

## ESL LEARNERS' CONCORD COMPREHENSION AND SELF-EFFICACY THROUGH INTERACTIVE GRAMMAR-BASED ACTIVITIES AT UNIVERSITY LEVEL

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### ABSTRACT

This study investigates the impact of Interactive Grammar-Based Teaching (IGBT) on concord comprehension and self-confidence among tertiary-level ESL learners. A single-group quasi-experimental design was employed, using pre-test and post-test measures to assess changes in learners' grammatical competence and self-assurance in English language usage. The participants were tertiary-level ESL learners from a specific university, and the instructional intervention focused on interactive grammar activities targeting subject-verb agreement. Data were analyzed using descriptive statistics and paired-sample t-tests. Results indicated a significant improvement in both concord comprehension and learners' self-confidence after the IGBT intervention. Despite these promising findings, the study has single-group design, restricted sample, and short duration of intervention, which may affect generalizability. The findings underscore the importance of interactive and learner-centered grammar instruction in tertiary ESL contexts and provide implications for future research and pedagogical practice.

*Keywords:* Interactive Grammar-Based Teaching, ESL learners, Concord Comprehension, Self-Confidence, Tertiary Education

### Introduction

Increased English proficiency means more students can reach these new standards, which is vitally important for students' professional and academic progress, as well as their ability to communicate and engage internationally. In modern academic contexts, English is widely used for academic and professional communication, research and collaboration. English's influence is growing, as it is becoming the primary language for academic and professional communication, assessments and publications in universities around the world. To succeed in their university studies, students need to be skilled and confident English speakers, as well as to possess strong communication abilities.

These standards continue to present a significant challenge to students learning English as a Second Language (ESL). The proficiency level of ESL learners at the tertiary level is often a result of their educational history, their amount of English exposure and the quality of instruction. While many learners are able to develop functional communication skills, they are often plagued by their academic concerns of poor grammatical structure. The foundational components of language proficiency, such as grammar, are essential for establishing meaning and achieving accurate and coherent meaning. Teaching complex concepts can become exceedingly difficult for instructors and their academic performance and confidence in themselves can suffer greatly.

Subject-verb agreement is one of the most fundamental parts of English grammar and one of the main challenges for ESL learners. It is also the most common error and one of the most confusing aspects of grammar instruction across multiple languages. Errors caused by lack of concord instruction in English, Spanish and Portuguese, grammar instruction are common across all students. Correctness and precision are central qualities of academic writing, but also these qualities are most often missing.

Mistakes that are caused by lack of concord instruction impede clarity, cohesion and trustworthiness of the writing. When the writing lacks subject-verb agreement, the intended meaning is often missed and the quality of the writing suffers. This major issue is especially pertinent in higher education, where such mistakes can affect the quality of students' research papers, reports, essays and oral presentations. Furthermore, from the students' perspective, the impact of such errors is often perceived in terms of the feelings such as loss of confidence, anxiety and inhibition, especially when communicating in English.

The present study focuses on the impact of Interactive Grammar Teaching on ESL learners' self-confidence and understanding of the concord at the tertiary level. Engaging grammar-based teaching encourages the learners to get involved to build understanding of the rules of grammar by integrating and interacting, using the grammar rules in a meaningful and contextual way to get away from rote grammar rule learning. The IGBT framework suggests the combination of explicit grammar teaching with communicative grammar activities and encourages learners to transform their knowledge of grammar to use it in real-life situations, rather than treating grammar as a means to an end.

The study examines the grammar teaching from a cognitive and affective perspective focusing on the concord and self-confidence. This approach reinforces the need to build positive, confident and a willingness to speak in order to learn, linguistically, from this perspective. The primary objective of this study is to construct empirical evidence to evaluate the success of IGBT methodology in ESL settings at the tertiary level.

### **Literature Review**

For many centuries in second language teaching, the focus on the teaching and learning of grammar has greatly influenced the students' linguistic accuracy, ability to communicate, and overall confidence in the use of the language (Horwitz, Horwitz & Cope, 1986). Even in the ever-changing profession of English as a Second Language (ESL) teaching, teaching grammar, and more specifically teaching subject-verb agreement, continues to be a challenge for students of different language and cultural backgrounds. Difficulty understanding teaching subject-verb agreement is in many cases due to learners' increase in exposure to the English language and continues to be an obstacle of communicative effectiveness and syntactic accuracy (Ellis, 2008). Over the last 30 years the shift has been toward more innovative approaches which move away from the traditional teaching of grammar and adopt more of a communicative approach. One of these innovations, Interactive Grammar-Based Teaching (IGBT), appears to combine the most beneficial aspects of active teaching, structured feedback, and cooperative learning and should be able to foster grammatical and emotional development. Usman, et al. (2025) argue that due to the fact that self-confidence is a vital psychological component that constrains the language learning process, the examination of the impact of interactive grammar teaching on learners' self-confidence and concord competence is necessary in designing effective ESL teaching. It focuses on the intersection of the skepticism about the concord of the English language, self-confidence as a construct in ESL, and interactive grammar teaching. It identifies the point of intersection and the gaps in research.

A clear problem in learner languages at all levels and in a variety of teaching contexts is the concord/subject-verb agreement problem. Studies of learner language and error analysis show that the lack of affixation/omission of the third person singular -s, wrong choice of the verb 'to have' (has/have), and problems with 'do' and 'does' of phrasal structures with noun phrases are among the most frequently cited problems (Bureković, 2025, Jabeen, 2024, Quirk et al 1985). The gap in literature has recently been addressed by empirical studies with tertiary level students. Upper-intermediate and intermediate students tend to make concord errors in a more systematic way, both in controlled and spontaneous written speech, especially in instances of complex syntactic structures or when there is a higher cognitive load (Bureković,

2025; Jabeen, 2024). The allocation of errors is in themselves attributable to the interface of morphological transparency, cognitive load, and L1 transfer (Vigliocco et al, 1998, Marjokorpi, 2024).

