Psychometric Validation of an Indigenous Urdu Glossophobia Scale (UGS)

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ABSTRACT

Glossophobia, or the fear of public speaking, presents a significant psychological barrier that can negatively affect educational achievement, professional development, and social confidence (Bodie, 2010; McCroskey, 1970). Despite its widespread occurrence, validated tools for assessing glossophobia in Urdu speaking populations are lacking. This study aimed to validate the *Urdu Glossophobia Scale* (UGS) (Saleem & Mahmood, 2025) for university students. Utilizing a cross-sectional design, the 13-item UGS was psychometrically evaluated using exploratory factor analysis (EFA), internal consistency, test-retest reliability, and construct validity. The final sample comprised 418 university students (M = 23.4 years, SD = 3.7), with 62% female and 38% male, representing diverse academic disciplines, reflecting typical gender enrollment trends in Pakistani universities. EFA revealed a unidimensional factor structure, consistent with prior research (Bodie, 2010), explaining 55.93% of the variance. Internal consistency was excellent (Cronbach's α = 0.923), and test-retest reliability was strong (r = 0.972, p < .001). Convergent validity with the *Social Interaction Anxiety Scale* (r = 0.75, p < .001) and divergent validity with the *Big Five Inventory* confirmed the scale's construct validity. The UGS addresses cultural gaps in existing glossophobia scales, particularly for collectivist, Urdu speaking contexts. The scale's development was previously published (Saleem & Mahmood, 2025).

Keywords: Glossophobia, Urdu Glossophobia Scale, Scale Validation, Fear of Public Speaking, University Students, Psychometrics, Pakistan, Youth.

Introduction

Glossophobia, or fear of public speaking, is one of the most prevalent forms of social anxiety and affects a large proportion of university students globally. Characterized by physiological (e.g., trembling, sweating), cognitive (e.g., fear of failure), and emotional (e.g., embarrassment) symptoms, glossophobia can impair academic performance and confidence in formal speaking settings (McCroskey, 1970; Bodie, 2010).

In Pakistan, research highlights a alarmingly high rate of fear of public speaking among youth. A cross-sectional study conducted on 288 undergraduate medical students from government colleges in Karachi revealed that approximately 59% of students experienced moderate to high levels of glossophobia, with female students showing greater levels of anxiety than their male counterparts (Sarwar et al., 2015). Similarly, another study involving management sciences students at a private university in Karachi reported elevated levels of public speaking anxiety in first year students, with 67.7% scoring in the high anxiety range, although anxiety levels tended to decrease in senior years (Shaikh et al., 2022). These findings align with broader estimates of social anxiety disorder (SAD) prevalence in South Asia, where a recent meta-analysis reported a pooled prevalence of 22%, indicating a

substantial underlying burden of performance related anxiety in the region (Rahman et al., 2022). Despite its wide impact, glossophobia remains under recognized in the academic mental health discourse in Pakistan, necessitating further exploration and targeted psychological interventions.

While several Western tools like the *Personal Report of Public Speaking Anxiety* (McCroskey, 1970) and the *Public Speaking Anxiety Scale* (Bartholomay & Houlihan, 2016) exist, they are rarely validated for Urdu speaking populations. These tools may contain item and cultural biases and do not reflect linguistic subtleties or social dynamics typical of Pakistani students. In collectivist cultures such as Pakistan, social exposure, fear of group disapproval, and pressure to maintain harmony may exacerbate performance anxiety (Hofstede, 2001; Chen et al., 1995).

The lack of an Urdu language glossophobia scale creates a gap in culturally responsive assessment. Addressing this gap, the current study validates the *Urdu Glossophobia Scale* (UGS), developed by Saleem & Mahmood (2024), through psychometric evaluation including factor structure, reliability and validity testing.

Rationale and Significance of the Study

This study addresses the lack of contextually relevant assessment tools for glossophobia in Urdu speaking populations. Validating the UGS provides educators, clinicians, and researchers with a culturally appropriate instrument to identify students experiencing fear of public speaking. The tool has potential applications in university counseling centers, mental health clinics, and academic research exploring anxiety and performance among South Asian populations.

