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Theoretical foundations of tense and aspect applied in teaching: reducing cognitive overload in EFL classrooms

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Abstract

This study explores whether teaching verb grammar by emphasizing tense-aspect distinctions, rather than the traditional 12-tense model used in EFL classrooms, offers advantages for teachers and students, contributing to the broader discussion on reduction of cognitive load in mastering English tense system and bridging the gap between theoretical and pedagogical grammar. Our experiment involved a presentation that introduced students to the distinctions between tense (present, past, future) and aspect (progressive, perfective) through a compositional approach, combining tense with one aspect at a time, followed by brief practice. To measure learning outcomes, we conducted a pretest four weeks before the classroom presentation, a posttest the same day, and a delayed posttest four weeks after the presentation. A questionnaire was also distributed to get learners' feedback about the presentation. The results suggest that our proposed instructional model benefits early EFL learners of grammar by improving their understanding of tense and aspect through reduced cognitive overload. However, more advanced students already exposed to the traditional 12-tense model showed less improvement. These findings highlight the need for an overall shift away from the traditional 12-tense model, but with a gradual instructional transition for experienced learners.

Keywords: English tenses, ESL/EFL teaching, pedagogical grammar, theoretical grammar, verb aspect

Introduction

Current paradigms in language teaching (see van Rijt & Coppen, 2017) are based on prescriptivist-analogistic, descriptivist-anomalistic, and more recent communicative views on the role of grammar instruction in the classroom. Despite recent research advancements, classroom curricula on grammar have largely remained traditional, focusing on accuracy of form and learning rules through mechanical exercises (Larsen-Freeman, 2015, p. 263). This can be explained by two major factors: (1) the textbook publishing industry and the conservative nature of educators, as well as (2) the perception of both teachers and students that learning rules and written grammar exercises are important or very important (Jean & Simard, 2011, pp. 474–477; Larsen-Freeman, 2015, p. 264).

Another issue in modern teaching of ESL/EFL grammar is the discrepancy between theoretical approaches to grammar and grammar instruction used for teaching purposes (Liu, 2014). These differences between grammar in linguistic theory and in teaching practice have been highlighted by various authors (e.g., Krashen, 1985; Larsen-Freeman, 2015; Locke, 2010; van Rijt & Coppen, 2017). At the same time, some attempts have been made to bridge the gap; e.g., several studies have applied the findings of cognitive linguistics to ESL/EFL teaching (e.g., Bielak & Pawlak, 2013; Kermer, 2016; Yang, 2023). Still, popular grammar and EFL/ESL textbooks available on the market, such as *Grammarway*, the *MyGrammarLab* series, *English File*, or the *Headway* series and suchlike, all explicitly rely upon grammar instruction based on the 12-tense model. This traditional approach distinguishes past, present, and future tenses[1] in combination with the designations simple, perfect, progressive and perfect progressive, for a total of 12 'tenses' overall.

In linguistics, however, tense and aspect are regarded as distinct verbal categories, alongside person (1st, 2nd, and 3rd), number (singular and plural), mood (indicative, imperative, and subjunctive), and voice (passive and active) (Comrie, 1976, 1985; Dahl, 1985; Liu, 2014; Quirk et al., 1985; Rizzi & Cinque, 2016). ESL/EFL teaching instructors (e.g., Collins, 2007; Gloria Garrido & Rosado Romero, 2012; Lai & Li, 2025; Listia & Febriyanti, 2020; Vaezi & Alizadeh, 2011) have reported the problems learners face trying to master the 12-tense model, especially when they are L1 speakers of languages where tense and aspect have different conceptual or morphological dimensions. One such problem is cognitive (over)load, or the amount of mental effort placed on working memory when processing information; this can be associated with the high complexity of content (intrinsic cognitive load), the presentation or organization of information (extraneous), or the relation to prior knowledge (germane) (Sweller, 2024; van Rijt et al., 2024). Attempts have been made to step away from the dominant model in order to facilitate grammar instruction (Ng, 2023; Stephens & Sanderson, 2021; Yang, 2023) and thus to help learners effectively build knowledge of tenses by reducing cognitive load (Suek, 2018).

Our study aims to contribute to this discussion on the gap between theoretical grammar and grammar teaching by specifically focusing on the distinction between tense and aspect; we argue that this approach can help reduce the cognitive overload associated with the traditional 12-tense model. The study's primary motivation is to investigate whether, instead of the traditional 12-tense model still widely used in classrooms, a model of teaching verb grammar that emphasizes the distinction between tense and aspect can provide any advantage for ESL teachers.

[1] Some approaches also distinguish 'future-in-the-past', i.e., structures used for reported speech.

Theoretical Framing

Modern Approaches to Grammar Instruction

Teaching English grammar effectively to non-native learners has received substantial academic scrutiny (Lai & Li, 2025; Zhang & Tang, 2025). The exploration of grammar instruction methodologies underscores the dichotomy between Meaning-Focused Instruction (MFI) and Form-Focused Instruction (FFI). The former emphasizes understanding and using language in context, while the latter prioritizes adherence to grammatical rules. FFI, which aligns closely with traditional grammar instruction, often leads students to concentrate excessively on linguistic structures, potentially detracting from their communicative abilities (Pangesti et al., 2023). At the same time, while traditional FFI can yield knowledge gains in grammar, it lacks the depth of engagement with actual language use that MFI could foster (Biria & Salamat, 2017).

Moreover, Communicative Grammar Teaching (Lagari et al., 2023), which aligns with the MFI approach, allows EFL learners to gain insights into real-world language applications by contextualizing grammatical rules, thereby enriching their understanding and retention. Such findings suggest that integrating pedagogical methods that emphasize the meaning conveyed by grammatical structures, for example, in the context of tense and aspect, may enhance learners' engagement and practical language usage skills.

However, it remains essential to recognize that advanced learners exposed to traditional models often express resistance to transitioning into novel frameworks like those focusing on tense-aspect distinctions. As indicated by research emphasizing the significance of gradual instructional shifts for experienced learners, adjustments in pedagogical methodology must take into consideration learners' existing knowledge and previous learning contexts (Alsaedi, 2024). This calls for an understanding of the principles underlying effective grammar instruction, which must evolve to meet the diverse needs of learners across differing proficiency levels (Alqahtani, 2022). The broader implications include the necessity of exposing EFL learners to varied instructional strategies that promote active engagement with grammatical forms. As Zhang (2020) discusses, learners' successful mastery of grammatical nuances, like the 'present-perfect tense', is not merely about memorization of rules but engaging with these forms contextually.

