Scope of English Language Teaching, Literature and Linguistics
Program Studi Pendidikan Bahasa Inggris FKIP
Universitas Muslim Maros
Vol. 8 No. 1, June 2025, pp. 124-141
https://ejournals.umma.ac.id/index.php/seltics
seltics@umma.ac.id, p-ISSN: 2623-2642, e-ISSN: 2655-5417

Investigating the Link Between Glossophobia and Learning Styles: A Mixed-Methods Study in Secondary Education

Zul Astri[1], Zulfitri [2], Nurmadina HS[3]
[1) 2)] Universitas Muslim Maros, Indonesia
[3)] Universitas Handayani Makassar, Indonesia
zulastri17@gmail.com[1)], fitrizulfitri33@gmail.com[2)], nurmadinahs@handayani.ac.id[3)]
*Correspondence: zulastri17@gmail.com

ABSTRACT

Glossophobia, or the fear of public speaking, is a widespread form of social anxiety that can significantly hinder students' oral performance. This study investigates the relationship between glossophobia and students' learning styles in the context of classroom speech activities. Employing a mixed-methods design, the research integrates quantitative data gathered through the Taylor Manifest Anxiety Scale (TMAS) and the Barsch Learning Style Inventory with qualitative insights obtained from classroom observations and semi-structured interviews. A total of 41 senior high school students participated in the initial survey, from which 13 individuals identified with moderate to high anxiety levels were purposively selected for in-depth analysis. The findings reveal that visual learners exhibit higher levels of speech-related anxiety compared to other learning style types. These results suggest a potential correlation between learning style preferences and students' susceptibility to glossophobia. The study emphasizes the pedagogical importance of tailoring instructional strategies to accommodate diverse learning styles as a means of mitigating public speaking anxiety in educational settings.

Keywords: *Glossophobia, Learning Styles, Speech Anxiety*

INTRODUCTION

Public speaking is widely regarded as a core communicative competence essential for academic achievement, professional growth, and social engagement (Irvine, 2020; Bylkova, Chubova and Kudryashov, 2021). Within educational contexts, the ability to speak confidently in front of an audience is not only a desired skill but also a critical component of assessment in many disciplines (Darling-Hammond and Snyder, 2000). Students are often required to deliver oral presentations, participate in debates, and contribute to discussions, activities that demand clarity of thought, fluency, and emotional control. Despite its significance, a large number of students experience extreme discomfort during public speaking tasks. This form of anxiety, known as *glossophobia*, represents a situational social phobia characterized by intense fear, physiological arousal, and psychological disorientation (Hancock *et al.*, 2010; Halbig and Latoschik, 2021) . Individuals suffering from glossophobia may experience symptoms such as

rapid heartbeat, shortness of breath, muscle tension, sweating, and cognitive blocking. These reactions can significantly undermine a speaker's ability to deliver coherent and confident communication. Studies indicate that up to 75% of the population experiences some level of fear when speaking in public, making glossophobia one of the most prevalent forms of performance anxiety(Hancock *et al.*, 2010) . The educational implications of this condition are profound, as many learners are required to complete speaking tasks as part of their formal assessments.

The psychological toll of glossophobia is especially pronounced in second or foreign language (L2) learning environments(Oloba, Tshidzumba and Sekepo, 2025) , where students must cope not only with performance-related pressure but also with the linguistic demands of speaking in a language that is not their mother tongue. Language learners often face unique challenges such as limited vocabulary, uncertain grammar usage, pronunciation difficulties, and cultural differences in communication styles(Hafiz Haqnawaz, Nazia Naeem and Safar Khan, 2024; Mohanna, 2024). These limitations tend to amplify feelings of insecurity and self-consciousness during oral tasks. Horwitz, Horwitz and Cope (1986) define this phenomenon as *foreign language anxiety*, a type of situation-specific anxiety that impairs language acquisition and speaking performance.

According to their framework, L2 anxiety comprises three dimensions: communication apprehension, fear of negative evaluation, and test anxiety. In the classroom, this anxiety manifests in behaviors such as avoidance, silence, excessive hesitation, or verbal withdrawal. Ur (1996) also notes that one of the most common problems reported by language learners during speaking activities is the feeling of "having nothing to say," which often stems from linguistic insecurity or mental blocking. When speaking in front of others, especially in a non-native language, students often struggle to access and produce language in real time, resulting in higher levels of glossophobia and reduced classroom engagement.

