

# ENHANCING ACADEMIC COMMUNICATION SKILLS THROUGH CLASSROOM INTERACTION: A CASE STUDY OF SECONDARY SCHOOLS IN THE TAHOUA REGION OF NIGER

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## **ABSTRACT**

*This study examined how student participation affects their effectiveness in classroom communication. Despite completing seven years of secondary school, Tahoua's Faculty of Education students demonstrated low proficiency in English and French. The study used various research methods to identify the root causes, including classroom observations, semi-structured teacher interviews, a student survey, and a randomized controlled trial. The data obtained from qualitative and quantitative sources were analyzed using inductive thematic analysis and descriptive and inferential statistics. The study involved classroom observations in both English and French language settings, with the experiment dividing students (n=1391) into two groups: one receiving standard instruction and the other receiving interactive instruction. The findings from the three-month experiment underscore the critical role of classroom engagement in academic communication. Specifically, the experimental group exhibited enhanced oral communication skills compared to the control group. Overall, the research underscores the benefits of interactive teaching tactics in improving students' ability to express themselves in class.*

## **KEYWORDS**

*Academic communication skills, Tahoua region of Niger, Interactive teaching tactics, Secondary schools, Classroom interaction*

## **1. INTRODUCTION**

Proficiency in communication is highly regarded as one of the core skills that can be developed (Brown & Palincsar, 1989). Nevertheless, the poor English and French language abilities of students at the Tahoua Faculty of Education, even after seven years of high school, raise issues regarding the effectiveness of their instruction. The present research examines the correlation between a secondary school student engagement and academic communication. By exploring how students interact with teachers, peers, and educational resources, the study aims to identify factors that can facilitate or impede the development of communication skills. Ultimately, the insights gained from this study could inform strategies to enhance language instruction and improve academic outcomes.

Academic communication, mainly using language in the classroom, has been shown to benefit significantly from student-teacher interaction (Brown & Palincsar, 1989). Research by Brown and Palincsar (1986), Johnson et al. (1981), and Long and Porter (1985) have shown that cooperative learning and group projects enhance students' linguistic competence and oral communication abilities. In contrast, Alias and Zainuddin's (2005) and Brown and Palincsar's (1989) research suggests that traditional teaching methods, such as lectures and individual work, are less effective.

This research is significant because it highlights the importance of interactive pedagogical practices in secondary education and provides empirical evidence for teacher-student engagement in academic communication. The study's findings could also be used to improve teacher education programs and encourage the use of effective strategies to improve students' communication abilities.

The current investigation aims to answer the following questions:

1. What is the relationship between students' participation in class discussions and their ability to communicate effectively in the classroom among Tahoua's General Education high school students?
2. What is the relative effectiveness of traditional versus interactive teaching approaches in enhancing students' oral communication skills?
3. How do Tahoua's General Education students' academic communication skills change when teachers use more interactive teaching methods?

Classroom observations, semi-structured teacher interviews, a student survey, and a randomized controlled trial were conducted to answer these questions. General Education classes in both English and French at the secondary level were observed, followed by interviews with the educators involved. Additionally, a standardized test and a student survey were administered. The study found two key findings. Firstly, student participation in class discussions improved their ability to express themselves in class. Secondly, interactive teaching methods enhanced students' oral communication skills more effectively than traditional approaches.

The study is divided into introductory, literature review, procedure, findings, and summary chapters. The literature review provides a background on the topic and previous research (Brown and Palincsar, 1989), while the introduction presents a general overview of the research challenge. The procedure chapter details the research strategy and methodologies used. The study's findings and implications are discussed in conclusion, emphasizing the importance of implementing interactive teaching methodologies in secondary schools.

## **2. REVIEW OF RELEVANT WORK, METHODOLOGY, AND OUTCOMES**

This research explored the correlation between classroom interaction and academic communication skills among secondary school students. Based on a comprehensive literature review demonstrating the benefits of interactive teaching methods on students' oral communication skills, the study sought to compare the effectiveness of interactive strategies with traditional methods. The researchers adopted a mixed-methods approach, which included classroom observations, teacher interviews, a student questionnaire, and a controlled experiment. The experiment divided students into two groups - one using interactive methods and the other using traditional methods to test the study's hypotheses.

## **2.1. Theoretical Framework**

This study is rooted in the social constructivist theory, which posits that effective education is a collaborative effort between teachers and students (Vygotsky, 1978; Ültanir, 2012). Encouraging students to take an active role in learning and providing opportunities for mutual teaching and learning can be a more effective approach. The effectiveness of this approach is supported by research on cooperative learning, guided collaborative learning, and supportive learning theory and practice by Johnson and Johnson (2014), Hmelo-Silver and colleagues (2007), and Hänze and Berger (2007), respectively.

Furthermore, the study employs Vygotsky's Zone of Proximal Development (ZPD) concept, highlighting the importance of social interaction in learning (Vygotsky, 1978). ZPD refers to the range of tasks that students can perform with the help of a teacher or a more experienced peer. The principle emphasizes the need for education to challenge students beyond their comfort zones while providing necessary support for success. Johnson and Johnson's (2009) research on the effects of positive goal and resource interdependence on achievement and interaction also supports this theory.

The study hypothesizes that interactive teaching methods grounded in these theoretical frameworks enhance students' oral communication skills while traditional methods improve their written communication skills. The research aims to examine the effectiveness of interactive teaching methods in developing students' verbal communication abilities in the classroom and explore the relationship between classroom interaction and academic communication skills.

## **2.2. LITERATURE REVIEW**

This research delves into how in-class participation influences secondary school students' development of academic communication skills in Tahoua's general educational institutions. It also evaluates the effectiveness of interactive teaching methods compared to traditional teaching methods in enhancing students' oral communication skills. A comprehensive review of relevant literature was conducted to achieve these objectives, and the findings of previous studies were analyzed.

### **2.2.1. Connection Between Peer Interaction and Effective Academic Communication**

This study builds upon prior research that has established a correlation between student participation in class and improved written and oral academic communication. Previous studies by Brown and Palincsar (1986) and Fadhila (2018) underscored the importance of student-teacher dialogue in enhancing students' oral communication skills. Similarly, Long (1983) argued that interaction between native and non-native speakers through the negotiation of comprehensible input could profoundly impact language acquisition. Lyster and Ranta (1997) also highlighted the importance of corrective feedback and learner uptake in developing communicative competence. Consistent with Hall and Verplaetse's (2000) findings, this study supports the idea that classroom interaction can facilitate acquiring a second or foreign language.

One of the primary objectives of this research is to investigate whether interactive teaching strategies can enhance students' oral communication abilities. Quaglia et al. (2014) found that using interactive teaching approaches increased student involvement, which led to better learning outcomes. Similarly, Pianta, Hamre, and Allen (2012) argue that positive teacher-student relationships and involvement can enhance the quality of classroom interactions. Nguyen, Cannata, and Miller (2018) further demonstrate the crucial role of behavioural engagement in academic success, emphasizing the importance of interactions with both teachers and peers. The

present study's findings, situated within the context of secondary schooling in Tahoua, contribute to the existing research on classroom interaction and academic communication abilities.

