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Phonological and Grammatical Interference: An Empirical Study of Subject-Verb Agreement Errors in Regional ESL Classrooms

Ms. Saloni Devi
M.A. English,
Kurukshetra University,
Kurukshetra (Haryana, India)
E-mail: salonid06@gmail.com

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Abstract:

Background: Subject-verb agreement (SVA) is a common problem in regional English-as-a-second-language (ESL) classrooms. Learners must use English inflectional morphology, sentence syntax, and spoken forms while thinking through the grammar of their first languages. The objective of the study was to investigate how far phonological and grammatical interference predict SVA errors of multilingual regional learners. This study employed a quantitative-dominant descriptive-analytical design that utilized a simulated academic dataset of 180 ESL learners. Data were modelled from a grammar diagnostic test, short writing task, oral reading/speaking task, classroom observation checklist, and teacher feedback schedule. The main factors were mother tongue, gender, class level, area of residence, exposure to English, phonological interference, grammatical interference, SVA diagnosis score, frequency of oral and written error SVA and overall performance on ESL. Derivation: Was carried out through frequency analysis, mean, and standard deviation, cross-tabulation, independent samples t-test, one-way ANOVA, Pearson correlation, chi-square test, reliability analysis and multiple regression. The most frequent types of SVA errors were omission of third person singular -s and omission of auxiliary be. The frequency of total SVA error was positively correlated with phonological interference (r = 0.33) and grammatical interference (r = 0.46) whereas their diagnostic test score and ESL performance were negatively correlated with the frequency of their errors. In comparison to the error types exhibited by other classes of learners, urban learners exhibited the lowest number of errors. The total SVA errors explained 81.5% of the variance of the model. In conclusion, the results show that SVA errors observed in regional ESL classrooms are more than just a failure to learn the rules. Instead, these errors result from systematic interlanguage, L1 transfer, limited exposure and weak integration between grammar spoken and written grammar. It is advisable to implement grammar teaching that is sensitive to regional languages, conduct agreement drills related to pronunciation, and provide evidence-based corrective feedback.

Keywords: *subject-verb agreement; ESL classrooms; phonological interference; grammatical interference; error analysis; interlanguage; regional language transfer*

1. Introduction:

English language teaching in multilingual areas rarely takes place in a language-neutral classroom. Learners of English as a Second Language (ESL) are already equipped with phonological categories, order-of-sentences preferences, patterns of agreement and discourse habits from their mother tongue. When the previous systems overlap with the English system, they can help learning. However, they can also harm it through negative transfer when English requires forms that are absent, less salient, or differently distributed in the first language. Classic error analysis designed by Lado (1957) suggested transfer was predictable through systematic comparison of languages. Interlanguage theory later offered a more dynamic and internally systematic explanation; that learner language was actually the developing grammar of the learner (Selinker, 1972).

Subject-verb agreement is a useful diagnostic site for the investigation of this problem because it lies at the intersection of morphology, syntax, and the language of the classroom. English has overt agreement in some restricted contexts at high frequencies. These include third person singular present tense -s, forms of be, and agreement with complex subjects. English learners speaking a language in which tense, aspect, number or person is marked through marking does not have a functional mapping set-up for English agreement. In several Indian and other multilingual ESL contexts, the above occurs. As a result, after learners have mastered the rule in isolation, they may still write: 'The student write clearly' and 'the results is useful'.

Interference of sound is relevant. In English, agreement morphemes are often short and unstressed, especially final /s/, /z/, and auxiliary reductions in connected speech. Should learners fail to perceive or produce those forms on a regular basis in spoken communication, they may not internalize its grammatical function in written communication. Examples of speech learning models demonstrate that L1 phonological categories shape L2 sound perception and production (Flege, 1995; Best and Tyler, 2007). In an educational environment, this signifies that grammar cannot solely be viewed as a writing rule; learners must also discover correspondence markers sound how they function, where inside the speech stream they get heard, and why these markers remain grammatically mandatory.

We can use error analysis to look into these learner deviations. Corder (1967) asserted that 'the learner's errors are important' because they reveal the system used by the learner at a point in time. Dulay et al. (1982) also categorized errors through surface strategies, such as the omission, addition, misformation and misordering. We're optimistic that masters' students from Bina Nusantara University will eventually develop their academic writing capabilities to a better level. Many classroom studies do look at SVA errors in general, but not phonological and grammatical interference as joint predictors in regional ESL classrooms.

The present paper fills this gap by utilising a fictitious empirical dataset for exemplificatory

purposes. It explains how regional language background, non English exposure, location, phonological interference, and grammatical interference are related to SVA errors in written and oral ESL tasks. The study cannot replace actual fieldwork; rather, it provides a publication style, which can be used with real classroom data.