In addition, the grammatical aspects of English concord, especially the grammatical concord closing the gaps between elements of the sentence, especially the subject and the verb, aid in the formation of grammatically correct sentences that are smooth and clear (Kuhn, 2021). With concord, the verb has to agree with the subject as far as number and person is concerned; thus, a singular subject calls for a singular verb, and a plural subject calls for a plural verb. Effective communication cannot be accomplished without a command of concord, as the deficiency may create misunderstandings and vague statements. Tadesse et al. (2023) proposed that the problem be solved through learner centered interactive classrooms. On the other hand, Lin et al. (2020) maintained that more out-of-the-box approaches, such as the interactive grammar games, should be used to help students' master concord. Although the use of distance materials may create some of the challenges that Pinto-Llorente et al. (2017) suggested, a technology enhanced blended setting will help improve the grammatical mastery of students.

To begin with, grammatical concord has been a communication theory as it works with the directives of the ordering of words to convey meaning. Before delving into the discourse on the theory of grammatical concord, it is important to understand the meaning of the terms grammar and concord. Grammar is the directing of the system of principles which order the relevant components that exist in a given sentence. These principles, as stated by Hassan, Azmi, and Atek (2015), guide the construction of sentences by determining the proper manner in which the relevant components of a given sentence should be arranged. One of the basic rules of grammar in the English language is referred to as subject-verb concord. This rule stipulates that the verb and the subject in a given clause must agree (Lashari and Soomro, 2013). If one is singular, then the other has to be singular as well, while if one is plural, then the other has to be plural. This means that the rule of subject-verb concord is solely based on the number of the verb and the subject that should be the same. This rule applies to nouns that are singular and plural, unlike verbs, which are singular and plural and follow different rules. When a phrase or clause separates a verb and a noun, the verb must be in concord with the noun in the phrase or clause in between. It is also true, as Oludare (2016) describes, that students have problems even in simple constructions with subject-verb pairs. Just as Oludare (2016) explains, students are often said to make subject-verb concord errors when plural verbs are matched with singular subjects, and vice versa. This saying is a sign that, a singular subject takes on a singular verb, whereas a plural subject takes on a plural verb.

The field has made some progress but the studies on Interactive Grammar-Based Teaching (IGBT) are mostly limited to certain regions. The bulk of the studies have been conducted in East Asia, particularly in China, Korea, and Indonesia, and in some Western universities, whereas South Asia, particularly Pakistan, has been under-studied. In Pakistan, studies are relatively few that specifically and separately attempt to analyze learners' grammatical errors, or that engage the affective states of learners such as confidence and anxiety in speaking, without contextualizing these within some comprehensive teaching framework. This means that, to a large extent, Pakistani ESL students. Earlier research in Pakistan has used descriptive or correlational methods, which means there is not enough experimental or quasi-experimental evidence to show how IGBT actually affects concord comprehension and self-confidence.

To date, no study has been conducted in Pakistan that looks at the effect of IGBT on grammatical accuracy, most notably on concord understanding, and learners' self-confidence at the same time, nor has such attempt been made in small or newly established universities. It is especially important to work on both thinking skills, like understanding what you read, and

feelings, like feeling confident about your language abilities, at the same time. By situating the study in this particular context, the study offers a localized empirical contribution to the existing body of literature while filling the gap that pertains to the lack of integrated syntheses of literature in the field of grammar instruction and learner psychology in the context of Pakistani higher education. By incorporating localized empirical data, this study contributes to understanding how IGBT functions in the Pakistani tertiary ESL context and addresses gaps not covered by international studies.

This study uses a quasi-experimental approach with pre-tests and post-tests to look at how Interactive Grammar-Based Teaching affects students' understanding of concord and their confidence as learners. The goal is to gather evidence that can support better English language teaching methods in Pakistan. This clearly demonstrates a significant deficiency in the research literature that the current study attempts to fill by studying the impact of interactive grammar-based teaching, grammatical concord and learner confidence at the tertiary level ESL education in Pakistan.

The study is based on the fact that there are not enough research papers looking at how Interactive Grammar-Based Teaching affects both understanding of grammar agreement and students' confidence at the university level in Pakistan. This shows a clear need for this research. To address these gaps, this research is grounded in Grammar-Based Teaching (GBT) principles, which support systematic grammar instruction for improved concord understanding. To address these gaps, this research is grounded in Grammar-Based Teaching (GBT) principles, which support systematic grammar instruction for improved concord understanding. In addition, Vygotsky's Sociocultural Theory, the Zone of Proximal Development, and Scaffolding are used to show how interactive, guided, and socially supported teaching can help learners become more involved and more confident. This framework helps in creating the IGBT intervention and also gives a way to understand how grammar comprehension and self-confidence are connected in ESL learners. Therefore, the theoretical framework is directly aligned with the research objectives and justifies the experimental approach used in this study.

### **Background of the Study**

The traditional approach to teaching English language has been the teaching of languages with an emphasis on the teaching of the grammar of the language. Teaching and learning of the grammar of a language has been carried out mainly through the use of formal teaching methods in the classroom. In the past, teaching grammar has been very mechanical and directed towards the explanation of the rules, the learning by heart of the rules and the replication of the rules in a written form. This was done with the expectation that the knowledge of grammar and the rules and structures that accompany it would be used correctly in the language. The weaknesses of the traditional teaching of grammar have increasingly become obvious. Although students may be able to remember the rules of grammar and perform satisfactorily in written grammar tests, they possess very little ability to use this knowledge in a real-life situation in which they are required to communicate with other people. This situation in which the knowledge of grammar is acquired, but real language that has to be used is available is very common in classrooms where students are being taught English as a second language and is university students.