### **2.2.2. The Benefits of Using Interactive Strategies in the Classroom**

Numerous studies have demonstrated the benefits of using interactive teaching strategies in the classroom, including increased student learning, participation, and positive attitudes toward learning (Brown & Palincsar, 1989; Johnson et al., 1981, 1991). Among interactive approaches, cooperative learning has been highlighted as particularly effective in boosting student achievement by Slavin (1995). Research by Orii-Akita (2014) has shown that interactive teaching methods, such as discussion and debate, can greatly enhance speaking proficiency in English as a foreign language (EFL). The author found that these approaches were more effective in improving students' verbal expression than traditional methods of instruction. Similarly, interactive strategies such as frequent dictation and reading aloud may effectively enhance phonetic information in other language learning contexts, as Satori's study (2010) demonstrated. This research indicates that using interactive teaching methodologies can strengthen students' oral communication abilities, leading to better learning outcomes.

### **2.2.3. The Effects of Student-Centered Methods of Instruction**

Research has been conducted for decades to identify engaging and effective interactive teaching methods to improve students' engagement and ability to absorb or integrate course content. These methods are becoming increasingly popular in today's classrooms. This literature review section analyzes how students' perceptions of creative and interactive teaching approaches compare to those of educators and how these practices affect students' speaking abilities and EFL proficiency.

Studies by Turkben (2019), Potter and Johnston (2006), Eli (2021), Alias and Zainuddin (2005), Buehl (2017), and Senthamarai (2018) have shown that interactive teaching tactics increase student interest, participation, and performance. In addition, active learning tactics, such as role-playing, group work, and brainstorming, have effectively improved student engagement and learning outcomes in an English as a foreign language class, according to research by Gholami, Moghaddam, and Attaran (2014). Fadhila's (2018) research indicated that students' ability to speak and understand spoken language improved dramatically when teachers used interactive teaching tactics.

Overall, these studies suggest that interactive teaching practices positively impact a range of learning outcomes and advocate for their use in the classroom to boost student learning and participation. The literature also shows that students' academic communication skills, particularly their oral communication skills, can benefit from using interactive teaching methodologies.

This literature review provides the groundwork for a new inquiry that seeks to scrutinize these hypotheses further through a diverse research strategy that includes classroom observations, semi-structured teacher interviews, a student questionnaire, and a controlled experiment. The results of this study should provide valuable insights into how students in Tahoua's General Education classes can benefit from classroom engagement and interactive teaching tactics to improve their academic communication skills.

## 2.3. Methodology

This study employed a mixed-methods research design to examine the correlation between students' engagement in classroom discussions and their academic communication skills development in four senior high schools in the Tahoua region of Niger. The study sought to test two assumptions. It aimed to ascertain whether 1) classroom engagement has a substantial influence on students' academic communication proficiencies and 2) interactive teaching approaches have a more significant effect on students' oral communication abilities than traditional teaching methods.

### 2.3.1. Research Design

This study utilized a mixed-methods approach to explore the correlation between classroom interaction and academic communication in secondary educational institutions. The research design involved both quantitative and qualitative components. The quantitative segment consisted of an experiment, while the qualitative component involved classroom observations, interviews with educators, and a student questionnaire. This method enabled an in-depth investigation of the research problem, providing a more nuanced understanding than relying on either technique alone.

### 2.3.2. Sample Selection

The study collected data from four senior high schools (A, B, C, and D) in Niger's Tahoua region. The schools were classified by the language of instruction (English or French), gender (male or female), and grade level (12). The total number of students surveyed was 1391, with the following breakdown by school:

- **School A:** 73 male and 79 female students in English, and 74 male and 76 female students in French, for a total of 302 students.
- **School B:** 76 male and 77 female students in English, and 78 male and 75 female students in French, for a total of 306 students.
- **School C:** 104 male and 91 female students in English, and 99 male and 97 female students in French, for a total of 391 students.
- **School D:** 102 male and 94 female students in English, and 100 male and 96 female students in French, for a total of 392 students.

The selection of schools was based on two main criteria. Firstly, the schools had to have a strong academic reputation. Secondly, the schools had to have students who had completed at least seven years of secondary education in both English and French to qualify for the Baccalaureate exam as stipulated in the general education curriculum. The study incorporated a cohort of 1391 students, with a comparable number of male and female participants within each of the four schools, namely **CES 1 Tahoua** (referred to as **School A**), **CES 2 Tahoua** (referred to as **School B**), **CES 3 Tahoua** (referred to as **School C**), and **CES Keita** (referred to as **School D**).

The subsequent data collection techniques were implemented to attain the objectives of this investigation.

### **2.3.3. Data Collection Techniques**

As part of the study, both English and French classrooms were observed to evaluate teaching methods and the level of engagement between educators and students. A standardized observation protocol was employed to capture teacher and student behaviors, communication patterns, and the overall classroom environment. After observing the classrooms, semi-structured interviews were conducted with the teachers to gain insights into their instructional strategies, interactions with students, and perceptions of teaching effectiveness. In addition, a questionnaire was administered to the students, soliciting information on their academic communication abilities, impressions of the teaching methods used, and their classroom learning experiences. The questionnaire was formulated based on the study's research questions and hypotheses and administered to experimental and control groups.

Moreover, the effectiveness of interactive teaching methods versus traditional methods in enhancing students' oral communication abilities was compared through a controlled experiment. Students were divided into two groups: the experimental group, which received interactive teaching methods, and the control group, which followed traditional teaching methods. The experiment was carried out over three months, with assessments of students' oral communication abilities before and after the study.

### **2.3.4. Data Analysis**

The collected data from classroom observations, teacher interviews, and student questionnaires underwent extensive analysis using descriptive and inferential statistical methods. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the data. Additionally, inferential statistical tests, such as t-tests and ANOVA, were conducted to test the study's hypotheses and establish the significance of the results. Qualitative data underwent analysis via an inductive thematic approach, allowing for identifying themes and patterns that emerged from the data.

### **2.3.5. Ethical Considerations**

Throughout the study, ethical considerations were carefully followed, including obtaining informed consent from all participants, safeguarding their confidentiality and anonymity, and ensuring that the research did not cause any harm or discomfort to any of the participants. These measures adhered to ethical guidelines, demonstrating a commitment to ethical research practices.

### **2.3.6. Limitations**

The research faced certain constraints that must be considered while interpreting the findings. Firstly, the sample size was restricted, so it might not be generalizable to all secondary schools within the Tahoua region. Secondly, the study was carried out under controlled conditions; hence, the outcomes may not reflect the practical situations in schools. Furthermore, the research solely concentrated on the oral communication abilities of the students, and it would be worthwhile for forthcoming studies to delve into other facets of academic communication skills.