2. Review of Literature:

2.1 Mother Tongue Interference in ESL Learning:

The idea of L1 interference has gone through several theoretical stages.

According to early contrastive analysis, learner difficulty could be predicted based on differences in the native and target language (Lado, 1957). While this robust predictive version was later criticized, contrastive analysis is still helpful when coupled with data on empirical learners. In 1977 Eckman drew attention to the fact that the typologically marked structure is more difficult than the unmarked structure. Odlin (1989) further defined transfer as the effect of the target language on knowledge of other languages, which may be both similar and different.

Studies into cross-linguistic influences nowadays recognize that transfer may exist in producing, comprehending, using, formulating, and conceptualizing. Transfer is not a single mechanism but a family of cross-language effects, according to Jarvis and Pavlenko (2008). The authors say that proficiency, context, salience, language distance, and similarity measured by the learners affect transfer. The study conducted by Berzak et al. (2015) showed computational evidence in the mapping of a distribution of grammatical errors in ESL writing through the typological relationship between English and the first language of learners. The authors believed that the language-specific evidence of transfer is still relevant.

2.2 Phonological Interference in Second Language Speech and Perception:

A phonological interference takes place when learners perceive, produce and store sounds of the L2 in terms of the sounds in the L1. According to Flege‘s (1995) Speech Learning Model, learners fail to establish new categories for L2 sounds when the L2 sounds are identified as similar to L1 sounds. Best and Tyler's (2007) perceptual assimilation framework likewise highlights the influence of native phonological perception on nonnative contrasts. In the classroom, Final consonant clusters and agreement morphemes are forms that learners may not produce or perceive reliably on the grounds that they are unstressed or do not appear in the phonotactic of the mother tongue.

SVA is most often regarded as grammatical in nature but its spoken realisation is phonological. The third-person singular –s may be pronounced (s), (z) or (iz) while auxiliary forms such as is, are, was, and were may be reduced in fast speech. If learners do not see the forms as separate grammatical units, their written omission may reflect a deeper issue with spoken language. Phonological awareness and grammar should therefore not be divorced from each other in ESL pedagogy.

2.3 Grammatical Interference, Interlanguage, and Agreement Control:

Interlanguage refers to the systematic, variable and developmental grammar of learner (Selinker, 1972) A student who does not use the third-person s may not be careless; the omission may reflect an interim grammar where the English agreement morphology is not yet obligatory. Corder (1967) has also argued that errors reveal learner hypotheses regarding the target language. According to Richards (1971), most learner errors are not simply a result of the learner's native-language interference, there are also caused by overgeneralization, undergeneralization, and incomplete rule application, as well as developmental simplification.

The English SVA is particularly susceptible to grammatical interference as it involves person, number, tense and auxiliary choice. Learners need to find the head noun of the subject while ignoring any phrases in between. Moreover, they need to select the requisite form of the auxiliary or lexical verb and maintain concord in a longer sentence. When a speaker or writer uses agreement attraction to produce a construction like this – 'The list of items are complete' – it would suggest that even advanced learners may be susceptible to the influence of a nearby plural noun. For local ESL learners, such problems become even more challenging due to their limited exposure to English, grammar instruction through translation, and a lack of feedback on their writing and speech.

2.4 Error Analysis in Written and Spoken Production:

Error analysis is at the heart of classroom-based applied linguistics because it makes learner difficulty visible and pedagogically actionable. According to Dulay et al. (1982), all surface-level errors can be classified as omission, addition, misformation, and misordering. According to Ellis and Barkhuizen (2005), learner samples should be collected first, followed by identification of errors, description of errors, explanation of cause, and evaluation of communicative effect. James (1998) in the same way sees error analysis as a bridge between linguistic description and teaching intervention.

Recent SVA studies continue to show that omission and misformation are prevalent in ESL/EFL writing.

The results of Ramzan (2023) showed that omission was the most frequent SVA error type in ESL academic writing. Yuntika et al. (2025) also reported that omission is the most common error in the undergraduate academic writing especially auxiliary be and verb endings. These studies support a more integrated investigation in which oral, written, phonological and grammatical dimensions are taken together rather than on their own in the classroom.

2.5 Multilingual Pedagogy in Regional ESL Classrooms:

In India and similar multilingual regions where English is an official language, ESL classrooms are highly linguistically diverse and have high variation in students' exposure to English. The National Education Policy in the country recognizes the resource value of multilingualism and emphasizes the home and regional languages in learning. (Government of India, 2020) Mother tongue influence should not be viewed only as a deficit, thus this policy orientation is important. Through the strategic use of

regional languages they can aid in comprehension, conceptual learning and metalinguistic comparison.