Beyond linguistic challenges, individual learner characteristics, particularly learning styles—are emerging as important variables in understanding how students respond to speaking tasks and anxiety triggers. Learning styles refer to the habitual patterns through which individuals perceive, process, and retain information in learning contexts (Astri, 2018; Astri and Wahab, 2018, 2019). These styles reflect cognitive preferences and are thought to influence not only how learners engage with content, but also how they handle emotionally or cognitively demanding tasks. One of the most widely cited models for categorizing learning styles is the visual-auditory-kinesthetic (VAK) framework developed by Barsch (1980). In this model, visual learners prefer diagrams, text, and spatial representations; auditory learners thrive on verbal explanations and listening activities; while kinesthetic learners absorb information

best through movement, tactile activities, and real-world engagement. Although most students exhibit mixed learning tendencies, dominant styles often determine the strategies they use to manage learning and, by extension, the challenges they face in speaking tasks. For example, learners who depend on written prompts or structured outlines may find it difficult to perform spontaneous or unscripted speech, leading to increased stress and performance anxiety. This observation suggests that misalignment between a student's learning style and the demands of a speaking task may exacerbate glossophobic responses.

Despite the intuitive connection between learning styles and speech-related anxiety, there is a noticeable lack of empirical research examining how these two constructs interact. Most existing studies on glossophobia focus primarily on general psychological or sociocultural factors such as fear of judgment, lack of preparation, or negative past experiences. Few have investigated whether certain learning styles correlate with higher or lower levels of speaking anxiety, particularly in language learning settings. This gap in the literature limits our understanding of how instructional design and pedagogical strategies can be adapted to accommodate learner diversity. Research by (Gregersen, 2009) has hinted at this relationship, noting that visual learners often require visual or written support to speak confidently and may exhibit discomfort when forced to rely solely on auditory or verbal cues.

Conversely, auditory learners might respond more positively to oral tasks but may still be affected by environmental noise or classroom pressure. Kinesthetic learners, who prefer active engagement and physical interaction, may feel restricted in traditional speaking assessments that involve minimal movement or interaction. These findings point to a complex and underexplored dynamic in which cognitive style and affective response intersect one that merits further empirical investigation.

Understanding the relationship between learning styles and glossophobia is not only of theoretical interest but also of practical relevance to educators, curriculum designers, and language instructors. If specific learning styles are found to be more susceptible to speech anxiety, teachers can develop differentiated instructional strategies that align more closely with learners' cognitive preferences. For instance, visual learners may benefit from structured speaking outlines, concept maps, or the opportunity to visualize speech flow before performance. Auditory learners might be supported through peer modeling, recorded practice, or interactive dialogue. Kinesthetic learners could be offered physical engagement techniques such as role-play or movement-based expression to manage their anxiety. Tailoring speaking tasks in accordance with learning preferences could help

reduce learners' cognitive load, increase their sense of control, and improve overall speaking performance. Such pedagogical adaptations also reflect a learner-centered approach, which prioritizes individual differences and emotional well-being—both essential in fostering communicative competence.

Against this background, the present study aims to explore the relationship between glossophobia and students' learning styles in the context of classroom speech activities. It focuses specifically on whether students with different dominant learning styles—visual, auditory, or kinesthetic—exhibit varying levels of public speaking anxiety. To address this aim, a mixed-methods research design is employed, combining quantitative data collection using the Taylor Manifest Anxiety Scale (TMAS) and the Barsch Learning Style Inventory, with qualitative methods including classroom observation and semi-structured interviews. The integration of both quantitative and qualitative data enables a richer, more nuanced understanding of the learner experience, capturing not only measurable anxiety levels but also contextual and behavioral patterns related to each learning style. By identifying trends and patterns in the relationship between learning preferences and speech anxiety, this study seeks to inform more inclusive teaching practices and contribute to the broader discourse on affective factors in language education.

In summary, this research is driven by the following central question: How is students' level of glossophobia related to their preferred learning styles? By investigating this relationship, the study addresses a critical gap in the literature, offering insights that may inform the development of more supportive and differentiated pedagogical strategies for public speaking and oral communication tasks. The findings are expected to benefit not only learners who struggle with speech anxiety but also educators seeking evidence-based methods to enhance communicative confidence and classroom participation. Ultimately, the study contributes to an understanding of the interplay between cognitive style and affective response in language learning, advancing the goal of personalized and emotionally responsive education.

METHODS

Research Design

This study employed a convergent parallel mixed-methods design (Creswell, 2014)**,** which integrates both quantitative and qualitative data to provide a comprehensive understanding of the relationship between students' learning styles and their levels of glossophobia. The quantitative component was used to measure students' anxiety levels and categorize their dominant learning styles, while the qualitative component was conducted to explore the lived experiences and behavioral expressions of glossophobia

among learners with different learning style profiles. The integration of these two approaches allowed for both statistical correlation and contextual interpretation, thereby enhancing the depth and validity of the findings.