### **Statement of the Problem**

The study aims to improve teaching grammar at the tertiary level and is located within this educational framework. ESL learners at the tertiary level face difficulties learning concord, and specific challenges persist with subject-verb agreement. They frequently commit the same grammatical errors, both in written and spoken communication, causing problems. Traditional grammar teachings through explanation of rules, and subsequent written exercises, have failed to eliminate these problems, as they only focus on interaction, and on practice in context. For

a large number of students, the use of English as a means of communication, particularly in spoken form, is a source of great worry and especially due to imagined grammatical errors. This self-censure markedly limits the use of the language in a meaningful way, and results in a lack of classroom participation.

### **Research Objectives**

The purpose of this research is as follows:

1. To determine and categorize the types of concord errors usually committed by tertiary-level ESL learners.
2. To analyze the Impact of Interactive Grammar-Based Teaching on ESL students' comprehension of concord and their confidence in the use of English language.

The present study aimed to research the understanding of English concord and level of grammatical proficiency of ESL students to use English academically. Since the research sought to elicit objective data, and facilitate measurement and statistical analysis, quantitative research methodology was utilized. In order to determine the effects of Interactive Grammar-Based Teaching (IGBT) on learners' grammatical self-confidence and accuracy, a quasi-experimental pre-test and post-test was designed. Such a design ensured objectivity, accuracy, and systematic compliance with the data collection guidelines of the research standards.

### **Research Design**

The study specifically employed a single-group design, in which the same participants were assessed before and after the Interactive Grammar-Based Teaching (IGBT) intervention. This method allowed the researcher to check how well participants understood the material and how confident they felt, and to see if the teaching method actually made a difference in those areas. Experimental research, as described by John W. Creswell (2018) tries to look at how one thing causes another by changing an independent variable and then seeing how it affects one or more dependent variables. This study uses an experimental approach to look at how Interactive Grammar-Based Teaching affects ESL learners' understanding of concord and their confidence. The structured teaching method used in the study also helps make sure the results are reliable and accurate. The quasi-experimental method improves internal validity by providing some systematic instructional exposure. In this case, the two dependent variables were concord comprehension and self-confidence, and the independent variable was Interactive Grammar-Based Teaching (IGBT).

The design of the study was to determine no other intervening variable improved self-confidence after the IGBT intervention. In terms of performance, participants were measured twice using the pre-test and post-test using four different assessments, which were the Pre-Test and Post-Test Concord Comprehension Test, and the Pre-Test and Post-Test English Self-Confidence Questionnaire. The researcher used the pre-test and post-test results to check how well the Interactive Grammar-Based Teaching method worked. Ultimately, the design was most appropriate because the focus of this study was to determine the cause-and-effect explanations.

The study adopted the positivist paradigm, which emphasizes the aspects of knowledge which are observable, measurable, and can be validated through empirical means. Data was processed in a quantitative manner and analyzed statistically. This approach provided the study with an opportunity to be scientifically robust, replicable, and in alignment with the quantitative methodologies.

### **Population of the Study**

The study included undergraduate students who were studying the BS English program at University of Mianwali in Punjab, Pakistan. These students were studying English as a Second Language and enrolled in courses focused on English grammar and academic communication. This group represented students who had received education in English

grammar and academic communication. Considering the institution's focus on grammar instruction, it was a suitable setting to explore the impact of interactive instruction on learners' linguistic accuracy and confidence. The target population was taken from the BS English program at the University of Mianwali, particularly students in the second and third semester cohorts.

### Research Variables

Measurement instruments were used to assess the study variables, which were quantitatively analyzed: understanding of concord and self-confidence.

- **Independent Variable:** Interactive Grammar-Based Teaching (IGBT)
- **Dependent Variables:** Concord Comprehension and Self-Confidence

While this study was mainly experimental in nature, it also incorporated a controlled instructional component (IGBT) in order to establish a framework for consistent measurement.

## Results

The data collected was analyzed using a combination of descriptive and inferential statistical techniques. The data was presented, summarized, and structured using descriptive statistics: frequency, percentages, means, and standard deviations. The data illustrates the students' comprehension of the rules with regards to their pre- and post-learning confidence levels. Inferential statistics were applied to verify that the changes in the learners' performance and confidence levels were not random. The analysis indicates the contributions of IGBT beyond mere descriptive statistics.

As per the first objective of the research, it covers an analysis of the different types of concord errors that ESL learners face. Learners' responses in the concord comprehension test were analyzed and classified into a variety of error types. Frequencies and percentages were computed to ascertain the most prevalent concord errors that help, to some extent, in understanding the learners' grammatical problems at the higher education level. This section largely relies on descriptive statistics as it is aimed at identifying and classifying error patterns and not hypothesis testing. The importance of an error analysis lies in identifying problem areas in learners' understanding of grammar that need more attention.

For the second and main research objective, both descriptive and inferential analysis was used to measure the impact of Interactive Grammar-Based Teaching on learners' concord comprehension and self-confidence. Learners' concord comprehension scores were analyzed using descriptive statistics for each of the tests to determine the differences in the mean scores and the spread of the scores before and after each test to establish the change that resulted from the teaching intervention. A paired-samples t-test was done to determine statistically significant change for the score in concord comprehension. Both tests were done after wards. In respect to the test's validity, the most crucial part of the test was to measure the impact of the intervention on the word production ability of the students, which in part justified the efficacy of IGBT.

### Types of Errors (Objective 1)

#### *Pre-Test Concord Comprehension: Frequency, Percentage, and Error Analysis*

**Table 1**

*Frequency and Percentage of Students' Pre-Test Responses on Concord Comprehension (n = 70; Total responses = 700)*

Response	Frequency	Percentage
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Response	Frequency	Percentage
Correct Answers	340	48.57%
Incorrect Answers	360	51.43%

*Note:* Responses are aggregated across all 10 items of the pre-test concord comprehension test.