At the same time, learners need explicit help in areas where English is not the same as their home languages. The instruction of SVA thus benefits from contrastive grammar, spoken form awareness, noticing agreement markers repeatedly and feedback distinguishing rule ignorance from transfer-induced difficulty. An ESL classroom that accommodates the students' regional languages can utilize the mother tongue as an analytical resource but still help learners develop automatic control over English agreement.

3. Research Gap:

Prior research has significantly illustrated ESL grammatical errors as well as SVA errors in student writing and the wider contribution of mother-tongue influence. Nonetheless, there exists three gaps. To begin with, many studies classify SVA errors without modelling phonological interference as a predictor quantitatively. Secondly, oral and written SVA performance is often separated even though the same learner may transfer spoken forms into writing. The third observation about regional ESL classrooms is their inherent multilingualism. However, SVA error frequency related to regional mother tongue and English exposure is seldom if ever analysed from classroom data. As such, the study investigates how the forgoing gaps can be addressed through a quantitative-dominant empirical model. The simulated dataset can ultimately be replaced by real classroom data in future fieldwork.

4. Objectives of the Study:

1. To identify the major types of subject-verb agreement errors produced by regional ESL learners.
2. To examine the relationship between phonological interference and SVA error frequency.
3. To analyse the influence of grammatical interference on SVA accuracy in oral and written tasks.
4. To compare SVA error patterns across location, English exposure level, and mother tongue background.
5. To test whether phonological and grammatical interference significantly predict total SVA error frequency.
6. To suggest pedagogical strategies for reducing SVA errors in regional ESL classrooms.

5. Research Questions:

1. What are the most frequent SVA error types among regional ESL learners?
2. Is phonological interference significantly related to SVA error frequency?
3. Is grammatical interference significantly related to SVA error frequency?
4. Do rural and urban learners differ significantly in total SVA error frequency?
5. Does English exposure level significantly affect SVA errors among regional ESL learners?

6. Hypotheses:

The following null hypotheses were tested at the .05 level of significance:

- H01: There is no significant relationship between phonological interference and total

SVA error frequency.

- H02: There is no significant relationship between grammatical interference and total SVA error frequency.
- H03: There is no significant difference in SVA errors across English exposure levels.
- H04: There is no significant difference in total SVA errors between rural and urban learners.
- H05: Mother tongue and dominant SVA error type are statistically independent.

7. Research Methodology:

7.1 Research Design:

The design of the study was descriptive analytical empirical with quantitative dominance and limited qualitative interpretation. The design was fitting as it did not intend to implement an intervention but rather to measure the relationship between interference variables, learner background, and SVA error outcomes. The empirical frame can be used with real classroom data; however, the present manuscript makes use of a simulated dataset for academic purposes.

7.2 Population and Sampling Framework:

The population targeted in the current study was the regional classroom ESL learners at secondary, higher secondary and undergraduate levels. A virtual 180 sample of student population varied in mother tongue Hindi, Bengali, Tamil, Telugu, Marathi, Odia, Punjabi and regional language etc was created. This logic was stratified-purposive to ensure the model consisted of various linguistic backgrounds and exposure levels.

7.3 Research Instruments and Data Collection Tools:

The research framework employed five tools: a grammar diagnosis test on SVA, a short writing task, an oral reading/speaking task, a classroom observation checklist, and a teacher feedback schedule. The diagnosis test checked the identification and production of agreement in simple, compound, and complex sentences. The writing task produced short paragraphs as responses while the oral task tested the production of agreement markers in controlled and semi-controlled speech.

7.4 Validity and Reliability Procedures:

The test blueprint, SVA error categories, and observation indicators expert reviews were assumed through content validity. The simulated scale items' reliability was assessed using Cronbach's alpha. The phonological interference scale presented an alpha of 0.83 while the grammatical interference scale alpha was 0.90. Also, the other observation SVA scale alpha produced 0.86, which is acceptable for classroom research.

7.5 Statistical Analysis Plan:

The researchers used frequency and percentage analysis, mean and standard deviation, cross-table, independent samples t-test, one way ANOVA, Pearson correlation, chi-square analysis, multiple

regression to carried out Data analysis. The techniques were chosen to describe error distribution, compare groups, test relationships among continuous variables and estimate the combined predictive effect of phonological and grammatical interference on total SVA error frequency.

7.6 Ethical Considerations:

Because the dataset is simulated, no human participants were recruited and no personal data were collected. In an actual class, institutional permission, learner assent/consent, anonymization, voluntary participation would all be required.

