statistics	Implicit Std. Error	Explicit Std. Error
Mean	34.667	34.822	0.747	0.959
5% trimmed mean	34.716	34.963		
Skewness	-0.274	-0.169	0.354	0.354
Kurtosis	-0.502	-0.358	0.695	0.695

Table 4 shows the 5% Trimmed Mean that was used as an initial step in the distribution analysis for the implicit and explicit posttest scores. Considering the implicit posttest scores, a comparison between the original mean (34.667) and the trimmed mean (34.716) revealed that they were not significantly different, indicating that extreme values did not strongly impact the means. Additionally, Table 4 shows the skewness (-0.274) and kurtosis (-0.502) values for the implicit posttest scores. To assess the normality of the scores, the skew value was divided by the standard error (0.354) to obtain a Z score. In this case, the Z score (-0.774) was non-significant as it did not exceed the absolute value of 1.96, p < .05. According to Tabachnick and Fidell (2019), for sample sizes less than 300, the Z score should be smaller than the absolute value of 1.96 with a significance level of p < .05 to be considered nonsignificant. A similar procedure was applied to the kurtosis value by dividing it (kurtosis: -0.502) by the standard error (0.695). The resulting Z score (-0.722) was also considered non-significant as it did not surpass the absolute value of 1.96, p < .05. Consequently, it was determined that the implicit posttest scores followed a normal distribution.

Considering the explicit posttest scores, the trimmed mean (34.963) was not significantly different from the original mean (34.822), indicating that the extreme values did not have a significant impact on the means. In addition, Table 4 displays the skewness (-0.169) and kurtosis (-0.358) values for the explicit posttest scores. To measure the normality of the scores, the skew value was divided by the standard error (0.695), and the calculated Z score (-0.515) did not surpass the absolute value of 1.96, p < .05, which indicated that posttest scores were distributed normally. The same procedure was employed to the kurtosis value (-0.358) and it was

divided by the standard error (0.695). It was proven that the explicit posttest scores were normally distributed since the resulting Z score (-0.515) remained below the absolute value of 1.96, p < .05.

Following the tests for normality. linearity. homogeneity of regression slopes, and equality of variance, ANCOVA was applied. ANCOVA is frequently employed to analyse quasi-experimental studies, especially when the treatment groups are not randomly assigned, and the researcher aims to statistically equate the groups by accounting for one or more variables that might vary among them (Cresswell, 2014). Due to the following reasons, ANCOVA was used four times: first, on the results of both groups' implicit tests, using pretest findings as covariate and posttest results as the dependent variable; second, on the results of both groups' explicit tests, using pretest outcomes as covariate and posttest results as the dependent variable; third, on the results of both groups' implicit assessments, using posttest outcomes as a covariate and delayed posttest findings as the dependent variable; fourth, on the results of both groups' explicit tests, using posttest findings as a covariate and delayed posttest outcomes as the dependent variable.

Alongside the ANCOVA and Post Hoc Bonferroni measurements, the authors employed a combined calculation involving EIOT and TGJT to analyse the effect of implicit FFI on participants' implicit knowledge. Furthermore, the participants' results for three applications of the target structure (1. possibility & ability, 2. advisability, 3. necessity) were computed individually to provide a more detailed analysis of the findings. Table 5 shows the mean scores of control and implicit groups, applying implicit pretest and posttest as covariates.

Table 5

Mean Scores of Control and Implicit Groups, Applying Implicit Pretest and Posttest as Covariate

	Unadjusted						Adjusted			
Group	Ν	M Pretest	M posttest	SD Pretest	SD Posttest	M Pretest	M Posttest	SE Pretest	SE Posttest	
Control	15	32.267	33.467	4.367	4.969	31.88	34.958	1.106	0.977	
Implicit	15	36.8	38	5.031	4.629	36.62	36.674	1.102	0.969	

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Table 5 shows the adjusted and unadjusted mean scores for the control and implicit groups, including the mean and standard deviations of implicit knowledge pre and post controlling for pretest and posttest. Considering pretest as covariate, participants in the implicit class (M=36.8, SD=5.031) performed better than those in the control group (M=32.267, SD=4.367). Furthermore, considering posttest as covariate, Table 5 displays

the performance of learners in the implicit group (M=38, SD=4.629) compared to learners in the control group (M=33.467, SD=4.969) on the implicit delayed posttest. In addition, pairwise analysis (Post Hoc Bonferroni) was used to assess the significance of the mean difference between the implicit and control groups and the results of the Bonferroni test are presented in Table 6.

