



ANALYZING THE INFLUENCE OF L1 URDU SYNTAX ON ESL ACADEMIC WRITING ERRORS

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Abstract

The current research investigates how the mother tongue, Urdu, has affected the writing of the students as a Second Language (English) among a group of undergraduate students in the universities of Punjab, Pakistan. A bigger sample of essays gathered at 12 universities were formed, and a purposive subsample of 155 under graduate subjects who had declared Urdu as their mother tongue were separated. 16 error categories were formed, these categories were taken from International Corpus of Learner English (ICLE). Error analysis of all essays were done from the Chat GPT using the model of o3 mini high. Main aim was to use it as a preliminary annotation instrument to find any possible sites of error present in the essays. A comprehensive analysis was conducted to see, the identified errors were due to Urdu mother tongue or not. The findings indicate that constructions of nouns and nominals (omission of articles, unidiomatic postpositions phrases) and formal mistakes (spelling rules, absence of vowels) have the greatest error rate, and the number two is taken by errors in verb agreement and tense-aspect changes. There is also widespread cross-linguistic influence in the discourselevel features, namely, the excessive use of causal connectors that reflect the Urdu ki wajah se (due to) and repetitive chains of conjunctions. These results confirm contrastive analysis projections and show that fossilization can be early in low-input ESL environments. The research suggests introducing brief focused contrastive lessons in the courses on academic writing. This would assist in averting fossilization and enhancing accuracy of undergraduate pupils who speak Urdu.

Keywords: *Error Analysis, Urdu mother tongue, ESL Writing, Pakistani students, Essay writing, interference*

1. Introduction

1.1 Second Language Acquisition (SLA)

Second Language Acquisition (SLA) examines how a language is learned other than that of an individual's native tongue, with special regard to the cognitive, social, and educational aspects of the process. Findings from SLA indicate that L2 and L1 are processed in the same areas of the brain and may vary in their intensity of activation depending on the age of learner and their proficiency, thus supporting the Critical Period



Hypothesis where it states that learners are better language acquirers than older ones (Indefrey and Davidson, 2008; Chun and Frodesen, 2013). Due to fossilized structures of Urdu, adult learners usually retain debilitating habits regarding English syntax.

The Interaction Hypothesis, therefore, explains about the importance of social interaction in language learning whereby lack of sufficient exposure to authentic English environments further exacerbates such syntactic development in the ESL context (Chun and Frodesen, 2013).

Thus, in an instructional sense, SLA theory has informed modern language teaching approaches, especially at the tertiary level where academic writing is exigent. Interdisciplinary strategies are fast becoming the order of the day among instructors, cutting across linguistics, psychology, and sociolinguistics, to address the multidimensional needs of ESL learners (Wu, 2022). However, only little exploration has shed light upon the Urdu syntax effect on English writing in Pakistan. The present study, therefore, aims to investigate syntactic errors manifested in ESL academic writing by Urdu-speaking students to elicit patterns of L1 interference. The ultimate goal is to use this background information in devising pedagogical strategies that will tackle these syntactic issues and improve students' writing skills and academic performance.

1.2 Importance of ESL Writing in Pakistan

Many learners encounter difficulty transitioning from the structures of their L1 to the rules of English, resulting in a considerable effect of L1 Urdu syntax on ESL academic writing in Pakistan. This linguistic interference has led to persistent syntactic errors that hinder written clarity and academic performance. Among the most important issues are the misuse of articles and prepositions, caused by the absence of or different usages in Urdu (Masood et al., 2020). Subject-verb agreement does emerge as a troublesome area due to the fact that syntactic alignment in Urdu does not correspond to that of English, making it difficult to maintain consistency in terms of number and tense agreement (Masood et al., 2020). On other occasions, students create incorrect verb phrases and run-on sentences due to the direct translation from Urdu, resulting in English writing filled with many short or overly lengthy clauses (Sultan, 2014).

Syntactical errors originate from both interlingual and intralingual factors. Interlingual errors arise from the direct interference of L1 structures on L2, while intralingual errors are due to the limited knowledge of L2 rules by the learner so that he overgeneralizes from wrong patterns (Marita & Jufrizal, 2021). Other factors that help to maintain the errors include insufficient exposure to English, inadequate writing instruction, and rote learning approaches (Sultan, 2014). Despite these exceptions, some researchers tend to have a more balanced view and argue that L1 Urdu could be harnessed as a resource for instruction. In particular, if strategically introduced, knowledge of L1 could facilitate learners' comprehension of complex English grammatical structures and thereby enhance their ESL writing by building primarily upon familiar linguistic frameworks rather than a one-sided focus on the eradication of errors.