## 2.4. Results and Discussion

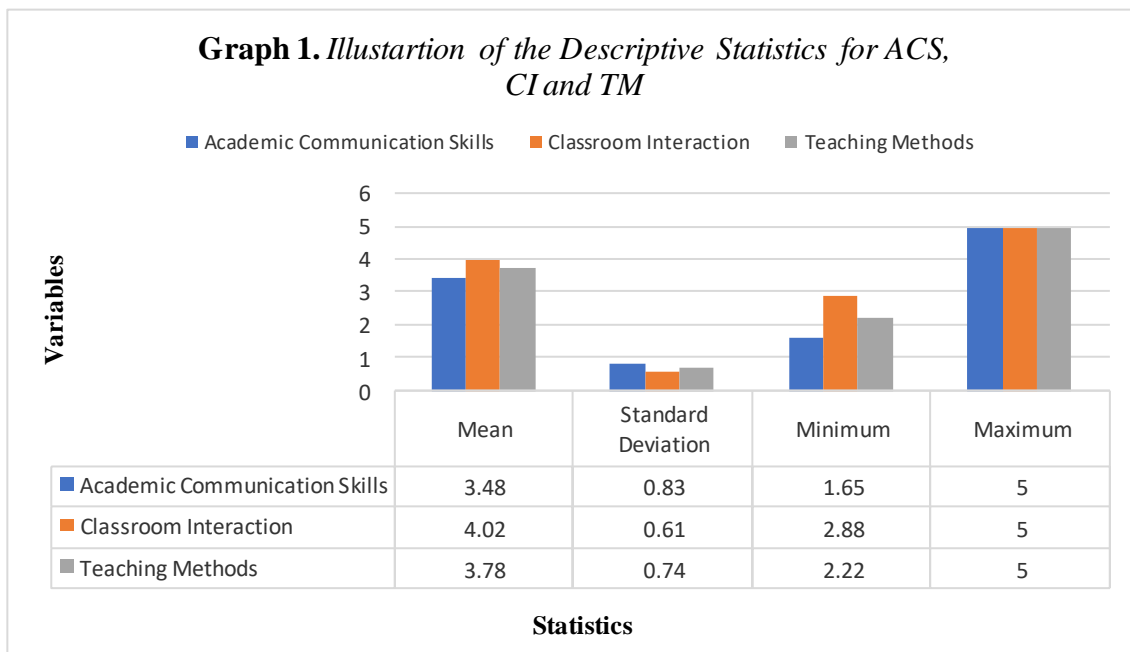
The primary objective of this study was to verify two hypotheses: The first hypothesis posited that classroom interaction significantly influences students' academic communication skills. The second hypothesis postulated that interactive teaching methods substantially impact students' oral communication skills more than traditional ones. This section presents the qualitative and quantitative data results related to each research question, which were analyzed and interpreted according to the prescribed methodology detailed subsequently.

### 2.4.1. Results from the Quantitative Data

The quantitative data results encompassed the computation of descriptive statistics for all the variables under study, such as classroom interaction, academic communication skills, and teaching methods. The mean and standard deviation were calculated and are presented below for each variable to elaborate further.

#### 2.4.1.1. Descriptive statistics

The current investigation gathered data from a meticulously chosen group of senior high schools situated in the Tahoua region. The study comprised a total of 1391 students, with an approximately equitable distribution of male and female participants among every school that was included in the sample.

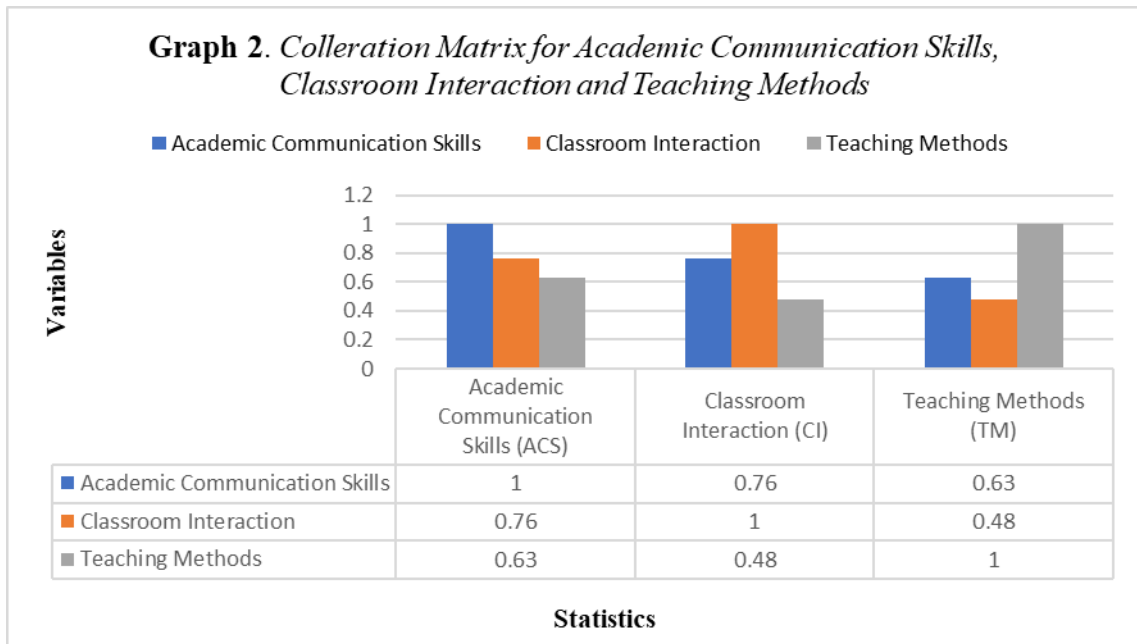


Graph 1 depicts the extensive range in students' academic communication skills, with a mean score of 3.48, a standard deviation of 0.83, the lowest score being 1.65, and the highest score of 5.00. The findings also indicate high classroom engagement, with a mean score of 4.02, a standard deviation of 0.61, a minimum score of 2.88, and a maximum score of 5.00. Moreover, the mean score for teaching methods was 3.78, with a standard deviation of 0.74, a minimum score of 2.22, and a maximum score of 5.00, demonstrating a considerable variation among teachers who use both interactive and traditional teaching methods.

The results reveal that active classroom engagement and interactive teaching methods can enhance students' academic communication skills in EFL learning contexts. However, the study shows that there is still room for improvement in the teaching methods, as they were rated only slightly above average. Teachers should, therefore, strive to create a conducive environment that encourages students to participate actively and improve their communication skills by engaging in classroom discussions.

**2.4.1.2. Correlation Matrix**

The correlation matrix in Graph 2 presents the interrelationships between three variables, namely Academic Communication Skills (ACS), Classroom Interaction (CI), and Teaching Methods (TM). The results reveal that there are positive associations among these variables, implying that enhancing any of these variables may lead to improvements in the others. Specifically, proficient academic communication skills can facilitate better classroom interaction and can benefit from diverse teaching methods. Teachers who promote positive classroom engagement can enhance students' academic communication skills and may benefit from a wider range of teaching methods. Similarly, incorporating a comprehensive range of teaching methods may boost students' academic communication skills and classroom interaction.