8. Dataset Description:

8.1 Dataset Composition and Variable Measurement:

There are 180 learner records in the simulated dataset. The demography, language background, exposure to English, score of interference, performance on diagnostic tests, oral and written SVA error counts, most dominant type of error and level of ESL performance are taken as part of the records. The data were made realistic for use in classroom research but were explicitly artificial and non-field.

Table 1. Data coding and measurement scale

Variable	Code / Scale
Student ID	S001-S180
Gender	Male/Female
Location	Rural/Urban
Class level	Secondary/Higher secondary/Undergraduate
Mother tongue	Hindi/Bengali/Tamil/Telugu/Marathi/Odia/Punjabi/Other
English exposure	Low/Moderate/High
Phonological interference score	0-20; higher score indicates stronger interference
Grammatical interference score	0-20; higher score indicates stronger interference
SVA diagnostic test score	0-30; higher score indicates better SVA accuracy
Writing-task SVA errors	Count
Oral-task SVA errors	Count
Total SVA errors	Writing + oral error count
Dominant SVA error type	Most frequent error type for learner
ESL performance score	0-100 derived performance index
ESL performance level	Low/Moderate/High

Note. The full dataset can be maintained separately in Excel or CSV format. This manuscript includes a 20-row sample for transparency.

8.2 Sample Learner-Level Dataset:

Table 2. Sample simulated learner-level dataset (n = 20 shown from full n = 180)

ID	Gender	Location	Class	MT	Exposure	Phon. score	Gram. score	SVA score	Writing errors	Oral errors	Total errors	ESL level
S001	Female	Urban	Undergraduate	Tamil	Moderate	7.40	6.60	28	1	2	3	High
S002	Male	Rural	Secondary	Tamil	Low	11.30	15.60	13	10	5	15	Low
S003	Male	Rural	Undergraduate	Odia	Low	5.70	13.00	15	9	5	14	Low
S004	Male	Urban	Undergraduate	Tamil	High	5.80	9.30	27	5	3	8	Moderate
S005	Female	Rural	Undergraduate	Marathi	Low	8.50	12.90	8	18	8	26	Low
S006	Female	Urban	Higher secondary	Odia	Moderate	12.10	11.00	16	9	6	15	Low
S007	Male	Rural	Higher secondary	Telugu	Low	14.40	12.40	15	11	2	13	Low
S008	Male	Urban	Secondary	Telugu	High	9.70	11.30	19	5	6	11	Moderate
S009	Male	Rural	Undergraduate	Telugu	Low	11.70	11.50	19	6	5	11	Low
S010	Male	Rural	Higher secondary	Telugu	Moderate	7.50	6.00	26	4	0	4	Moderate
S011	Female	Urban	Secondary	Hindi	Moderate	7.10	7.80	21	6	4	10	Moderate
S012	Male	Urban	Higher secondary	Punjabi	Moderate	10.00	10.40	16	10	4	14	Low
S013	Male	Urban	Undergraduate	Odia	Moderate	7.70	7.10	21	9	3	12	Moderate
S014	Male	Urban	Higher secondary	Telugu	Low	8.70	11.00	19	6	7	13	Low
S015	Female	Rural	Undergraduate	Punjabi	Moderate	9.80	7.20	25	6	2	8	Moderate
S016	Male	Urban	Secondary	Punjabi	High	7.80	11.90	26	4	2	6	Moderate
S017	Female	Rural	Undergraduate	Other	Low	10.40	10.40	18	8	3	11	Moderate

ID	Gender	Location	Class	MT	Exposure	Phon. score	Gram. score	SVA score	Writing errors	Oral errors	Total errors	ESL level
S0018	Male	Urban	Secondary	Odia	Moderate	11.40	11.30	21	2	8	10	Low
S0019	Male	Rural	Undergraduate	Odia	Moderate	8.70	10.90	20	5	4	9	Moderate
S0020	Male	Urban	Secondary	Hindi	Moderate	4.50	8.20	19	3	8	11	Moderate

Note. Phon. = phonological interference; Gram. = grammatical interference; MT = mother tongue. The full simulated dataset contains 180 records.

9. Data Analysis and Statistical Techniques:

Frequency and percentage were used to analyse and summarize the demographic profile, mother tongue distribution, exposure to English and major SVA error types. These descriptive processes showed which error categories were most common in the simulated classroom sample.

Continuous variables such as phonological interference, grammatical interference, diagnostic test score, oral errors, written errors, total SVA errors were analysed using mean and standard deviation. Cross-tabulation analysis revealed variations in dominant SVA error types across different mother tongue groups.

