Transfer of English Spatial Prepositions among Pakistani ESL Learners: An Error Analysis

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ARTICLE INFO	ABSTRACT
Keywords: Spatial Prepositions, Errors, Overgeneralization. **Corresponding Author: Raza-E- Mustafa,** Assistant Professor, Department of English, University of Gujrat **Email:** razaemustafa@uog.edu.pk	This study investigates the use of spatial prepositions (in, on, at, under) among Pakistani learners by using Corder's (1974) error analysis theory. Prepositions play an important role in establishing spatial connections, but second language learners face difficulties in using these prepositions. Data for this research were collected from fifty students through a translation task. The mixed method approach was used to analyze the data because it offers a deeper understanding of the phenomenon. In quantitative section, data were classified into different types of errors such as misinformation, omission, addition, and misordering errors. Their frequency was presented in tables and percentages of incorrect spatial prepositions were shown through bar graph. The qualitative section explained the reasons behind these errors. The findings highlight that misinformation error was the most frequent error type, and Negative transfer of L1 is considered the major reason, as the learner repeat Urdu word order into English. Further reasons include, overgeneralization, misconception of spatial relation and lack of collocational knowledge.

1. Introduction

Language is considered one of the most powerful tools for communication it helps us to express their thoughts and ideas. Through language we can transmit information from one person to another. Today, English language is considered prestigious and is used as an international language. It spread rapidly across all over the world and different dialects and varieties emerge. In this context, Kachru (1992) proposed a concentric model in which English is categorized into three circles i.e., inner circle, outer circle, and expanding circle. Pakistani English is included in outer circle where English is used as a second language and also used in official context. People who can

speak and write English are considered intelligent and people who could not speak or write English are seen as less intelligent and weak. When English is linked to prestige then each individual tries to communicate in English without knowing proper grammar rules. As a result, errors appear due to the misuse of grammar rules. Grammar is classified into two types: primary and secondary classification. Primary classification includes parts of speech and secondary classification include tense and gender. Lindstromberg (1998), divided prepositions into further eight types (time, place, direction, agent, manner, instrument, source and possession). Spatial prepositions are used to indicate direction and location. The misuse of spatial prepositions can cause misunderstanding and confusing communication. For example, the misuse of in and on can change the meaning of entire sentence, "The book is on the table" and "The book is in the table" both sentences carry distinct ideas. In Pakistan, learners still struggle with use of these prepositions, because they transfer Urdu postpositional structure into English. Their first language influence strongly when they use prepositions. But the present study focuses on frequency of spatial prepositions (in, on, at, under), classification of errors and also explores which factors cause the misuse of spatial prepositions among Pakistani learners. This study also identify which spatial preposition is frequently misuse by ESL Learners.

Objectives
The objectives of the study are:
1. to find out spatial prepositional errors committed by Pakistani ESL learners
2. to find out the frequencies of different prepositional errors.

Research Questions
1. What different types of prepositional errors appear in Pakistani learners' writings?
2. What is the frequency of different types of spatial preposition errors?

2. Literature Review
Multiple studies have analyzed the grammatical errors in the use of English among Urdu speaking students. Amin, Arshad and Mustafa (2025) found that most of the errors in article use are fossilized. Similarly, Maqbool, Ghani and Khan (2018) also conducted an error analysis of the use of article by Urdu speaking students. Ishaq (2016) analyzed the errors in English committed by Kashmiri speakers. Khurshid and Hassan (2015) analyzed the prepositional errors among Pakistani learners; whereas, Saeed, Hussain and Fatima (2015) conducted a general survey of errors among Pakistani learners. The present study analyzes the errors of spatial prepositions in particular.

2.1. Prepositions in English
Celce-Murcia and Larsen-Freeman (1999), show that spatial preposition (in, on, at, under) are necessary for expressing relation between objects. This study explores how misuse of prepositions produces different types of errors and highlights the factors that affect the misuse of spatial prepositions. It also identifies which preposition is used frequently by using statistical tools.

2.2. Theoretical foundation of error analysis
Error is a systematic deviation because of learners' limited knowledge (Corder, 1974). Richard (1971) classified the origin of errors in three main types; interference errors, intralingual errors and developmental errors. According to Ellis (1994), there is a systematic process to study language errors. Firstly, collecting learners' language samples, examining and categorizing errors and then explaining their causes. He also said that errors could appear because of the differences between the first and second language, the second language itself or from other pedagogical factors.

2.3. Prepositional errors in ESL

There are different factors that can affect learners' use of prepositions. These factors include linguistic factors, overgeneralization and intralingual influence. Iqbal, Ullah and Ahmad (2019) examined the misuse of temporal prepositions among intermediate and advanced learners in Pakistan. They explored both the frequency and sources of prepositional errors. Their study concluded temporal prepositions (since, ago, between, over, throughout) were misused by learners due to the L1 interference and overgeneralization. Khurshid and Hassan (2015) identified interlingual correlation, superimposition of personal time scale and transfer as the three major causes of prepositional misuse. Their findings revealed that the L1 interference play a significant role in prepositional errors and suggested that teachers should avoid L1 translation and focused on collocation practice and oral drills. This study is very important for present research because it illustrates how L1 interference directly influenced the accurate use of prepositions.