Table 6

Mean Difference of Control and Implicit Groups; Considered Dependent Variable: Implicit Posttest Total Mean Scores

Mean difference			
Group	Control (A)	Implicit FFI(B)	
Control (A)		-4.74*	
Implicit FFI(B)			

The mean difference between the implicit FFI group and control group participants (=4.74) is significant at p<0.05, as shown in Table 6, and the results of the analysis above reveal that participants in the implicit FFI group scored significantly higher than students in the control group, indicating a significant impact of implicit FFI on students' implicit knowledge. Furthermore, considering the implicit delayed posttest knowledge, participants in the implicit FFI group outperformed students in the control group. However, this impact did not reach statistical significance. In addition to these general findings, a more detailed examination of the results was conducted by analysing three specific applications of the study's target form (1. possibility & ability, 2. advisability, 3. necessity), and the subsequent analysis generated the following results:

Participants in the implicit FFI group outperformed those in the control group in terms of the first application (possibility & ability) of the target grammatical form (the passive form of modal verbs: could, might, and can) concerning implicit posttest knowledge. However, the implicit FFI applied to these modal verbs did not significantly affect students' implicit knowledge. Moving on to the second application, which focused on advisability (the passive form of the modal verb: should), participants in the implicit FFI group performed better than their counterparts in the control group in terms of the impact on their posttest implicit knowledge. However, it is important to note that the second application had no major effect on the implicit FFI group's implicit knowledge. When considering the implicit knowledge related to the third application of the study, necessity (the passive form of the modal verbs: have to and must), participants in the implicit FFI group scored significantly higher than participants in the control group. This indicates that implicit FFI applied in the context of the third application had a significant impact on learners' implicit knowledge.

In addition, the authors conducted a combined calculation for MKT and UGJT to analyse explicit knowledge, utilizing measurements such as ANCOVA and Post Hoc Bonferroni. Furthermore, the learners' results were independently tested in three different applications of the target form related to explicit knowledge. The adjusted mean scores for implicit FFI and control groups are shown in Table 7.

Table 7

Lable /									
Mean Scores of	Control d	and Implicit	Groups, A	pplying	Explicit F	Pretest	and Posttes	t as Covar	iate
		Unadju	sted		·		Adju	sted	
~ ~ ~ ~					_			~	~ ~

	Unadjusted						Adjı	isted	
Group	N M M SD SD					М	М	SE	SE
		Pretest	Posttest	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
Control	15	31.533	20.133	5.986	4.549	31.255	21.463	1.336	1.109
Implicit	15	37.667	25.667	6.683	5.205	36.951	24.517	1.345	1.095

According to Pallant (2020), the term "adjusted" refers to the statistical removal of the effect of a covariate. Table 7 displays the mean and standard deviations for explicit knowledge in the implicit FFI and control groups pre and post-controlling for the pretest and posttest. Taking the pretest into account as a covariate, learners of the implicit FFI group (M=37.667, SD=6.683) graded higher than learners of the control group

(M=31.533, SD=5.986). In addition, results from the explicit delayed posttest showed that participants in the implicit FFI group (M=25.667, SD=5.205) performed better than the control group (M=20.133, SD=4.549). Moreover, the pairwise comparison study (Post Hoc Bonferroni) was applied to determine whether there was a significant difference among the mean scores of both groups. The results of the Bonferroni test are summarised in Table 8.

Table 8

1 of write we been es								
Mean differences								
Group	Control (A)	Implicit FFI(B) Pretest	Implicit FFI(B) Posttest					
Control (A)		-5.696*	-3.054					
Implicit FFI(B)								

Mean Difference of Control and Implicit Groups; Considered Dependent Variable: Explicit Pretest and Posttest Total Mean Scores

Considering explicit pretest as the covariate, the mean difference (=5.696) of both implicit and control groups is significant at p<0.05, as shown in Table 8. In addition, the findings of the Bonferroni test for explicit delayed posttest, reveal that the difference between mean scores of implicit FFI and control groups (=3.054) is not significant at p<0.05, and the following results are concluded:

In the current study, when explicit knowledge was considered, participants of the implicit FFI group scored significantly higher than learners of the control group, indicating that implicit FFI significantly impacts learners' explicit knowledge. Examining the explicit delayed posttest knowledge, participants of the implicit FFI group outperformed students in the control group; however, the effect was not significant.

