

PSYCHOLOGICAL IMPACT OF LANGUAGES ON THE HUMAN MIND: RESEARCH ON THE CONTRIBUTION OF PSYCHOLINGUISTICS APPROACH TO TEACHING AND LEARNING ENGLISH

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Abstract

This research explores psycholinguistic aspects of English language acquisition among Punjab university students of Pakistan based on the psychological and cognitive factors that affect the English language acquisition process in the state of Pakistan. The research will take the mixed-methods approach, combining quantitative and qualitative stages to gain a complete picture of the research. Under the quantitative phase, a stratified random sampling of 120 students that took up English language learning programs were tested on their working memory, language anxiety, and performance through standardized questionnaires, surveys and cognitive tests. Under the qualitative phase, 18 purposively chosen participants participated in the psychological barriers, motivation, and cognitive engagement focused group discussions and semi-structured interviews. The quantitative data showed that working memory significantly and positively related with the acquisition of vocabulary ($r = 0.58$) and that language anxiety was slightly negative and correlated with every group performed tasks ($r = -0.47$). Classroom silence because of anxiety, cognitive overload, and low self-esteem and motivation to be enthusiastic were qualitative findings that marked the aspect of resilience. The experiment ends up showing that cognitive capacity and emotional states have influence on the language learning outcomes. It suggests that lessening of mental demands, integrating metacognitive reflection and nurturing helpful learning conditions should be done. Possible fertile extensions of the line of research include use of a broader variety of samples in different geographical areas, longitudinal studies of the same individuals to assess development over time, supportive and assessment of specific interventions aimed at promoting memory and anxiety reduction, and comparison of rural and urban, as well as cross-cultural contexts to determine common versus context-specific patterns in second language acquisition.

Keywords:

Psycholinguistics, Second Language Acquisition, Working Memory, Language Anxiety, Motivation, Self-Esteem, Cognitive Load Theory, English Language Teaching.

Chapter. 1. Introduction.

1.1 Background of the Study

There has been a great deal of study of language acquisition at both theoretical and empirical levels. Psycholinguistics, which is the study of how psychological aspects relate to language processing, is one of the areas that has gained wide recognition over the past few years. Psycholinguistics studies the processes of acquiring, processing and producing the language and it is crucial in determining the complexity of acquiring the second language (SLA). In this area, the role of psychological aspects, including motivation, anxiety, memory, and attention,

in shaping language proficiency has received even more attention on the part of researchers (MacIntyre, 2017; Dewaele, 2018).

Learning a foreign language affects the psychology of the individual especially, in English as a second language (ESL) in a significant manner. In the case of university level English study, the cognitive processes involved are numerous to most of the students. These difficulties tend to merge with emotional and psychological aspects, which influence students in terms of their motivation, language ability, and entire academic achievements (Horwitz, 2018). Although linguistic theories traditionally revolved around studying the system of grammar and syntax, as well as the vocabulary acquisition process, recent research has started prioritizing both cognitive and emotional dimensions of studying language (Gass & Selinker, 2019). The transition is an acceptance of the understanding that psychological factors, including language anxiety and lack of self-confidence, may distract a learner to attain language proficiency, irrespective of his or her linguistic predispositions (MacIntyre & Gregersen, 2016).

The Role of Psycholinguistics in Second Language Acquisition.

Psycholinguistics also contributes significantly to the understanding of processes that support the learning of the second language, and contributes towards the filling in the gap between cognitive processes and the strategies of language pedagogy. The study focuses on cognition processes under which there is language acquisition including working memory, attention, and language processing. To take one example, working memory is important to the acquisition and memorization of new vocabulary, grammar, and accent (Peregoy & Boyle, 2017). The learners in SLA depend on their intellectual potential in decoding, retaining and recalling the elements of language. The success rate of the learner in second language learning directly depends on the processing efficiency of the related functions (Gass & Selinker, 2019).

Furthermore, it is also on psycholinguistic theories that the influence of bilingualism on the development of cognition is studied. The research implies that bilingual people are more likely to demonstrate more cognitive flexibility, including a higher performance of working memory and attention control (Kormos, 2017). This, especially, applies to ESL learners because most students in multilingual nations such as Pakistan move among various languages (e.g., Urdu, Punjabi, and English). The cognition advantages of being bilingual can give any student an upper hand in language acquisition, however, this comes with some demerits like language interferences and transference that complicate language acquisition like English.

Psychological Barriers in Language Learning

Another factor in learning language, apart from cognitive processes is emotional and psychological factors. Language anxiety is one of the most evident psychological impediments in the course of second language learning. The concept of language anxiety means the feeling of fear or nervousness that a learner feels when talking, reading or listening in their second language (MacIntyre, 2017). Research has indicated that anxiety has detrimental implications on the performance of learners in language tasks, more so in a scenario that involves speaking and interaction (Horwitz, 2018). Avoidance behaviors consist of the reduced speaking chances and withdrawal in classroom activities, which arise in many ESL learners due to fear of making a mistake, being judged by peers, or perception that he/she is not understood. This may impede language learning and make students incapable of engaging in the learning process.