1.3 Error Analysis in ESL Writing

Error analysis (EA) in second language learning and teaching has been a crucial tool for studying the difficulties of the student. Teachers are able to use the errors that appear in



learners' papers in order to shed light on the study of that particular process. This approach usually identifies four types of errors: omission, addition, misformation and misordering (Anjum & Ahmed, 2023; Seddik, 2023). More examples might be simply ill-made spelling, inappropriate tense usage or a problem with the sentence itself and the vocabulary it uses (Ghyas & Sakhawat, 2024; Sarkar & Dave, 2021). These apparent mistakes are likely the result of either interlingual transfer, which is when patterns from the native language invade the second language or traits of the target language being complex in nature (Seddik, 2023).

When it comes to error analysis, the ramifications concerning role of a pedagogical would be particularly strong. There are constructive theories behind this. It prepares teachers to intervene and provide instruction and feedback by explaining and correcting the causes of errors, most consistently found/most frequent errors (Parameswari et al., 2024). There are a number of reasons why mistakes do not go uncorrected one of the reasons for them being the lack of productive angled pedagogical or learner engagement, that results, for instance, to immature writing (Seddik, 2023). Furthermore, it has been observed that improvement of writing accuracy among learners who are often very embarrassed in writing, as a result of learning grammar and vocabulary has been taught by these learners positively (Parameswari et al., 2024). While error analysis is aimed at removing mistakes made by the learners, it is a reality that one also has to be cognizant of the fact that some errors might be because the learner is pushing themselves to learn the language and as a result should be considered necessary or inevitable in the learning process of the language.

1.4 Interference from the Urdu Mother Tongue

English learners from Pakistan can have a profound interference arising from their Pakistani native Urdu linguistic context. This interference comes from first research on learning a new language in the presence of proficient individuals and then the need for self-study.

Broadly speaking, the pronunciation of English as a second language can be influenced by a variety of factors other than syntax and one of these factors is phonological interference. Of particular concern to Urdu speakers is the pitfall of mispronouncing certain sounds that do not exist in their native language or are pronounced differently, for example the English interdental sound /θ/ (th as in 'think'), and the distinction between /w/ and /v/ phonemes (Ikram et al., 2024). Such problems tend to be grave with Urdu speakers as opposed to other learners especially those who are Punjabi. This isothagnal impediment emphasizes the difficulty of learning English particularly on prosodic aspects such as intonation and stress patterns that contribute to natural speech and effective communication. This type of interference has the potential to cause confusion and restrict understanding of spoken English (Nwokedi 2023).

1.5 Research Questions

In this current research, the targeted questions are two-fold:

RQ1: What are the categories of grammar that face maximum error rates when it comes to the academic essays of the Urdu speaking undergraduate university students?

RQ2: To what extent are these errors associated with direct structural, lexical and discourselevel transfer of the Urdu language?

2. Literature Review

2.1 Error Analysis

The error analysis is one of the essential tools of the applied research on determining L2 learners problems in academic writing. It includes identification, categorization, and description of any errors to identify any underlying linguistic issues and how the errors will be taught. The most frequent errors in ESL writing are subject verb concord, inconsistency with verb tenses, and wrong usage of the articles (Neupane, 2023) that impairs fluent syntax and use of language. Based on the Surface Strategy Taxonomy, categorizations of errors are: selection (63.41%), omission (26.82%), or addition (9.75%) (Intan et al., 2020) and this may be evidence of L1 interference (Intan et al., 2020).

The causes of errors could be interlingual (L1 transfer) or intralingual (complexities of English grammar) in nature, and a significant percentage could be due to non-linguistic reasons, such as lack of knowledge (Intan et al., 2020; Neupane, 2023). As opposed to as obstacles, errors denote the efforts of learners to build new constructions. Thus, the approach related to error-focused instruction (Khansir, 2022) comes in useful to eliminate nagging grammatical problems.

2.2 Second Language Acquisition

SLA is influenced by perceptual-linguistic and social processes other than automatic acquisition of natural L1, which are not quite similar. Structural transfer is attributed to explain errors in formal linguistics, i.e. when an Urdu speaker uses the word “aur” (or) when he/she means “and” (Rehman & Zafar, 2022). The Acculturation Model by Schumann (1978) emphasizes the importance of social integration in SLA and the psychological explanation adds an accent on working memory and processing constraints, which plays a significant role (Ahmad & Salam, 2022).

The other influences that have been identified to influence SLA are age, motivation and the metalinguistic awarenesss where learners have access to the plasticity of their neural development but given good directions the effect of age can be reduced (Ahmad & Salam, 2022). The more the typological difference between the two languages Urdu and English, the more errors created in transfer (Ahsan et al., 2023; Rabinovich & Wintner, 2022). Input Hypothesis (1982) proposed by Krashen refers mostly to comprehensible input ($i+1$) and affective aspects of anxiety and motivation and authentic socially improve learning.