Participants and Sampling

The participants in this study were 41 senior high school students enrolled in a science program at the tenth-grade level. From the initial sample, a purposive sampling strategy was used to identify students who demonstrated notable anxiety symptoms during speech activities. Based on the results of the Taylor Manifest Anxiety Scale (TMAS) and classroom observation, 13 students exhibiting moderate to high levels of public speaking anxiety were selected for in-depth qualitative analysis. These 13 students also participated in interviews to explore their experiences and coping strategies in speech tasks.

Instruments

Taylor Manifest Anxiety Scale (TMAS)

The TMAS was used to measure students' general anxiety tendencies, with specific attention to their manifestations during public speaking. The instrument consists of 50 dichotomous (Yes/No) items, with higher scores indicating higher levels of manifest anxiety (Tobias, 1980). This instrument has been previously validated and is widely used in educational psychology to assess anxiety-related behaviors.

Barsch Learning Style Inventory (BLSI)

To determine students' dominant learning styles, the Barsch Learning Style Inventory was administered. The inventory classifies learners into visual, auditory, or kinesthetic categories based on their preferences across a set of 24 statements. The student's highest score among the three categories was used to determine their dominant learning style. In cases of tied scores, students were classified as having a combined style (e.g., visual-auditory).

Observation Checklist

An observation checklist was used to identify glossophobic behaviors during classroom speech activities. Indicators included physical signs (e.g., shaking, sweating), verbal disfluencies (e.g., stammering, long pauses), and avoidance behaviors. Observations were conducted by the researcher during scheduled speaking tasks to validate the quantitative data and support interview sampling.

Semi-Structured Interview Guideline

In-depth interviews were conducted with the 13 selected participants to gain insight into their subjective experiences of anxiety during public speaking. The questions probed the onset of anxiety, perceived causes, coping strategies, and the perceived influence of learning style on speech preparation and delivery. Interviews lasted approximately 15–20 minutes and were audio-recorded with consent for transcription and thematic analysis.

Data Collection Procedures

The data collection process was carried out in three main phases, following the structure of a convergent parallel mixed-methods design.

In Phase 1, the quantitative stage, two instruments were administered to all 41 student participants. The Taylor Manifest Anxiety Scale (TMAS) was used to measure levels of public speaking anxiety, while the Barsch Learning Style Inventory (BLSI) helped classify students according to their dominant learning style. The results from both instruments were used to identify patterns in anxiety distribution across different learner types.

Phase 2 involved classroom observation during scheduled speaking activities. This stage aimed to validate the results of the TMAS by directly observing students' behavior in real-time speaking contexts. Particular attention was given to signs commonly associated with glossophobia, such as avoidance of eye contact, trembling, rushed speech, or visible nervousness. These observations added a behavioral layer to complement the self-reported anxiety scores.

In Phase 3, qualitative data were gathered through semi-structured interviews with 13 students. These individuals were purposefully selected based on their TMAS scores and observed indicators of speech anxiety. The interviews explored students' personal experiences with public speaking, their coping strategies, and how their preferred learning styles influenced their comfort and performance during oral tasks. This final phase offered deeper insights into the emotional and cognitive dimensions behind the quantitative trends.

Together, these three phases allowed for a comprehensive understanding of the relationship between learning styles and glossophobia, enabling data triangulation across self-reports, behavioral observations, and personal narratives.

Data Analysis

Quantitative Analysis

Descriptive statistics were used to present the distribution of students' learning styles and their levels of glossophobia, as measured by the Barsch Learning Style Inventory (BLSI) and Taylor Manifest Anxiety Scale (TMAS), respectively. Frequency counts and percentages

were calculated to identify dominant learning styles among participants and classify anxiety levels. Cross-tabulations were conducted to visualize the overlap between learning style categories and levels of speaking anxiety.

Qualitative Analysis

Interview transcripts were coded thematically using Braun and Clarke (2006) six-phase approach to thematic analysis. Initial codes were generated inductively from the data, focusing on expressions of anxiety, learning preferences, and their interactions during speaking tasks. These themes were then compared across learning style groups to identify common patterns and differences.

Thematic analysis, as conceptualized by Braun and Clarke (2006), was used to identify meaningful patterns across participant narratives. In this study, themes were interpreted and presented in alignment with participants' dominant learning style categories to preserve contextual relevance.

Validity and Reliability

To ensure the validity of the findings, data triangulation was conducted by comparing results from the TMAS, BLSI, observation checklists, and interview transcripts. The reliability of the quantitative instruments was confirmed using Cronbach's alpha ($\alpha \geq 0.7$). Member-checking was employed during the qualitative phase, allowing participants to review and verify the accuracy of their interview transcripts and interpretations.