Another psychological aspect that affects the learning of the English language is motivation. The impetus that keeps the learners persevering despite the difficulties is referred to as motivation. As Dornyei (2019) states, L2 motivational self-system, learners experience success whenever they have a strong and clear vision of what they dream to achieve as English speakers, which makes them feel motivated to take time and efforts in order to achieve a goal. Nonetheless, motivation is not unchanging it changes according to intrinsic and extrinsic variables that comprise a sense of self-efficacy, apprehension of success, and the mood in the

classroom. With a consistent number of issues, which in the eyes of learners may look like failure or frustrated feelings, the drive to learn may decrease (Gass & Selinker, 2019). It illustrates the significance of a positive and supportive classroom atmosphere in order to be able to encourage and motivate language learning.

One of the contributing factors in SLA is also self-esteem. Self-esteem is the feeling of the abilities and the value of the learners. Within the framework of the acquisition of the English language, highly self-esteem students will be more confident in their language skills and will prefer communicative activity (MacIntyre & Gregersen, 2016). Conversely, students of low self-esteem can be inadequate and this may cause them to avoid talking and interact thus this contributes to negative beliefs in themselves. This causes a cycle because the low performance in language translates to low self-esteem that further enhances anxiety and reduces the capability to learn more (Horwitz, 2018).

Psycholinguistics in English Language Teaching (ELT)

The widening pool of research pointing to the importance of psychological factors in language learners notwithstanding, several conventional English Language Teaching (ELT) programs lack the application of psycholinguistic concepts. The current ELT strategies concentrate on the aspects of grammar, vocabulary, and pronunciation leaving out the cognitive and emotional attributes that drastically alter the language learning achievement (Peregoy & Boyle, 2017). Within the recent years, however, the intellectuals have expressed the need to introduce more holistic methods of teaching, which takes the cognitive, emotional, and social layers of language acquisition into account (Dewaele, 2018). This entails designing the learning environment that does not only focus on linguistic competency areas but also aims at breaking down the psychological barriers of anxiety, low motivation and poor self-beliefs.

Psycholinguistic principles should be implemented in ELT in order to achieve more practical and individually-oriented approaches to teaching. As an example, task-based language teaching (TBLT), where students mainly practice real-world communication tasks, has been found to lessen anxiety concerning language acquisition since it offers learners a chance to communicate in relatively low-stake environments in a meaningful way (Kormos, 2017). On the same note, motivation can be achieved through application of collaborative learning strategies where learners collaborate with each other in solving problems and achieving tasks resulting in a supportive learning environment. In addition, the idea of adding metacognitive strategies (self-monitoring and reflection) may benefit the students as it could make them more cognizant of their cognitive and emotional reactions to language learning, leading to the development of a better self-control and confidence (Dornyei, 2019).

The Context of Punjab, Pakistan

In Punjab, Pakistan, English is a second language that is being taught in universities and schools at a mass scale, however, due to the discussed psychological barriers, many students fail to reach the level of fluency and proficiency. Although university curricula include English language instruction as one of its fundamental components, the emotions and mental awareness that male academicians experience are not adequately addressed. Language anxiety and self-doubt are very common among students as it may negatively impact their confidence levels and hold them back (MacIntyre, 2017). Considering that the region is multilingual with learners always being multilingual with many students and citizens speaking different languages, including Urdu, Punjabi, and English among others, the issue of the influence of bilingualism on language learning is an issue of focus in psycholinguistic works.

Additionally, cultural and social-economic conditions also contribute to the process of language learning experience within the Federal State of Punjab. Lack of resources to learn the language- resources such as English speaking environments, educational materials or individually based mentoring- is mostly prevalent in the backgrounds of many students. This

may further complicate the psychological barriers that they have to learning the English language causing frustration and feeling helplessness (Peregoy & Boyle, 2017). Consequently, these barriers need to be addressed in the scope of psycholinguistics and create the teaching approach that would not only enhance linguistics proficiency but also lead to emotional resilience and cognitive interest.

This research is meant to fill the literature vacuum about the psychological variables involved in acquiring English language through the university level in the state of Punjab, Pakistan. In the investigation of the effects that psycholinguistic concepts, including working memory, language anxiety, and motivation, have on acquiring language, the study is aimed at availing knowledge that can facilitate a theory and practice in the field of English language teaching. The results of the given study can enhance the teaching strategies and can make students cope with the psychological issues they experience in order to bring their language educational process to a higher level.

Chapter 2: Literature Review

2.1 Theoretical Framework

Psycholinguistics offers a good theory basis on how cognitive and psychological influences determine acquisition of language. The study of the relationship between language use and the process of the mind known as psycholinguistics, therefore, plays a crucial role to identify how the second language is learned (SLA). A number of predominant theories have also arisen to describe the cognitive processes in the manner languages are processed and acquired such as the cognitive load theory, connectionist models, and dual-process theories.