2.3. Interference of Urdu Mother Tongue

Urdu especially has its effects on the writing of ESL especially directly in the syntaxes, morphologies, and purpose verbs. The Subject-Object-Verb nature of Urdu tends to result in the incorrect composition of English sentences (Ahmed, Amin, & Qureshi, 2016). Lack of article in Urdu leads to lack or misapplication, of a kind, in English e.g., Ishaq and Bukhari, (2016) correspondingly, e.g., “She is teacher”. Prepositional constructions like the use of the words “discuss about” occur as a result of non-equivalence of Urdu and English (Mushtaq, Naz, Bakhsh, & Khan, 2024). Likewise, Urdu syntax, e.g., the subject verb concord violations reflect negative transfer themselves. “They is happy” (Ahmed et al., 2016).



Relevant studies suggest that, current research indicates that these patterns can be minimized by way of instructing and correcting error in a targeted manner, thus, enabling learners to overcome negative transfer (Mushtaq et al., 2024). Therefore, identification of L1 interference is essential in enhancing proficiency of ESL academic writing among the Urdu speakers.

2.4 Identifying Research Gap

There have been many researches regarding the interference of first language and errors in ESL writing; however, they do not seem to be adequately filled by studies systematically classifying grammatical errors which are found in Urdu-speaking learners. To date, no research has developed a comprehensive framework of 16 different grammatical categories to study academic essays written by students who are native speakers of Urdu. Moreover, while many related studies use manual evaluation, there is very little research that has used advanced automation in natural language processing tools for detection as well as classification of errors with great accuracy.

The analysis of the research has been conducted by using the ChatGPT Model o3-mini which is quite a modern example of AI in Language that is used to analyze essays for precise and accurate identification and categorization of grammatical errors. The research sample constitutes a representative sample of 155 students out of the actual 3,000 essays comprising 12 different universities throughout Punjab. Thus, this kind of application not only leads to a very strong analysis at the linguistics level but also serves an enormous ongoing project which is developing ESL writing capabilities among Urdu-speaking students.

3. Research Methodology

The methodology used in the study has been described fully in four parts, viz. (i) description of the research design (ii) description of corpus and data selection of the participants, (iii) description of data collection procedures and (iv) description of data analysis procedure (in multiple stages).

3.1 Research Design

The research design adopted in the current study is a mixed-methods research design, which is a combination of instruction and qualitative research. The quantitative component would be the use of corpus-based frequency description of error types, which will permit the systematic recording and ranking of errors in a large corpus to determine the problem areas in language. The qualitative part is composed of the in-depth, descriptive error analysis based on the theories of Contrastive Analysis (Lado, 1957) and Error Analysis (Corder, 1974). This guide, analytical tool moves certain lapses of students in their English writing to the structures of the Urdu language. The two approaches used, being combined, will help the research to seize the strengths of both techniques: the quantitative data will show which of the errors are the most common, yet the qualitative information will reveal why they happen.

3.2 Participant Selection and Corpus

The current research relies on the sample size of more than 3,000 undergraduate students. Among this bigger body of work, one discrete data collection event was coordinated across 12 universities. This original sample was then cut down following purposive sampling whereby a highly focused sample of 155 students was obtained. To



reduce the effect of the Urdu language as mother tongue but to control a variety of confounding variables, this reduction was conducted using purposive sampling. The inclusion criteria set were as follows: (1) the student indicated Urdu as the only language in which he/she was a native speaker; (2) the student was in an undergraduate-level course of study. The sample (N=155) consisted of 110 female and 45 male students of the most diverse academic disciplines.

3.3 Data Collection Procedure

The collection of data was conducted systematically. They were requested to fill in a structured demographic questionnaire that contained information about their mother tongue, gender and the discipline. They were then asked to choose one among eleven pre-selected topics of a general interest essay and write an essay in English within a limited duration of time. Essays submitted were also photographed to avoid electronic assistance and therefore the data recorded would show the competence of the students without assistance.

3.4 Analysis Procedure

The analysis of written data was performed following a proper multi-stage methodical process to introduce rigor and reliability. The entire process began with creating a strong framework for analysis, applying this framework to the data, and arriving finally at both quantitative and qualitative analysis.