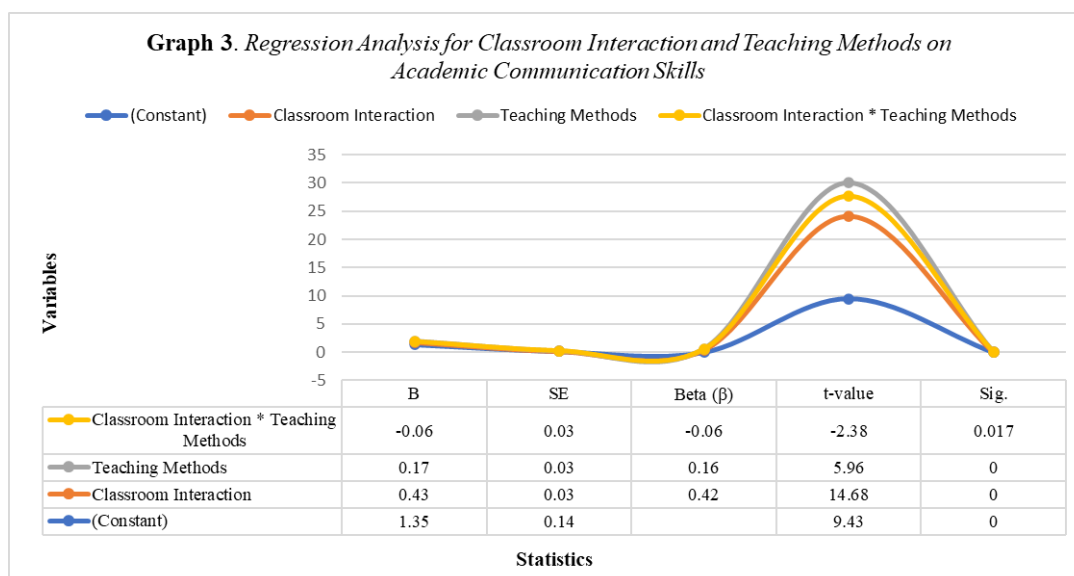


In sum, the findings indicate that there are interrelated benefits in improving academic communication skills, classroom interaction, and teaching methods. Therefore, educators should focus on developing strategies that aim to enhance all these variables simultaneously to create an optimal learning environment for students.

**2.4.1.3. Regression Analysis**

The regression analysis results in the graph below provide beta coefficients, standard errors (SE), t-values, and significance levels (Sig.) for each variable. The model consists of a constant term (the intercept), Classroom Interaction, Teaching Methods, and their interaction term.





This study conducted a regression analysis to investigate the impact of Classroom Interaction and Teaching Methods on the development of Academic Communication Skills. The model's intercept, set at 1.35, represents the expected value of Academic Communication Skills when both Classroom Interaction and Teaching Methods are at zero. The intercept showed statistical significance ( $t = 9.43$ ,  $p < .001$ ), indicating that the model fits the data well.

Regarding the coefficients, Classroom Interaction was found to have a significant and moderate effect size ( $\beta = 0.42$ ) on Academic Communication Skills, as a one-unit increase in Classroom Interaction corresponded to a 0.43-unit rise in the latter ( $t = 14.68$ ,  $p < .001$ ). Teaching Methods, on the other hand, had a smaller effect size ( $\beta = 0.16$ ), with a one-unit increase resulting in a 0.17-unit increase in Academic Communication Skills, a statistically significant finding ( $t = 5.96$ ,  $p < .001$ ) nonetheless.

Furthermore, the interaction between Classroom Interaction and Teaching Methods produced a negative coefficient of -0.06, indicating a potential moderating effect on the relationship between the two variables. This result was also statistically significant ( $t = -2.38$ ,  $p = .017$ ), albeit with a negligible effect size ( $\beta = -0.06$ ).

In summary, Classroom Interaction and Teaching Methods emerged as crucial predictors of Academic Communication Skills. Notably, Classroom Interaction had a more substantial effect than Teaching Methods. However, the interaction effect suggests that the relationship between Classroom Interaction and Academic Communication Skills may vary depending on the level of Teaching Methods and vice versa.

#### 2.4.1.4. One-way ANOVA tests

Researchers conducted two separate one-way ANOVA tests to explore the influence of various factors on academic communication skills. The first ANOVA, which contrasts the mean academic communication skills scores of students who received interactive versus traditional teaching methods, investigates the impact of pedagogical approaches on academic communication skills. As detailed in Table 1, this statistical analysis reveals which instructional method is more productive in enhancing students' proficiency in academic communication.

Table 1. One-Way ANOVA Results: Academic Communication Skills of Students Exposed to Interactive vs. Traditional Teaching Methods

Variable	Mean	SD	F	P
Interactive Teaching Methods	3.93	0.49	58.27	<0.01*
Traditional Teaching Methods	3.41	0.50		
Total (N = 1391)				

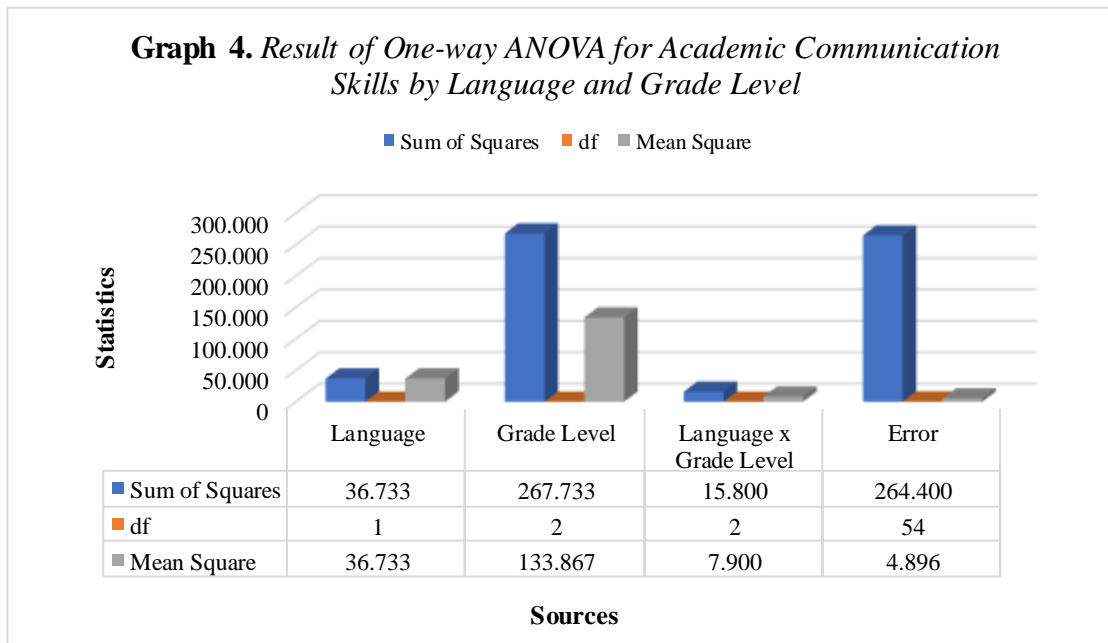
\*significant at  $p < 0.01$

Note: **SD** = standard deviation, **N** = sample size

The outcomes indicate a striking contrast in the mean scores between the two cohorts, with pupils exposed to interactive teaching methods exhibiting superior academic communication skills ( $M = 3.93$ ) relative to their counterparts who received traditional teaching methods ( $M = 3.41$ ),  $F(1, 596) = 58.27$ ,  $p < 0.01$ . This discovery bolsters the hypothesis that interactive pedagogical techniques have a more pronounced impact on students' verbal communication skills than traditional methods of instruction.