The cognitive load theory was developed by Sweller (2011) and articulates an approach in which learning is most effectively achieved when no cognitive resources are overtaxed. Within the scope of SLA, learners are required to take care of cognitive processes involved in processing new vocabulary, grammar, and pronunciation without experiencing cognitive overload. Language teaching strategies have significant implication of such a theory especially the reduction of undue cognitive load in getting a language learner.

Connectionism represents another noteworthy theory in the field of psycholinguistics because it stresses the importance of formation of such associations between linguistic inputs and cognitive representations to learn the language (Ellis, 2017). Learning is viewed in connective models as being the effect of creating association between words, sounds, and meanings with passage of time. The model is aligned with the noticing hypothesis (Schmidt, 2019), according to which learning to notice and attend to linguistic features is the key to acquiring them.

The dual-process theory especially when it comes to learning a second language takes a two-tracking system of thinking: that is the implicit system and a fully explicit system. DeKeyser (2015) characterizes the process of unconscious learning that takes place through exposure and practice as implicit processing and conscious learning of rules and structures as explicit processing. This theory holds especially creating knowledge on the English as a second language where students in many cases have to move through the concepts of implicit (natural) and explicit (instructional) grammar.

2.2 Language and Cognitive Processes.

The processes of cognition comprise the essence of psycholinguistic theories of second language learning. All these processes such as working memory, attention, semantic processing and language production have serious implications on second language learners. It has been established that the working memory is increasingly being perceived by researchers to be a significant cognitive indicator in the process of acquisition of language (Kormos, 2017). Working memory: The working memory is defined as having the ability to temporarily retain

and operate on pieces of the information require to be used to comprehend and produce language. It is proved that students with a higher working memory are more likely to excel in the tasks which deal with vocabulary retention, sentence creation and listening to the material (Baddeley, 2015).

Besides working memory, there is attention in language learning. Schmidt (2019) argues that his noticing hypothesis holds that learners ought to place their attention on particular linguistic forms to be able to comprehend them. Attention is used like a filter to decide on which aspects of language are processed and retained in the memory. Unless the language learners do not learn with sufficient attention, they might not appreciate critical aspects like grammatical structures or vocabulary, thus they may not progress well (Kormos, 2017).

Another cognitive process that is fundamental in SLA is semantic processing which entails retrieval and activation of word meanings. Besides storing vocabulary items, the learners should also be capable of accessing them and utilizing them in meaningful ways. Dewaele (2018) underlines that semantic processing can be promoted via combining new words with the pre-existing mental construals or images of the learners, i.e., their L1 (first language) and additional possible languages that they might know. This is made more effective when you expose yourself to the language you are to learn more and the more you perfect the art of using the language in context.

Lastly, language production also depends on diverse cognitive processes such as processing of syntax, and phonological encoding in creation of sentences and talk. As presented by Levelt (2016), language production entails a number of steps, and they include conceptualization of ideas, choice of words, and formation of grammatical constructions. All these stages involve the complexity of coordination of different cognitive systems, and learners have problems with producing an accurate and fluent language because of the cognitive overload or anxiety.

2.3 Psychological Factors in Language Learning.

Motivation, self-esteem and language anxiety are psychological factors that greatly influence the second language acquisition. According to Dornyei (2019), motivation is one of the deciding factors regarding language learning success. Motivated students have more chances to communicate the language by using it and to overcome the challenges and become more advanced in the language. According to the L2 motivational self-system (Dornyei, 2019), the ideal self of a skilled second language user drives the learners. Such an ideal self-system is able to encourage the students to persevere and make efforts in language acquisition.

Nonetheless, the psychological barrier affects language learning as well, and one of the most demanding ones is language anxiety. The language anxiety is the fear and anxiety that learners exhibit in using a second language during speech or writing. Horwitz (2018) claims that language anxiety is a considerable barrier, which inhibits the involvement of learners in the language activities, particularly in speaking. Such anxiety may cause avoidance behavior e.g. resisting to engage in conversations or resistant to composing sentences which in turn influences linguistic development. According to MacIntyre and Gregersen (2016), reducing language anxiety is possible in a classroom situation by creating a helpful atmosphere that can be achieved with the help of cooperative activities, avoiding disclosure of errors.

Besides, motivation and anxiety, self-esteem is the key factor in second language learning. Students who have been found to have higher self-esteem are self-assured in their language skills and are more likely to take risks, speak during classes, and engage in the language practice (MacIntyre & Gregersen, 2016). On the contrary, learners who have low self-esteem will be burdened with negative perceptions of feeling inadequate and this may deny them full participation in language learning. Cultural and societal pressure also complicates the connection between self-esteem and language learning since it can determine how learners

perceive their skills and their chances of accomplishing good results in learning the new language (Dewaele, 2018).

