



## Art-based Pedagogical Interventions: Mitigating Second Language Anxiety among University Undergraduates in Southwest, Nigeria

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**Abstract.** Second language anxiety negatively affects undergraduate students' confidence, participation, and communicative competence in language classrooms. This study examined the effectiveness of art-based pedagogical interventions in reducing second language anxiety among undergraduates in the University of Lagos, Lagos State University, and Tai Solarin University of Education, Nigeria. A mixed-methods design was adopted, involving 180 purposively selected students identified through classroom observation and the Foreign Language Classroom Anxiety Scale (FLCAS). The twelve-week intervention integrated drama, storytelling, music, visual arts, and collaborative creative activities into second language instruction. Quantitative data were analyzed using descriptive statistics and t-test analysis, while qualitative responses were analyzed thematically. Findings revealed that art-based pedagogical interventions significantly reduced communication apprehension and improved students' confidence, participation, and motivation toward second language learning. The study concludes that arts-integrated instructional strategies create supportive learning environments that enhance language acquisition and reduce anxiety among university undergraduates. It therefore recommends the integration of creative arts approaches into university language teaching and curriculum design.

**Keywords:** Art-based Pedagogy, Second Language Anxiety, Language Learning, University Undergraduates, Nigeria.

### 1. Introduction

Second language acquisition has become increasingly important in higher education due to

globalization, intercultural communication, and the growing demand for multilingual competence. In Nigeria, undergraduate students are expected to demonstrate proficiency in English and, in some cases, additional foreign languages such as French, Arabic, and Chinese. Despite the importance of second language competence, many students experience anxiety during language learning, particularly in activities involving speaking and classroom interaction. Horwitz et al. (1986) described foreign language anxiety as "a distinct complex of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning" (p. 128). Such anxiety often results in fear of making mistakes, low confidence, and avoidance of participation.

Research has shown that second language anxiety negatively affects learners' communicative competence and academic performance. MacIntyre and Gardner (1994) observed that anxious learners often experience difficulties in language processing and oral communication, while Young (1991) noted that many students avoid participation because of fear of criticism and embarrassment. In many Nigerian universities, language instruction still relies heavily on conventional teacher-centered approaches that may increase students' communication apprehension and fear of negative evaluation.

To address these challenges, scholars have advocated for learner-centered instructional approaches capable of creating supportive and interactive learning environments. One such approach is art-based pedagogy, which integrates activities such as drama, storytelling, music, role-play, and visual arts into teaching and learning. Dewey (1934) argued that artistic experiences

promote meaningful learning through emotional engagement, while Eisner (2002) emphasized that the arts encourage creativity and self-expression.

Empirical studies have shown that arts-integrated instructional strategies can improve language learning outcomes. Stinson and Winston (2011) found that drama-based activities improved learners' oral communication and reduced classroom anxiety, while Galante (2018) reported that performative teaching approaches enhanced learners' confidence and participation. Similarly, Medina (2002) observed that music and creative activities improved learner motivation and emotional comfort during language learning.

Despite these findings, limited empirical studies have examined the effectiveness of art-based pedagogical interventions in reducing second language anxiety among Nigerian university undergraduates. This study therefore investigates the effectiveness of art-based pedagogical interventions in mitigating second language anxiety among undergraduate students in selected universities in South-West Nigeria.

### 1.1 Statement of the Problem

Second language anxiety remains a major challenge affecting undergraduate students' confidence, classroom participation, and communicative competence during language learning. Many students experience fear of making mistakes, communication apprehension, and fear of negative evaluation, which often reduce their willingness to participate actively in language classrooms. In many Nigerian universities, conventional language teaching approaches still emphasize grammatical accuracy and formal performance, with limited attention to students' emotional experiences during learning.

Although previous studies have examined second language anxiety and language teaching methods, limited empirical research has explored the effectiveness of art-based pedagogical interventions such as drama, storytelling, music, and visual arts in reducing language anxiety among Nigerian university undergraduates. This study therefore investigates the effectiveness of art-based pedagogical interventions in mitigating second language anxiety among university undergraduates in selected universities in South-West Nigeria.

### 1.2 Objectives of the Study

#### General Objective

The general objective of this study is to examine the effectiveness of art-based pedagogical interventions

in mitigating second language anxiety among university undergraduates in selected universities in South-West Nigeria.