Objectives

1. To validate the *Urdu Glossophobia Scale* (UGS) for Urdu speaking university students.
2. To evaluate the factor structure, reliability, and construct validity of the UGS.

Method

Participants

A total of 418 students (259 females, 159 males) from public and private universities in South Punjab participated. Inclusion criteria were: (a) enrolled in undergraduate or postgraduate programs in university, (b) Urdu speakers, and (c) has delivered at least one public presentation in class. Students with diagnosed speech or cognitive impairments were excluded. The gender distribution reflects greater female enrollment in social sciences at the time of data collection and is discussed in limitations.

Measures

Urdu Glossophobia Scale (UGS)

The *Urdu Glossophobia Scale* (UGS), originally developed by Saleem and Mahmood (2025), is a 13-item self-report instrument designed to measure fear of public speaking among Urdu speaking university students. Items are rated on a 5-point Likert scale ranging from 1

(کبھی نہیں) to 5 (ہمیشہ), with higher scores indicating greater fear. Example items include "اعتماد کی کمی" (lack of confidence) and "اجلاس میں بولنے کا خوف" (fear of speaking in meetings).

Social Interaction Anxiety Scale

The *Social Interaction Anxiety Scale* (SIAS; Mattick & Clarke, 1998) was used to assess convergent validity. It consists of 20 items measuring distress in social interactions. In the present study, the SIAS demonstrated strong internal consistency (α = 0.89).

Big Five Inventory (Short Form)

For divergent validity, the *Big Five Inventory – Short Form* (BFI-10; Rammstedt & John, 2007) was employed to measure five broad personality traits. Each trait was assessed with two items, and internal consistency across traits ranged from α = 0.62 to α = 0.78 in this sample.

Procedure

Participants were invited to complete either the digital (via Google Forms) or printed versions of three instruments: the Urdu Glossophobia Scale (UGS) (Saleem & Mahmood, 2025), the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998), and the Big Five Inventory–10 (BFI-10; Rammstedt & John, 2007). Prior to participation, all individuals were provided with a brief overview of the study's objectives and were assured that their responses would remain confidential and anonymous. Written or electronic informed consent was obtained in accordance with ethical standards outlined by the American Psychological Association (APA, 2017).

The SIAS was selected to establish the convergent validity of the newly developed Urdu Glossophobia Scale, given that fear of public speaking is conceptualized as a subtype of social anxiety (American Psychiatric Association, 2013). The SIAS is a widely used and psychometrically sound measure of social interaction fears, making it an appropriate external criterion for validating glossophobia symptoms. To examine discriminant validity, the BFI-10 was included as a brief measure of the five factors model of personality (i.e., openness, conscientiousness, extraversion, agreeableness, and neuroticism). Despite its brevity, the BFI-10 has shown adequate reliability and validity across cultural contexts and is particularly useful in large scale or time constrained studies (Rammstedt & John, 2007).

Data collection occurred in both group settings (e.g., university classrooms, seminar halls) and individual sessions, depending on participant's availability and convenience. The estimated completion time for the full battery of measures ranged between 10 and 15 minutes. Participants were instructed to answer independently and honestly, without discussion with peers.

To assess test-retest reliability, a subsample of 50 participants was selected from the original sample using convenience sampling. These participants were invited to complete the Urdu Glossophobia Scale (UGS) again after an interval of one

month, and all 50 participants successfully completed both administrations, providing data for assessing the temporal stability of the scale. This test-retest procedure allowed for the evaluation of the scale's reliability over time and contributed to the overall psychometric robustness of the measure.

Data Analysis

SPSS 26.0 was used. EFA was conducted using principal component analysis with Varimax rotation, assuming orthogonal factor structure. Reliability was assessed using Cronbach's alpha and test-retest correlation. Pearson's correlations examined construct validity.

Results

Sample Characteristics

The final sample included 418 university students with a mean age of 23.4 years (SD = 3.7). Of these, 62% were female and 38% were male, representing diverse academic disciplines including social sciences, natural sciences, management sciences and others. This gender distribution reflects current enrollment patterns in Pakistani universities, particularly in disciplines where oral presentations are more common.