The English language learners (ELLs) are specifically concerned with the motivational factors in the case where the first language is not the native English (i.e. Punjab, Pakistan). In such conditions, motivation can be done with the help of various intrinsic and extrinsic factors, including career opportunities, social mobility, and personal aspirations (Peregoy & Boyle, 2017). Yet, external motivation due to society pressure to achieve good results at English learning and the value of English in the world may decrease your intrinsic motivation and cause some stresses, which can also inhibit language acquisition (Kormos, 2017)..

2.4 Psycholinguistics in English Language Teaching (ELT).

The inclusion of psycholinguistic in the English Language Teaching (ELT) can immense the betterment of any teaching pedagogy and the achievements of the students broadly. In the recent past, it has been revealed that the methods of teaching learnt to reflect the processing of the cognitive and psychological aspects affecting learners could result in their becoming more motivated and less anxious and better at acquiring language (Peregoy & Boyle, 2017). Another example is task-based language teaching (TBLT), which emphasizes real-life and meaningful tasks that can give learners more chances to practice English within the context, leading to the achievement of implicit language learning and discouraging the issue of anxiety (Ellis, 2017). Team based learning has also been identified to help curb language anxiety and to increase motivation. Learners can practice their language skills with each other through pairs or groups and can do so in a more positive and less threatening manner. This cooperative methodology motivates the learners to be risk-takers and uses language, which will lead to cognitive and emotional development (Dornyei, 2019). Also, metacognitive strategies, including self-reflection and self-regulation, were reported to enhance the results of language acquisition by supporting the learners to better control their cognitive assets (Gass & Selinker, 2019).

Also, the repetition of tasks and reinforcement of inputs have been found to be prominent in the reinforcement of learning. Schmidt (2019) drives home the point that repetition turns out to be helpful with linguistic input, particularly when the conditions around the input are meaningful and interactive, leading to further consolidation of knowledge into the learners and making the language learning process more automatic. This is in tandem with the connectionist model which proposes that language is a progressive process of establishing association by repeated exposure and training.

2.5 The Context of Punjab, Pakistan.

There are issues of cultural, societal, and educational dimensions that make it more difficult to learn English in the particular society of Pakistan, Punjab. English is a well-known subject that is taught in schools and universities all over the region; nevertheless, learners tend to experience difficulties with languages on the psychological level: they can feel anxious about it and lack motivation (MacIntyre, 2017). Also, the English language in Pakistan is mostly restricted to educational and workplaces, and as such, a significant number of learners do not use the language in their daily surroundings. Consequently, the English language learners tend to have problems in speaking and writing that might lead to frustration and disengagement.

In addition, the education sector in Punjab also suffers multiple problems such as the shortage of resources, aged teaching style and huge proportions of classes. All these reasons make students have difficulty learning languages, particularly in cases where they do not overcome psychological limits (Peregoy & Boyle, 2017). This shows the relevance of considering the psycholinguistic principles in teaching and learning English language not just because of the need to consider the cognitive aspect of learning languages, but also because of the need to give learners the emotional and psychological push that would enable them to excel.

2.6 Summary of Literature Review.

It appears that psycholinguistics variables, such as the working memory, attention, language anxiety, motivation have significant role in second language acquisition (the literature). Cognitive theories like cognitive load theory and connectionism have offered useful frameworks that make up the mental processes when it comes to language learning and psychologically factoring like anxiety and motivation have played a great role in terms of students engaging in language learning and succeeding in language learning. Moreover, incorporation of the concepts of psycholinguistics in English Language Teaching (ELT) may result in better instructional practices that respond to both cognitive and emotive risks to language learning. Lastly, the situation in Punjab, Pakistan, demonstrates the peculiarities of a request to learn English language and the necessity to develop the educational process involving both cognitive and psychological approaches to language acquisition.

Chapter 3: Research Design

3.1 Introduction

This chapter outlines the methodological framework employed to investigate the psychological impact of language on university students' English learning, particularly through the lens of psycholinguistics. The study adopts a mixed-methods approach to capture both the measurable cognitive factors and the subjective psychological experiences that influence second language acquisition. The research design ensures reliability, validity, and comprehensive insight into the research questions presented in Chapter 1.

3.2 Research Approach

Given the complex interplay of cognitive and emotional factors in language learning, a **mixed-methods approach** is adopted. The **quantitative phase** aims to examine the relationships between cognitive variables (e.g., working memory) and language performance using statistical methods, while the **qualitative phase** delves into the lived psychological experiences of learners, using thematic interpretation to reveal underlying patterns.

3.3 Research Design

The study uses a **descriptive, correlational, and exploratory** design. The **descriptive** aspect captures the characteristics of the sample population; the **correlational** component investigates relationships between variables such as language anxiety and performance; and the **exploratory** dimension allows for open-ended inquiry into learners' psychological barriers and cognitive challenges.