Saeed, Hussain and Fatima (2015) identified how Pakistani learners made errors through the misuse of English prepositions. Their results showed that female learners produced a higher frequency of errors than male learners did. The research concluded that Pakistani learners struggled with the use of prepositions despite long-term exposure to English as a compulsory subject at all educational levels. Saher and Saleem (2019) analyzed how undergraduate ESL Learners made prepositional errors. They revealed that the frequency of prepositional errors committed by female learners was higher than the male learners. Qasim (2021) examined how college level learners committed errors in descriptive writing. His study revealed that "in" was the most frequently misused preposition. Errors were categorized into misinformation, addition, omission and misordering and supported the argument that L1 interference affected English prepositional usage.

All the above studies show that L1 interference, task type and overgeneralization are a major factor that affects prepositional usage. These studies investigated general misuse of all prepositions but did not analyze the misuse of spatial prepositions separately. The present study, therefore, specifically studies the influence of L1 interference in the employment of spatial prepositions (in, on, at and under).

3. Methodology

3.1. Research Design

This study used both quantitative and qualitative research design to analyze the misuse of spatial prepositions (in, on, at, under) and frequency of different kinds of errors among Pakistani intermediate learners. According to Creswell (2014), mixed method involves the collection of both qualitative (open-ended) and quantitative (closed-ended) data in response to research questions or hypotheses .This mixed method approach helps us to explore the types of errors, hidden reasons, and patterns of misuse, and also focuses on numerical frequencies. The error analysis theory of Corder (1974) was used to identify the errors. It also helped in classification and interpretation of language errors. This theory is very suitable because it identifies, classifies, and explains errors in a systematic way.

3.2. Participants

The participants consisted of fifty students of 9th grade from one of the Fauji Foundation schools in district Jhelum. They were selected through purposive sampling. Participants includes both male and female students, aged between 14 and 16 years. Participants received the tests and were given thirty minutes to complete their test without any help. These tests were collected for both quantitative and qualitative analysis.

3.3. Data Collection Instruments

Translation task was used to collected data. Participants translated Urdu sentences into English using spatial prepositions (in, on, at, under). This instrument was used to gain a deeper insight into students' prepositional misuse.
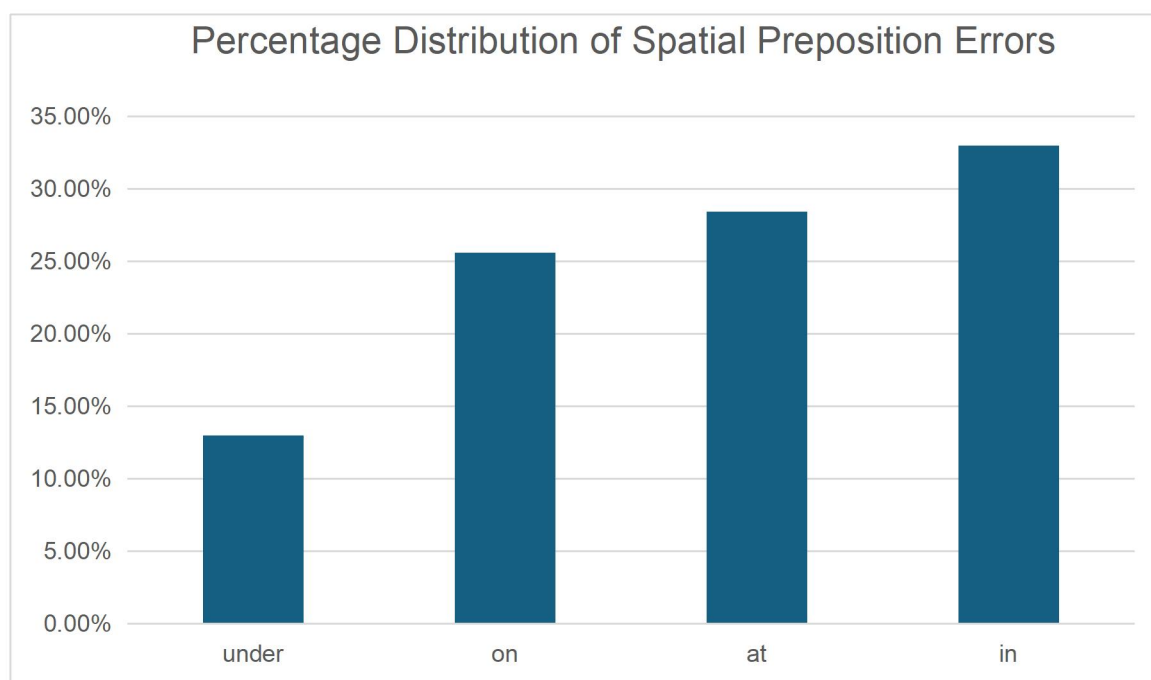
4. Data Analysis and Discussion

The data were analyzed using Corder's (1974) theory of error analysis. The study used both qualitative and quantitative research approach. Firstly, used quantitative approach to identified the frequency and percentage of spatial prepositions. Then results were shown through tables and graphs. Finally, qualitative analysis explained different types of errors and reasons behind these errors by using thematic analysis.