#### Specific Objectives

The study specifically seeks to:

- examine the extent to which second language anxiety affects undergraduate students' participation and communicative competence;
- determine the effectiveness of art-based pedagogical interventions in reducing communication apprehension among undergraduate second language learners;
- investigate the influence of art-based learning activities on students' confidence and classroom participation during second language instruction; and
- examine the relationship between participation in art-based learning activities and students' motivation toward second language learning.

### 1.3 Research Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance:

**H<sub>01</sub>:** There is no significant difference in the level of second language anxiety among undergraduate students before and after exposure to art-based pedagogical interventions.

**H<sub>02</sub>:** Art-based pedagogical interventions do not significantly influence undergraduate students' confidence and classroom participation during second language instruction.

**H<sub>03</sub>:** There is no significant relationship between participation in art-based learning activities and students' motivation toward second language learning.

## 2. Literature Review

Second language anxiety has been widely recognized as one of the major psychological barriers affecting language learning among students. Horwitz et al. (1986) described foreign language anxiety as a situation-specific form of anxiety associated with communication apprehension, fear of negative evaluation, and test anxiety in language classrooms. Students experiencing high levels of anxiety often demonstrate low confidence, avoidance of participation, and reduced communicative competence. MacIntyre and Gardner (1994) further observed that language anxiety interferes with cognitive processing and negatively affects learners' performance in speaking and classroom interaction.

Research has shown that supportive and learner-centered instructional approaches can help reduce anxiety during language learning. Krashen's (1982) Affective Filter Theory explains that emotional factors such as fear, low self-esteem, and anxiety can hinder language acquisition, while relaxed and motivating learning environments enhance language learning. This suggests that instructional strategies capable of reducing emotional tension may improve students' participation and communicative confidence.

Art-based pedagogy has emerged as an innovative teaching approach that integrates creative activities such as drama, storytelling, music, visual arts, and role-play into classroom instruction. Dewey (1934) emphasized that artistic experiences promote meaningful learning through active participation and emotional engagement, while Eisner (2002) argued that the arts encourage imagination, creativity, and self-expression in educational settings. In language education, art-based activities create interactive learning environments that encourage students to communicate more freely and confidently.

Several empirical studies have highlighted the effectiveness of arts-integrated approaches in language learning. Stinson and Winston (2011) found that drama-based instruction improved students' oral communication skills and reduced classroom anxiety by encouraging interaction and collaboration. Similarly, Galante (2018) reported that performative language teaching approaches enhanced learners' confidence and reduced communication apprehension among second language learners. Music and storytelling activities have also been associated with improved learner motivation and emotional comfort during language instruction (Medina, 2002).

In addition, Vygotsky's (1978) Sociocultural Theory emphasizes the importance of social interaction and collaborative learning in cognitive development. Art-based learning activities often involve teamwork, peer interaction, and shared creative experiences, thereby promoting communicative competence and reducing fear of participation. These approaches shift language learning from rigid teacher-centered practices to more engaging and supportive classroom experiences.

Despite the growing international interest in creative pedagogy and language learning, limited studies have empirically examined the effectiveness of art-based pedagogical interventions in reducing second language anxiety among university undergraduates in Nigeria. Most existing Nigerian studies have focused on language achievement and instructional methods rather than the emotional dimensions of

language learning. This study therefore contributes to existing literature by examining how art-based pedagogical interventions can reduce second language anxiety and improve students' confidence, participation, and motivation in Nigerian university classrooms.

### 3. Research Design

The study adopted a mixed-methods research design involving both quantitative and qualitative approaches. The design enabled the researcher to obtain detailed information on the effectiveness of art-based pedagogical interventions in mitigating second language anxiety among university undergraduates. Quantitative data provided measurable evidence of changes in students' anxiety levels, confidence, and participation, while qualitative data offered deeper insights into students' learning experiences during the intervention.

#### 3.1 Population

The population of the study comprised undergraduate students enrolled in second language courses in the University of Lagos (UNILAG), Lagos State University (LASU), and Tai Solarin University of Education (TASUED). A sample size of 180 students was selected for the study.

##### Sample

Purposive sampling technique was used to select participants who demonstrated noticeable symptoms of second language anxiety during classroom interaction and who scored high on the Foreign Language Classroom Anxiety Scale (FLCAS) developed by Horwitz et al. (1986). Sixty (60) students were selected from each university, ensuring equal representation across the institutions.

#### 3.2 Instruments for Data Collection

Data for the study were collected using an adapted questionnaire, classroom observation, and semi-structured interviews. The questionnaire was adapted from the Foreign Language Classroom Anxiety Scale (FLCAS) and consisted of items measuring students' anxiety levels, classroom participation, confidence, and perceptions of art-based learning activities. Responses were structured on a five-point Likert scale ranging from Strongly Agree to Strongly Disagree.