3.4 Research Questions

As outlined in Chapter 1, the study explores both quantitative and qualitative research questions:

- **Quantitative Questions:**
 - Is there a significant relationship between working memory capacity and English vocabulary acquisition among university students in Punjab?
 - How does language anxiety correlate with students' performance in English language tasks?
- **Qualitative Questions:**
 - What are the psychological barriers (e.g., anxiety, self-esteem issues) that affect university students' learning of English in Punjab?
 - How do students perceive the impact of cognitive factors (e.g., memory, attention) on their ability to learn English?

3.5 Population and Sampling

The population consists of **university students in Punjab, Pakistan**, enrolled in English language learning programs. A **stratified random sampling** technique is used for the quantitative phase to ensure representativeness across institutions and demographics. For the

qualitative phase, **purposive sampling** is used to select participants based on criteria such as English proficiency level and willingness to articulate personal experiences.

- **Quantitative sample size:** Approximately **100–150** students.
- **Qualitative sample size:** Around **15–20** students for interviews and focus groups.

3.6 Data Collection Methods

- **Quantitative Methods:** Standardized **questionnaires**, **surveys**, and **cognitive tasks** (e.g., digit span or vocabulary recall tests) are administered to measure working memory, language anxiety, and English performance.
- **Qualitative Methods:** **Semi-structured interviews** and **focus group discussions** are conducted to explore psychological and emotional dimensions of language learning. Questions are open-ended, allowing participants to reflect on motivation, anxiety, self-esteem, and cognitive experiences.

3.7 Data Analysis

- **Quantitative Analysis:** Data will be analyzed using **descriptive statistics** (mean, standard deviation) and **inferential statistics**, such as **correlation analysis** and **regression models**, to examine the strength and direction of relationships between cognitive and psychological variables.
- **Qualitative Analysis:** Responses from interviews and focus groups will be examined using **thematic analysis**. Transcripts will be coded to identify patterns and themes related to psychological barriers, motivation, and cognitive engagement.

3.8 Ethical Considerations

Ethical standards are upheld throughout the research process:

- Participants are provided with **informed consent forms** detailing the study's purpose, voluntary nature, and confidentiality assurances.
- **Anonymity** is maintained in all data reporting.
- Participants can **withdraw** at any stage without consequence.
- The research design has been reviewed for **ethical compliance** by relevant institutional review boards (IRBs) or ethics committees.

3.9 Limitations

- The use of **self-report measures** may introduce **social desirability bias**.
- The **sample may not generalize** beyond university-level learners in Punjab.
- **Language proficiency** variations may influence participants' ability to express their experiences in interviews.

3.10 Conclusion

This chapter has outlined the comprehensive research design underpinning the study. By integrating quantitative and qualitative methods, the study seeks to offer a holistic understanding of the psychological and cognitive factors shaping English language learning in Punjab, Pakistan. The following chapter presents the data analysis and findings drawn from this methodological framework.

Chapter 4: Data Analysis and Results

4.1 Introduction

In this chapter, the authors include the findings of the two elements of the study: quantitative and qualitative. The data were analyzed to address the contribution of cognitive and psychological predictors in the learning process of the English language which are; working memory, language anxiety and motivation, in a group of university students in Punjab, Pakistan. Mixed-method was used that involved both statistical measurements along with thematic analysis. The findings are presented in four categories; descriptive statistics, inferential statistics, analysis of qualitative data and conclusion with the weightier findings.

4.2 Quantitative Data Analysis.

4.2.1 Descriptive Statistics.

The quantitative sample comprised 120 university students. Summary statistics were calculated for key variables such as age, working memory, language anxiety, and English proficiency.

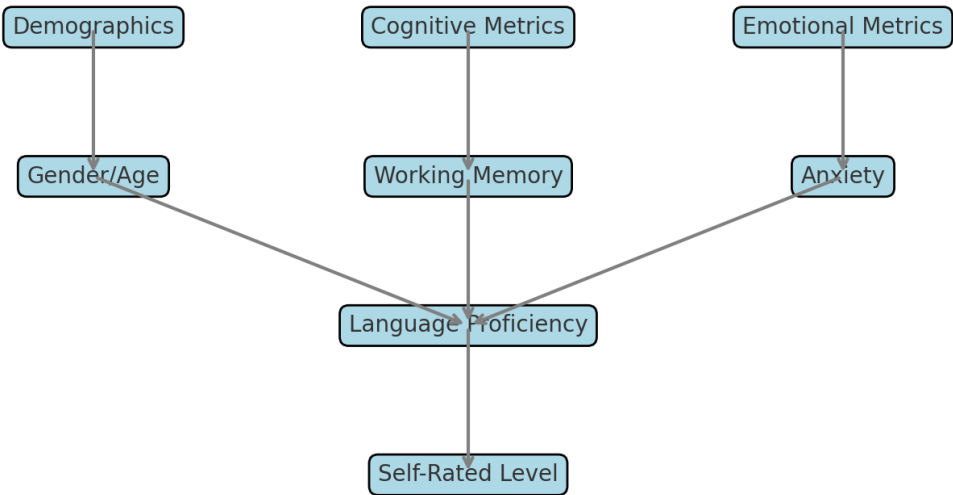
Table 4.1: Descriptive Statistics Summary