Exploratory Factor Analysis

Exploratory factor analysis (EFA) was conducted to examine the underlying structure of the Urdu Glossophobia Scale. Sampling adequacy was confirmed through a Kaiser-Meyer-Olkin (KMO) value of 0.938, and Bartlett's Test of Sphericity was statistically significant, $\chi^2(78) = 3314.28$, $p < .001$, indicating that the correlation matrix was factorable. Principal component analysis with Varimax rotation extracted a single dominant factor with an eigenvalue of 7.27, accounting for 55.93% of the total variance. This result supports the hypothesized unidimensionality of the scale.

Table 1: *Component Loadings for Urdu Glossophobia Scale (UGS) Items*

Loading	Brief Items	Serial no.
.656	اعتماد کی کمی	1
.716	اجلاس میں بولنے کا خوف	2
.737	جسمانی گھبراہٹ	3
.712	ذہنی صحت پر اثر	4
.761	شرمندگی محسوس کرنا	5
.729	مسترد ہونے کا خوف	6

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.770	دوسروں کی رائے کی پرواہ	7
.740	منفی رائے کا ڈر	8
.703	گفتگو سے گریز	9
.766	تعلیمی/پیشہ ورانہ رکاوٹ	10
.773	خود کو نااہل سمجھنا	11
.839	عوام میں بات کرنے میں مشکل	12
.802	مؤقف واضح کرنے میں دشواری	13

Reliability and Validity

Table 2: *Test-Retest Reliability of the Glossophobia Scale (N = 50)*

Variable	1	2
1. First Administration	1	
2. Second Administration	.97**	1

** $p < .01$ (2-tailed).

To evaluate temporal stability, test-retest reliability was assessed over a one month interval with a subsample of 50 participants. As shown in Table 2, the correlation between scores from the first and second administration of the *Urdu Glossophobia Scale* was r = .97, p < .01 (2-tailed), indicating excellent stability. This high correlation demonstrates that the scale produces consistent results over time, suggesting that glossophobia, as measured by the UGS, is a stable construct rather than a transient emotional state (Bodie, 2010; McCroskey, 1970). The strong test-retest coefficient supports the reliability of the scale for longitudinal or repeated-measures research designs.

Table 3: *Correlation between Urdu Glossophobia Scale and Social Interaction Anxiety Scale (N = 50)*

Variable	1	2
1. GLOSSOPHOBIA	1	
2. SIAS	.75**	1

Note. GLOSSOPHOBIA = Glossophobia Scale; SIAS = Social Interaction Anxiety Scale.
** $p < .01$ (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Given that glossophobia is theoretically related to social anxiety, a strong positive correlation between these two measures would indicate that the Urdu Glossophobia Scale effectively captures the intended construct. Results of the Pearson correlation analysis revealed a significant positive correlation between the Glossophobia Scale and SIAS ($r = 0.745$, $p < .001$), suggesting a strong association between fear of public speaking and social interaction anxiety. This finding supports the convergent validity of the Urdu Glossophobia Scale, confirming that it aligns with established measures of social anxiety.

Table 4: *Pearson Correlations among Urdu Glossophobia Scale and Big Five Personality Traits (N = 50)*

Variable	1	2	3	4	5	6
1. GLOSSOPHOBIA	1					
2. EXTROVERSION	-.32*	1				
3. AGREEABLENESS	-.08	.25	1			
4. CONSCIENTIOUSNESS	-.20	.30*	.30*	1		
5. NEUROTICISM	.36*	-.33*	-.09	-.28	1	
6. OPENNESS	.10	.34*	.14	.21	-.19	1

Note. Values represent Pearson correlation coefficients (two-tailed) - * $p < .05$.

To assess the discriminant validity of the Urdu Glossophobia Scale (UGS), Pearson product moment correlations were calculated between glossophobia scores and the Big Five personality traits, as measured by the BFI-10 (Rammstedt & John, 2007). The results are presented in Table 4. Glossophobia showed a significant negative correlation with extraversion ($r = -.32$, $p < .05$), indicating that individuals who are more outgoing and socially confident tend to report lower levels of public speaking fear. This finding is consistent with prior literature suggesting that extraversion is inversely associated with social anxiety and fear of evaluation (McCroskey, 1976; Matsuda et al., 2020).