Additionally, such explorations signify a paradigm shift in grammar instruction, advocating for comprehensive frameworks that intertwine theoretical and practical knowledge seamlessly within classroom settings. Cognitive load theory could be one such framework, as it "is concerned with the development of instructional methods that efficiently use people's limited cognitive processing capacity to stimulate their ability to apply acquired knowledge and skills to new situations" (Paas et al., 2003, p. 63). Thus, cognitive load theory emphasizes the importance of synchronizing instructional methods with learners' cognitive capabilities (Hinkel, 2013; Lasekan & Godoy Pena, 2025). Furthermore, alignment between learner feedback and instructional practices is critical. The notion that EFL learners appreciate clear, contextually grounded grammatical instruction is underscored by feedback mechanisms that highlight students' need for meaningful context within which to apply grammatical rules (Pham, 2023). This aligns with pedagogical shifts towards more adaptive learning environments, where grammar instruction is contextualized within the broader communicative aims of language learning.

Tense and Aspect in Theoretical Grammar

Linguists tend to agree that tense and aspect are independent verb categories, just as number is independent from voice or mood (Comrie, 1976; Huddleston & Pullum, 2002, pp. 115–172; Katamba, 1993; Quirk et al., 1985, pp. 175–210; Rizzi & Cinque, 2016, pp. 147–151).

Tense is a grammaticalized version of an event's location in time (Huddleston & Pullum, 2002, p. 116). It reflects three abstract time domains: namely present, past, and future. Using a more technical definition, tense can be seen as relation between the time referred to, i.e., the time of an event T_r, and the time of orientation or utterance, i.e., the time of speaking or writing T_o (see Huddleston & Pullum, 2002, p. 125; Lieber, 2022, p. 113). As a result, we can state the following:

(1)	a. John left the party.	$T_r < T_o$	past tense
	b. I pronounce you husband and wife.	$T_r = T_o$	present tense
	c. I will pay you tomorrow.	$T_r > T_o$	future tense

For (1a) we can see that the event happened before the time of utterance (past tense), in (1b) the two events coincide (present tense), and in (1c) the event will follow the utterance time (future tense).

The present and past tenses are expressed by bound morphemes, namely *-s* for 3rd-person singular present tense, and *-ed* for the past tense (including other allomorphs, such as *break ~ broke*, as well as irregular forms such as *go ~ went*). Finally, future tense in English is expressed by the modal auxiliary *will* (for details, refer to Comrie, 1985, pp. 43–48; Huddleston & Pullum, 2002, pp. 188–190; Michaelis, 2006, p. 224).

Unlike tense, which is related to time, aspect expresses the internal structure of an event, and it is one way that grammar encodes how a situation is perceived by the speaker, such as whether it is completed or ongoing (see Aarts, 2011, p. 254).

English has two aspects: perfective and progressive (also known as continuous). Progressive aspect expresses events that are perceived as in progress or having duration or limited duration, as well as events that are viewed as temporary, ongoing, or incomplete. The progressive aspect can even have a backgrounding effect (see Aarts, 2011, p. 265; Brinton & Brinton, 2010, p. 127; Depraetere & Tsangalidis, 2020, pp. 400–403; Quirk et al., 1985, p. 198):

(2) John was cooking when somebody entered the house.

In terms of morphology, the progressive aspect morphemes are the auxiliary *be* and a lexical verb with the present-participle suffix *-ing* (e.g., *steal ~ stealing, go ~ going, work ~ working*).

Perfective aspect denotes anteriority, that is, a situation that precedes a point signaled by the tense. Other meanings the perfective aspect can convey are completeness and result (Brinton & Brinton, 2010, p. 127; Comrie, 1976, pp. 56–61; Lieber, 2022, p. 115; Quirk et al., 1985, p. 190). Perfective aspect is expressed by the auxiliary *have* and a lexical verb with the past-participial form, either the regular *-ed* suffix (e.g., *work ~ worked*) or one of the irregular forms (e.g., *steal ~ stolen, go ~ gone, read ~ read, hit ~ hit*).

Tense and aspect can but do not have to be combined into a single verbal structure. The meaning of the resulting verbal cluster is compositional. This means that tense gives the speaker an orientation in time, and then they may want to express some aspectual meanings, such as duration, incompleteness, anteriority, or result. In other words, speakers can use present tense without any specification as to how they perceive the event (such as completed or ongoing). In that case, the speaker may opt for tense without adding any aspect morphology (3a). However, the speaker may decide to stress that the event is in progress and add progressive aspect to the present tense (3b).

(3) a. I work at the university. present tense, Ø aspect
b. I am working right now. present tense, progressive aspect

Additionally, the speaker can anchor an in-progress event in the past (4a), or even the future (4b), using past or future tense respectively.

(4) a. I was working when the phone rang. past tense, progressive aspect
b. I will be working in the evening. future tense, progressive aspect

The same logic can be seen with perfective aspect. A speaker can express perfective aspectual meaning, in this case result, and relate it to present, past, or future time with present, past, or future tense.

(5) a. I have just finished dinner. present tense, perfective aspect
b. I had just finished dinner when Suzan arrived. past tense, perfective aspect
c. I will have just finished dinner at midnight. future tense, perfective aspect

All the examples in (5) have a similar aspectual meaning; the only difference is the time reference point. In (5a), the perfective meaning of result is related to the present, in (5b) it is related to a point in the past, and in (5c) it is related to a point in the future. We can say that what are traditionally called the "present perfect", "past perfect", and "future perfect" all have the same meaning in terms of aspect; only the time reference point expressed by tense differs.

Besides meaning, the compositionality of tense and aspect can also be seen in morphology. Above, we have listed certain tense and aspect morphemes, some of which are exemplified in (6).

(6) a. She has stolen the handbag.
b. They will be cooking.
c. They had been listening to music.

In (6a), we can see the auxiliary *have* plus the past participle on *stolen,* which expresses perfective aspect. The auxiliary is inflected for present tense with the suffix *-s*. In (6b), we can observe the auxiliary *be* with the lexical verb in present participle form *cooking*, combined with the future tense expressed by the modal *will*. In (6c), we have the auxiliary *have* and a past participle suffix *-en* on the auxiliary *be*, expressing perfective aspect, while *be* is also part of the expression of progressive aspect along with the lexical verb in present participle form *listening*; the whole structure is related to past tense, which sits on the highest auxiliary *have*.

As can be seen, both the meaning and morphology of tense and aspect is compositional, and we will try to use this theoretical knowledge in teaching English tense and aspect in the ESL/EFL classroom.