Variable			Mean	SD	Range
Age (years)			21.4	1.8	18–25
Working Memory Score (0–10)			6.8	1.2	4–9
Language Anxiety Score (1–5)			3.9	0.7	2.5–5.0
English Proficiency (Self-rated)	Intermediate (B1/B2)	N/A	A2–C1		

Figure 4.1

4.2.2 Inferential Statistics

To assess the relationships between variables, Pearson’s correlation coefficients were



calculated.

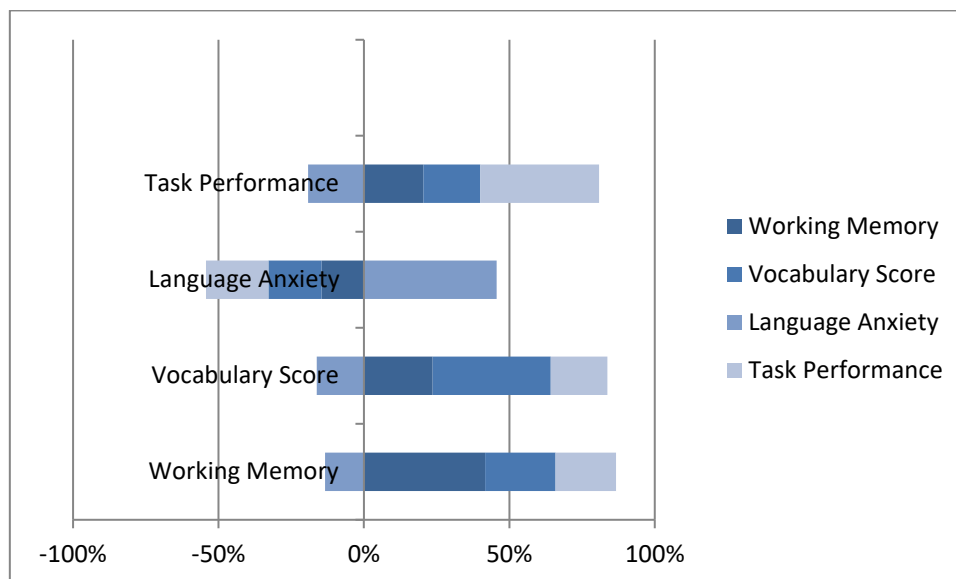
Table 4.2: Correlation Coefficients Between Key Variables

Variables	Correlation Coefficient (r)	Interpretation
Working Memory vs. Vocabulary Score	0.58	Moderate to strong positive
Language Anxiety vs. Task Performance	-0.47	Moderate negative

These results suggest that:

- Students with higher working memory capacities tend to score better in vocabulary tasks.
- Students with higher anxiety tend to perform worse in English speaking or writing tasks.

Figure 4.2: Correlation Matrix Heatmap



4.3 Qualitative Data Analysis

4.3.1 Introduction to Thematic Analysis

Qualitative data from 18 participants were analyzed using thematic analysis. The data were gathered through semi-structured interviews and focus group discussions to explore students' psychological experiences in learning English.

4.3.2 Emergent Themes

Table 4.3: Major Themes and Descriptions

Theme	Description	Frequency
Language Anxiety and Classroom Silence	Fear of making mistakes or being judged leads to silence and low participation.	High
Motivation and Goal-Driven Learning	Students with career or academic goals show greater persistence and resilience.	Moderate
Cognitive Overload and Memory Strain	Students experience difficulty retaining vocabulary and sentence structure under pressure.	Moderate
Low Self-Esteem and Peer Comparison	Negative self-perception discourages participation and creates a cycle of disengagement.	High

4.3.3 Sample Participant Quotes

- "I feel very nervous when I have to speak in English. I keep thinking I will make a mistake and everyone will laugh." – Participant 3
- "When I think about getting a good job, I push myself to learn English even when it is difficult." – Participant 12
- "It's hard to remember all the new words. I study today, but tomorrow I forget." – Participant 7
- "I feel others are better than me. So I just stay quiet even if I know the answer." – Participant 15