The principled basis for this study was inspired by the International Corpus of Learner English (ICLE) project. All the 16 categories frameworks were developed by using ICLE. The framework is geared to provide specific types of error identification and categorization to allow for very fine analysis of student writing. The use of a prescribed set of categories would ensure that consistent and replicable analysis is done on the whole dataset. The 16 categories are:

Noun, Pronoun, Lexical Verb, Auxiliary Verb, Adverb, Adjective, Article, Conjunction, Preposition, Punctuation, Form, Existential There, Numeral, Particle, Pro-form, and Miscellaneous.

3.4.1 Process of Data Filtering

The quality, authenticity and uniformity of student essays were selected through critical data filtering to develop a dependable corpus of analysis. On the one hand, essays shorter than 200 words were omitted due to the length criterion, AI-generated writings (E.G. a writing produced by ChatGPT) had also been removed, as well as essays that have fallen out of the topic or task assigned.

3.4.2 Testing developed categories

In this context, a detailed comparative testing procedure was necessary to try and determine which advanced language model could best tag errors of finalized essays accurately.

The test models at this stage were OpenAI GPT-4o Mini, OpenAI GPT-4o, OpenAI GPT-4o High Capacity, OpenAI GPT-4, OpenAI GPT-3.5, and OpenAI GPT-3.5-Omni (o3). Each model was applied to a set of the student essay samples with subsequent output checks for accuracy in error identification and classification. The objective of this testing phase was to find out which model proved to be more reliable and accurate.



The model that proved to be the most accurate for error tagging was then picked for large-scale analysis of an entire dataset of 500 essays.

3.4.3 Finalizing model and analyzing errors

The testing selected the o3 mini high model as the accurate and reliable comparative model for the main analysis based on the outcomes of comparative tests. The finalized model was applied systematically to the entire corpus of filtered students' essays. In this stage, all essays were passed through the model, using the 16-category grammatical framework for error analysis. The process went, such that every analysis was thoroughly analyzed, and every error identified tagged and annotated according to one of the predefined categories. In this way, the automated annotations ensured that the whole dataset was uniform in analysis, resulting in a consolidated and organized catalog of classified errors.

3.4.4 Frequency Counting

Once error annotations were created, the error counts were tabulated and categorised to form a numeric profile of any essay. An Excel sheet was created with one row per student essay including a demographic information (Essay ID, Department, Gender, Mother Tongue) and 16 columns to assign categories of grammatical errors. The frequency of each type of the error was given in each cell. The dataset was finally organized by the key word, the Mother Tongue, and gave a structured, quantified corpus amenable to comparative analysis.

4. Findings and Analysis

After thorough probing of an essay corpus of 155 essays, a pattern of systematic error distribution, which increases with clarity in grammatical and discourse areas prone to a stronger typological variability between Urdu and English, was found. They express quantitative evidence in Table 1 and Figure 1, which provides a macro-level overview of an error tendency and marks the key challenges faced by Pakistani undergraduates.

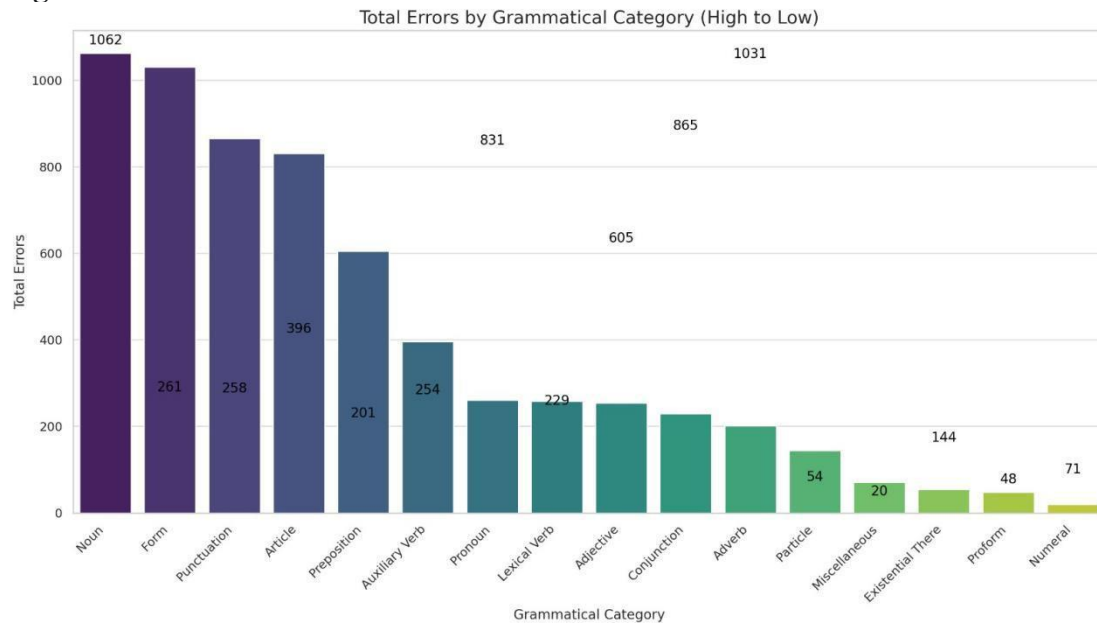
Table 1

Frequency of Errors and mean errors per student in Urdu-L1 essays (N = 155)