In this section, quantitative analysis was used to count the frequency of errors and then qualitative interpretations explained the misuse of spatial prepositions (in, on, at, under), and determined the reasons behind those errors.

In the table 1, errors are categorized into different types and show the frequency and percentage of each preposition (in, on, at, under). This table shows participants misuse spatial prepositions, 'in' 32.98%, 'on' 25.61%, 'at' 28.42%, and 'under' 12.98% times.

Table 1: Frequency of errors

Items	MF	AD	OM	MO	Frequency	Percentage
IN	35	25	29	05	94	32.98%
ON	31	15	27		73	25.61%
AT	32	21	28		81	28.42%
UNDER	18	13	6		37	12.98%
TOTAL					285	

Percentage Distribution of Spatial Preposition Errors

 This visual representation shows that the preposition 'in' has the highest percentage because there is no distinction between in and on in Urdu.

The quantitative analysis helps us to identify the percentage and frequency of errors but qualitative analysis explains different types of errors and reasons behind these errors by using the theory of error analysis.

4.1. Classification of errors

Corder (2000) categorized errors based on their linguistics form. His theory of error analysis helped us to identify errors and their sources. He classified errors into four types: omission, misinformation, addition and misordering. Misinformation error occurs when learners choose incorrect preposition such as, "He is sitting in the sofa", instead of using 'on'. Another learner translates as "The book is under the table" instead of using 'on'. Learners use incorrect prepositions because there is no distinction between 'in' and 'on' preposition in Urdu. This type of error has a high frequency. Omission errors happens when learners leave out the required preposition. During translation, they omit necessary preposition. For example, "She is waiting the bus stop", "The cat is sleeping the box." Addition errors occur when a learner adds an extra preposition where no preposition is required. During translation, participants add extra and unnecessary prepositions. For example, "The cat is sleeping in inside the box", "He is standing under of the tree." Misordering errors happen due to the incorrect placement of a preposition. Misordering errors have a low frequency because it's use rarely. When learners translated sentences into English they changed the correct place of prepositions. For examples, "He is the room in. Instead of translating, "He is in the room".

The division of errors helped us in understanding the patterns of learner's difficulties before explaining the reasons behind these errors. Qualitative analysis explains how and why learners misuse spatial prepositions in their translation task. It interprets the causes behind different types of errors by using thematic analysis.

4.2. Negative transfer of L1 (Urdu)

Participants are unable to differentiate between 'in' and 'on' prepositions during translation from Urdu to English. Because they direct transfer Urdu postpositions into English. Many participants translate sentence which show the influence of L1. For example, "The book is in the table" instead of "The book is on the table". These errors show that native language influence strongly and is considered the main reason behind the misuse of spatial prepositions.

4.3. Misunderstanding of spatial relations

Many learners are unaware of the spatial relationship because of a cognitive gap. They misuse prepositions because of misconception. For example, "put the plate in the shelf", "He is sitting in the wall" instead of using on the shelf and on the wall. Learners think "wall" and "shelf" as a container rather than a surface.

4.4. Unawareness of collocational knowledge

Due to the unawareness of common English collocations, learners use incorrect prepositions. In translation task, participants just rely on general rules about prepositions when translating Urdu sentences into English. For example, participants translate Urdu sentence as, "She is on the door" instead of "She is at the door".

4.5. Overgeneralization of rules

Participants' incorrect use of prepositions happens when they apply on preposition rule too broadly. "She is playing in the garden. (correct) Vs "He is in the bus" (incorrect). This sentence indicates that learners have incomplete knowledge about rules and common collocations. This pattern matches with quantitative results showing misinformation errors as the most frequent category of errors.

4.6. Teacher implications

The results of this study have serious implications for English teachers. Firstly, teachers should observe learner's difficulties with spatial prepositions, and help them accordingly because these errors are systematic, not random. Secondly, when teachers notice an error in a student's task, they should explain the causes of those errors. It

can help students to avoid the misuse of spatial prepositions. Thirdly, teachers should focus on contextual learning, giving examples from daily life instead of memorizing rules and patterns. Teacher should clearly explain the difference between Urdu postpositional and English prepositional structure. Teachers play an important role in helping students to tackle prepositional challenges

5. Conclusion

This study examined Pakistani learners' incorrect use of spatial prepositions (in, on, at, under) through quantitative and qualitative analysis. Quantitative results show that 'in' is a problematic preposition because its frequency is higher than other prepositions. It also helped us to identify that misinformation was the most frequent error type used by Pakistani learners. Through qualitative analysis, it was found that the errors are systematic, not random, and the reasons behind those errors were also discussed. It includes L1 direct transfer, misunderstanding of spatial relation and a lack of knowledge about common prepositional collocations. It also explained that learners writing reflected an overgeneralization of L1 rules. Both quantitative and qualitative results show that acquiring spatial preposition is a significant challenge for Pakistani learners.

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