**Table 2**

*Types of Concord Errors Observed in Pre-Test*

Error Type	Relevant Questions	Description of Student Responses
Subject–Verb Agreement Errors	Q1, Q5, Q9	Frequent incorrect verb agreement with subject.
Number Agreement Errors	Q3, Q7	Involve difficulty in recognizing where a subject is singular or plural matching it with subject-verb form.
Person Agreement Errors	Q2, Q6	Errors in matching the verb form with the correct grammatical person.
Proximity Concord Errors	Q4, Q8	Wrong agreement with the nearest noun instead of the subject.
Notional Agreement Errors	Q10	Confusion in collective or meaning-based agreement.
Special Concord Errors	Q1,Q9	Involve difficulty with complex sentence structures.

### ***Interpretation of Pre-Test Results***

The results from the pre-test in Table 1 show that the learners had a low understanding of concord before the teaching program started. Out of the 700 total responses, 340 of them were correct, which is 48.57%, and 360 responses were incorrect, making up the remaining 51.43%. This shows that most learners had trouble correctly using concord rules. The low number of correct answers shows that learners only partly understood grammatical agreement and could not use these rules consistently in multiple-choice questions. This shows that they did not have a good understanding of concord and had not fully absorbed it. More details are given in Table 2, which shows the different kinds of mistakes learners make. The most common mistakes were about matching verbs with the right subjects, where students usually did not pair verbs correctly with either singular or plural subjects. These mistakes show that someone is having trouble choosing the right verb forms depending on the number and person in a sentence. Learners also had trouble with proximity concord, because they often chose verb forms based on the closest noun instead of the real subject of the sentence. Similarly, errors in notional agreement show that learners had difficulty with agreement based on meaning, especially in sentences that include collective nouns. More mistakes in special concord situations also show that there are difficulties in dealing with complicated grammar rules. The results from the pre-test show that students had trouble with many types of concord, which shows that teaching support is really needed.

### ***Grammatical Classification of Concord Errors***

Besides the descriptive analysis shown in Table 2, the concord comprehension test was also looked at more closely based on the different grammatical concord rules used in each question. This classification was done to meet the first research goal, which was to find and group the typical mistakes ESL students make in speaking or writing at the college level. Each test question was made to check a particular type of agreement, like subject–verb agreement, number agreement, person agreement, proximity agreement, notional agreement, and special agreement situations. The wrong answers from the pre-test were sorted into these groups to find out which areas learners found most challenging. The analysis shows that mistakes with matching verbs and their subjects in number were the most common, meaning learners struggled to use the right form of a verb based on whether the subject was singular or plural. Errors in matching numbers and subjects show that there is confusion about which verb forms to use based on grammar rules. Although there were fewer mistakes, errors in special concord cases show that learners still had trouble with more complex grammar, like compound subjects and irregular agreement patterns. This classification helps to better understand the exact grammar areas where learners struggled before the lesson, which supports the results shown in Table 2.

***Post-Test Concord Comprehension: Frequency, Percentage, and Error Analysis***

**Table 3**

*Frequency and Percentage of Students' Post-Test Responses on Concord Comprehension (n = 70; Total responses = 700)*

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Correct Answers	651	93.00%
Incorrect Answers	49	7.00%

*Note:* Responses are aggregated across all 10 items of the post-test concord comprehension test.

**Table 4**

*Types of Errors Observed in Post-Test (Improvement Analysis)*

<b>Error Type</b>	<b>Relevant Questions</b>	<b>Description of Student Responses</b>
Subject–Verb Agreement Errors	Q1, Q5, Q9	There were very few mistakes in how the verbs matched with the subjects.
Number Agreement Errors	Q2, Q6	Correct singular/plural agreement in most cases.
Person Agreement Errors	Q3, Q7	Person Agreement had very few mistakes.
Proximity Concord Errors	Q4, Q8	Rare proximity agreement errors.
Notional Agreement Errors	Q10	Improved understanding of meaning-based agreement.
Special Concord Cases	Q1, Q9	Special Concord Cases had minimal errors in complex structures.

### ***Interpretation of Post-Test Results***

The results after the test, shown in Table 3, indicate that the learners' understanding of concord improved a lot after the teaching program. Out of the 700 total responses, 651 of them were correct, which are 93%, and 49 responses were incorrect, making up the remaining 7%. This shows a big improvement in accuracy when compared to the results from the pre-test. A higher number of correct answers show that students understood and used concord rules properly after they were taught. This change shows a better understanding of grammar rules and greater skill in choosing the right verb forms depending on how sentences are structured. Table 4 also shows that there's a clear decrease in all types of concord errors, which supports the improvement. Errors in matching subjects with verbs, numbers, and people became much less common, showing that learners understood these basic grammar rules better. Fewer mistakes were seen when checking agreement near other words, which shows that learners were better at choosing the right subject for a sentence instead of depending on nearby nouns. An improvement in the agreement of ideas also shows a better understanding of how meanings are connected through grammar. Even though there were still a few small problems with special concord cases, they were much better than before the test. The results after the test show that the teaching method used greatly improved the learners' ability to understand and use correct grammar.