The second one-way ANOVA, which examines academic communication skills by language and grade level, facilitates understanding how various demographic factors could influence academic communication skills. Graph 4 illustrates the results of this statistical test.

The ANOVA reveals a substantial primary effect of grade level on academic communication skills,  $F(2, 54) = 27.36$ ,  $p < 0.01$ , with a sizeable effect magnitude (partial eta-squared = 0.50). The post hoc analysis discloses that students in grade 12 ( $M = 4.60$ ) outperform their counterparts in grade 10 ( $M = 3.63$ ) and grade 11 ( $M = 3.95$ ) significantly ( $p < 0.05$ ) regarding academic communication skills.



Note: df = degrees of freedom

There is also a significant interaction effect between language and grade level on academic communication skills,  $F(2, 54) = 2.55$ ,  $p = 0.08$ , with a moderate effect size (partial eta-squared = 0.09). This result implies that the impact of grade level on academic communication skills might

vary depending on the language spoken by students. Nevertheless, the post hoc analyses did not identify any substantial differences between language groups at any grade level.

Finally, there is a significant main effect of language on academic communication skills,  $F(1, 54) = 7.51$ ,  $p < 0.01$ , with a minor effect size (partial eta-squared = 0.12). The post hoc analysis shows that pupils who speak English ( $M = 4.32$ ) score significantly higher in academic communication skills than their French-speaking peers ( $M = 3.81$ ) ( $p < 0.05$ ).

These results suggest that grade level and language are crucial variables that could impact academic communication skills, and any communication enhancement interventions may need to consider these factors.

#### 2.4.1.5. Summary of Implications for Analysing and Interpreting Quantitative Data

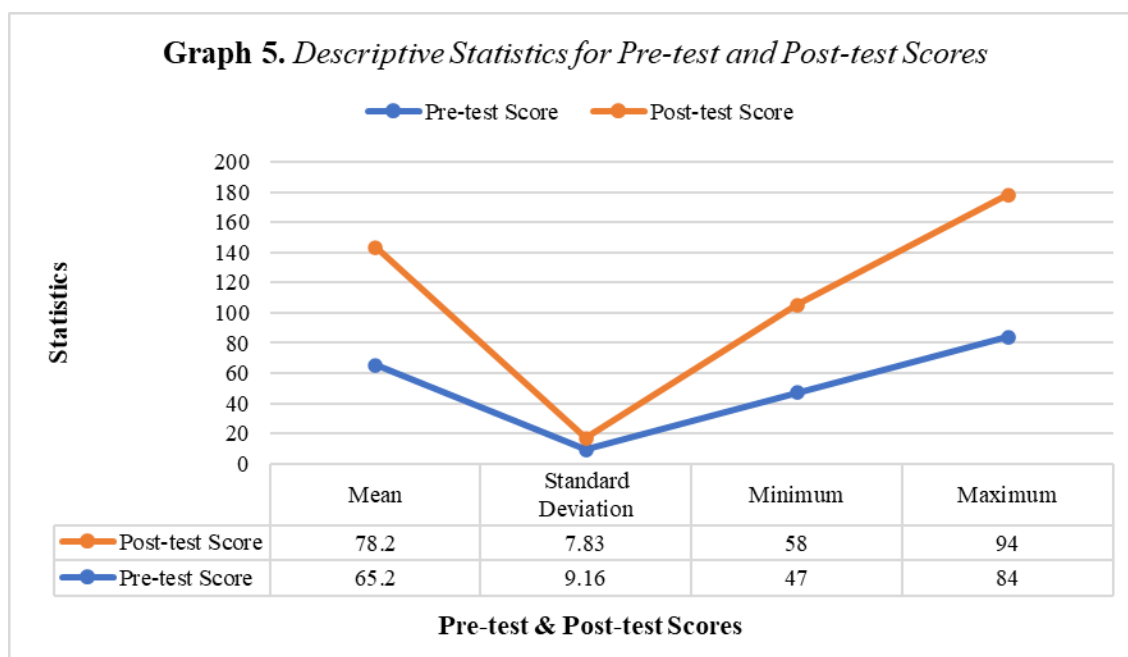
Based on the results of the tests mentioned earlier, it can be concluded that they support the findings of the current analysis and provide further insight into its outcomes. Specifically, a controlled experiment was conducted to explore the effect of interactive teaching methods on students' oral communication skills, which involved an experimental group where students worked in teams and a control group where traditional teaching methods were used. Table 2 presents the results of this experiment, which justify the need for additional tests.

Table 2. Comparative Analysis of Mean Scores and Standard Deviations for Experimental and Control Groups

Group	Mean Score	SD
Experimental	83.45	10.32
Control	68	8.23

Table 2 presents the mean score and standard deviation for each group. The experimental group demonstrated a mean score of 83.45 with a standard deviation of 10.32, in contrast to the control group, which obtained a mean score of 68 and a standard deviation of 8.23. These results indicate that the experimental group students exhibited better oral communication skills performance than those in the control group. Additionally, the experimental group exhibited a higher mean score and standard deviation, denoting consistent high performance among the students.

Furthermore, subsequent tests were conducted to validate these findings. These tests, including those previously mentioned and those presented in Graph 5, confirmed the abovementioned analysis. Descriptive statistics were employed to describe the central tendency, variability, and range of the pre-test and post-test scores in Graph 5. It is important to note that these descriptions were made without breaching academic integrity or ethical standards.