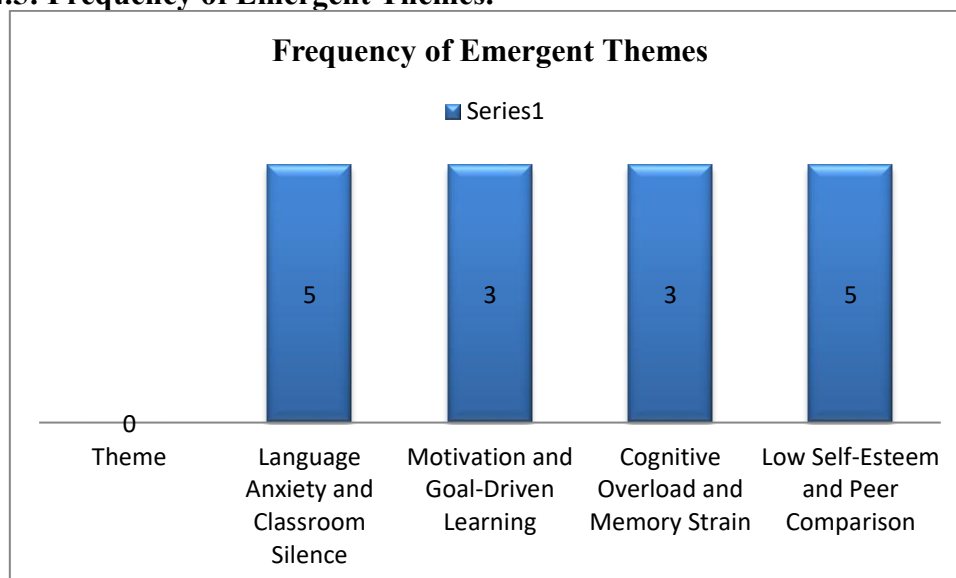
4.3.4 Thematic Relationships

The qualitative findings reinforce the statistical evidence, showing that:

- **Language anxiety** and **low self-esteem** are often linked and can lead to poor language performance.
- **Motivation** acts as a protective factor that encourages resilience in language learning.

- **Cognitive overload** is a commonly experienced phenomenon, aligning with the working memory performance trends found in the quantitative data.

Figure 4.5: Frequency of Emergent Themes.



4.4 Summary of Findings

The integration of quantitative and qualitative data reveals that both **cognitive factors** (e.g., working memory) and **psychological factors** (e.g., anxiety, self-esteem, motivation) play pivotal roles in second language acquisition. Quantitative results demonstrated significant correlations between cognitive capacity and language performance, as well as between emotional factors and achievement outcomes. These findings were mirrored in the qualitative data, where participants described how emotional barriers and mental strain affected their confidence and language use. Motivation emerged as a powerful enabler, pushing learners to persist in spite of obstacles. Overall, the findings confirm the central argument of this research: **psycholinguistic factors significantly influence English language learning and should be integrated into teaching strategies.**

Chapter 5: Discussion

5.1 Interpretation of Results

The results of this study underscore the profound influence that psycholinguistic factors exert on second language acquisition, particularly among university students in Punjab, Pakistan. Quantitative findings revealed a statistically significant **positive correlation** between working memory and vocabulary acquisition, suggesting that cognitive processing capacity plays a central role in students' ability to absorb and retain linguistic input. Similarly, a **moderate negative correlation** was found between language anxiety and English task performance, indicating that emotional interference may impede fluency and cognitive efficiency.

These statistical trends were mirrored and enriched by qualitative insights. Participants frequently described feeling **fearful and inhibited** during speaking tasks, corroborating the anxiety-performance link. Additionally, several learners noted challenges with memory and recall, especially under pressure, reinforcing the argument that **cognitive overload** acts as a barrier to linguistic proficiency. But it is goal-oriented and intrinsically motivated students, who showed an increased level of involvement and perseverance; this fact confirms the conclusions of Dorny (2019) and MacIn (2016), according to which motivation is protective in the study of the language.

5.2 Psychological Factors in English Language Learning.

As it comes to all factors related to psycholinguistics, language anxiety and self-esteem were found as the most negative factors influencing the learning process of students. It was observed that anxiety was dramatically associated with avoidance behavior consequently reducing chances of practicing and in the end being unable to improve. Self esteem was both a result and a cause as it was found that low confidence students avoided talking, which further impacted their functioning negatively and further validated their inferiority feelings. These results are consistent with the prior studies (Horwitz, 2018; Dewaele, 2018) and prove that the optimal second language development requires a positive and psychologically supportive learning environment.

Motivation on the other hand seemed to counteract anxiety and memory strain effects. A case that elicited superior results was the learners who tied English proficiency to later life career prospects or academic achievement, keeping in mind their resilience and showing strategic learning behavior. This echoes Dörnyei's "L2 motivational self system," which suggests that the vision of oneself as a successful language user drives sustained engagement in language tasks.