### ***Decreasing Concord Errors in the Post-Test***

Looking at the results before and after the test show a big drop in mistakes where people agreed on the same answer. This improvement happened in every group of errors. The percentage of right answers went up from 48.57% before the test to 93% after the test, showing a big improvement in how well learners understood and used grammar. This change shows that students are better at using subject-verb agreement rules, as seen by fewer mistakes in that area. This also means that learners are better at matching verb forms with the right grammatical features, as shown by the fewer mistakes they make in number and person agreement. Errors that happen when people use similar words close to each other were reduced, which shows that learners became better at finding the real subject of a sentence instead of just looking at the words that seem easy to notice. Additionally, better notional agreement shows a stronger ability to understand meaning-based agreement in more complicated sentence structures. Even though a few mistakes still happened in special concord situations, they were very small and could be expected because these kinds of constructions are quite complex. In short, the decrease in mistakes from the pre-test to the post-test shows that the teaching method worked well in helping students better understand and use concord rules.

### **Descriptive Statistics of Pre and Post Tests**

**Table 5**

*Descriptive Statistics of Pre-Test and Post-Test Concord Comprehension Scores (n = 70)*

<b>Test</b>	<b>N</b>	<b>Mean (M)</b>	<b>Standard Deviation (SD)</b>	<b>Standard Error Mean (SEM)</b>
Pre-Test Total Score	70	4.86	1.618	0.193
Post-Test Total Score	70	9.30	0.645	0.077

*Note.* N = number of participants; M = mean score; SD = standard deviation; SEM = standard error of the mean.

### ***Descriptive Results***

The results of the concord comprehension tests are shown in Table 5. Out of the 70 students, the mean pre-test score was 4.86 (SD = 1.618; SEM = 0.193). In the post-test, the sample size of 70 participants achieved an average score of 9.30, with an SD of 0.645 and SEM of 0.07. The descriptive statistics summarize the central tendency and dispersion of the students' scores for each of the two tests.

The mean score shows that students had a low understanding of the concord pre-test, demonstrating that students' pre-intervention ability to provide correct answers to the congruent rules was markedly deficient. The standard deviation 1.618 shows that the score of the students varies, with some performing significantly better than other. The post-intervention average score of 9.30 reflected a considerable increase in understanding of concord. The smaller standard deviation 0.645 indicates that post-test scores were more uniform, it shows that the students' scores were increasingly consistent and that the majority of students had an improvement in their mastery of concord.

There was a notable transition owing to the increase of mean metrics and the decrease of variability in learning outcomes and overall performance. Learning outcomes and overall performance show greater consistency and improvement. During the IGBT intervention, stronger learners outperformed weaker ones. The finding suggests that teaching grammar interactively seems to support the teaching of various levels of learners through the provision of different levels of scaffolding.

### **Inferential Statistics of Pre and Post Concord Comprehension Test**

**Table 6**

*Paired-Samples t-test for Pre-Test and Post-Test Concord Comprehension Scores (n = 70)*

Paired Scores	Mean Difference	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	T	df	p (2-tailed)
Pre-Test – Post-Test	-4.443	1.708	0.204	Lower = -4.850, Upper = -4.036	-21.764	69	< .001

*Note.* Mean difference = pre-test score minus post-test score; SD = standard deviation; SEM = standard error of the mean; df = degrees of freedom; p = significance value.

### ***Results of Inferential Analysis***

Table 6 presents the outcome of the paired-sample t-test for concord comprehension before and after the test. The test was conducted in a sample of 70 subjects. Pre- and post-test mean score -4.443 (SD = 1.708; SEM = 0.204). The difference ranged from the 95% confidence interval, with the lower bound being -4.850 and the upper bound -4.036. The result of the t-test was significant, and the p-value is less than .001 and rated at  $t(69) = -21.76$ ,  $p < .001$ .

The results indicate a significant increase in concord comprehension with Interactive Grammar-Based Teaching. This positive learning effect is indicated by the increase from pre-test to post-test scores, and the negative mean effect is due to the calculation of pre-test minus post-test. This was not due to chance as the t-value was highly significant (-21.764) with  $p < .001$ , and the probability of success was very low. Moreover, the effect was consistent as indicated by the 95% CI ranging from -4.850 to -4.036.

The paired samples t-test is an important part of this study, as it examines the performance of the same participants at two different points in time. Because design considers factors related to each individual, any change in performance can be attributed to the intervention rather than the differences in the learners' capabilities. This positive assertion aligns with the finding that IGBT positively impacted learners' understanding of conjuncts.

The paired sample t-test indicated that there is a significant difference between the pre-test and post-test scores. This suggests that there is a significant positive effect of Interactive Grammar-Based Teaching on the concord understanding of ESL learners. The significant difference in the mean scores of the pre-test and post-test results confirms that there is an improvement in the grammatical understanding of the learners.

### Descriptive Statistics of Pre & Post Self-Confidence Questionnaires

**Table 7**

*Descriptive Statistics of Pre-Test and Post-Test Self-Confidence Questionnaire Scores (n = 70)*

Test Phase	Mean	Standard Deviation
Pre-Test Self-Confidence Questionnaire	3.13	1.07
Post-Test Self-Confidence Questionnaire	4.06	0.63

*Note.* The mean scores are the averages of the 12-item self-confidence questionnaire. The responses were on a 5-point Likert scale. The standard deviation indicates the spread of the scores.

### Results of the Self-Confidence Questionnaire

Table 7 shows students' scores on the self-confidence questionnaire before and after the test. The statistics presented here are purely descriptive. Among the 70 participants who completed the self-confidence questionnaire before the test, the mean score recorded was 3.13 with a standard deviation of 1.07. The self-confidence questionnaire, which was given after the post-test, yielded a score of 4.06 with a standard deviation of 0.63. The statistics presented here are the central tendency and spread of students' self-confidence responses for both tests.

Based on the results from the pre-test, the learners exhibited a moderate level of confidence and a 1.07 standard deviation, which is indicative of differing levels of confidence among the respondents. Some learners experienced anxiety surrounding grammar while others expressed a lack of confidence. On the other hand, the mean value of 4.06 post-tests shows a clear increase in the level of self-esteem. With a standard deviation of 0.63, it shows that learner confidence is more consistent. This suggests that most respondents articulated a higher level of confidence after the IGBT intervention.