Classroom observation enabled the researcher to monitor students' participation, interaction, and emotional responses during the intervention activities, while the semi-structured interviews provided additional information on students' experiences and perceptions of the art-based instructional strategies.

### 3.3 Validity and Reliability

The research instruments were validated by experts in language education, art pedagogy and educational research to ensure clarity, relevance, and appropriateness of the items in relation to the objectives of the study. Their observations and corrections were incorporated into the final version of the instruments.

The reliability of the questionnaire was determined using Cronbach’s Alpha statistical method, which produced a reliability coefficient of 0.84. This indicated that the instrument possessed a high level of internal consistency and was suitable for data collection.

### 3.4 Method of Data Analysis

Data collected for the study were analyzed using both descriptive and inferential statistics. Quantitative data obtained from the questionnaire were analyzed using frequency counts, percentages, mean scores, and standard deviations to answer the research questions.

The hypotheses were tested using paired sample t-test and Pearson Product Moment Correlation (PPMC) at 0.05 level of significance with the aid of the Statistical Package for Social Sciences (SPSS) version 27. The paired sample t-test was used to determine differences between students’ pre-intervention and post-intervention anxiety levels, while Pearson Product Moment Correlation was used to examine the relationship between participation in art-based learning activities and students’ motivation toward second language learning.

Qualitative data obtained from classroom observations and semi-structured interviews were analyzed thematically to support and explain the quantitative findings.

## 4. Data Presentation and Analysis

This section presents the analysis of data collected from undergraduate students in the University of Lagos (UNILAG), Lagos State University (LASU), and Tai Solarin University of Education (TASUED). A total of 180 questionnaires were administered and successfully retrieved, representing a 100% response rate. The data were analyzed in line with the research questions formulated for the study.

**Research Question One:** To what extent does second language anxiety affect undergraduate students’ participation and communicative competence?

**Table 1:** Effects of Second Language Anxiety on Students’ Participation and Communicative Competence

Items	Mean	SD	Decision
I feel nervous whenever I am asked to speak in a second language class.	4.01	0.89	Agree
Fear of making grammatical mistakes affects my willingness to communicate.	3.92	0.91	Agree
Anxiety makes it difficult for me to express my ideas clearly in class.	3.86	0.93	Agree
I participate actively in classroom discussions without fear.	2.21	0.94	Disagree
I feel confident during oral presentations in second language classes.	2.33	0.88	Disagree
<b>Grand Mean</b>	<b>3.27</b>		<b>Agree</b>

Table 1 shows that respondents generally experienced second language anxiety during classroom interaction. The high mean scores recorded for nervousness, fear of mistakes, and difficulty in expression indicate that anxiety negatively affected students’ communicative competence and participation. Conversely, the low mean scores for confidence and active participation suggest that many students lacked confidence during second language activities.

**Research Question Two:** How effective are art-based pedagogical interventions in reducing communication apprehension among undergraduate second language learners?

**Table 2:** Effectiveness of Art-Based Pedagogical Interventions in Reducing Communication Apprehension

Items	Mean	SD	Decision
Drama and role-play activities helped me speak more confidently.	4.12	0.86	Agree
Collaborative storytelling reduced my fear of making mistakes.	4.05	0.88	Agree
Music and creative activities made language learning less stressful.	4.18	0.84	Agree
I still feel afraid of participating after the intervention.	2.18	0.91	Disagree
Art-based activities did not improve my willingness to communicate.	2.22	0.89	Disagree
<b>Grand Mean</b>	<b>3.35</b>		<b>Agree</b>

Table 2 reveals that art-based pedagogical interventions were effective in reducing communication apprehension among undergraduate students. Respondents agreed that drama, storytelling, music, and other creative activities improved confidence and reduced stress during language learning. The disagreement with negative statements further indicates that the intervention helped students feel more comfortable participating in class activities.

**Research Question Three:** What influence do art-based learning activities have on students’ confidence and classroom participation during second language instruction?