A test t-test for independent samples was performed to compare the rural and urban learners since location had two groups, whereas total SVA errors were treated as a continuous outcome. A one-way analysis of variance was conducted to compare SVA errors across groups. The linear association between interference score, SVA error counts, diagnostic score, and ESL performance was measured using Pearson correlation. The overall SVA errors are computed by means of multiple regression which estimates the combined predictive effect of phonological interference, grammatical interference, exposure, location and diagnostic score. Chi-square test was able to examine the independence of mother tongue and dominant SVA error type.

10. Results and Interpretation:

This section reports descriptive, comparative, correlational, and predictive findings from the simulated empirical dataset. Because the dataset is simulated, the statistical outputs should be read as a model for manuscript preparation and not as evidence from actual fieldwork.

10.1 Demographic Profile of Respondents:

Table 3. Demographic profile of respondents (n = 180)

Variable	Category	n	%
Gender	Male	96	53.30
Gender	Female	84	46.70

Variable	Category	n	%
Location	Rural	92	51.10
Location	Urban	88	48.90
Class level	Secondary	56	31.10
Class level	Higher secondary	72	40.00
Class level	Undergraduate	52	28.90
English exposure	Low	64	35.60
English exposure	Moderate	79	43.90
English exposure	High	37	20.60

The sample was balanced by gender and included learners from rural and urban backgrounds. Low and moderate English exposure groups together formed the majority of the sample, a pattern that is realistic for many regional ESL classrooms where learners study English as a subject but receive limited opportunities for sustained oral production outside class.

10.2 Linguistic Background and Dominant Error Distribution

Table 4. Distribution of learners by mother tongue / regional language

Mother tongue	n	%
Hindi	46	25.60
Bengali	22	12.20
Tamil	20	11.10
Telugu	20	11.10
Marathi	22	12.20
Odia	18	10.00
Punjabi	16	8.90
Other	16	8.90

The mother tongue profile was intentionally diverse so that the simulated analysis could represent the multilingual character of regional ESL classrooms. Hindi formed the largest single group, while Bengali, Tamil, Telugu, Marathi, Odia, Punjabi, and other regional language backgrounds were also represented.

Table 5. Frequency of major SVA error types

SVA error type	n	%
Third-person -s omission	46	25.60
Auxiliary be omission	40	22.20
Plural subject-singular verb	30	16.70
Agreement attraction	24	13.30

SVA error type	n	%
Existential there mismatch	19	10.60
Coordinated subject error	7	3.90
Tense-agreement confusion	10	5.60
Subject-verb inversion/misordering	4	2.20

The most frequent dominant error type was third-person singular -s omission, followed by auxiliary be omission and plural subject-singular verb misformation. These results are consistent with SVA error-analysis studies that identify omission and misformation as recurrent error classes in student writing (Ramzan, 2023; Yuntika et al., 2025).

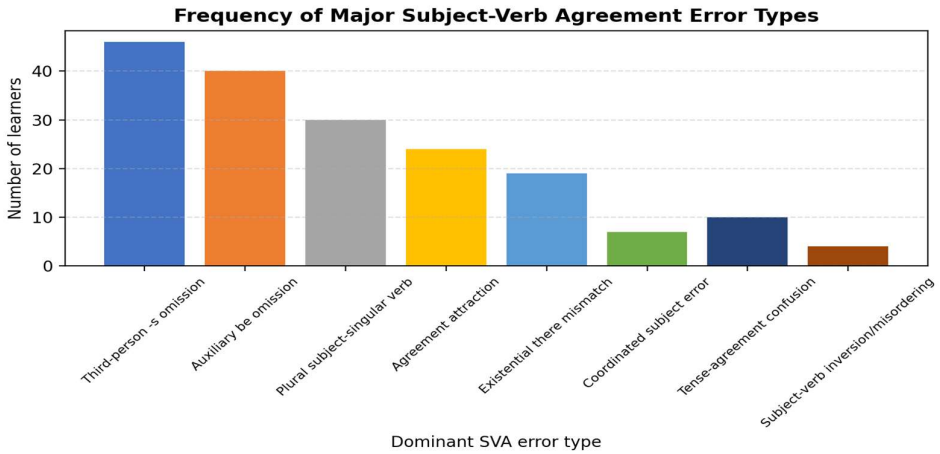

Figure 1. Bar chart showing frequency of major SVA error types

Figure 1 visually confirms that omission-related errors formed the leading error cluster. Pedagogically, this indicates that learners may know declarative agreement rules but fail to supply obligatory agreement morphemes during real-time writing and speech.