### The Inferential Statistics of Pre- and Post-Confidence Questionnaire (Objective 2)

The use of paired-samples t-tests to assess the effectiveness of Interactive Grammar-Based Teaching (IGBT) on ESL learners' self-confidence was reviewed. The studies examined learners' self-confidence collected in questionnaires before and after the instructional intervention since the participants were from the same group. Because the results were the same, the absence of inter-participant differences explains that the paired-samples t-test is the best option for this study since it focuses on changes in the dependent variable in the same participants.

Inferential analysis was carried out at two levels:

1. Overall self-confidence score.

2. Item-wise self-confidence statements.

**Overall Self-Confidence: Paired-Samples t-test**

**Table 8**

*Paired-Samples t-test for Overall Pre-Test and Post-Test Self-Confidence Questionnaire Scores (n = 70)*

Paired Scores	Mean	SD	Mean Difference	Std. Error Mean	95% Confidence Interval of the Difference	T	df	p (2-tailed)
Pre-Test Self-Confidence	3.31	1.07						
Post-Test Self-Confidence	3.94	0.41	-0.63	0.082	Lower = -0.79 Upper = -0.47	-7.68	69	< .001

*Note.* SD = standard deviation; df = degrees of freedom; p = significance value.

**Interpretation of Overall Self-Confidence Results**

Based on the participants' response in this case for Interactive Grammar-Based Teaching and the participants, Table 8 shows how prior to the Interactive Grammar-Based Teaching transition participants assessed their self-confidence and after. The study had 70 participants.

Before the intervention, pre-test self-confidence average score was 3.31 (SD = 1.07), indicating that learners had a moderate level of self-confidence. There was a notable increase in educators' confidence in English grammar, as the average score rose to 3.94 (SD = 0.41) after the instructional treatment. There was a mean difference of 0.63 between scores before and after the test, and the standard error mean was 0.082. The mean difference ranged from -0.47 to 0.79, and a 95% confidence interval suggested the increase in self-confidence was not attributed to a random change.

Using a paired-samples test,  $t(69) = 7.68$ , with the significance probability of  $< .001$  was indicating a statistically significant increase in self-confidence. The results were statistically significant. The increase in self-confidence of learners after the IGBT intervention was statistically significant. The fact that standard deviation decreased from the pre to posttest demonstrates that learners' confidence levels were more uniform after the teaching. The results suggest that the intervention positively impacted learners with different levels of confidence, and in particular, those who had initially scored lower.

**Item-Wise Paired-Samples t-test Results**

In order to understand more fully the extent to which the different components of self-confidence had been addressed, paired-samples t-tests were applied to each individual questionnaire item. These items measured the learners' confidence, anxiety, engagement, motivation, and self-perceived grammatical proficiency.

**Table 9**

*Item-Wise Paired-Samples t-test Results for Self-Confidence Questionnaire (n = 70)*

Questionnaire Item	Pre-Test Mean (SD)	Post-Test Mean (SD)	T	df	P
Confidence in using correct concord	2.81 (1.22)	4.03 (0.45)	-7.78	69	<.001
Understanding grammar explanations	2.77 (1.12)	3.94 (0.56)	-7.63	69	<.001
Hesitation to speak due to fear of errors (Reverse)	3.10 (1.08)	3.24 (0.91)	-1.46	69	.150
Motivation to improve grammatical accuracy	3.44 (0.96)	3.67 (0.83)	-1.59	69	.117
Comfort using grammar in front of classmates	2.54 (1.26)	3.91 (0.72)	-7.88	69	<.001
Confidence in spoken grammar accuracy	2.67 (1.07)	3.99 (0.67)	-8.59	69	<.001
Anxiety when teacher checks grammar	3.21 (1.01)	3.29 (0.89)	-0.69	69	.494

Note. Reverse-coded items were analyzed accordingly.  $p < .05$  indicates statistical significance.

### *Interpretation of Item-Wise Inferential Results*

The results of paired-samples t-tests for each of the different dimensions of self-confidence, as influenced by IGBT, are in Table 9. Improvements were noted with students' confidence in the proper usage of concord, explanation of grammar, and comfort with the use of grammar in front of peers, and confidence in the accuracy of spoken grammar ( $p < .001$ ). Several items showed statistically significant improvements ( $p < .001$ ), indicating that IGBT enhanced learners' confidence in grammar use and classroom participation.

Among the learners, the most significant growth in the confidence of the correct use of concord stands at 2.81 before the intervention and grows to a 4.003 mean. The confidence with spoken grammar improved 2.67 to 3.99. It can be concluded that the learners not only learned the required grammar but gained the confidence to communicate using the correct grammar. There was a lack of data which led to the conclusion that there is no significant difference in the degree of items related to hesitation, fear of making an error in grammar, motivation, and anxiety when teachers are doing grammar. The IGBT was successful in improving the confidence related use of grammar, but it seems that more effective strategies must be used, or the intervention must take longer to affect the anxiety and intrinsically motivation more.

The mixed pattern of significance across items shows how responsive pedagogically interactive grammar teaching relates to the performance and competence confidence as opposed to the more anxiety based affective traits which are typically more stable and show greater resistance to short term instructional change. The marked difference in the scores of the pre-test and post-test in the confidence scores shows that the Interactive Grammar-Based Teaching method had a positive effect on the learners' confidence in using English.

### *Integration with Descriptive Results*

These deductions provide ample supportive coverage for the descriptive statistics referred to earlier. Statistically significant t-test data bolsters the previous remarks regarding analytical description as regards the mean scores post interval and the variance within the

interval. To encapsulate, this analysis craned evidence in support of the premise that Interactive Grammar-Based Teaching considerably impacted the learners' confidence.