The Present Study

This study explores whether theoretical approaches to tense and aspect can be adapted for more effective ESL/EFL classroom instruction. We propose separating tense (past, present, and

future) from aspect (progressive and perfective) to simplify the teaching of grammar. Rather than teaching all 12 tense and aspect combinations individually, learners focus on five core concepts, potentially leading to greater clarity and faster acquisition. This compositional approach also applies to morphology: by teaching tense and aspect in conjunction with the morphemes that can express them (e.g., *-s, -ed, will, be + -ing, have + -en*) and thus reducing confusion around verbal forms such as **he is study* or **he studying*. We argue that this method not only simplifies classroom instruction and minimizes errors but also reshapes students' perception of English grammar. By demystifying what is often viewed as one of the most difficult topics, this approach may help increase learners' confidence and motivation.

To evaluate these assertions, we propose the following research question and hypothesis, which follow from our conviction that teaching the morphology, meaning, and uses of tense and aspect distinctly is more effective than the 12-tense approach used in traditional course books.

- Research question: Does presenting tense and aspect separately, and explaining this grammatical system in an accessible way, improve students' understanding and motivation?
- Hypothesis: Teaching tense and aspect separately will lead to fewer mistakes in their use by students.

To answer the research question and test the hypothesis, we will use both quantitative and qualitative research methods as detailed in the next section.

Method

Participants

The study was carried out according to the approved ethical provisions of the ethical approval from the Tomas Bata University Ethics Committee on 5 February 2024 (reference number UTB/24/002436), which confirmed that this research complies with all relevant national and international regulations governing studies involving human participants.

The total number of participants in the current study is 49, all students of a hospitality vocational school in the Zlín region of the Czech Republic. In line with the recommendations of the Ethics Committee, participants were informed about the purpose of the study, the voluntary nature of their involvement, and their right to withdraw at any time without any negative consequences. All participants were Czech native speakers, aged between 14–19 years, which is a typical age range for students attending such vocational schools. We focused on the first- and third-year students. We worked with the existing English class student groups, so that we interfered with their schedules as little as possible. Since our experiment was designed to measure the improvement in a participant's performance, and not the actual score, we did not set any limitations in terms of the students' English levels. However, according to the school curriculum, first-year students should have mastered:

- present simple, present progressive,
- past simple, past progressive,
- and present perfect simple tenses.

Third-year students are expected to have mastered

- present simple, present progressive,
- present perfect simple, present perfect progressive,
- past simple, past progressive,

- past perfect,
- future simple, future continuous, and future perfect tenses.

Each participant received an identification number so that their performance could be tracked in time. The participants, as well as the parents of minors, were informed that their participation in the experiment was voluntary, and that the results will not have any impact on their grade. Neither the participants nor their teachers had access to the test results.

Overall Research Design

The experiment took place in the spring term in 2024. We divided the participants into one experimental group of first-year students, one experimental group of third-year students, one control group of first-year students, and one control group of third-year students (see Table 1).

Table 1. *Groups and numbers of participants in the experiment*

Tests	**Number of participants**			
	Experimental group: 1st year	**Control group: 1st year**	**Experimental group: 3rd year**	**Control group: 3rd year**
Test 1	11	13	11	11
Test 2	13	10	9	11
Test 3	13	-	9	-

Both experimental and control groups took the pretest at the same time in order to ascertain each participant's level of knowledge. One month later, the experimental group was exposed to the new method, i.e., they listened to the presentation on tense and aspect. Immediately after the presentation, participants completed an immediate posttest and wrote down their reflections on the method. Simultaneously, the control group completed a posttest. After another month, the experimental group took a delayed posttest. An overall summary of the experiment can be seen in Figure 1.

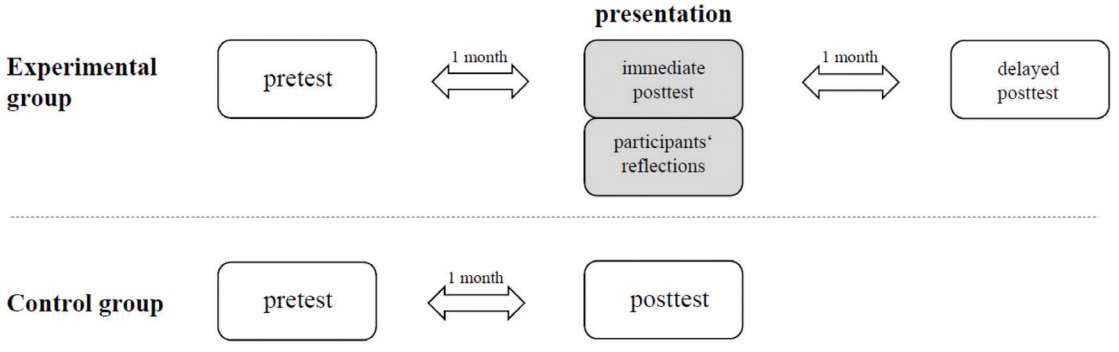

Figure 1. *Overall summary of the research design*

Presentation of Tense and Aspect

The experimental groups were exposed to a presentation based on the theoretical approach to the grammar of tense and aspect that was outlined above. This presentation consisted of a PowerPoint file with nine pages of text delivered by one of our co-authors. The entire presentation, including discussion, took approximately 40 minutes (i.e., one class period).

At the beginning of the presentation, students were asked to reflect on what they know about the "tenses" in English. Then the new approach was introduced. First, the relation between time and tense was established, and tense morphology was introduced: namely, present tense *-s*, past tense *-ed* (or an irregular form) and future tense *will*. The presentation stressed that tense is related to time and therefore answers the question of "when". This was then briefly practiced using five example sentences.

The next section focused on progressive aspect. The presentation stressed that progressive does not have any temporal relevance, and that it answers the question "how". Aspectual meanings were explained, such as duration and "action in progress", alongside the morphology *be* + V-*ing*. It was stressed that the speaker may choose to use progressive aspect, but this needs to be anchored to a specific time. As a result, the meaning of aspect combines with the meaning of tense, and so does the morphology. The combination of progressive aspect with present, past, and future tenses was practiced using six example sentences.

The presentation then introduced perfective aspect by listing its meanings, such as "completeness". It was again emphasized that perfective aspect must be anchored to either present, past, or future tense. Then perfective morphology was discussed, e.g., *have* + V-*en*, illustrating compositionality in terms of morphology. Finally, students practiced perfective aspect in combination with the three tenses.

The final slide summarized the grammar of tense and aspect. We stressed the possibility for tense and aspect to combine; however, in our presentation, we combined tense only with one aspect. That is, we did not cover present tense in combination with both perfective and progressive aspect, although we stated that it is possible to form additional constructions in this way.