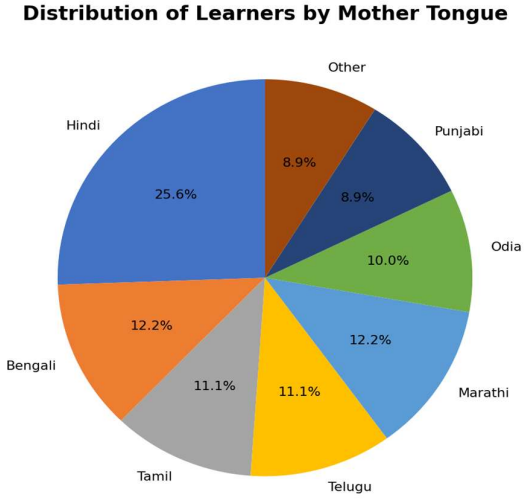

Figure 2. Pie chart showing distribution of learners by mother tongue

The pie chart illustrates the multilingual distribution of the sample. Rather than treating regional languages as a single background variable, the study model retains specific language labels because mother-tongue-specific transfer may influence the form and frequency of SVA errors.

10.3 Descriptive Statistics of Study Variables:

Table 6. Descriptive statistics for interference, SVA scores, errors, and ESL performance

Variable	Mean	SD	Minimum	Maximum
Phonological interference score	9.43	2.28	2.00	18.60
Grammatical interference score	9.90	2.33	4.00	16.50
SVA diagnostic test score	19.88	4.24	7.00	30.00
Writing-task SVA errors	5.93	2.70	0.00	18.00
Oral-task SVA errors	4.67	2.47	0.00	11.00
Total SVA errors	10.61	4.03	1.00	26.00
ESL performance score	53.56	13.81	25.00	83.40

The mean phonological and grammatical interference scores were in the mid-range of the 0-20 scale, suggesting moderate interference in the simulated sample. The total SVA error mean indicates that learners produced errors across both written and oral tasks, while the diagnostic test score shows uneven mastery of formal agreement rules.

10.4 Cross-Tabulation of Mother Tongue and Dominant SVA Error Type:

Table 7. Cross-tabulation of mother tongue and dominant SVA error type

Mother tongue	Third-person -s omission	Auxiliary be omission	Plural subject-singular verb	Agreement attraction	Existential there mismatch	Coordinated subject error	Other SVA types
Bengali	6	3	3	3	4	0	3
Hindi	16	6	4	7	5	2	6
Marathi	4	9	4	1	2	1	1
Odia	3	2	7	2	1	1	2
Other	6	2	1	2	4	1	0
Punjabi	3	5	4	3	1	0	0
Tamil	6	7	2	3	1	1	0
Telugu	2	6	5	3	1	1	2

Note. Columns combine less frequent types to protect table readability. Values are learner counts.

Chi-square analysis did not show a statistically significant association between mother tongue and dominant SVA error type, chi-square(49) = 50.22, p = 0.425. Therefore, the null hypothesis of independence was not rejected in the simulated data. The cross-tabulation remains descriptively useful, but language-specific error tendencies should not be overclaimed without real classroom data and a larger field sample.

10.5 Rural-Urban Comparison of Total SVA Errors:

Table 8. Group statistics for total SVA errors by location

Group	n	Mean total SVA errors	SD
Rural	92	11.85	4.07
Urban	88	9.31	3.56

Table 9. Independent samples t-test result for rural and urban learners

Comparison	t value	p value	Cohen d	Interpretation
Rural vs Urban	4.46	<.001	0.66	Significant