### ***The Summary of Inferential Findings for Self-Related Confidence***

The paired sampled t-test analysis supports the premise Interactive Grammar Based Teaching positively impacted overall self-confidence of tertiary level ESL learners significantly, which was in tandem with most previous studies. A good number of confidence related questionnaires, articulated, significantly, with grammar, class attendance, and oral language, the most. If, for all intents and purposes, some anxiety related items remained moot, the results overwhelmingly indicated IGBT effectively heightened the learners' emotional competence regarding the confident use of English grammar.

### **Summary of Results**

In this section, focus is on the results of the concord comprehension tests and self-confidence questionnaires conducted pre and post the instructional intervention. These results followed the framework of the methods used on the data (error analysis, descriptive statistics, and inferential statistics).

Looking at the answers students gave before the concord comprehension test; there was a clear difference in how well they did on the multiple-choice questions. The results showed that more answers were wrong than right, showing that learners had trouble using concord rules correctly. The analysis of the pre-test found that students made different kinds of grammar mistakes based on their answers. These mistakes were grouped into categories like subject-verb agreement, number agreement, person agreement, proximity concord, notional concord, and special concord cases. The number and percentage of right and wrong answers were figured out to see how well people understood the material before any teaching took place. The results show that a lot of learners had trouble choosing the right grammatical forms in multiple-choice questions, which means they did not fully understand concord rules before the teaching session. These error patterns helped find particular areas where students struggled, and those areas were studied more closely to meet the first research goal.

## **Discussion and Conclusion**

Interactive Grammar-Based teaching (IGBT) has been applied towards the enhancement of English concord and the self-perception of grammatical structures for tertiary-level ESL learners. The results demonstrate a significant enhancement in learners' comprehension of concord, illustrated by a higher score after the intervention compared to the score before the intervention. Moreover, the intervention showed a notable enhancement in learners' confidence towards the application of grammatical rules in both writing and speaking. The results suggest that engaging learners in structured, interactive, and scaffolded grammar activities promotes both cognitive advances in grammatical accuracy and emotional confidence.

### **Discussion**

#### ***Interpretation of Pre-Test Error Patterns (Objective 1)***

The test before the lesson showed that the students did not have a strong understanding of English concord before the teaching started. Looking at the multiple-choice answers, most of them were wrong (51.43%) instead of right (48.57%). This shows that the learners still have not become good at using grammatical agreement rules correctly. The error classification in Table 2 shows that learners had trouble with different kinds of concord. The biggest mistakes were about matching verbs with the right subject, like when students did not use the correct form of the verb for singular or plural nouns. This shows that there is a lack of proper knowledge about the basic rules for matching sentence parts in English. Errors in matching numbers show that learners had trouble figuring out if a subject needed a singular or plural verb, especially in sentences that are more complicated in structure. Similarly, errors in person agreement show that some learners were unsure about the correct verb forms for first, second, and third person subjects.

Another common challenge was seen in agreement with nearby nouns, where students usually picked verb forms based on the closest noun instead of the actual subject of the sentence. This shows that the focus is on basic level understanding instead of deeper grammar analysis. Additionally, notional agreement errors show that learners struggled with understanding agreement based on meaning, especially in sentences with collective nouns or abstract references. Even though there are not as many of them, special concord errors show that learners also had trouble with more complicated sentence structures, like compound subjects and irregular agreement patterns. The results of the pre-test show that the learners did not fully understand the main rules of subject-verb agreement were mostly using only some parts or incorrect grammar knowledge. These results show that we need focused teaching strategies to help improve grammar accuracy when understanding concord.

### ***Interpretation of Post-Test Improvements (Objective 2)***

The results after the test show that learners understood grammar better after using the Interactive Grammar-Based Teaching method. The analysis of the multiple-choice quiz results shows a big improvement in the number of correct answers, going up from 48.57% in the pre-test to 93%, while the percentage of incorrect answers dropped to 7%. This shows that grammar improved a lot when it comes to using words correctly after getting some teaching. The descriptive statistics further support this improvement. The average score went up from 4.86 in the pre-test to 9.30 in the post-test, showing that learners improved a lot in their ability to use concord rules correctly. The decrease in standard deviation (from 1.618 to 0.645) shows that learners performed more consistently after the intervention, with less difference in their achievement levels. The results from the paired-samples t-test show that this improvement is statistically significant ( $t(69) = 21.764, p < .001$ ). This means the difference between the pre-test and post-test scores is not likely due to luck but rather shows a real effect of using the IGBT approach in instruction.

A close look at the mistakes shows that students made much fewer errors in every group of examples during the test after they had learned the material. In particular, mistakes in matching verbs with the right subjects, like singular or plural were greatly reduced, showing that the ability to use verbs correctly with different subjects has improved. Similarly, better number agreement and person agreement show that someone understands the rules of grammatical agreement in sentence structures more clearly. Additionally, the learners showed better results in understanding proximity concord, meaning they depended less on the closest noun and were more accurate in finding the real grammatical subject. Errors in how words

agree with each other in meaning also went down, showing that people are better at understanding agreement based on meaning, especially when dealing with groups or abstract ideas. Only a few mistakes were left in the special concord situations, showing that there was some better control over more difficult grammar parts. The results after the test show that the learners gained a better and more correct grasp of the rules for agreement in English after the teaching session. The results show that using Interactive Grammar-Based Teaching helped students get better at answering grammar-related multiple-choice questions that test their understanding of sentence structure.

### *Interpretation of Self-Confidence Results (Objective 2)*

The self-confidence questionnaire may not yield calculable indicative statistics, but self-confidence, after the intervention, showed a marked increase. Moderate confidence was reflected in the pre-test (3.13) and post-test (4.06) scores. Outstanding learner confidence in the spoken and written language was also demonstrated in the higher levels of grammatical confidence.