**Table 3:** Influence of Art-Based Learning Activities on Students’ Confidence and Participation

Items	Mean	SD	Decision
Art-based activities increased my confidence in speaking.	4.18	0.85	Agree
Drama and storytelling encouraged me to participate more during lessons.	4.10	0.87	Agree
Collaborative creative tasks improved my interaction with classmates.	4.22	0.83	Agree
I still find it difficult to participate in classroom discussions after the intervention.	2.16	0.90	Disagree
Art-based learning activities did not improve my self-confidence.	2.05	0.92	Disagree
<b>Grand Mean</b>	<b>3.34</b>		<b>Agree</b>

Table 3 indicates that art-based learning activities positively influenced students’ confidence and classroom participation. Respondents reported greater willingness to speak, interact with classmates, and contribute during lessons after participating in the intervention activities. The low mean scores recorded for negative statements further suggest that the intervention improved students’ self-confidence and classroom engagement.

**Research Question Four:** What relationship exists between participation in art-based learning activities and students’ motivation toward second language learning?

**Table 4:** Relationship Between Art-Based Learning Activities and Students’ Motivation

Items	Mean	SD	Decision
Creative activities made second language learning more interesting.	4.19	0.84	Agree
Drama and music activities increased my enthusiasm for language classes.	4.16	0.85	Agree
Collaborative activities motivated me to practice the second language more often.	4.11	0.86	Agree
I remained uninterested in second language learning despite the intervention.	2.09	0.91	Disagree
Art-based activities did not change my attitude toward language learning.	2.17	0.89	Disagree
<b>Grand Mean</b>	<b>3.34</b>		<b>Agree</b>

Table 4 shows that participation in art-based learning activities positively influenced students’ motivation toward second language learning. Respondents agreed that the creative activities increased their interest, enthusiasm, and willingness to practice the language. The disagreement with negative statements indicates that the intervention improved students’ attitudes toward language learning and enhanced their motivation to participate actively in classroom activities.

**Test of Hypotheses**

The hypotheses formulated for the study were tested at 0.05 level of significance.

**Hypothesis One**

**H<sub>01</sub>:** There is no significant difference in the level of second language anxiety among undergraduate students before and after exposure to art-based pedagogical interventions.

**Table 5:** Paired Sample t-test Analysis of Pre- and Post-Intervention Anxiety Scores

Variables	N	Mean	SD	t-value	p-value	Decision
Pre-Intervention Anxiety Scores	180	68.42	8.15	15.87	0.000	Rejected
Post-Intervention Anxiety Scores	180	49.36	7.24			

Table 5 shows that the mean anxiety score before the intervention (68.42) was higher than the post-intervention mean score (49.36), indicating a reduction in students’ anxiety after exposure to the art-based pedagogical

activities. Since the p-value of 0.000 is less than 0.05, the null hypothesis was rejected. This implies that art-based pedagogical interventions significantly reduced second language anxiety among the students.

**Hypothesis Two**

**H<sub>02</sub>:** Art-based pedagogical interventions do not significantly influence undergraduate students’ confidence and classroom participation during second language instruction.

**Table 6:** Paired Sample t-test Analysis of Students’ Confidence and Participation

Variables	N	Mean	SD	t-value	p-value	Decision
Before Intervention	180	42.15	6.84	14.32	0.000	Rejected
After Intervention	180	61.78	5.97			

Table 6 reveals that students’ confidence and classroom participation improved after exposure to the intervention activities. The post-intervention mean score (61.78) was significantly higher than the pre-intervention mean score (42.15). Since the p-value of 0.000 is less than 0.05, the null hypothesis was rejected. This indicates that art-based pedagogical interventions significantly influenced students’ confidence and classroom participation during second language instruction.

**Hypothesis Three**

**H<sub>03</sub>:** There is no significant relationship between participation in art-based learning activities and students’ motivation toward second language learning.

**Table 7:** Pearson Product Moment Correlation Analysis

Variables	N	r-value	p-value	Decision
Participation in Art-Based Activities and Students’ Motivation	180	0.72	0.000	Rejected

Table 7 indicates a strong positive relationship between participation in art-based learning activities and students’ motivation toward second language learning. Since the p-value of 0.000 is less than 0.05, the null hypothesis was rejected. This implies that increased participation in creative and art-based instructional activities positively enhanced students’ motivation toward second language learning.

**5. Discussion of Findings**

The findings of this study revealed that second language anxiety significantly affects undergraduate students’ participation and communicative competence in language classrooms. Students reported nervousness, fear of making grammatical mistakes, and difficulty expressing themselves during classroom interaction. The findings support Horwitz et al. (1986), who identified communication apprehension and fear of negative evaluation as major components of foreign language anxiety. The results also agree with MacIntyre and Gardner (1994), who found that anxiety negatively influences learners’ cognitive processing and oral communication during second language learning. It further showed that students lacked confidence during oral presentations and classroom discussions, which affected active participation in language activities. This is consistent with Young (1991), who reported that anxious learners often avoid participation because of fear of embarrassment and

criticism. However, the findings differ slightly from some learner-centered studies conducted in technologically advanced learning environments where students demonstrated lower levels of anxiety due to increased exposure to interactive communication tools. The present study suggests that anxiety remains a major challenge in Nigerian university classrooms where conventional teaching approaches are still common.