FINDINGS

Quantitative Results

Learning Style Distribution

To begin the analysis, the study first categorized students based on their dominant learning styles using the Barsch Learning Style Inventory (BLSI). This classification helped establish the cognitive profiles of students who were later identified as experiencing glossophobia. The BLSI determines individual preferences for processing and retaining information, namely, visual, auditory, kinesthetic, or a combination *of these modalities.*

Among the 13 students selected for in-depth analysis due to moderate to high anxiety symptoms, a clear pattern emerged in the distribution of learning styles. The majority of students (61.5%) were identified as visual learners, indicating a strong reliance on visual aids such as written notes, diagrams, or structured outlines during learning and speaking activities. This was followed by auditory learners (23.1%), who preferred listening and verbal explanations, and single instances of kinesthetic and visual-auditory learners (each representing 7.7%), who relied on physical engagement or a mix of visual and auditory inputs respectively.

This distribution reveals a significant concentration of students with visual learning preferences among those experiencing speech anxiety, raising important questions about how cognitive style might influence emotional responses to oral performance. The following chart illustrates the proportion of each learning style within the anxiety-prone subgroup.

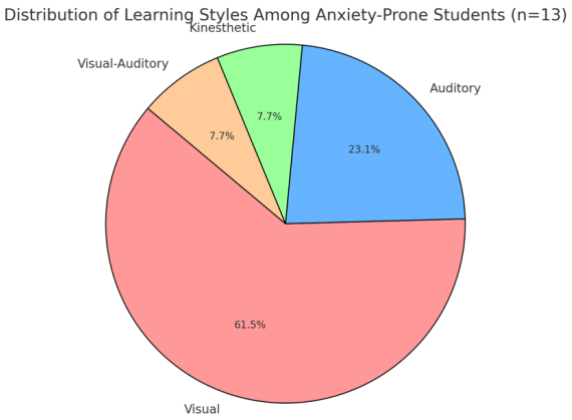

Figure 1. Distribution of Learning Styles

Glossophobia Level Based on TMAS

To assess the severity of public speaking anxiety among the selected participants, individual scores from the Taylor Manifest Anxiety Scale (TMAS) were examined. All 13 students selected for this phase had demonstrated anxiety levels ranging from moderate to high. TMAS scores varied from 20 to 42, confirming that each participant experienced significant discomfort or distress when engaging in oral tasks.

The table 1 below presents the TMAS scores of each student alongside their corresponding learning style:

Participant	Learning Style	TMAS Score
S1	Visual	25
S2	Visual	26
S3	Visual	28
S4	Visual	30
S5	Visual	31
S6	Visual	33
S7	Visual	35
S8	Visual	42
S9	Auditory	21
S10	Auditory	24
S11	Auditory	30
S12	Kinesthetic	28
S13	Visual-Auditory	20

Table 1. TMAS Scores

This table highlights the range and distribution of anxiety scores within and across learning style categories. Notably, students with a visual learning style exhibited a wide spread of higher scores, with several scoring above 30, including one extreme case at 42. In contrast, auditory learners had relatively lower anxiety levels, all scoring 30 or below. The kinesthetic learner reported a moderately high score of 28, while the visual-auditory learner recorded the lowest score in the group (20).

Anxiety classification was based on TMAS total scores and confirmed through behavioral observation during speech tasks. While specific TMAS cutoffs were not applied, participants demonstrating moderate to high scores along with physical signs of anxiety during

oral performance were categorized as experiencing glossophobia.

These results suggest that glossophobia among students does not occur uniformly, but instead reflects significant individual differences, even within the same learning style. This observation supports the decision to explore further whether certain learning preferences might be linked to elevated speech anxiety, which is addressed in the following section.

These elevated anxiety levels were not determined in isolation but were supported by classroom observations, where students demonstrated visible signs of discomfort during oral presentations, such as shaking, avoidance of eye contact, rapid speech, and verbal disfluencies. The convergence of self-reported scores and behavioral indicators ensured that the selected participants truly represented students experiencing significant speaking-related anxiety.

To explore potential cognitive factors associated with these anxiety patterns, the study further examined the relationship between students' learning styles and their corresponding TMAS scores. While learning style itself is a nominal variable reflecting distinct cognitive preferences, it was coded numerically (Visual = 1, Auditory = 2, Kinesthetic = 3, Visual-Auditory = 4) for the purpose of visualizing individual-level relationships in a scatter plot. This approach enabled the identification of potential patterns linking specific learning preferences to the severity of glossophobia symptoms.

The chart below presents a color-coded scatter plot, illustrating the distribution of TMAS scores across different learning style categories. Although the numerical coding does not imply any ordinal ranking, the visualization reveals a concentration of higher anxiety scores among students with a visual learning style. The trend line further suggests that students categorized as visual learners tend to experience greater speaking anxiety compared to their peers in other learning categories.