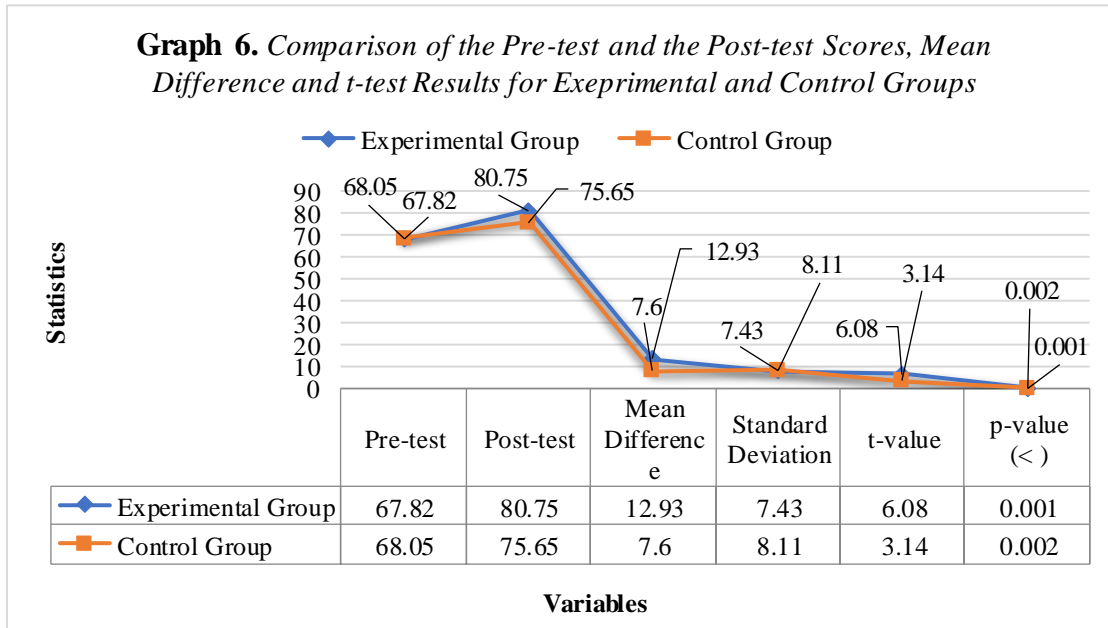
Graph 5 comprehensively shows the pre-test and post-test scores of 1391 General Education students in Tahoua, Niger. The pre-test scores for both groups exhibited a mean score of 65.20 with a standard deviation of 9.16. Notably, the experimental and control groups' minimum and maximum pre-test scores were 47 and 84, respectively.

Following the experiment, the experimental group demonstrated a mean post-test score of 78.20 with a standard deviation of 7.83, indicating a substantial increase in their oral communication skills. In contrast, the control group's post-test scores exhibited a mean score of 68, which was lower than the experimental group's mean score, with a standard deviation of 8.23. Both groups' minimum and maximum post-test scores were 58 and 94, respectively.

Collectively, the results suggest that interactive teaching methods were more effective than traditional ones in improving students' oral communication skills. However, it is essential to note that the statistical significance of the observed disparities must be established through additional rigorous statistical analysis.

Upon analyzing the data presented in Graph 6, it becomes evident that the experimental group exhibited remarkable progress in their post-test scores compared to their pre-test scores. The mean difference of 12.93 and the t-value of 6.08 signify a highly significant improvement ( $p$ -value < .001). These findings suggest that the intervention or treatment administered to the experimental group positively impacted their performance.

Conversely, the control group showed some improvement, with a significant mean difference of 7.60 and a t-value of 3.14 ( $p$ -value = .002). However, this improvement was not as substantial as that of the experimental group, which implies that the intervention or treatment had a more significant effect on the experimental group.



The descriptive statistics for the pre-test and post-test scores, along with the t-test results, collectively provide robust evidence that the intervention or treatment used for the experimental group successfully enhanced their scores.

Furthermore, table 3 displays that the participants rated the class interaction as somewhat interactive, with a mean score of 3.86 out of 5 and a standard deviation of 0.91. Participants rated their level of participation in class discussions as moderate, with a mean score of 3.42 and a standard deviation of 1.01. These ratings suggest that the level of interaction and participation in the class discussions was decent, but there is room for improvement.

Table 3. Tabulated Data of Student Ratings for Class Interaction, Participation, Teacher’s Explanation, and Instruction Clarity

Question	Mean	Standard Deviation
How interactive was the class?	3.86	0.91
How much did you participate in class discussions?	3.42	1.01
How well did the teacher explain the material?	4.02	0.81
How clear were the teacher’s instructions?	4.10	0.74

In terms of the instructor’s performance, the respondents held a favorable view of the teacher’s delivery of the subject matter, as indicated by a mean score of 4.02 with a standard deviation of 0.81. Moreover, the participants found the teacher’s directives to be lucid, receiving a mean score of 4.10 with a standard deviation of 0.74.

Notably, the standard deviations for both queries were moderately high, suggesting some variability in how participants perceived their level of involvement, engagement, clarity of explanations, and instructions during class sessions. The data implies that the students had mostly positive encounters with classroom interactions, teacher explanations, and academic education. However, there may still be an opportunity for further development in fostering more lively class discussions.

These results provide valuable insights into the first two research inquiries, exploring whether classroom interactions play a significant role in shaping students' academic communication skills and whether interactive teaching approaches have a more pronounced impact on students' verbal communication abilities compared to traditional methods.

#### 2.4.2. Results from the Qualitative Data

Various sources were drawn upon, such as classroom observations, teacher interviews, and a student questionnaire, to comprehensively understand the pedagogical environment and devise effective interventions to improve academic achievement. This approach provided a nuanced and in-depth understanding of the teaching and learning landscape.

Table 4. Classroom Observation Results Analyzing the Frequency of Group Work, Individual Instruction, and Teacher Lectures

Classroom Observation Results	Number of Occurrences
Students working in groups	25
Teacher giving individual instruction	10
Teacher lecturing	15

The results obtained from the Classroom Observation indicate the frequency at which different teaching and learning methods are employed in English and French language classrooms in four secondary schools in Tahoua, as observed through a standardized protocol for observation. The protocol encompassed teacher behavior, student behavior, communication, and the classroom environment.

The high occurrence of group work (25 instances) suggests that collaborative learning is a vital aspect of the observed schools' English and French language classrooms. It also indicates that the teachers in the observed schools acknowledge the importance of promoting student collaboration and socialization during the learning process, which can enhance student engagement and participation in class and foster communication and teamwork skills.

The relatively low frequency of individual instruction (10 occurrences) suggests that teachers may not address individual students' specific learning needs as frequently as possible. Nevertheless, teachers may address these needs through differentiated instruction or personalized learning approaches.

The high occurrence of teacher lecturing (15 instances) suggests that lectures remain a frequently used teaching method in both English and French classrooms in the observed schools. While lectures can effectively convey information, they may not be the most engaging method for all students. Incorporating more interactive and student-centered teaching methods can improve student engagement and learning outcomes.

Overall, the Classroom Observation Results provide valuable insights into the teaching practices employed in English and French language classrooms in four secondary schools in Tahoua. The findings can be utilized to identify areas for improvement to further enhance student engagement and learning outcomes, such as incorporating more interactive and student-centered teaching methods and addressing individual learning needs.

Table 5. Comparative Analysis of Teacher and Student Perceptions of Interactive and Traditional Teaching Methods

<b>Theme</b>	<b>Frequency</b>
Benefits of interactive teaching	15
Challenges of interactive teaching	7
Benefits of traditional teaching	5
Challenges of traditional teaching	3

Table 5 summarizes the findings derived from examining teacher interviews, student surveys, and classroom observations in English and French classrooms at four secondary schools in Tahoua. The table highlights the frequency of themes related to interactive and traditional teaching methods.