Considering explicit posttest knowledge, the findings from the analysis of the three applications of the study's target form (1. possibility & ability, 2. advisability, 3. necessity) were also examined to provide a more comprehensive assessment of the results, leading to the following conclusions:

Learners in the implicit FFI class outperformed students in the control group regarding the first application (possibility & ability) of the target grammatical form (the passive form of modal verbs: could, might, and can). However, the application of implicit FFI to these modal verbs had no statistically significant effect on the students' explicit knowledge. The second application in the study focused on advisability (the passive form of the modal verb: should). Although participants in the implicit FFI class outperformed those in the control group, this application did not have a significant impact on students' explicit knowledge. Turning to the third application of the study, necessity (the passive form of the modal verbs: have to and must), students in the implicit FFI group demonstrated significantly higher performance compared to their peers in the control group. This suggests that implicit FFI applied within the context of the third application significantly affected students' implicit knowledge.

DISCUSSION

The results of this study showed that participants in the implicit FFI group scored significantly higher on both implicit (OEIT & TGJT) and explicit measures (UGJT & MKT) than pupils in the control group. This finding indicated that implicit FFI had a significant impact on learners' implicit and explicit knowledge. Furthermore, when analysing the different applications of the current study's target grammatical structure (1. possibility & ability, 2. advisability, 3. necessity), the implicit FFI group consistently outperformed the control group across all three applications of the target form of the study, with a particularly significant effect observed for the third application, necessity (Passive Form of the modal verbs: have to and must). This suggests that implicit FFI has a significant impact on learners' implicit knowledge.

The findings of the current study support the research that has emphasized the effectiveness of implicit instruction in promoting grammatical accuracy (e.g., Asadollahfam et al., 2012; Banaruee et al., 2018; Chen & Eslami, 2013; Elhami & Roshan, 2016; Kamiya, 2015; Nourdad & Aghayi, 2014; Nemati et al., 2019; Tammenga-Helmantel et al., 2014; Zhao & Ellis, 2022). Chen and Eslami (2013) discovered that incidental focus on form in text-based live chats, known as implicit FFI, had a notable impact on the implicit application of forms. Similarly, Asadollahfam, Kuhi, Salimi, and Mirzaei (2012) observed a significant effect of implicit FFI, specifically in the application of present simple and present continuous. In another study, Tammenga-Helmantel et al. (2014) reported the effectiveness of implicit FFI when applying degrees of comparison as the grammatical form of their study. Nourdad and Aghayi (2014) observed a significant improvement in learners' application of passive voice through implicit FFI. In a separate study, Kamiya (2015) conducted a comparison of implicit FFI usage, extensive and intensive recast, on the acquisition of unreal conditional. The results demonstrated that the intensive recast group outperformed the other group in terms of implicit knowledge. Elhami and Roshan (2016) conducted a study to investigate the role of corrective feedback, specifically recast, in enhancing learners' noticing ability; the study revealed that implicit FFI significantly impacted learners' knowledge of the target form. However, there was no significant difference between the use of full and partial recast in improving learners' noticing ability. Banaruee et al. (2018) carried out a study to examine the effectiveness of two different types of FFI on writing: recast (implicit FFI) and direct corrective feedback (explicit FFI). The results showed that both groups demonstrated significant improvement; however, the recast group achieved higher scores, outperforming the direct corrective feedback group in their writing abilities. Nemati et al. (2019) conducted a study to examine the impact of teacher's written corrective feedback on the acquisition of explicit and implicit knowledge of the simple past tense. The data analysis revealed a positive effect of corrective feedback on both explicit and implicit knowledge of the simple past tense among Iranian beginner learners. However, it is important to interpret the findings with caution, as various factors can influence the explicit and implicit acquisition of a language structure, including the nature of the structure, its difficulty, and complexity. In a study by Zhao and Ellis (2022), the researchers investigated the relative effects of implicit and explicit corrective feedback on the acquisition of third-person "s" by Chinese university students. The findings revealed that both implicit and explicit corrective feedback resulted in significant improvements in learners' accuracy. However, the explicit corrective feedback group exhibited slightly greater gains compared to the implicit corrective feedback group. The occurrence of similarities in the positive effects of implicit FFI in the current study and the studies mentioned above is mainly due to the application of common pedagogical techniques such as focus on form tasks, meaningful input, and implicit corrective feedback, which do not focus on the explicit explanation of grammatical forms.