A significant positive correlation was also observed between glossophobia and neuroticism ($r = .36$, $p < .05$), reflecting the theoretical linkage between emotional instability and heightened anxiety responses (Costa & McCrae, 1992; Watson & Clark, 1984). Individuals high in neuroticism are more prone to experience negative affect, which may exacerbate the fear of public speaking.

In contrast, correlations between glossophobia and agreeableness ($r = -.08$, $p > .05$), conscientiousness ($r = -.20$, $p > .05$), and openness to experience ($r = .10$, $p > .05$) were weak and not statistically significant. These low correlations support the discriminant validity of the UGS, indicating that the scale is not simply capturing broad personality tendencies, but rather a distinct, situational form of communication anxiety (Kline, 2016; DeVellis, 2017).

Although the pattern of associations aligns with theoretical expectations, the modest sample size (N = 50) may have limited the statistical power to detect smaller effect sizes. Future studies employing larger and more diverse samples are recommended to further evaluate the stability and generalizability of these relationships.

Table 5: Correlations of Items on the Urdu Glossophobia Scale (N = 418)

	اعتماد کی کمی	اجلاس میں بولنے کا خوف	گھبراہٹ محسوس کرنا	ذہنی صحت متاثر	شرمندگی محسوس	مسترد ہونے کا خوف	لوگ کیا سوچیں گے	منفی رائے کا خوف	بات چیت سے بچاؤ	زندگی کی ترقی متاثر	نااہلی کا احساس	لوگوں کے سامنے مشکل	نقطہ نظر سمجھانے میں مشکل
اعتماد کی کمی	1.00	0.57	0.57	0.39	0.44	0.43	0.48	0.43	0.44	0.44	0.35	0.48	0.46
اجلاس میں بولنے کا خوف		1.00	0.65	0.44	0.51	0.48	0.46	0.40	0.49	0.49	0.42	0.58	0.51
گھبراہٹ محسوس کرنا			1.00	0.57	0.50	0.50	0.52	0.44	0.46	0.45	0.46	0.57	0.52
ذہنی صحت متاثر				1.00	0.59	0.43	0.50	0.50	0.47	0.47	0.53	0.54	0.51
شرمندگی محسوس					1.00	0.53	0.58	0.49	0.46	0.58	0.57	0.59	0.55
مسترد ہونے کا خوف						1.00	0.65	0.59	0.42	0.52	0.54	0.52	0.49
لوگ کیا سوچیں گے							1.00	0.69	0.44	0.54	0.55	0.52	0.55
منفی رائے کا خوف								1.00	0.46	0.47	0.53	0.58	0.61
بات چیت سے بچاؤ									1.00	0.53	0.52	0.61	0.56
زندگی کی ترقی متاثر										1.00	0.67	0.66	0.60
نااہلی کا احساس											1.00	0.70	0.63
لوگوں کے سامنے مشکل												1.00	0.74
نقطہ نظر سمجھانے میں مشکل													1.00

Table 5 presents the Pearson correlations among the 13 items of the *Urdu Glossophobia Scale* (UGS) based on responses from 418 university students. All items showed statistically meaningful positive correlations with one another, with coefficients ranging from r = .35 to r = .74, indicating strong internal homogeneity and suggesting that the items consistently measure aspects of a single latent construct of fear of public speaking.

The highest inter-item correlation was observed between "difficulty speaking in front of people" and "difficulty conveying point of view", (r = .74) , reflecting a strong cognitive-behavior (r = .67), emphasizing the perceived long-term consequences of glossophobia on personal development. Even the lowest observed correlation between "lack of confidence" and "feeling of incompetence," (r = .35) was still within an acceptable range for scale coherence, supporting the internal structure of the UGS. These patterns further affirm the scale's unidimensionality and construct reliability, supporting its psychometric robustness (Bodie, 2010; Saleem & Mahmood, 2025).

Discussion

Summary of Findings

The Urdu Glossophobia Scale showed strong psychometric properties (Bodie, 2010; McCroskey, 1970). The unidimensional structure aligns with theoretical models of performance anxiety and mirrors findings from the scale's development study (Saleem & Mahmood, 2025). Exploratory factor analysis confirmed a single dominant factor accounting for 55.93% of the variance, supporting the theoretical unidimensionality of glossophobia in this population (Bartholomay & Houlihan, 2016).