Tests and Their Evaluation

Our tests consisted of ten sentences adapted from the *Oxford Grammar Practice Intermediate* textbook (see Appendix). Each sentence featured one tense and aspect combination, i.e., nine tense and aspect combinations altogether. In order to have ten examples, and to prevent students from guessing the missing tense and aspect combination, the present progressive example was used twice. An identical test was used for each attempt in the experimental and control groups. Students had unlimited time to complete the test, though all students completed it in less than five minutes. Next, the collected tests were evaluated.

In total, 49 students participated in the test. Each student took either two or three tests, depending on whether they were in the experimental or control group (see Table 1). However, those students who did not participate in all the tests were removed from the analyzed sample to maintain consistency across repeated measures. No data imputation techniques were applied, as the study aimed to analyze actual performance rather than estimated values. As a result, we evaluated a total of 39 students and 96 tests.

The evaluation of the test focused on the correct use of tense and aspect. As a result, mistakes in other areas of grammar were ignored. These included mistakes in agreement morphology (7a) or spelling (7b).

(7) a. *Someone **have** cleaned the floor. It is clean now.* marked as correct

b. *While Laura was **siting** in the garden, it suddenly began to rain.* marked as correct

Also, in some tests the periphrastic future tense form *be going to* appeared instead of the intended form with modal *will*. This was also marked as correct, despite the fact that our presentation did not discuss the periphrastic future (8).

(8) *I am going to do my homework tomorrow.*

On the other hand, if the student selected the wrong tense (9a), dropped the auxiliary (9b), or the participle morphology was missing (9c), the sentence was marked as incorrect:

(9) a. *I post the letter yesterday.*

b. *We eating lunch right now.*

c. *We are eat lunch right now.*

Additionally, students from the experimental groups were asked to write down their opinions about the teaching method in their native language right after they had been exposed to the presentation and completed the test. The reflections were anonymous and were not linked to the tests. The students were given simple instructions to write about how they felt and what they liked or disliked about the method.

Inductive manual coding was applied and codes were derived from the data (Saldana, 2009). The first round of coding was done by one of the authors who independently coded the data *in vivo*, summarizing participants' words into the list of initial codes. The coding was then discussed with another author, and three basic themes (positive opinion, mixed opinion, and negative opinion) were developed. The second round of coding, which utilized pattern and attribute coding, combined the codes into the themes, and the first- and third-year experimental groups were compared.

Reliability and Validity

To ensure reliability, all tests used in the study were standardized and administered under identical conditions across experimental and control groups. Internal consistency was verified through Cronbach's alpha ($\alpha = .82$), indicating acceptable reliability for the test items. The stability of scores between the immediate and delayed posttests in the experimental group supported test-retest reliability. Content validity was established by adapting items from the *Oxford Grammar Practice Intermediate* textbook, which aligns with the targeted tense-aspect structures. Construct validity was reinforced by specialist review from two applied linguists, ensuring that the items accurately measured learners' understanding of tense and aspect rather than unrelated grammatical features.

Results

This mixed-method study is based on quantitative and qualitative data obtained from the tests and the feedback questionnaire. The individual scores of the quantitative part were analyzed

using the Wilcoxon Signed Rank Test, Wilcoxon Rank Sum (Mann-Whitney) Test, Kruskall-Wallis Test, and Friedman Non-Parametric Test in the program *Statistica 9.0 Standard Plus CZ* (Statsoft Inc., 2009). These tests were chosen because the data did not meet the assumptions of normality and homogeneity of variances, as verified by the Shapiro-Wilk test (W = .89, p = .012). Assumptions for these tests include independent observations and similar distribution shapes across groups, which were checked before analysis. Effect sizes were calculated using rank-biserial correlation for Wilcoxon (r = .46), Mann-Whitney Tests (r = .42), and eta-squared for Kruskal-Wallis Test (η^2 = .09), providing insight into practical significance beyond p-values. Additionally, post-hoc power calculations were conducted using G*Power to estimate sensitivity, indicating that while the study was adequately powered to detect medium effects (power = .78 for d = 0.5), it was underpowered for small effects (power = .32 for d = 0.2). This should be considered when interpreting the results.

Tests

Test Scores

First, the means of the tests in all groups were calculated, and their medians were compared using a non-parametric Wilcoxon Signed Rank Test (see Table 2), which showed that a statistically significant difference existed only between Test 1 and Test 2 in the experimental group (p = .0039, α = .05, 95% CI for median difference [-2.8, -0.4]). In this group, the mean difference between Test 1 and Test 2 was -1.6 points, meaning that the participants scored higher on Test 2 than on Test 1.

Table 2. *Differences in test scores*

p-value (α = .05)	**1st year**		**3rd year**	
	Experimental group	**Control group**	**Experimental group**	**Control group**
n	10	10	8	11
Test 1 vs Test 2	.004	1.00	1.00	.09
Test 2 vs Test 3	.25	–	.50	–

Group Scores

According to the results of the Mann-Whitney Test (Table 2), the differences between the 1st-year experimental and control groups in Test 2 are statistically significant (p = .0003, α = 0.05, 95% CI [0.23, 0.60]). The expected Sum of Scores for H_0: *There is no statistically significant difference between the data* (105.0) was higher in the experimental group (152.50) and lower in the control group (57.5), which means that the experimental group performed better than the control group. The result was confirmed by the two-sided test where the critical value (.004) was lower than Z = 3.04. The Kruskall-Wallis Test also showed a statistically significant difference between the scores of the experimental group and the control group among the 1st-year students (95% CI [0.03, 0.18]). The higher value of the Chi-Square (13.02) indicates that the order sums were not close to what would be expected under H_0.

In the 3rd year, the low value of the Chi-Square (2.79) indicated that the order sums were close to what would be expected under H_0. The critical value (.11) was also significantly higher than the alpha level (.05), indicating that there is no statistically significant difference between

the 3rd-year experimental and control groups. Wilcoxon scores indicated that the expected value at H_0 for the experimental group is 80. However, the achieved score for the experimental group was 60.50, which is slightly lower than expected. Conversely, the score for the control group is 129.5, which is higher than expected (110.00). This marginal result was confirmed by the Mann-Whitney Test statistics, where the critical value for the one-sided test was .06, which is only slightly higher than the alpha significance level (.05). Although statistical analysis confirms that there was no difference between the groups of the 3rd-year students, the results of the Mann-Whitney Test show that the control group obtained marginally better results (see Table 3 and Figure 2).