Grammatical Category	Total Errors	Error per Person
Noun	1062	6.51
Pronoun	261	1.60
Lexical Verb	258	1.58
Auxiliary Verb	396	3.42
Adverb	201	1.23
Adjective	254	1.55
Article	831	5.09
Conjunction	229	1.40
Preposition	605	3.71
Punctuation	865	5.30
Form	1031	6.32
Existential There	54	0.33
Numeral	20	0.12
Particle	144	0.88
Proform	48	0.29

Miscellaneous	71	0.43
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Figure 1



Mean Errors per Student by Category

Main Observations

Noun errors (6.51) and errors in verb forms (6.32) are common in Punjabi-speaking students who have problems of English pluralization and intricate tenses. The use of punctuation (5.30) and articles (5.09) is also extremely problematic, mostly because of L1 differences. Moderate problems are in the use of prepositions (3.71), but errors in auxiliaries, pronouns, verbs, and adjectives are only occasional, but influences clearly. Less common problems, e.g. with numbers or existential there, indicate simplicity or non-use. These trends show a high L1 structure impact on L2 writing.

Analysis:

This paper points out the severity of Urdu language influence on the English writing of ESL learners. Through several categories of errors using their representative examples, it shows that the weaknesses of the structuring/lexicons and syntactic properties of the structure of Urdu lead to repetitive errors in English, thus proving the claim of mother tongue interference in the process of the acquisition of second language.

Noun

Essay No.: 108

Essay ID: 34

Line No.: 1

Mother Tongue: Urdu

Incorrect	Correct	Urdu Interference (Justification)
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Internet is playing a very vital role in our modern lives.	The Internet is playing a very vital role in our modern lives.	In Urdu there is no definite article like "the", and speakers will often just drop it before proper nouns such as "Internet", without being aware that it is mandatory in English when referring to a global system.
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Pronoun

Essay No.: 110

Essay ID: 56

Line No.: 4

Mother Tongue: Urdu

Incorrect	Correct	Error Type	Urdu Interference (Justification)
The main reason for that are human beings which are cutting trees daily causing global warming and deforestation.	The main reason for that are human beings who are cutting trees daily causing global warming and deforestation.	Pronoun Error	Urdu relative pronouns such as "جو" (jo) will be used with people and things indiscriminately, leading to misuse of English relative pronouns in the direction of "which" for people and "who" for the appropriate ones.

Lexical Verb

Essay No.: 122

Essay ID: 117

Line No.: 15

Mother Tongue: Urdu

Incorrect	Correct	Error Type	Urdu Interference (Justification)
If we discuss about a few of them then they would be Communication with people, Reading books and novels online...	If we discuss a few of them then they would be Communication with people, Reading books and novels online...	Lexical Verb Error	The verb 'discuss' is monotransitive, which means it directly takes an object without a preposition like 'about'. In Urdu, the counterparts of "discuss" often use postpositions similar to the English prepositions, e.g. "کرنا بات" with "میں بارے کے", thus leading learners to unnecessarily insert 'about' into English. This direct transfer causes the error "discuss about" instead of the simple "discuss."

Auxiliary Verb

Essay No.: 125

Essay ID: 133



Line No.: 14

Mother Tongue: Urdu

Incorrect	Correct	Error Type	Urdu Interference (Justification)
The student not attend online education because student busy different activity.	The student not attend online education because student was busy engaged different activities.	Auxiliary Verb Error	"Negative past tenses in English require the auxiliary 'did' plus the base form of the verb (attend). The incorrect use of 'is not attend' confuses the present continuous with the past simple negation. In Urdu, negation rarely requires a helping verb like 'did' and the simpler negation structures allow for omission or misuse of auxiliaries in English past tense negatives."

Adverb

Essay No.: 485

Essay ID: 5491

Line No.: 2

Mother Tongue: Urdu

Incorrect Sentence	Correct Sentence	Error Type	Urdu Interference (Justification)
Physical should allow as student Shows Can punishment, mentally that harm ResoBich punishment ; anxiety lowers	Physical should not be as it can both and physical children. shows that punishment aggression, and low self-esteem	Adverb Error	In Urdu, adverbs such as "جسمانی" often follow the verb without causing confusion.... Thus, the learner says "harm physically," while standard English expects "physically harm."