Figure 2 below presents a color-coded scatter plot, mapping each student's learning style (x-axis) against their TMAS score (y-axis). Each dot represents one student, with colors corresponding to their respective learning style category. A linear trend line has also been added to illustrate the general direction of association between learning preference and anxiety level.

Figure 2. Relationship between Learning Styles and TMAS Scores

Figure 2 illustrates the individual distribution of public speaking anxiety scores (TMAS) across students with different learning style preferences. Each point in the scatter plot represents one student, plotted according to their learning style code on the x-axis and their TMAS score on the y-axis. The data points are color-coded by learning style: visual (red), auditory (blue), kinesthetic (green), and visual-auditory (orange).

Although learning styles are categorical and non-ordinal by nature, they were assigned numerical codes for the purpose of visual display. This visualization reveals a clustering of higher anxiety scores among visual learners, with several individuals scoring above 30. In contrast, students categorized as auditory, kinesthetic, or visual-auditory learners generally show lower TMAS scores, suggesting lower levels of speech-related anxiety.

The dotted gray line represents a linear trend line, which slopes downward from left to right. This indicates a negative association between the learning style code and anxiety level—interpreted cautiously to suggest that visual learners, positioned at the lower end of the coding scale, tend to exhibit higher anxiety, whereas students with other learning styles tend to report lower levels of glossophobia.

Overall, the scatter plot supports the hypothesis that certain cognitive preferences, particularly a strong reliance on visual processing, may be associated with elevated public speaking anxiety. However, given the nominal nature of the learning style variable, these patterns should be interpreted as exploratory and descriptive rather than causal.

Qualitative Findings

Qualitative data from semi-structured interviews and classroom observations offered insight into the behavioral and emotional experiences of students across learning styles.

Visual Learners

Visual learners often encounter significant challenges during tasks that demand spontaneous verbal expression. In the current study, these learners frequently reported experiencing a sense of cognitive overload when asked to engage in oral activities without the aid of visual support. Many of them conveyed a strong dependence on written notes, diagrams, or structured outlines to effectively organize and articulate their thoughts. This reliance on visual scaffolding appears to serve as a coping mechanism to reduce cognitive strain and facilitate recall.

In the absence of such tools, several participants described experiencing acute psychological and physiological responses, such as mental blocks, increased heart rate, and speech disfluencies, including hesitations, repetitions, or abrupt pauses.

One participant articulated this vividly, stating, *“I feel like I forget everything when I*

don't have my notes. My mind goes blank and I can't speak even though I know the material."

This testimony underscores the extent to which visual cues function not merely as study aids, but as essential elements for managing performance anxiety and enabling fluent verbal expression.

These findings align with the work of (Willingham, Hughes and Dobolyi, 2015), who emphasized that visual learners tend to perform best when they can pre-visualize content and follow a structured framework. From an observational standpoint, the behavior of these learners during oral tasks further validated their self-reports. They commonly exhibited non-verbal signs of anxiety, including trembling hands, avoidance of eye contact, and hurried speech delivery, indicators that are often associated with communication apprehension.

The data thus suggest that for visual learners, the absence of visual structuring tools not only impairs their ability to convey knowledge but may also trigger symptoms characteristic of glossophobia. This highlights the importance of pedagogical strategies that accommodate learning style preferences, particularly in speaking-oriented assessments or public speaking contexts.

Auditory Learners

Auditory learners demonstrated a relatively higher degree of comfort during speaking tasks, particularly when they were provided with opportunities to engage in verbal rehearsal or participate in structured discussions. These learners appeared to draw confidence from the act of speaking itself, treating it as a process of cognitive reinforcement. Their learning preference, centered on listening and vocal repetition, seemed to facilitate more fluid oral performance under the right conditions.

Despite this relative ease, auditory learners also displayed vulnerabilities, especially in environments where auditory input was compromised. Many participants reported being highly sensitive to classroom noise, side conversations, or unsolicited reactions from peers.

For instance, one student remarked, "*I can do well if I practice out loud first. But if the class is too noisy or someone laughs, I lose focus quickly."*

This comment highlights the critical role of auditory clarity and psychological safety in supporting the performance of auditory learners during oral tasks.

Although manifestations of anxiety were still present within this group, they appeared to be less intense than those observed in visual learners. Rather than experiencing debilitating mental blocks, auditory learners were more likely to report momentary lapses in concentration or fluctuations in confidence when exposed to environmental distractions. However, their anxiety could be significantly mitigated through familiar strategies such as

peer modeling, choral repetition, and structured verbal scaffolding.

These findings support previous studies which emphasize the importance of auditory input and rehearsal in language production for this learner type (Reid, 1995). The pedagogical implication is that auditory learners benefit most from environments that minimize disruptive noise and offer ample opportunities for verbal engagement. Therefore, integrating controlled oral practice and collaborative dialogues into the learning design may not only enhance fluency but also reduce performance anxiety among auditory learners.