Table 3. *Differences in test 1 vs test 2 scores*

	1st year		3rd year	
	Experimental group	**Control group**	**Experimental group**	**Control group**
n	10	10	8	11
Sum of Scores	152.50	57.50	60.50	129.50
Mean Score	15.25	5.75	7.56	11.77
Expected H_0	105.00	105.00	80.00	110.00
Std. Dev. H_0	13.16	13.16	12.05	12.05

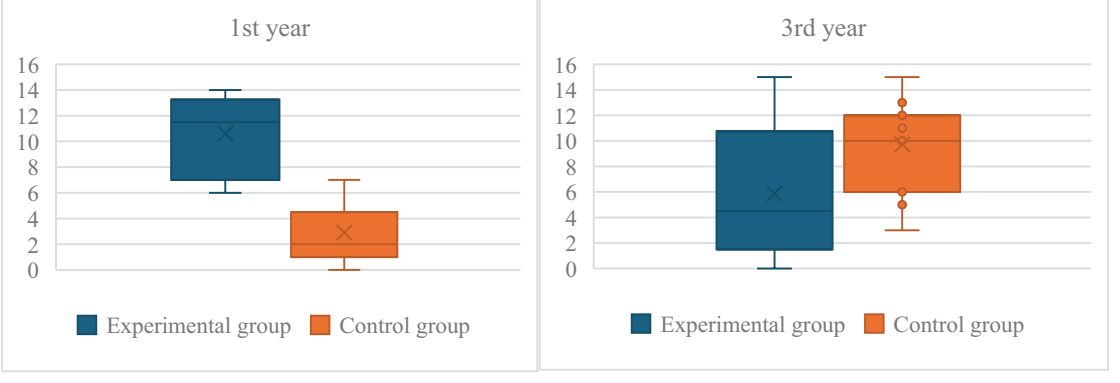

Figure 2. *Differences in test 1 vs test 2 scores*

Year Scores

Comparing the 1st- and 3rd-year experimental groups, the higher rank Chi-Square (4.34) indicates that the rank sums were not similar to what would be expected under H_0. The critical value (.04) is lower than the alpha level (.05) and therefore there is a statistically significant difference. The result is confirmed by the Mann-Whitney Test, where the critical value for the one-sided test was .02, lower than the alpha significance level (.05). Thus, there is a difference in the results of the two groups, and the 1st-year experimental group performed better than the 3rd-year experimental group. For the 1st year, the expected value at H_0 was 95. However, the score achieved was 118.5, which is slightly higher than expected. Conversely, the score for the 3rd year was 52.5, which is lower than expected (76). Thus, the test shows the disparity of results between the groups (see Table 3 and Figure 3).

Comparing the 1st- and 3rd-year control groups, the high Chi-Square rank (11.59) indicates that the rank sums are not similar to what would be expected below H_0. The critical value (.0008) is lower than the alpha level (.05), indicating a statistically significant difference. For the 1st year, the Mann-Whitney Test determined the expected value at H_0 was 110, but the achieved score was 62.5. Conversely, the score for the 3rd year is 168.50, which is higher than expected (121). The test therefore shows a difference in results between the groups. The 3rd-year control group performed better than the 1st-year control group. This result is confirmed by the one-sided Mann-Whitney Test, where the critical value is .0004, even lower than the alpha significance level of .01. Thus, there is a 99% probability that there is a difference in the data between the results of the two control groups (see Table 4).

Table 4. *Differences between the 1st- and 3rd- year students*

		Experimental group		Control group	
		1st year	**3rd year**	**1st year**	**3rd year**
Mann-Whitney Test	***n***	10	10	8	11
	Sum of Scores	118.50	52.50	62.50	168.50
	Expected H_0	95.0	76.0	110.0	121.0
	Std Dev H_0	11.24	11.24	14.15	14.15
	Mean Score	11.85	6.56	6.25	15.32
	Statistic	52.50		62.50	
	Z	–2.05		–3.32	
	One-sided Pr < Z	.0203		.0004	
	Two-Sided Pr > |Z|	.0407		.0009	
Kruskall-Wallis Test	**Chi-Square**	4.34		11.59	
	DF	1		1	
	Pr > Chi-Square	.0365		.0008	

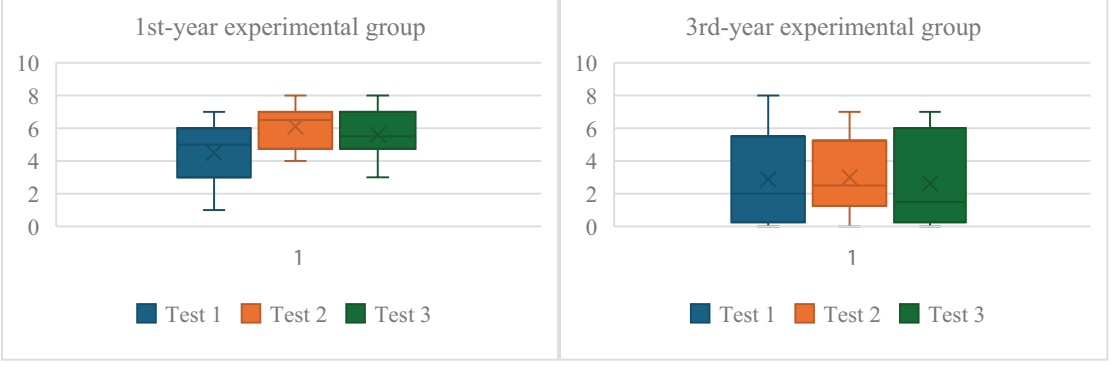

Figure 3. *Differences between the 1st- and 3rd- year experimental groups*

Tenses

Friedman's Two-way Non-parametric ANOVA was used to compare the results of the experimental groups in each tense, and the Wilcoxon Signed Rank Test was used to compare the results in the control groups. As Table 5 shows, there was only a statistically significant improvement with Future Progressive and Past Perfect (α = .05) in the 1st-year experimental group. With Present Perfect, the difference is statistically significant only at the alpha level of .10. In the 3rd-year experimental group, there is a statistically significant difference only in Past Simple, but the scores got worse in Test 2 and Test 3 (see Figure 4). There were no correct answers in Future Perfect in any of the groups, and there were considerably more tenses with no correct answer in the control groups than in the experimental groups.