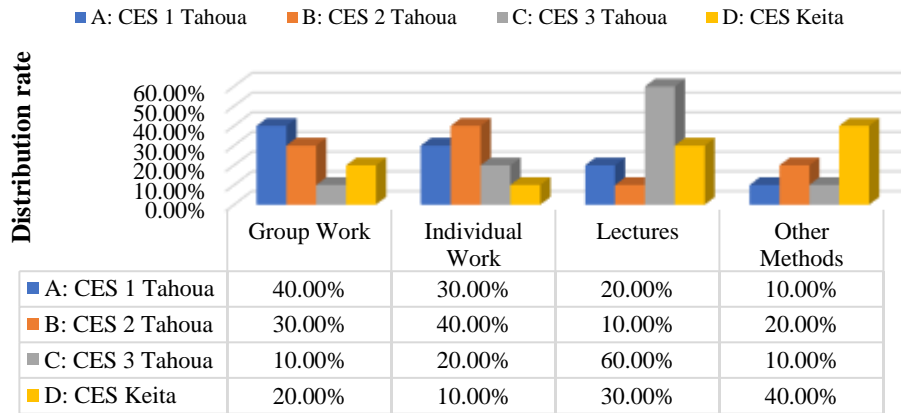
The results demonstrate that interactive teaching methods are mentioned more often (15 occurrences) than traditional teaching methods (5 occurrences), suggesting a growing agreement among teachers and students on the benefits of collaborative learning. These benefits include increased student engagement, improved critical thinking, and greater class participation.

However, the data also reveals the prevalence of challenges associated with interactive teaching (7 occurrences), such as managing group dynamics, ensuring equal student participation, and assessing individual student performance. These findings highlight the need to provide teachers with resources and guidance as they implement interactive teaching strategies.

Conversely, the challenges of traditional education are mentioned only three times, indicating that their limitations may not be widely recognized. Nonetheless, it is essential to note that the dataset may not cover the perspectives of all educators and learners, requiring further investigation.

The data emphasize the value of interactive classroom practices recognized by teachers and students. However, it also underscores potential roadblocks that hinder the full implementation of interactive teaching methods. Therefore, it is crucial to provide teachers with extensive and consistent professional development and assistance to help them overcome the obstacles they may encounter while implementing interactive teaching strategies.

**Graph 7. Distribution of Teaching Methods across four Schools based on Observation**

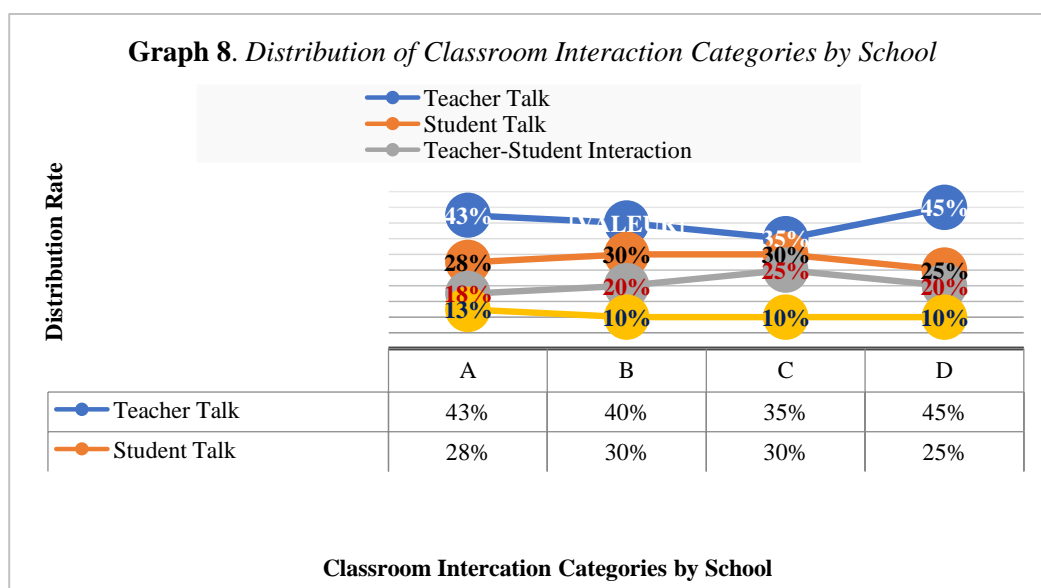


**Teaching Methods Adopted in the four selected Schools in Tahoua**

The observations conducted in English and French classrooms at four secondary schools in Tahoua are summarized in Graph 7, which depicts the four types of pedagogical practices studied: collaborative projects, independent study, lectures, and other approaches. School C had the highest percentage of lectures (60%), while School B had the highest percentage of independent work (40%). At School A, group projects accounted for 40% of the workload, whereas at School D, various approaches made up 40%. The data indicate that there is no single best way to instruct students, as the distribution of teaching approaches varied across the four schools. Therefore, schools should use a range of instructional strategies to cater to the diverse needs of their students. These findings also underscore the importance of routinely observing classrooms to assess the effectiveness of teaching strategies and making adjustments as needed to optimize student learning.

Graph 8 displays the breakdown of classroom interactions by school as determined by observations in English and French classrooms at four secondary schools in Tahoua. The observations focused on four categories: teacher talk, student talk, teacher-student interaction, and student-student interaction.





According to the study’s findings, the average percentage of classroom talk by teachers across all schools was 40.5%, while student talk accounted for a comparatively lower average of 28.8% of the time. The interaction between teachers and students was observed at an average of 20.6%, while student-student interaction was found to be at an average of 10.1%. School D had the highest percentage of teacher talk at 45%, while School C had the highest percentage of teacher-student interaction at 25%.

These results suggest there may be opportunities to improve communication and interaction between students and teachers in these classrooms. They also provide a basis for further exploring teaching methods and factors contributing to observed classroom interaction levels. The study proposes that interactive teaching methods can positively impact students’ oral communication skills. The findings hold significance for educators and policymakers as they inform teaching practices and curriculum development. Additionally, the study underscores the importance of conducting controlled experiments to assess the effectiveness of different teaching methods.

### 2.4.3. Discussion

The current investigation delved into the connection between classroom discourse and academic communication proficiencies among students in four senior high schools in the Tahoua region of Niger. The study aimed to test two hypotheses: Firstly, it investigated whether classroom interaction significantly affects academic communication skills. Secondly, it examined whether interactive pedagogical methods are more effective than traditional methods in improving oral communication skills. The study was conducted with a sample of 1391 students, ensuring a balanced gender distribution within each school.

The results suggest that classroom interaction and interactive teaching methods can significantly enhance students’ academic communication abilities in English as a foreign language (EFL) learning environments. The graphical representation (Graph 1) above reveals that the mean score for academic communication skills was 3.48, with a standard deviation of 0.83, indicating substantial variability in students’ academic communication skills. The mean score for classroom interaction was 4.02, with a standard deviation of 0.61, indicating that students experienced a high level of interaction in the classroom. The mean score for teaching methods was 3.78, with a

standard deviation of 0.74, showing considerable variation in the teaching methods employed by teachers, including both interactive and traditional techniques.