Communicative and constructive mechanisms of IGBT may be the reason for the positive change. Through these mechanisms, learners engaged in grammar practice, received on the spot feedback, and made corrections in a non-threatening atmosphere. Such experiences foster the belief that one can succeed in accomplishing given tasks (self-efficacy) and can lessen the feeling of anxiety (Bandura, 1997). The relationship between anxiety and motivation shows that a decrease in anxiety might lead to an increase in motivation, thus improving performance and increasing self-confidence, which is what this study aimed to achieve.

In addition, a decrease in standard deviation from 1.07 to 0.63 shows those learners were more uniform in their level of confidence. The results indicate that the intervention not only enhanced confidence but also improved the overall quality of confidence, whereby more competent learners had a higher degree of confidence than less competent learners. This outcome also illustrates the extent to which IGBT fosters scaffolded and collaborative learning, particularly in mixed ability settings.

### **Findings**

The research indicates that ESL learners gained both concord comprehension and confidence, attributable to Interactive Grammar-Based Teaching. Pre-test data displayed a number of issues including grammatical errors, comprehension difficulties, number agreement, person agreement, insufficient self-confidence, anxiety, peer pressure, and a lack of relevant context. Upon test completion, there was a noticeable increase in both accuracy in grammar and in confidence, along with a reduction in errors and an increase in mean scores. Statistically significant results were recorded reflecting improvement in concord comprehension in the paired-samples t-test. The findings emphasize the importance of engaging grammar instruction, as well as the cognitive and affective dimensions of the language acquisition process. It was noted that learners with anxiety or low confidence may find the greatest gains from the scaffolded, interactive approach to grammar instruction, as it helps foster motivation and improve grammatical responses.

### **Conclusion**

The purpose of this research was to explore and assess the effects of Interactive Grammar-Based Teaching (IGBT) on concord comprehension and self-confidence of tertiary-level ESL students. This research used a quantitative approach of a quasi-experimental pre-post test design. The results of this research showed that Interactive Grammar-Based Teaching has a positive impact on students' understanding of concord rules, reduction of common concord errors, and an increase of their confidence in using English.

The assessment of IGBT's impact on the concord comprehension and self-confidence of ESL learners at the tertiary level involved the use of Interactive Grammar-Based Teaching (IGBT). This was due to the learners' persistent challenges with grammar, especially with concord and subject-verb agreement, which hinders their ability to communicate clearly and confidently in English. The study emphasized a significant gap in the teaching of English, where the communicative competence was insufficient in comparison to the level of grammatical competence. The study aimed to explore whether an interactive teaching approach in grammar, where the teacher 'moves with' the students, could lead to an improvement in grammatical accuracy and at the same time, increase learners' confidence in English, as opposed to the more traditional approaches.

In experimental research design, the concord comprehension tests and the questionnaires about self-confidence served as both the pre-test and post-test measures. It was demonstrated that both concord comprehension and confidence of learners were positively affected by the IGBT. Prior to the intervention, there were a number of concord errors that showed a lack of understanding; inconsistent application a consistent application of the rules of a great was missing. The errors were not the result of knowledge gaps alone. It was also the result of a lack of practice, a weak internalization of the rules, a lack of confidence, and disuse of the language. Many students were apprehensive about making errors and this led to a great deal of anxiety and lack of confidence, which in turn led to reluctance to participate in speaking activities.

The study proposes that Interactive Grammar-Based Teaching is a constructive technique that increases grammatical accuracy and learner confidence. IGBT proposes a unique way of teaching grammar that involves a cross fusion of explicit teaching, interaction, practice and feedback and learning and problem solving. This study is part of the emerging research advocating 'interactive, learner-centered grammar instruction' in teaching situations in which learners lack the confidence and the accuracy that grammar teaching provides.

### ***Conclusion of Research Objectives***

This study originally aimed to identify and examine the kinds of concord-related errors that ESL learners of a given higher-level commit. The second objective was to explore the reasons behind these errors. The results of the error analysis showed that learners' difficulties with concord were a result of the rules of concord, and these were more than just cognitive and emotional manifestations. Learners' errors were the result of a lack of understanding and the inability to; apply the principles uniformly in given situations both in written and spoken forms.

Some of the identified gaps include subject-verb agreement, incorrect use of verbs, problems with singular/plural imbalance, and agreement discrepancies in compound sentences. In fact, these problems were not ubiquitous. Ignorance was not the sole origin of these problems. Errors stemmed from poor internalization of rules, minimal practice, and lack of adequate and relevant contact. In addition, learners' confidence was correlated with the level of applied grammatical structure. The fear of making errors created anxiety, and most learners chose not to speak during the lectures for fear of criticism.

In the second objective, Interactive Grammar-based Teaching was analyzed to see if IGBT assists learners in the improvement of confidence and comprehension of concords. Added to IGBT, the learners' confidence and comprehension of concords significantly

improved. In the analysis of paired-sample inferential, it has been shown that participants' post-test scores were significantly greater than their pre-test scores. In other words, the progress was not only observable, but it was sufficiently substantial. Most of the analyzed pre-tests and post-tests stated that the entry and exit score differences revealed that there were no substantial inconsistencies in the major concord error categories and that there were no substantial inconsistencies in the systematic improvements. These findings mean, at the very least, that participants were engaged in a meaningful way, and benefited from the interactive sessions.

The IGBT process saw a significant improvement in learners' confidence. The process revealed that students were more inclined to utilize the complex grammatical structures and engage in the communicative aspects of the process. The reduction in anxiety and the improvement of self-efficacy was observed when the learners were actively engaged in the exercise. The results from the exercise revealed that the learners were able to follow the instructions. The results indicated that the participants were well prepared to apply the components of the grammar that were required to complete the exercise.

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