Kinesthetic Learner

The kinesthetic learner in this study exhibited a distinct preference for physical engagement and bodily movement during both the preparation and execution of oral tasks. This individual reported improved fluency and confidence when allowed to incorporate subtle movements such as pacing, using hand gestures, or simulating real-life communicative contexts. These behaviors are consistent with kinesthetic learning theory, which posits that learning is enhanced when connected to physical activity (Porter and Hernacki, 2004)

Crucially, movement served not only as a comfort mechanism but also as a tool for activating memory and supporting expressive clarity. When asked to remain still or adhere to a rigid speaking format, the learner described increased discomfort and anxiety, highlighting the restrictive impact of immobility on cognitive flow. These observations emphasize the pedagogical importance of integrating movement-friendly strategies,such as role plays, embodied storytelling, and gesture-based rehearsal into language production activities to reduce anxiety and enhance oral performance for kinesthetic learners.

Visual-Auditory Learner

In contrast, the visual-auditory learner presented a profile characterized by emotional sensitivity and internal performance standards. This student experienced heightened anxiety when the actual delivery of a speech deviated from the rehearsed version. The discrepancy between internal rehearsal and real-time performance appeared to trigger frustration, self-doubt, and mental tension. This reaction reflects findings in affective learning research, which indicate that mismatches between expected and actual outcomes often lead to increased anxiety among learners with dual-modal preferences (Oxford, 2003; Cassidy, 2004)

Emotional regulation in this case was closely linked to the learner's self-monitoring processes (Rogowsky, Calhoun and Tallal, 2015). A perceived failure to meet internalized expectations resulted in a sense of disappointment, which in turn disrupted the learner's composure and fluency during speaking tasks (El-Sabagh, 2021). These findings suggest that students with combined learning styles may hold themselves to higher personal

standards, making them more vulnerable to emotional distress when performance diverges from rehearsal.

To support such learners, instructional strategies should include stress-reducing techniques like guided improvisation, mindfulness-based preparation, and the normalization of imperfection in oral performance. These approaches may help bridge the gap between rehearsed expectations and authentic delivery, fostering greater resilience and adaptability in speaking tasks.

DISCUSSION

This study sheds light on how students' preferred ways of learning may shape the way they experience anxiety during public speaking. While glossophobia is a common issue in the classroom, the intensity and nature of that anxiety appear to vary depending on how students process and prepare information. The combination of quantitative scores and students' personal accounts helped reveal important differences across learning style groups.

One of the clearest patterns to emerge was among visual learners. These students made up the majority of those who reported high anxiety levels, and many expressed that they felt uneasy when speaking without visual aids. Their dependence on written notes, outlines, or diagrams seems to offer a sense of structure that helps them organize thoughts before speaking. Without these tools, they often felt mentally blocked or unsure of what to say, even if they knew the material well. These insights support earlier observations from (Willingham, Hughes and Dobolyi, 2015) , who noted that visual learners tend to be more comfortable when they can visualize or plan the flow of their speech in advance.

Auditory learners, in contrast, seemed to handle speaking tasks with more confidence, especially when they were able to practice out loud or engage in discussions beforehand. Speaking and listening form the core of how they process information, so these tasks aligned more closely with their strengths. Still, their focus could easily be disrupted by external distractions such as background noise or reactions from classmates. This supports previous findings by Reid (1995) and Oxford (2003), which emphasize that auditory learners thrive in verbal and interactive environments but may still be affected by external auditory pressure.

The case of the kinesthetic learner brought a different dynamic. This student felt more at ease when allowed to move during preparation or delivery. Small gestures, walking, or even simulating real-life speaking situations helped them stay focused and calm. When this movement was restricted, however, anxiety levels noticeably increased. This aligns with the work of Porter and Hernacki (2004), who argue that kinesthetic learners benefit most when learning involves bodily movement and hands-on activities.

The visual-auditory learner presented a unique challenge. This student experienced frustration when their actual speech didn't match how they had rehearsed it internally. The disconnect between planning and real-time delivery led to stress and a drop in confidence. In this case, high personal expectations and internal pressure played a major role in triggering anxiety, echoing Gregersen (2009) point that mismatch between internalized standards and actual outcomes can lead to emotional dysregulation in performance-based tasks.

Taken together, the findings suggest that glossophobia is not caused by a single factor, but rather emerges from the interaction between a student's learning style, the demands of the speaking task, and the emotional climate of the classroom. Different learners face different barriers, some needing structure, others needing practice or movement. What works for one student may create discomfort for another.