Adjective

Essay No.: 110

Essay ID: 56

Line No.: 6

Mother Tongue: Urdu

Incorrect	Correct	Error Type	Urdu Interference (Justification)
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The responsibility of these environmental issues are primarily; the people and then secondary the Government.	The responsibility of these environmental issues are primarily; the people and then secondly the Government.	Ordinal Adjective Error	The term "دوسرا," meaning second, behaves as both an adjective and an adverb in Urdu without any change of form. This flexibility creates confusion for the Urdu speakers. They often use the adjective secondary instead of the adverb secondly to indicate sequence in English.
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Article

Essay No.:165

Essay ID: 932

Line No.: 11

Mother Tongue: Urdu

Incorrect Sentence	Correct Sentence	Error Type	Urdu Interference (Justification)
"Technology is a good servant but dangerous master."	"Technology is a good servant but a dangerous master."	Article Error	In English, every singular countable noun requires one article. "ایک" is again not repeated in Urdu, leading learners to drop "a" in such cases before the second noun.

Conjunction

Essay No.:105

Essay ID: 22

Line No.: 2

Mother Tongue: Urdu

Correct	Incorrect	Error Type	Urdu Interference (Justification)
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<p>The government is not only responsible for environmental issues, but also we need to take them as our own issues, and solve them individually.</p>	<p>The government is not only responsible for environment issues we want to take it like our own issue we want to solve this issue Individuale...</p>	<p>Conjunction Error</p>	<p>Urdu describes the omission of correlative pairs like "not only... but also," which leads to incomplete structures in English. An example of this occurrence could be: "Sirf hukoomat zimmedar nahi, humein bhi apni zimmedari leni chahiye." In this case, the second part of the correlative pair is explicitly skipped, causing maybe a fault in the learner to complete the structure in English with "but also." The flow of the Urdu language allows for clause listing without any connectors; hence, errors in coordinating the sentences occur in the English language.</p>
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Preposition

Essay No.:140

Essay ID: 349

Line No.: 1

Mother Tongue: Urdu

Correct	Incorrect	Error Type	Urdu Interference (Justification)
<p>...commun with peo] different who different languages.</p>	<p>...commun with peo] different a speaks c languages.</p>	<p>Preposi al Error</p>	<p>Here, the preposition 'of' is misused. 'In' applies whenever a location is in question (people in areas). It would be "ا لقون مختلفوگ کے" in Urdu; literally translated: "people of different areas," resulting in this dreadful confusion with prepositions.</p>

Punctuation

Essay No.:124

Essay ID: 129

Line No.: 15

Mother Tongue: Urdu



Incorrect	Correct	Error Type	Urdu Interference (Justification)
Social media many issues in environment So that if social media used carefully very effect in our life	Social media create many issues in our environment. So, if social media is used carefully, it has a very good effect on our life.	Punctuation Error	A period is missing after 'environment,' making it a run-on sentence. In Urdu, sentences tend to run together without clear breaks or punctuation, e.g.,

Form

Essay No.:161

Essay ID: 840

Line No.: 22

Mother Tongue: Urdu

Incorrect	Correct	Error Type	Urdu Interference (Justification)
But go should also attention environment the enviro friendly poli also impleme	But go should also attention environment make environmental friendly poli also impleme	Spelling Error	The word 'policies' is mistakenly written and should be 'policies' (پالیسیز). The term is often misspelled as Urdu speaker tend to write English words according to their sounds, leading them to misspell these words.

Capitalization



Capitalization is nothing in English relevant to Urdu, since Urdu does not have a script divided into capital and lowercase letters. Instead, English has strict rules for capitalization (for instance, proper nouns beginning of a sentence), which need to be separately learned by the Urdu-speaking learners.

Existential There

Essay No.:153

Essay ID: 716

Line No.: 08

Mother Tongue: Urdu

Incorrec	Correct	Error Type	Urdu Interference (Justification)
There various kinds of effective procedure can be help	There various kinds of effective procedure can be help	There Error	The noun phrase 'kind' is singular, but 'various' is a quantifier indicating plurality and 'are' is the plural form of 'to be'. In grammar, when the quantifiers various, many, several, etc., are used, the following noun should also be in the plural form. Therefore, it should be 'kinds', not 'kind'.