Table 5. *Differences between the tests (p < .05)*

Tense	1st year		3rd year	
	Experimental group	Control group	Experimental group	Control group
Present Simple	.26	.63	.78	1.00
Present Progressive	.72	.50	.37	1.00
Past Simple	.56	.63	.04*	1.00
Past Progressive	.78	1.00	.37	.25
Future Simple	.37	1.00	.37	1.00
Future Progressive	.03*	x	.37	x
Present Perfect	.07	x	1.00	x
Past Progressive	.003*	x	.37	1.00
Future Progressive	x	x	x	x

Note. * = statistically significant difference; x = no correct answer

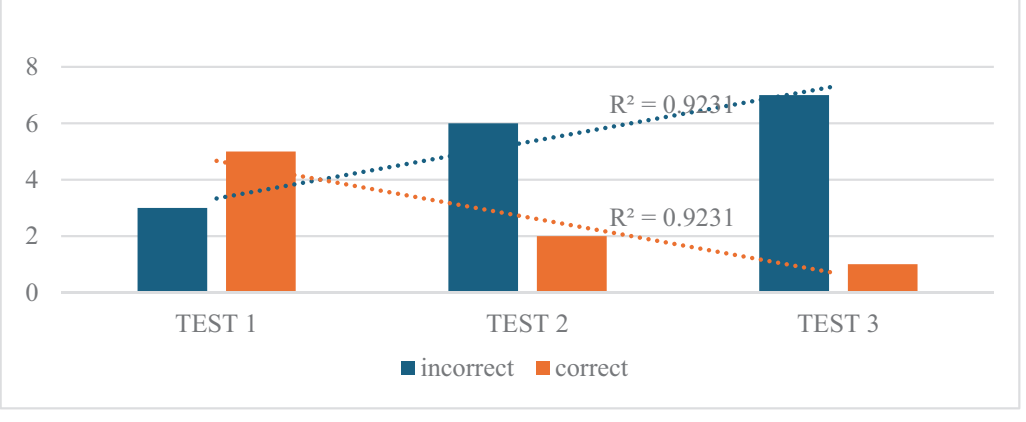

Figure 4. *Past simple scores in the 3rd-year experimental group*

Reflections

Qualitative feedback from the experimental groups reveals students' nuanced perceptions of the tense-aspect instructional approach. While initial coding identified three broad themes (positive, mixed, or negative opinion), a second round of coding uncovered subthemes related to conceptual clarity, cognitive load, and affective engagement.

Most participants (72%) expressed strong approval of the method, emphasizing clarity and improved understanding. Codes such as "clarity of explanation", "ease of understanding", and "enhanced mastery" were recurrent. Here are a few examples: *"I found it very easy to understand and I certainly improved my command of the English tenses"*; *"I gained a hundred times better and faster understanding than during my nine years at the primary school."* These statements suggest that reducing the traditional 12-tense complexity to a compositional tense-aspect model lowered intrinsic cognitive load, allowing learners to allocate more working memory to meaning rather than form. The phrase *"a hundred times better and faster understanding"* signals perceived efficiency gains, which suggests that the instructional design mitigates unnecessary processing.

Approximately 28% of responses were coded as mixed opinions, often combining appreciation with indications of residual difficulty. Subcodes included "partial confusion", "a need for more examples", and "complexity in integration". Some examples are given here: *"A bit confusing, but otherwise a very good explanation"; "Sometimes, I found it a bit too complicated, but otherwise okay"*; *"It seems clearer to me, I'd only add more example sentences for practice."* These remarks point to germane cognitive load: students were actively recognizing prior knowledge while integrating new conceptual distinctions. The request for additional examples suggests that while the model improved conceptual clarity, limited practice opportunities constrained schema automation, leaving learners in a transitional cognitive state.

Several comments reflected positive affective engagement, coded as "enjoyment", "interest", and "novelty appeal." Examples include the following: *"Awesome :)"*; *":) I enjoyed the class. I remembered the English verb tenses. That was cool <3"*; *"It was intriguing"*. Such responses indicate that the approach not only addressed cognitive aspects but also enhanced motivation, which is critical for sustained learning. Enjoyment may act as a buffer against cognitive strain, fostering persistence even when conceptual restructuring is demanding (Jahedizadeh et al., 2025).

Notably, 1st-year students exhibited stronger codes for "clarity" and "ease", whereas 3rd-year students showed more "integration difficulty" and "limited novelty." Such responses are exemplified here: *"I wouldn't say that I have difficulty with verb tenses, so I haven't obtained much new information"*; *"I have a bit of a problem with the present perfect tense, but I think I can handle the rest."* The pattern suggests that prior exposure to the 12-tense model created entrenched mental schemas, making conceptual realignment cognitively taxing for advanced learners. In contrast, beginners benefited from lower element interactivity, as they had fewer competing representations to reconcile. Moreover, none of the students reported a negative opinion about the presentation.

Discussion and Conclusions

The results suggest that an approach based on tense-aspect differentiation in EFL/ESL grammar instruction may be effective with regard to the scope of students' grammatical knowledge. The experimental group in the 1st year demonstrated statistically significant improvements after being exposed to such an approach. This finding is consistent with previous research advocating for a more conceptual approach to grammar instruction, where tense and aspect are treated as distinct but interrelated categories (Stephens & Sanderson, 2021; Svalberg, 1986),

yet without the complication of linguistic theoretical terminology and concerns (Bielak & Pawlak, 2011; Kermer, 2016; Yang, 2023). The suggested method of instruction seems to facilitate the understanding and use of specific tense and aspect combinations, such as Future Progressive and Past Perfect, which had not been explained to the students before the experiment.

The data collected support the hypothesis that presenting tense and aspect separately leads to fewer mistakes in students' use of verbal tenses. This can be seen particularly among 1st-year students, where significant improvement was observed between the pretest and the immediate posttest. This improvement can be attributed to the fact that students were able to focus independently on the meaning and usage of the tenses (past, present, and future) and aspects (perfective and progressive), which might have reduced cognitive overload compared to the traditional approach of teaching 12 distinct tense-aspect combinations. These findings align with previous studies (Bielak & Pawlak, 2011; Celse-Murcia, 2016) that emphasize the benefits of simplifying classroom grammar instruction by focusing on conceptual clarity.

While the 1st-year students benefited significantly from the new approach, the 3rd-year students did not exhibit the same level of improvement. In fact, there was no statistically significant difference between the 3rd-year experimental and control groups. This could be explained by the fact that the 3rd-year students had already been exposed to the traditional 12-tense model for several years. The usage pattern that formed, which is difficult to break, might have created cognitive dissonance for learners and caused interference or confusion when they are introduced to the new system (i.e., a deterioration in the correct use of Past Simple). The lack of improvement among 3rd-year students suggests that the timing of introducing an integrated approach to teaching tenses might be critical. Learners who have already internalized the traditional segmented 12-tense model may find it harder to adapt to a different conceptual framework. At the same time, the students predominantly perceived the suggested model positively, and unlike in the case of one study (Ng, 2023), for example, few mentioned the complicated nature of the instruction. An important piece of feedback, which also points to the experiment's limitations, is the dearth of sufficient examples and practice time. A number of studies have criticized the methodological drawbacks of mechanical and decontextualized practice (Larsen-Freeman, 2012; Sato & McDonough, 2019; Walz, 1989), which is important to address in future research.