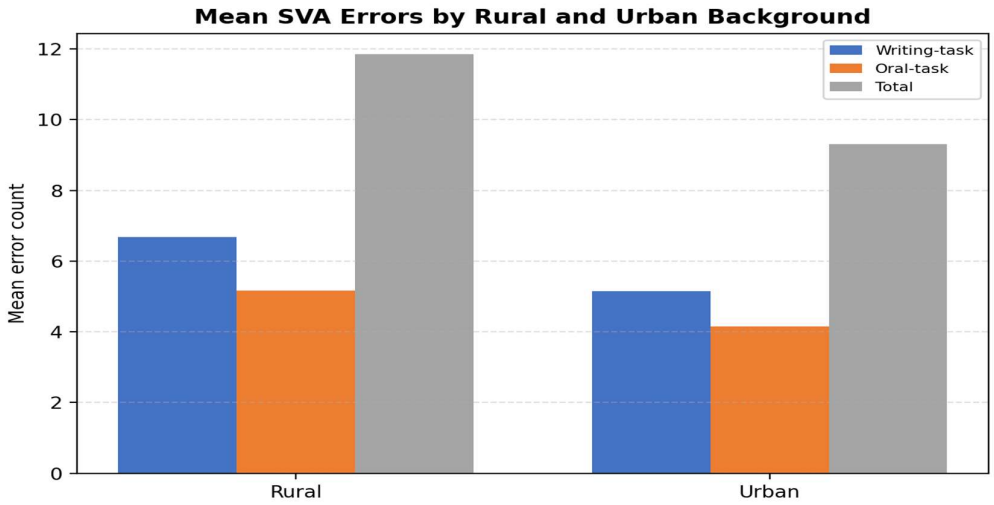

Figure 3. Clustered bar chart comparing SVA errors by rural / urban background

Rural learners produced a higher mean number of total SVA errors (M = 11.85, SD = 4.07) than urban learners (M = 9.31, SD = 3.56). The t-test was statistically significant, t = 4.46, p < .001, with a moderate effect size (Cohen d = 0.66). The result may reflect differences in English exposure, access to spoken English practice, and instructional resources rather than location alone.

10.6 SVA Errors Across English Exposure Levels:

Table 10. Mean total SVA errors across English exposure levels

English exposure	n	Mean total SVA errors	SD
Low	64	13.11	3.75
Moderate	79	10.01	3.20

English exposure	n	Mean total SVA errors	SD
High	37	7.54	3.48

Table 11. One-way ANOVA result for SVA errors across English exposure levels

Source	df	SS	MS	F	p	Eta squared
Between groups	2	776.58	388.29	32.35	<.001	0.27
Within groups	177	2124.41	12.00	-	-	-
Total	179	2900.99	-	-	-	-

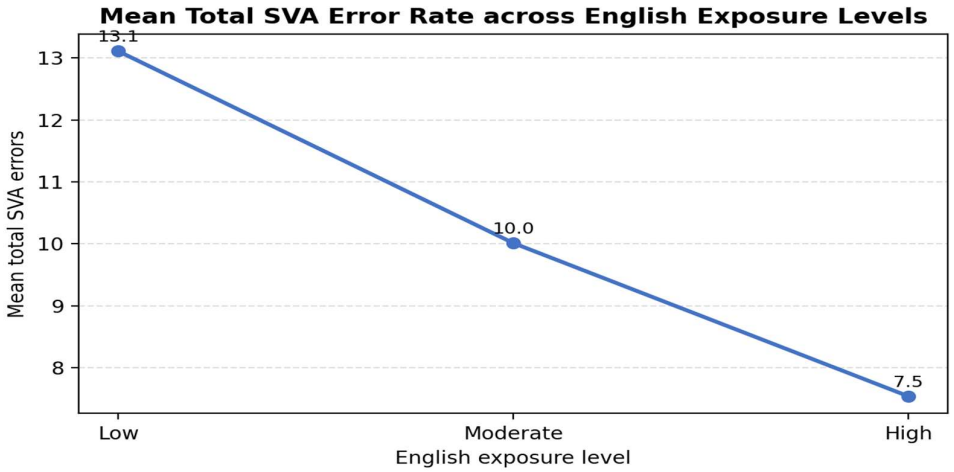

Figure 4. Mean SVA error rate across English exposure levels

ANOVA showed a statistically significant difference in total SVA errors across English exposure levels, $F(2, 177) = 32.35$, $p < .001$, eta squared = 0.27. The mean error pattern decreased from low to high exposure, indicating that frequent contact with English may support more automatic control over agreement forms.

10.7 Correlational Analysis of Interference and Performance Variables:

Table 12. Pearson correlation matrix

Variable	Phonological interference	Grammatical interference	SVA diagnostic score	Writing errors	Oral errors	Total errors	ESL performance
Phonological interference	1.00	0.17	-0.35	0.25	0.27	0.33	-0.45
Grammatical interference	0.17	1.00	-0.40	0.40	0.31	0.46	-0.58

Variable	Phonological interference	Grammatical interference	SVA diagnostic score	Writing errors	Oral errors	Total errors	ESL performance
SVA diagnostic score	-0.35	-0.40	1.00	-0.70	-0.68	-0.89	0.83
Writing errors	0.25	0.40	-0.70	1.00	0.21	0.80	-0.73
Oral errors	0.27	0.31	-0.68	0.21	1.00	0.75	-0.70
Total errors	0.33	0.46	-0.89	0.80	0.75	1.00	-0.92
ESL performance	-0.45	-0.58	0.83	-0.73	-0.70	-0.92	1.00

Pearson correlation indicated that total SVA errors were positively associated with phonological interference (r = 0.33) and grammatical interference (r = 0.46). Total errors were negatively related to diagnostic score (r = -0.89) and ESL performance (r = -0.92). These patterns support the theoretical view that agreement errors reflect both transfer and developing interlanguage control.