The study also revealed that art-based pedagogical interventions were effective in reducing communication apprehension among undergraduate second language learners. Students indicated that drama, storytelling, music, and creative classroom activities helped them communicate more confidently and reduced emotional tension during language learning. These findings align with Stinson and Winston (2011), who found that drama-based instructional strategies improved learners’ oral communication skills and reduced classroom anxiety through collaborative interaction and self-expression. Similarly, Galante (2018) reported that performative language teaching approaches improved learners’ confidence and willingness to communicate.

The findings support Medina (2002), who observed that music-integrated instructional strategies enhanced motivation and emotional comfort among language learners. However, while most previous

studies focused primarily on drama and performance-based instruction, the present study expanded the scope by integrating multiple art forms including visual arts, storytelling, music, and collaborative creative activities. This broader approach appears to have contributed to the positive emotional and motivational outcomes observed among the students.

Findings from the study also showed that art-based learning activities significantly improved students' confidence and classroom participation during second language instruction. Students became more willing to speak, contribute during lessons, and interact with classmates after exposure to the intervention activities. These findings support Krashen's (1982) Affective Filter Theory, which explains that reduced anxiety and emotionally supportive environments enhance language acquisition. The findings also agree with Vygotsky's (1978) Sociocultural Theory, which emphasizes the importance of social interaction and collaborative learning in cognitive development.

In addition, the study revealed a positive relationship between participation in art-based learning activities and students' motivation toward second language learning. Respondents reported increased interest, enthusiasm, and willingness to practice the language after participating in the intervention activities. This finding supports Eisner (2002), who argued that the arts promote creativity, imagination, and learner engagement. The finding also aligns with Dewey's (1934) view that artistic experiences make learning more meaningful and participatory.

The test of hypotheses further confirmed that art-based pedagogical interventions significantly reduced second language anxiety and improved students' confidence and classroom participation. A significant positive relationship was also established between participation in art-based learning activities and students' motivation toward language learning. These findings correspond with existing international studies on creative pedagogy and language learning but provide additional empirical evidence within the Nigerian university context, where limited studies have examined the emotional dimensions of second language learning through arts-integrated approaches.

Overall, the findings demonstrate that art-based pedagogical interventions provide supportive, interactive, and learner-centered environments capable of reducing second language anxiety and improving students' confidence, participation, and motivation in university language classrooms.

## 6. Conclusion

This study examined the effectiveness of art-based pedagogical interventions in mitigating second language anxiety among university undergraduates in selected universities in South-West Nigeria. The findings revealed that second language anxiety negatively affects students' confidence, communicative competence, and classroom participation during language learning activities. Many students experienced nervousness, fear of making mistakes, and communication apprehension, which limited their willingness to participate actively in second language classrooms.

The study further established that art-based pedagogical interventions such as drama, storytelling, music, visual arts, and collaborative creative activities significantly reduced students' communication apprehension and improved their confidence, participation, and motivation toward second language learning. The intervention activities created more interactive and emotionally supportive learning environments that encouraged self-expression, collaboration, and active classroom engagement.

The study therefore concludes that art-based pedagogical interventions are effective learner-centered strategies for reducing second language anxiety among university undergraduates. The integration of creative arts into language instruction can enhance emotional comfort, communicative confidence, and students' overall engagement in second language learning.

## 7. Recommendations

Based on the findings of the study, the following recommendations are made:

- Language instructors should integrate art-based pedagogical strategies such as drama, storytelling, music, role-play, and visual arts into second language teaching in order to reduce students' anxiety and improve communicative competence.
- University curriculum planners should incorporate creative and learner-centered instructional approaches into second language education programmes to promote active participation and emotional engagement among students.
- Teacher education institutions should organize workshops and training programmes to equip language teachers with practical skills for implementing art-based instructional strategies in language classrooms.
- University administrators should provide supportive learning environments and

creative instructional resources that encourage interaction, collaboration, and student participation during language learning activities.

- Further studies should be conducted on art-based pedagogy and second language learning in other educational contexts and regions in order to expand knowledge in the field.

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