Though these findings suggest some potential benefits of separating tense and aspect in classroom instruction, we acknowledge that the interpretation of practical importance should be approached with caution. It is important to acknowledge that the sample size (N = 39 after attrition) and the short-term nature of the teaching intervention (one 40-minute presentation) restrict the generalizability and weight of the findings. This limitation raises the risk of overinterpreting p-values, as smaller samples can inflate error rates. Future research should consider larger, more diverse samples and extended periods of educational time to validate and expand these preliminary results.

The pedagogical implications of the current study are twofold. First, for beginner-level learners, the results indicate that separating tense and aspect during classroom instruction may lead to a clearer understanding of English tense and aspect usage. As evidenced by the positive feedback from the experimental groups, students found the method not only effective but also more intuitive and easier to grasp. Second, for more advanced learners who have already been taught using the traditional segmented 12-tense method, introducing this new approach might require a more gradual transition, potentially integrating the new concepts with previously learned material.

Furthermore, the findings suggest that a curriculum overhaul in contexts where English is taught as a foreign language could benefit from incorporating this simplified model early on.

By focusing on tense and aspect as independent categories, educators may help learners build a stronger conceptual foundation, enabling them to apply grammatical rules more effectively in both written and spoken communication.

Despite the encouraging results, the study has certain limitations. The sample size was relatively small, and the study was conducted in a specific educational setting with students who shared the same L1 (Czech). Research (see Gráf, 2015, pp. 107–110) suggests that incorrect use of tense and aspect is the most frequent error with verbs among Czech students. Additionally, the experiment carried out by the research group was only short-term; more training and error analysis is required to master an L2 tense and aspect system which is different from the L1.

Furthermore, we worked with groups of students at different entrance levels who had already received explicit grammar instruction based on a textbook used in their classroom. A different result might have been achieved if both the experimental and control groups had been at the beginner level. The instruction itself focused more on the morphological forms in a limited context rather than discourse uses of tense and aspect (e.g., Celse-Murcia, 2016).

That said, future research could benefit from replicating this study across different languages and educational contexts to determine whether the findings are generalizable to learners with different L1 backgrounds. Additionally, longitudinal studies could explore whether the initial improvement observed is sustained over time.

References

Aarts, B. (2011). *Oxford modern English grammar*. Oxford University Press.

Alqahtani, A. (2022). Review and analysis of theories underlying grammar teaching methodologies. *Arab World English Journal*, *13*(4), 80–91. https://doi.org/10.24093/awej/vol13no4.6

Alsaedi, N. (2024). Examining the suitability of multiple-choice questions for assessing grammatical ability in foreign language testing. *International Journal of Educational Sciences and Arts*, *3*(7), 228–248. https://doi.org/10.59992/IJESA.2024.v3n7p9

Bielak, J., & Pawlak, M. (2013). *Applying Cognitive Grammar in the foreign language classroom: Teaching English tense and aspect*. Springer. https://doi.org/10.1007/978-3-642-27455-8

Bielak, J., & Pawlak, M. (2011). Teaching English tense and aspect with the help of Cognitive Grammar: An empirical study. *Studies in Second Language Learning and Teaching*, *1*(3), 365–400. https://doi.org/10.14746/ssllt.2011.1.3.4

Biria, R., & Salamat, Z. (2017). The impact of teachers' in-service workshops on grammar achievement: The case of Iranian intermediate EFL learners. *International Journal of Research Studies in Language Learning*, *7*(1), 63–71. https://doi.org/10.5861/ijrsll.2017.1681

Brinton, L. J., & Brinton, D. M. (2010). *The linguistic structure of modern English*. John Benjamins.

Celse-Murcia, M. (2016). The importance of the discourse level in understanding and teaching English grammar 1. In E. Hinkel (Ed.), *Teaching English grammar to speakers of other languages* (pp. 3–18). Routledge.

Collins, L. (2007). L1 differences and L2 similarities: Teaching verb tenses in English. *ELT Journal*, *61*(4), 295–303. https://doi.org/10.1093/elt/ccm048

Comrie, B. (1976). *Aspect: An introduction to the study of verbal aspect and related problems*. Cambridge University Press.

Comrie, B. (1985). *Tense*. Cambridge University Press.

Dahl, O. (1985). *Tense and aspect systems*. Basil Blackwell.

Depraetere, I., & Tsangalidis, A. (2020). Tense and aspect. In B. Aarts, J. Bowie, & G. Popova (Eds.), *The Oxford handbook of English grammar* (pp. 398–417). Oxford University Press.

Gloria Garrido, C., & Rosado Romero, C. (2012). Errors in the use of English tenses. *Íkala, Revista de Lenguaje y Cultura*, *17*(3), 285–296. https://doi.org/10.17533/udea.ikala.8724

Gráf, T. (2015). *Accuracy and fluency in the speech of the advanced learner of English* [Doctoral dissertation, Charles University in Prague]. https://dspace.cuni.cz/bitstream/handle/20.500.11956/81379/140044882.pdf?sequence=1&isAllowed=y

Hinkel, E. (2013). Research findings on teaching grammar for academic writing. *English Teaching*, *68*(4), 3–21. https://doi.org/10.15858/engtea.68.4.201312.3

Huddleston, R., & Pullum, G. K. (2002). *The Cambridge grammar of the English language*. Cambridge University Press.

Jahedizadeh, S., Khademorreza, A., & Sarvari, S. (2025). Vocabulary retention, sustained attention, and enjoyment: Using Tick8 method to promote language achievement. *Australian Journal of Applied Linguistics*, *8*(3), Article 102501. https://doi.org/10.29140/ajal.v8n3.102501

Jean, G., & Simard, D. (2011). Grammar teaching and learning in L2: Necessary, but boring? *Foreign Language Annals*, *44*(3), 467–494. https://faculty.weber.edu/tmathews/sli/Readings/Jean%20&%20Simard%202011.pdf

Katamba, F. (1993). *Morphology*. Macmillan Education UK. https://doi.org/10.1007/978-1-349-22851-5

Kermer, F. (2016). *A cognitive grammar approach to teaching tense and aspect in the L2 context*. Cambridge Scholars Publishing.

Krashen, S. D. (1985). *The input hypothesis. Issues and implications*. Longman.