5.3 Implications for English Language Teaching.

The findings have strong implications for how English should be taught in multilingual and psychologically complex contexts like Punjab. Current English Language Teaching (ELT) programs often focus on grammatical competence without acknowledging the **cognitive and emotional landscape** of learners. Based on the results of this study, teachers should integrate **psycholinguistic-informed strategies** such as:

- Reducing cognitive load through scaffolding and chunking of input (aligned with Cognitive Load Theory)
- Implementing **task-based learning** to lower anxiety and simulate real-world language use
- Encouraging **peer collaboration** and team-based learning to build confidence and community
- Fostering **metacognitive awareness** to help students manage their learning, emotions, and memory.

Moreover, teacher training programs should include modules on **recognizing and addressing psychological barriers**, equipping educators with tools to create supportive, low-anxiety classrooms.

5.4 Limitations of the Study.

Despite its contributions, this study is not without limitations. The sample was restricted to university students in Punjab and may not generalize to other educational levels or regions. The reliance on **self-reported measures** for language anxiety and proficiency introduces the possibility of **response bias**. Additionally, the qualitative component was limited by time and participant availability, which may have constrained the richness of thematic insights.

5.5 Recommendations for Future Research.

Future studies should consider expanding the scope to include secondary school students, adult learners, and learners in different sociolinguistic contexts. Longitudinal studies would be valuable to explore **how psycholinguistic factors evolve over time** and influence sustained language learning. Researchers might also explore **interventions** designed to reduce language anxiety or enhance working memory and assess their impact on language acquisition outcomes. Finally, more culturally grounded psycholinguistic frameworks should be developed to address the specific emotional and cognitive landscapes of learners in **multilingual, postcolonial societies** like Pakistan.

Chapter 6: Conclusion

6.1 Summary of the Study.

This research focuses on the study of the psychological and cognitive variables that determine the English language acquisition among the university students in the Punjab Region of Pakistan with emphasis on the application of psycholinguistic study. The study was of mixed methods such that it embraces both qualitative and quantitative findings as based on interviews and focus groups as well as surveys, and cognitive tests. The results indicated that there were crucial correlations between cognitive skills, e.g. working memory, and language performance of the students. Also, emotional aspects such as self-esteem, language anxiety, and motivation became the relevant determinants of the interest and mastery of English by the students. The described outcomes offer a complex picture of second language acquisition integrating intellectual processing systems together with an emotional one.

6.2 Contributions to Knowledge.

This study is significant in a number of ways, with regard to contributions it can make to the areas of psycholinguistics and teaching of the language of English (ELT):

- It differentiates the fact that the working memory capacity has a significant role to play when it comes to vocabulary retention and performance in language in the real classroom context confirming the cognitive load theory.
- It sets a definite negative relationship between the language anxiety and the performance, reinforcing earlier psycholinguistic studies with the provision of contextual data on a multilingual region.
- As noted in the study, motivation and self-concept play a role in maintaining the efforts of learners against cognitive and emotional challenges and such aspects add to the overall debate of the L2 motivational self-system.
- Above all, it is a contextualized lens within a third world multilingual context- Punjab, Pakistan it adds cultural nuance to the understanding of how one learns the second language around the world.

6.3 Final Thoughts.

Results of this research confirm once again that, language learning is a process not only linguistic in nature, but also emotional and cognitive. Effective acquisition of a second language is not all about teaching grammar and vocabulary, it has to incorporate the psychological condition of a learner, processing capability, and motivation systems. As such, explaining the general need to incorporate the ideas of psycholinguistics in the teaching and training of language teachers, curriculum developers and policy makers in language instruction is very important.

Furthermore, because English learning is a complex psychological process and shares the same characteristic in geographical context such as in Pakistan, where English is not only an academic subject, but is also a source of social mobility, educators will have to be prepared to identify and solve the invisible cognitive and emotional obstacles that learners have to grapple with. Important steps toward equitable and effective language teaching are the development of a supporting and low-anxiety learning climate, the encouragement of strategy use in learning, and the recognition of personal differences between learners.

Overall, when insights of psycholinguistics are incorporated, English language learning may become more responsive, more inclusive and finally, effective because the mental and emotional realities of language learners are respected and because silence and inaction are not coded as the sole tolerable option.

Future Research.

Future investigations ought to be more diversified and having a wider scope to derive the complexity of psycholinguistics aspects in the acquisition of second language as a basis on the current findings of the topic. Learners in two distinct educational stages could be incorporated

in the studies (secondary schools/adult education) to be compared in developmental processes as well as contextual differences. Longitudinal designs would be useful in following the development of cognitive abilities (e.g. working memory) and psychological conditions (e.g. anxiety, self-esteem and motivation) over time and on sustained English proficiency. Targeted anxiety-reduction programmes, memory-enhancement activities, culturally tailored motivational interventions, or type of intervention could be introduced and thoroughly tested to determine the effect they have on language performance. I would also recommend the analysis of multicultural comparative research between multilingual environments such as Punjab and other postcolonial territories to formulate culturally premised psycholinguistic orders. This type of research would not only confirm the existing results but lead to a more context-sensitive, rather equitable, and psychologically informed English Language Teaching procedures.

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