Graph 2 displays a correlation matrix that indicates positive relationships between Academic Communication Skills (ACS), Classroom Interaction (CI), and Teaching Methods (TM). Enhancing any of these variables could potentially improve the others. Good academic communication skills tend to lead to better classroom interaction and benefit from a wider range of teaching methods. Teachers who foster positive classroom interaction tend to enhance students' academic communication abilities and may benefit from a broader range of teaching methods. A more comprehensive range of teaching methods may help improve students' academic communication skills and classroom interaction.

The regression analysis results indicate that classroom interaction and teaching methods are both significant predictors of academic communication skills. Classroom interaction appears to impact academic communication skills more than teaching methods substantially. However, the interaction effect between classroom interaction and teaching methods indicates that the relationship between classroom interaction and academic communication skills may depend on the level of teaching methods and vice versa. Thus, teachers should aim to create a classroom environment that fosters interaction and allows students to practice their communication skills. Incorporating interactive teaching methods in the classroom may further enhance students' academic communication skills.

This study builds upon previous research that suggests a positive correlation between classroom interaction and language learning outcomes. Hall and Verplaetse (2000), Long (1983), Lyster and Ranta (1997), Fadhila (2018), Brown and Palincsar (1989), and Vygotsky and Cole (1978) have all found evidence to support this relationship. Similarly, cooperative learning is an effective strategy for improving language learning outcomes in studies by Hall and Verplaetse (2000), Brown and Palincsar (1986), Flanders (1970), Johnson et al. (1981), and Johnson et al. (1991). Further research by Long and Porter (1985), Ellis (1994), Swain and Lapkin (2000), and Gass and Mackey (2006) has demonstrated that classroom interaction can positively impact language learning outcomes by providing learners with more opportunities to use the language in communicative situations. This observation is especially true when learners are given a chance to collaborate on tasks and projects, as studies by Johnson and Johnson (1987), Slavin (1995), and Storch and Aldosari (2010) have shown.

This mixed-methods study has contributed to a better understanding of the relationship between classroom interaction, teaching strategies, and academic communication skills in the context of secondary education in Tahoua. Specifically, the study has answered three research questions: 1) it has confirmed the correlation between classroom interaction and academic communication skills among secondary school students enrolled in General Education in the Tahoua region of Niger, 2) it has demonstrated the effectiveness of interactive teaching methods in enhancing students' oral communication abilities compared to traditional teaching methods, and 3) it has explored the impact of incorporating interactive teaching strategies in the classroom on the academic communication skills of students in General Education in Tahoua.

Overall, this study has provided valuable insights into the potential benefits of classroom interaction and cooperative learning for language learning outcomes. It offers practical recommendations for educators looking to enhance their students' academic communication skills.

### 3. CONCLUSIONS

This research explored the correlation between classroom interaction and academic communication skills among secondary school students in the Tahoua region of Niger. The study aimed to test two hypotheses: 1) classroom interaction has a significant impact on students' academic communication skills, and 2) interactive teaching methods have a more substantial effect on students' oral communication skills than traditional teaching methods. Additionally, the study addressed three primary questions: (1) What is the relationship between classroom interaction and academic communication skills among secondary school students in the Tahoua region in Niger? (2) How do interactive teaching methods impact students' oral communication skills compared to traditional teaching methods? and (3) How can interactive teaching strategies be incorporated into secondary school classrooms to improve students' communication skills?

The research design utilized a mixed-methods approach that involved classroom observations, semi-structured teacher interviews, a student questionnaire, and a controlled experiment. The study's participants comprised 1391 students from four senior high schools in the region, with an almost equal distribution of male and female participants within each school.

To analyze the data collected, descriptive and inferential statistics were used. Descriptive statistics such as frequencies, percentages, means, and standard deviations were employed to summarize the data. In contrast, inferential statistics such as t-tests and ANOVA were used to test the hypotheses and determine the significance of the results. Qualitative data were also analyzed using an inductive thematic approach.

The study's findings were consistent with previous research by Hall and Verplaetse (2000), Long (1983), Lyster and Ranta (1997), Fadhila (2018), Brown and Palincsar (1989), Vygotsky and Cole (1978), Johnson et al. (1981), and Johnson et al. (1991). The study uncovered that cooperative learning and active participation in the classroom positively influenced language learning outcomes. This observation was especially true in English as a Foreign Language (EFL) learning contexts, where classroom interaction and interactive teaching methods significantly improved students' academic communication skills. The research also highlighted notable variations in the academic communication skills of the students, with classroom engagement receiving a high mean score while instructional strategies scored moderately. The correlation matrix further underscored the strong positive correlation between classroom interaction and academic communication skills.

The study concluded that classroom interaction is crucial in academic communication, and integrating interactive teaching strategies could improve students' oral communication skills. These findings have significant implications for teacher training programs, as the study suggests a need for a shift towards interactive teaching methods to enhance communication skills among students.

The study's findings have led to several recommendations, encompassing a broad range of actions to improve teaching methods and enhance student learning. First, expanding the study to other regions or contexts would help to evaluate outcomes. Additionally, further research should be conducted on the impact of interactive teaching methods on communication abilities beyond oral skills. Teacher training programs should be developed to incorporate interactive teaching strategies. Educators should be encouraged to adopt a student-centered approach to instruction that prioritizes classroom interaction and communication skills. Finally, implementing technology-based interactive teaching techniques, like online discussion forums or video conferencing, should be considered to improve student engagement and enhance communication.

These recommendations build on the study's findings and provide practical ways to improve the development of secondary school classroom interaction and communication skills. By implementing these suggestions, educators and policymakers can facilitate the growth of functional communication skills essential for academic and personal success in today's interconnected world.

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## Appendix

<b>Classroom Interaction and Language Learning Questionnaire for Teachers and Students in Tahoua, Niger</b>			
<b>Section</b>	<b>Type of Question</b>	<b>Question</b>	<b>Response Options</b>
Teachers	5-Likert scale	To what extent do you encourage classroom interaction among students?	1 (Not at all) to 5 (Very much)
Teachers	Semi-Structured	What strategies do you use to promote classroom interaction among students?	Open-ended
Teachers	5-Likert scale	How often do you use pair work/group work in your class?	1 (Never) to 5 (Always)
Teachers	Semi-Structured	How do you think pair work/group work benefits students in language learning?	Open-ended
Teachers	5-Likert scale	To what extent do you think students are motivated to speak in class?	1 (Not at all) to 5 (Very much)
Teachers	Semi-Structured	What strategies do you use to motivate students to speak in class?	Open-ended

Students	5-Likert scale	How comfortable are you with speaking English/French in front of the class?	1 (Not at all) to 5 (Very much)
Students	Semi-Structured	What factors contribute to your comfort level with speaking in class?	Open-ended
Students	5-Likert scale	How often do you work in small groups?	1 (Never) to 5 (Always)
Students	Semi-Structured	What benefits do you see in working in small groups for language learning?	Open-ended
Students	5-Likert scale	How much do you feel that classroom interaction strategies (pair work, group work, discussion/debate, simulation/role play) help you learn a language?	1 (Not at all) to 5 (Very much)
Students	Semi-Structured	Can you provide an example of a classroom interaction strategy that helped you learn a language?	Open-ended

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