The inter-item correlation analysis further reinforced the internal consistency of the scale (Rammstedt & John, 2007). All 13 items were significantly and positively correlated, with coefficients ranging from r = .35 to r = .74. The strongest correlation was found between the items "مشکل میں کرنے بات سامنے کے لوگوں" and "مشکل میں سمجھانے نظر نقطہ" (r = .74), reflecting the close relationship between expressive clarity and performance anxiety. These findings suggest a strong coherence among scale items, capturing the multifaceted experience of glossophobia.

In terms of reliability, internal consistency was excellent (Cronbach's α = 0.92), and test-retest reliability was extremely high (r = 0.97, p < .001), indicating the stability of the scale over time (McCroskey, 1970). Convergent validity was established through a significant positive correlation with the Social Interaction Anxiety Scale (r = 0.75, p < .001; Mattick & Clarke, 1998). The Urdu Glossophobia Scale (UGS) demonstrated evidence of divergent validity through weak and non-significant correlations with most Big Five personality traits, including agreeableness, conscientiousness, and openness to experience. Significant correlations were found only with extraversion (*r* = –.32, *p* < .05)

and neuroticism ($r = .36$, $p < .05$), consistent with theoretical expectations. These findings support the distinctiveness of glossophobia as a context specific construct, rather than a reflection of global personality traits. The unidimensional structure aligns with theoretical models of performance anxiety (Bodie, 2010) and mirrors findings from the scale's development study (Saleem & Mahmood, 2025). Exploratory factor analysis confirmed a single dominant factor accounting for 55.93% of the variance, supporting the theoretical unidimensionality of glossophobia in this population.

The inter-item correlation analysis further reinforced the internal consistency of the scale. All 13 items were significantly and positively correlated, with coefficients ranging from r = .35 to r = .74. The strongest correlation was found between the items "لوگوں کے نقطہ نظر سمجھانے میں مشکل" and "سامنے بات کرنے میں مشکل" ($r = .74$), reflecting the close relationship between expressive clarity and performance anxiety. These findings suggest a strong coherence among scale items, capturing the multifaceted experience of glossophobia.

In terms of reliability, internal consistency was excellent (Cronbach's α = 0.92), and test-retest reliability was extremely high (r = 0.97, p < .001), indicating the stability of the scale over time. Convergent validity was established through a significant positive correlation with the Social Interaction Anxiety Scale (r = 0.75, p < .001), while divergent validity was supported by weak and non-significant correlations with Big Five personality traits (r = –0.21 to r = 0.19, all p > .05), demonstrating the scale's specificity in measuring glossophobia rather than general personality tendencies.

Interpretation and Cultural Relevance

Glossophobia may be amplified in collectivist cultures where public performance reflects not just individual but family or group honor (Hofstede, 2001). The UGS captures this cultural nuance and offers a contextually appropriate assessment.

Strengths

- Large, gender diverse sample
- Use of convergent and divergent validity
- Culturally and linguistically tailored items

Limitations

- Gender imbalance may influence generalizability
- Self-report format prone to bias
- Lack of behavioral or physiological indicators (e.g., heart rate, speech fluency)

Practical Implications

UGS can be used by university counselors to identify students in need of support. Researchers can employ it in academic stress and communication studies.

Future Directions

Further studies should validate the UGS in other Urdu-speaking regions like Azad Kashmir or India. CFA and longitudinal studies

are also recommended.

Conclusion

The *Urdu Glossophobia Scale* (UGS) is a culturally valid and psychometrically reliable tool for measuring fear of public speaking in Urdu-speaking university students. It successfully addresses the contextual and linguistic limitations of Western assessment tools by incorporating culturally relevant constructs and terminology. By capturing the nuances of social fear, public evaluation, and self-doubt within a collectivist society, the UGS provides valuable insights for both researchers and practitioners. The validated scale fills a significant gap in psychological assessment in South Asian academic contexts and holds promise for use in educational screening, psychological research, and intervention planning. Future research can further strengthen the scale's applicability by testing its use in diverse populations and settings.

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