Numeral

Essay No.:330

Essay ID: 2968

Line No.: 12

Mother Tongue: Urdu

Incorrect Sentence	Correct Sentence	Error Type	Urdu Interference (Justification)
And not animals are higher then human neither humans are higher than animal if Some animals are being used for experiment millions human life.	...used for experiments on millions of human lives.	Cardinal Numeral Error	The expression "millions human life" omits the essential preposition "of" and does not pluralize "life". Of the cardinal-number rule, "millions of" must always be followed by a plural noun. Urdu Influence: In Urdu expression, "زندگیاں انسانی لکھوں", observations can be made that "کی / لکھ" (of) is somewhat implied but not really used in translation. Consequently, Urdu-speaking learners may tend to omit that "of" in English, thus creating a mismatch between numeral and noun.



Particle

Essay No.:111

Essay ID: 71

Line No.: 7

Mother Tongue: Urdu

Incorrect Sentence	Correct Sentence	Error Type	Urdu Interference (Justification)
This change makes many people to try virtual classes for the first time.	This change makes many people try virtual classes for the first time.	Particle Error	It's postulating that the causative verbs like "make", the bare infinitive followed without "to" in English ("make someone do something") such as: "to" is incorrect here. In fact, if we see in Arabic or Urdu, verbs are followed by "امل" like "to" (i.e. "to do") which are always explicit, and hence learners often transfer this and add "to" causing needless error. Urdu: "Woh mujhe karna hai" → literal English translation "He makes me to do" instead of correct "He makes me do."

Proform

Essay No.:112

Essay ID: 83

Line No.: 3

Mother Tongue: Urdu

Incorrect	Correct	Urdu Interference (Justification)
Time changing and technology increased on high level in all the ages.	Time changing and technology increased high throughout ages.	The sentence incorrectly combines contrasting forms: the gerund phrase "Time changing" and the verb phrase "technology increased." English requires conjunctions only to link elements of the same syntactic category, so both should be verbs in past tense. In Urdu, it is common to say "بے بڑھی" where different verb forms coexist naturally, which can lead to interference when constructing English sentences.

Miscellaneous

Essay No.:105

Essay ID: 22

Line No.: 2

Mother Tongue: Urdu



Incorrect	Correct	Error Type	Justification of Urdu Influence
The govern not responsible for environmental issues; we want to	The government not only responsible for environmental issues; we want to take it as	Miscellaneous Error	The term "like" is incorrectly applied to denote role or function substitutively for "as." In Urdu, the expressions

Incorrect	Correct	Error Type	Justification of Urdu Influence
take it like our own issue we solve it individually. There are many environmental issues such as Pollution, Pollution, Pollution.	our own issue solve it individually. There are many environmental issues such as pollution, pollution, and pollution.		"کہ جیسے" and "طرح کی" are used to express both comparison and functional roles in an undifferentiated way. This influences the learners to use "like" in contexts where "as" is required in English. For instance, the Urdu sentence "ہمیں سمجھتے مسئلہ اپنا اسے ہم" can be directly translated as "we take it like our own issue," although in proper English, "as our own issue" would be the required expression. The duality of the meaning in Urdu creates this substitution error.

The findings from this error analysis clearly demonstrate that the mother tongue, Urdu, has a significant and systematic influence on the English writing of Pakistani university students. The recurring patterns of grammatical, lexical, syntactic, and stylistic errors indicate that many of these mistakes are not arbitrary but arise from **first language (L1) interference**, a

well-established concept in second language acquisition (Lado, 1957; Ellis, 1997).

Through the examples studied, we observe that learners often apply Urdu grammar rules, sentence structures, and word usage to English writing. This **negative transfer** results in errors such as article omission, incorrect verb-preposition combinations, relative pronoun misuse, and inappropriate use of conjunctions. These issues are particularly common when the structures of Urdu and English differ significantly. As Odlin (1989) explains, "crosslinguistic influence" can appear at all levels of language,



including morphology, syntax, and pragmatics—exactly what is observed in this analysis.

For instance, Urdu does not use definite or indefinite articles in the same way English does. As a result, students often omit "the" or "a/an" where required in English (e.g., "Internet is..." instead of "The Internet is..."). Similarly, subject-verb agreement errors, incorrect preposition choices ("bad in studies" instead of "bad at studies"), and misused adverbs ("shortly" instead of "in short") show how learners transfer familiar Urdu patterns into English, often unconsciously.

Moreover, these errors are not isolated or accidental. The consistency across multiple student essays shows that they are **systematic** and deeply rooted in the learners' linguistic background. As Corder (1974) noted, learner errors offer insight into the internal processes of language learning and reflect the strategies students use to make sense of the target language.

5. Discussion

The present research substantiates its findings regarding the strong influence of L1 interference on the academic writing of Urdu-speaking undergraduate students in Pakistan. The quantitative analysis showed that noun-related problems were most frequent (mean 6.51 errors per person), followed by errors related to form (6.32), punctuation (5.30), and articles (5.09). This is in line with RQ1, which was designed to identify the problematic grammatical categories. The qualitative analysis then directly addressed the second research question (RQ2) by establishing a strong association between these errors and the structural, lexical, and discourse-level features of the Urdu language.