This highlights the importance of designing classroom speaking activities with flexibility in mind. Teachers can make a real difference by considering how their students learn not only in terms of content delivery, but also in how they allow students to prepare, rehearse, and express themselves. Supporting students' learning preferences may not eliminate anxiety completely, but it can certainly make public speaking a less intimidating and more empowering experience.

Pedagogical Implications

The findings of this study offer valuable insights for classroom instruction, especially when it comes to designing speaking activities that accommodate different types of learners. Since learning styles appear to play a role in how students experience and manage speaking anxiety, teachers can improve student performance and confidence by tailoring their approaches to better fit individual preferences.

For visual learners, who often rely on structure and visual aids to organize their thoughts, allowing them to plan their speech using tools like mind maps, outlines, or cue cards can be particularly helpful. These supports act as mental anchors, giving students a clearer sense of direction when speaking and reducing the likelihood of cognitive overload. Encouraging students to visualize the flow of their speech beforehand may also help lower anxiety levels by making the task feel more manageable and predictable.

Auditory learners, on the other hand, tend to benefit more from hearing and verbal repetition. Strategies such as practicing out loud, listening to model speeches, engaging in peer discussions, or recording and reviewing their own voice can reinforce their comfort with spoken language. However, since these learners can be sensitive to noise and social judgment, it's also important to create a calm and supportive speaking environment where they feel safe from distractions or ridicule.

In the case of kinesthetic learners, movement is key. These students often express themselves more effectively when they're able to use gestures, move around, or take part in role-play or storytelling. Incorporating activities that involve physical interaction not only plays to their strengths, but also helps reduce anxiety by making speaking more dynamic and less rigid. Even allowing small movements during preparation or delivery, like walking or using hand motions can make a noticeable difference in their confidence.

Beyond addressing learning styles individually, teachers can adopt broader anxiety-reducing strategies that benefit all students. These include gradual exposure to public speaking (starting with smaller, low-pressure settings), peer collaboration, and giving students opportunities to practice speaking without being graded. Fostering a classroom culture where mistakes are seen as part of the learning process not something to be feared, can go a long way in easing the pressure students often feel when they speak in front of others.

In the end, adapting instruction based on how students learn is not just about improving academic outcomes, it's about supporting their emotional well-being. When teachers recognize and respond to the different ways students process information and express themselves, they not only make speaking tasks less intimidating but also create a more inclusive and empowering learning environment.

CONCLUSION

This study explored the relationship between students' learning styles and their levels of glossophobia during classroom speaking activities. Using a mixed-methods approach, combining the Taylor Manifest Anxiety Scale (TMAS), Barsch Learning Style Inventory, classroom observations, and interviews, the findings suggest that learning style meaningfully influences how students experience public speaking anxiety.

Among the participants identified as experiencing glossophobia, a significant proportion (61.5%) were visual learners. These students tended to report higher anxiety, often linked to their reliance on structured visual cues and written preparation. In contrast, auditory learners (23.1%) and kinesthetic and visual-auditory learners (a combined 15.4%) exhibited lower levels of anxiety, suggesting that their preferred learning modalities may align more naturally with the demands of oral communication.

Overall, the results indicate a moderate but important relationship between learning preferences and public speaking anxiety, with visual learners appearing especially vulnerable to glossophobia. These insights underscore the need for differentiated instructional strategies that acknowledge and accommodate diverse learning styles in order to support students more effectively.

Ultimately, learning styles influence not only how students process information but also

how they cope emotionally in performance settings. For this reason, educators and curriculum developers are encouraged to adopt style-aware approaches to speaking instruction that promote both communicative competence and emotional well-being.

While this study offers meaningful insights into the connection between learning styles and glossophobia, it is important to acknowledge some limitations. The number of participants involved in the in-depth analysis was relatively small (n = 13), which means the results should be interpreted with caution and may not fully represent broader student populations. Future research would benefit from involving larger and more varied groups of participants to enhance the generalizability of the findings.

It may also be useful for future studies to adopt longitudinal research designs, which can track changes in students' anxiety levels and learning behaviors over time. In addition, incorporating neurocognitive or behavioral data, such as brain activity patterns, physiological responses, or real-time observation could help validate and enrich the self-reported findings gathered through surveys and interviews.

Beyond that, further research could explore interventions specifically designed for different learning styles, such as visual aids, auditory rehearsal routines, or movement-based techniques, and evaluate how effective these strategies are in reducing glossophobia. Studying these interventions across different age groups and learning environments, such as secondary schools, universities, or language courses would also offer deeper insight into how context influences outcomes.

REFERENCES

Astri, Z. (2018) 'The Use of Total Physical Response Method for Different Learning Styles in English Vocabulary', 1(1), pp. 25–38. Available at: https://ejournals.umma.ac.id/index.php/seltics.