Lagari, A., Ali, Dr. F., & Bano, S. (2023). Efficacy of teaching grammar communicatively at university level: A case study. *VFAST Transactions on Education and Social Sciences*, *11*(1), 13–17. https://doi.org/10.21015/vtess.v11i1.1366

Lai, J., & Li, X. (2025). A Study on the interlanguage development of the English present simple tense in Chinese primary students' acquisition. *Forum for Linguistic Studies*, *7*(11), 216–226. https://doi.org/10.30564/fls.v7i11.11330

Larsen-Freeman, D. (2012). On the roles of repetition in language teaching and learning. *Applied Linguistics Review*, *3*(2), 195–210. https://doi.org/10.1515/applirev-2012-0009

Larsen-Freeman, D. (2015). Research into practice: Grammar learning and teaching. *Language Teaching*, *48*(2), 263–280. http://doi.org/10.1017/S0261444814000408

Lasekan, O., & Godoy Pena, M. T. (2025). Gender and academic discipline influences on EFL learners' perceptions of video-based instruction. *Australian Journal of Applied Linguistics*, *8*(3), Article 2185. https://doi.org/10.29140/ajal.v8n3.2185

Lieber, R. (2022). *Introducing morphology*. Cambridge University Press.

Listia, R., & Febriyanti, E. R. (2020). EFL learners' problems in using tenses: An insight for grammar teaching. *Indonesian Journal of English Teaching*, *9*(1), 86–95. http://doi.org/10.15642/ijet2.2020.9.1.86-95

Liu, D. (2014). *Describing and explaining grammar and vocabulary in ELT: Key theories and effective practices*. Routledge. https://doi.org/10.4324/9780203085608

Locke, T. (2010). *Beyond the grammar wars: A resource for teachers and students on developing language knowledge in the English/literacy classroom*. Routledge.

Michaelis, L. A. (2006). Tense in English. In B. Aarts, A. McMahon, & L. Hinrichs (Eds.), *The handbook of English linguistics* (pp. 220–243). Blackwell Publishing Ltd.

Ng, C. W. (2023). Teaching the English tense system through systemic theoretical instruction and cognitive grammar: Investigating students' perceptions. *Dilbilim Dergisi – Journal of Linguistics*, *40*, 61–88. https://doi.org/10.26650/jol.2023.1315502

Paas, F., Tuovinen, J. E., Tabbers, H., & Van Gerven, P. W. M. (2003). Cognitive load measurement as a means to advance Cognitive Load Theory. *Educational Psychologist*, *38*(1), 63–71. https://doi.org/10.1207/S15326985EP3801_8

Pangesti, F. P., Prihatini, A., & Widodo, J. (2023). Meaning-focused instruction (MFI) vs. form-focused instruction (FFI): Metareflection on BIPA grammar learning. *RETORIKA: Jurnal Bahasa, Sastra, Dan Pengajarannya*, *16*(2). https://doi.org/10.26858/retorika.v16i2.43283

Pham, A. T. (2023). The impact of gamified learning using Quizizz on ESL learners' grammar achievement. *Contemporary Educational Technology*, *15*(2), Article ep410. https://doi.org/10.30935/cedtech/12923

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language*. Longman.

Rizzi, L., & Cinque, G. (2016). Functional categories and syntactic theory. *Annual Review of Linguistics*, *2*, 139–163. https://doi.org/10.1146/annurev-linguistics-011415-040827

Saldana, J. (2009). *The coding manual for qualitative researchers*. SAGE Publications.

Sato, M., & McDonough, K. (2019). Practice is important but how about its quality?: Contextualized practice in the classroom. *Studies in Second Language Acquisition*, *41*(5), 999–1026. https://doi.org/10.1017/S0272263119000159

Statsoft Inc. (2009). *Statistica 9.0 standard plus CZ* (Version 9.0) [Computer software]. www.statsoft.com

Stephens, O. S., & Sanderson, I. J. (2021). Two tenses: An alternative to teaching English grammar tense. *THAITESOL Journal*, *34*(1), 25–44. https://eric.ed.gov/?id=EJ1304649

Suek, L. A. (2018). Applying cognitive load theory in teaching tenses for second language learners. *Englisia Journal*, *5*(2), 66–81. https://doi.org/10.22373/ej.v5i2.3072

Svalberg, A. M.-L. (1986). Teaching tense and aspect: A systematic approach. *ELT Journal*, *40*(2), 136–145. https://doi.org/10.1093/elt/40.2.136

Sweller, J. (2024). Cognitive load theory and individual differences. *Learning and Individual Differences*, *110*, Article 102423. https://doi.org/10.1016/j.lindif.2024.102423

Vaezi, S., & Alizadeh, M. (2011). How learners cope with English tenses: Evidence from think-aloud protocols. *Procedia: Social and Behavioral Sciences*, *29*, 986–993. https://doi.org/10.1016/j.sbspro.2011.11.332

van Rijt, J., Banga, A., & Goudbeek, M. (2024). Getting a load of linguistic reasoning: How L1 student teachers process rules of thumb and linguistic manipulations in discussions about grammar. *Applied Linguistics*, *45*(1), 163–188. https://doi.org/10.1093/applin/amad011

van Rijt, J., & Coppen, P.-A. (2017). Bridging the gap between linguistic theory and L1 grammar education – Experts' views on essential linguistic concepts. *Language Awareness*, *26*(4), 360–380. https://doi.org/10.1080/09658416.2017.1410552

Walz, J. (1989). Context and contextualized language practice in foreign language teaching. *The Modern Language Journal*, *73*(2), 160–168. https://doi.org/10.2307/326571

Yang, L.-C. (2023). The effects of a cognitive linguistic approach on college students' learning English tenses in Taiwan. *Language Teaching Research*. https://doi.org/10.1177/13621688231178196

Zhang, J. (2020). A review of grammar corrective feedback: The learning experience in China's English classes. *Studies in English Language Teaching*, *8*(3), 127–137. https://doi.org/10.22158/selt.v8n3p127

Zhang, X., & Tang, J. (2025). Literature review on English grammar teaching in light of three-dimensional grammar framework. *OALib*, *12*(01), 1–15. https://doi.org/10.4236/oalib.1112584

Appendix

Test Used for Pre- and Posttesting

1. I ..... (do) my homework tomorrow.
2. He is a photographer. He ..... (take) a lot of pictures.
3. I ..... (live) at the hotel at the moment because I am looking for a flat.
4. I hope I ..... (win) a lot of prizes before I am 25.
5. We rushed to the station, but it was too late. The train ..... (leave).
6. Someone .....(clean) the floor. It is clean now.
7. I ..... (post) the letter yesterday.
8. This time next week, I ..... (sit) on the beach.
9. We ..... (eat) lunch right now.
10. While Laura ..... (sit) in the garden, it suddenly began to rain.