A classic case of negative transfer is presented by the high incidence of errors in nouns, particularly the omission of articles. As analyzed, Urdu has no direct equivalent for the definite and indefinite articles in English. Therefore, the students are applying the L1 rule of contextually inferred definiteness onto their L2 writing, leading to constant errors, e.g., "Internet is playing a vital role" instead of "The Internet is playing a vital role." Findings confirmed the earlier work of Ishaq & Bukhari (2016), who asserted that article errors are a significant obstacle for Urdu-speaking learners.

Likewise, the high incidence of errors in spelling and verb conjugation under 'Form' reveals a pattern on account of the typological distance separating English and Urdu verb systems. The analysis brought to light instances whereby students were clearly struggling with subject-verb agreement, e.g., "Environmental issues means...", or tense-aspect consistency as shown in "Humans have been living there millions of years ago...." These errors can easily be traced to the different agreement rules and more flexible tense-aspect system of Urdu as earlier noted in Ahmed, Amin & Qureshi (2016).

Qualitative analysis provided clear examples in which direct translation induced unnaturalness and grammar errors on the level of prepositional phrases. The error "discuss about" is an example of direct transfer from the Urdu construction "کرنا بات" (to talk about). Similarly, the incorrect use of "bad in studies" instead of "bad at studies" is a result of directly translating the Urdu phrase "کمزور میں پڑھائی" (weak in studies). The observations support Mushtaq, Naz, Bakhsh, & Khan (2024),



who labeled prepositional errors as a common problem due to the lack of one-to-one correspondence between the two languages.

Interference patterns at the discourse level such as the wrong use of relative pronouns (using "which" for people) and the building of double negatives ("no any source"), reflect syntactic habits from Urdu. The tendency to run on sentences joined by "so," sometimes lacking the appropriate punctuation, mirror rhetorical and punctuation conventions of written Urdu which strongly supports the argument of Rehman & Zafar (2022) that deeper structural contrasts between the two languages lead to disproportionate input in syntactic and punctuation errors in ESL writing.

The use of an automated tool (ChatGPT model o3 mini high) for preliminary error annotation proved to be an effective method to systematically analyze a large corpus, addressing the research gap identified in the study. This methodological approach allowed a thorough and consistent error categorization across 155 essays, yielding strong quantitative evidence for the later qualitative analysis.

The persistence of these error patterns across a large and diverse sample of undergraduate students suggests that these are no random mistakes but systematic, rule-governed features of the learners' interlanguage. As Corder (1974) argued, such errors are valuable indicators of the learner's developmental stage. Nevertheless, the risk of fossilization of these L1-influenced errors is great, whereby these incorrect forms become a permanent feature of the learner's L2 use, despite further instruction. This strongly suggests the need for pedagogic interventions that are tailor-made to deal with L1 interference.

6. Conclusion

This research was poised to examine how the syntactic interference of L1 Urdu affects the academic writing errors of undergraduate ESL students in Punjab, Pakistan. This research gives robust confirmatory evidence that interference from L1 has a high and predictable effect through a systematic categorization of errors across a very large corpus of essays on the second language output. Nouns, articles, punctuation, and grammatical form were the most frequently associated error categories, with the qualitative analysis reiterating that these errors are largely induced by the transfer of Urdu structures.

The findings demonstrate that learners invariably apply Urdu syntactic and lexical rules to English, giving rise to systematic errors such as article omission, erroneous prepositions, and subject-verb disagreement, leading to run-on sentences. These patterns do not merely denote a developing linguistic system; they are rather interference phenomena deeply embedded in the students' L2 writing, thus hindering clarity, accuracy, and academic tone in ESL writing. Toward the thesis, the evidence strongly supports the argument that L1 interference must be considered in examining and remedying the writing problems these students face.

The study concludes that unless targeted pedagogical interventions are put in place, these systematic errors may go on to become fossilized, serving as a permanent impediment to the academic and professional trajectory of these students. Hence, this research advocates the serious consideration for the inclusion of contrastive analysis in ESL writing syllabi in Pakistan. Differentiating the patterns in the structural difference of Urdu and English through



`narrow focus contrastive micro-lessons' would enable instructors to generate an awareness of L1 interference in students. This would provide them with the metalinguistic tools for the students to be able to identify and self-correct their errors and is likely to prevent fossilization in the future, facilitating improved accuracy and proficiency in academic writing. In conclusion, L1 interference must be recognized and dealt with if Urdu-speaking students are to be empowered for success in the English-medium higher-education environment.



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