Astri, Z. and Wahab, I. (2018) 'The Effect of Reading Teaching Material for Different Learning Styles in Improving Students' Reading Comprehension', *Jurnal Bahasa Lingua Scientia*, 10(2). Available at: https://doi.org/10.21274/ls.2018.10.2.215-230.

Astri, Z. and Wahab, I. (2019) 'The Use of TPR Method for Disable Students With Different Learning Styles in English Vocabulary Development', 2(2), pp. 66–75. Available at: https://ejournals.umma.ac.id/index.php/seltics.

Barsch, J. (1980) *Barsch Learning Style Inventory*. Available at: https://www.honolulu.hawaii.edu/facdev/wp-content/uploads/2018/05/1-5_Barsh-Learning-Styles.pdf (Accessed: 18 February 2023).

Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, 3(2), pp. 77–101. Available at: https://doi.org/10.1191/1478088706qp063oa.

Bylkova, S., Chubova, E. and Kudryashov, I. (2021) 'Public speaking as a tool for developing students' communication and speech skills', *E3S Web of Conferences*, 273, p. 11030. Available at:

https://doi.org/10.1051/e3sconf/202127311030.

Cassidy, S. (2004) 'Learning styles: An overview of theories, models, and measures', *Educational Psychology*, pp. 419–444. Available at: https://doi.org/10.1080/01443410420000228834.

Creswell, J.W. (2014) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* . 4th ed. Sage Publications.

Darling-Hammond, L. and Snyder, J. (2000) 'Authentic assessment of teaching in context', *Teaching and Teacher Education*, 16(5–6), pp. 523–545. Available at: https://doi.org/10.1016/S0742-051X(00)00015-9.

El-Sabagh, H.A. (2021) 'Adaptive e-learning environment based on learning styles and its impact on development students' engagement', *International Journal of Educational Technology in Higher Education*, 18(1). Available at: https://doi.org/10.1186/s41239-021-00289-4.

Gregersen, T. (2009) 'Recognizing Visual and Auditory Cues in the Detection of Foreign-Language Anxiety', *TESL Canada Journal*, 26(2), p. 46. Available at: https://doi.org/10.18806/tesl.v26i2.414.

Hafiz Haqnawaz, Nazia Naeem and Safar Khan (2024) 'Complexities of English: A study of grammar, vocabulary, and pronunciation', *Kashf Journal of Multidisciplinary Research*, 1(11), pp. 1–6. Available at: https://doi.org/10.71146/kjmr118.

Halbig, A. and Latoschik, M.E. (2021) 'A Systematic Review of Physiological Measurements, Factors, Methods, and Applications in Virtual Reality', *Frontiers in Virtual Reality*, 2. Available at: https://doi.org/10.3389/frvir.2021.694567.

Hancock, A.B. *et al.* (2010) 'Public Speaking Attitudes: Does Curriculum Make a Difference?', *Journal of Voice*, 24(3), pp. 302–307. Available at: https://doi.org/10.1016/j.jvoice.2008.09.007.

Horwitz, E.K., Horwitz, M.B. and Cope, J. (1986) *Foreign Language Classroom Anxiety*, *Source: The Modern Language Journal*.

Irvine, L. (2020) *Let's talk about public speaking anxiety: Supporting and scaffolding sustainable speaking practices while at university and beyond*. Queensland University of Technology. Available at: https://doi.org/10.5204/thesis.eprints.201344.

Mohanna, A.D.A.- (2024) 'Difficulties and Challenges Encountered by Saudi EFL learners: A Diagnostic Study', *Scholars International Journal of Linguistics and Literature*, 7(10), pp. 288–299. Available at: https://doi.org/10.36348/sijll.2024.v07i10.002.

Oloba, P.B., Tshidzumba, A. and Sekepo, L.N. (2025) 'Exploring the Causes and Physical Manifestations of Glossophobia among University Students', *EDUCATIO, Journal of Education*, 9(1), p. 345.

Oxford, R.L. (2003) *Language learning styles and strategies: An overview*.

Porter, B. De and Hernacki, M. (2004) *Quantum Learning*. Bandung: Mizan Pustaka.

Reid, J.M. (1995) *Learning styles in the ESL/EFL classroom.* Boston, MA: Heinle & Heinle.

Rogowsky, B.A., Calhoun, B.M. and Tallal, P. (2015) 'Matching learning style to instructional method: Effects on comprehension', *Journal of Educational*

Psychology, 107(1), pp. 64–78. Available at: https://doi.org/10.1037/a0037478.

Willingham, D.T., Hughes, E.M. and Dobolyi, D.G. (2015) 'The Scientific Status of Learning Styles Theories', *Teaching of Psychology*, 42(3), pp. 266–271. Available at: https://doi.org/10.1177/0098628315589505.