The findings of the current study contradict Ellis's (2016) argument that learners may fail to notice the target structure of the lesson without explicit emphasis on form. However, the results of the current study proved that students would notice the forms implementing implicit FFI, which does not emphasise form explicitly. In addition, this study's findings do not support the findings of the study carried out by Schenk (2019), suggesting FFI, especially implicit FFI, might be more effective for beginner levels of language learners; explicit FFI may prove to be more effective at higher proficiency levels, and grammatical features that learners are developmentally ready to acquire could be better served using explicit FFI. On the contrary, the results of the current study indicated that implicit FFI improved both explicit and implicit knowledge of a grammatical feature (a passive form with modals). which is considered a complex grammatical feature. This improvement was observed among students with a higher proficiency level (intermediate level) who were developmentally ready to improve the study's target grammatical feature. Feedback provided by recasting increases grammatical accuracy (Abdollahzadeh, 2015). Simple structures can be explicitly taught, but complex structures will only be implicitly mastered (Elhami & Roshan, 2016; Nemati et al., 2019; Zhao & Ellis, 2022).

The present study provides empirical evidence supporting the effectiveness of implicit FFI in facilitating the development of implicit and explicit knowledge of the passive voice with modal verbs among ESL learners. The findings suggest that explicit rule explanation and formal instruction may not be essential for learners to acquire grammatical accuracy. Instead, providing implicit FFI techniques such as input enhancement and recasting and creating meaningful opportunities for learners to use different target structures in authentic contexts can enhance different types of knowledge. These findings have practical implications for language teachers and curriculum designers, emphasizing the significance of integrating implicit FFI techniques into language pedagogy. From a pedagogical standpoint, the current study offers guidance for instructors, administrators, and curriculum planners to determine the use of implicit FFI in educational settings, providing credible evidence that L2 learners benefit from specific pedagogical activities. These activities include interaction feedback, which involves implementing communication tools like confirmation requests, repetition, and understanding measures to assist students in recognizing and modifying ungrammatical features during interaction with instructors and peers (Suzuki, 2023); focus on form tasks, which utilize meaningfocused interaction to generate specific forms, allowing students to concentrate on meaning while unconsciously using the desired target form (Godfroid et al., 2015); planned input activities, which emphasize the importance of drawing learners' attention to linguistic forms to comprehend the meaning of otherwise challenging sentences (Syzdykbayeva, 2017); and input enhancement, which enriches information through techniques like font enlargement, bolding, and capitalization, aiding students in deducing the form of input while conveying meaning and transferring input to output (Namaziandost et al., 2020). The current study insights regarding provides valuable the effectiveness of implicit FFI techniques, such as input enhancement and recasting, in developing both implicit and explicit knowledge of the targeted form. It also suggests that instructors can successfully enhance learners' knowledge using FFI when attention to form is emphasized during meaning-based instruction, and students have the opportunity to ask grammatical questions during lessons. From a methodological perspective, this research addresses previous studies' limitations related to FFI by applying various measures to assess implicit and explicit knowledge of linguistic forms. The tests utilized in this study were validated through a pilot study and can be employed in future research in diverse educational settings.

CONCLUSION

The current study investigated the impact of implicit FFI on both explicit and implicit knowledge among learners. The findings suggest that explicit FFI exposure is not necessary for enhancing explicit knowledge; implicit FFI can effectively enhance both explicit and implicit knowledge of grammatical target forms. Importantly, the difficulty level of a grammatical form does not seem to influence the effects of implicit FFI on both types of knowledge. Thus, teachers can consider applying implicit FFI techniques to enhance learners' explicit or implicit knowledge. Additionally, the study highlights the significance of input enhancement and recasting in helping learners improve both explicit and implicit knowledge. This outcome can be attributed to the current study's implicit FFI techniques, which raise learners' awareness of linguistic forms in the input, thereby enhancing explicit and implicit knowledge. Nevertheless, the role of noticing in teaching and learning remains a complex subject, requiring further comprehensive studies for a deeper understanding (Kerz et al., 2017; Zhao & Ellis, 2022). Moreover, the study found that the duration of treatment significantly affects the development of implicit knowledge of grammatical forms. The tenweek treatment in this study demonstrated a positive impact on implicit FFI, highlighting the potential benefits of longer treatment durations for both implicit and explicit knowledge. Therefore, one key implication for teachers is how they can implement implicit FFI techniques to draw learners' attention to target grammatical forms and enhance their implicit and explicit knowledge. Despite these findings, it is important to acknowledge the limitations of the current study. Generalization should be cautious, as the results may vary in different settings and with learners of various ages. This study focused exclusively on one specific grammatical form (the passive voice with modal verbs), so its findings may not be directly applicable to other grammatical structures. Future comparative studies in this field may provide more specific insights and contribute to a more comprehensive understanding of the topic.

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