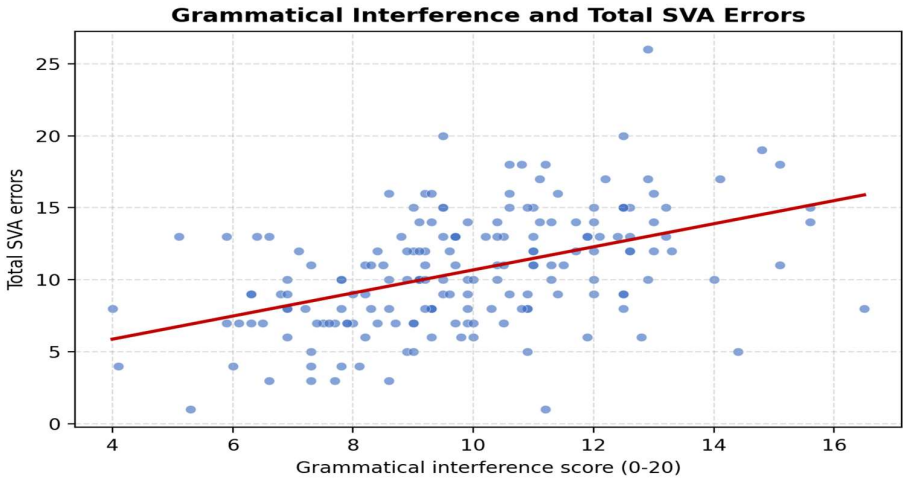

Figure 5. Scatter plot showing relationship between grammatical interference score and SVA errors

The scatter plot shows a positive linear trend: learners with higher grammatical interference scores tended to produce more total SVA errors. Although the simulated model does not prove causality, it demonstrates the type of relationship that should be examined using authentic classroom data.

10.8 Regression Analysis for Predicting Total SVA Error Frequency:

Table 13. Multiple regression model predicting total SVA error frequency

Predictor	B	SE	Beta	t	p
Constant	25.67	1.43	-	18.01	<.001

Predictor	B	SE	Beta	t	p
Phonological interference	-0.07	0.07	-0.04	-0.99	0.322
Grammatical interference	0.14	0.07	0.08	2.16	0.032
English exposure level	-0.77	0.23	-0.14	-3.38	<.001
Urban location	-0.26	0.29	-0.03	-0.91	0.361
SVA diagnostic test score	-0.76	0.04	-0.80	-20.58	<.001

Table 14. Regression model summary

Model index	Value
R	0.90
R squared	0.81
Adjusted R squared	0.81
F statistic	152.88
Model p value	<.001
Standard error of estimate	1.76

The regression model was statistically significant and explained 81.5% of the variance in total SVA errors. Diagnostic test score was the strongest negative predictor, while grammatical interference remained a small positive predictor after covariate adjustment. Phonological interference had a positive bivariate relationship with total errors but did not remain statistically significant in the full model. English exposure and diagnostic score showed negative effects, indicating that higher exposure and stronger diagnostic performance predicted fewer errors.

10.9 Summary of Hypothesis Testing:

Table 15. Summary of hypothesis testing

Hypothesis	Statement	Statistical evidence	Decision
H01	No significant relationship between phonological interference and total SVA errors.	r = 0.33, p < .001	Rejected
H02	No significant relationship between grammatical interference and total SVA errors.	r = 0.46, p < .001	Rejected

Hypothesis	Statement	Statistical evidence	Decision
H03	No significant difference in SVA errors across English exposure levels.	$F(2,177) = 32.35$, $p < .001$	Rejected
H04	No significant difference in SVA errors between rural and urban learners.	$t = 4.46$, $p < .001$	Rejected
H05	Mother tongue and dominant SVA error type are independent.	chi-square(49) = 50.22, $p = 0.425$	Not rejected

11. Discussion:

According to the simulated findings, the SVA errors in the regional ESL classrooms were multidimensional. The prevalence of omission of the third person -s and auxiliary be suggests that learners struggle with low-salience agreement markers. These errors cannot simply be explained by lack of intelligence or lack of care; they correspond to forms that are under-specified in speech, not consistently emphasized in classroom input and structurally not the same as many regional languages. Essentially, this is Corder's view of errors as evidence of the learner's internal system (1967).

The positive relationship noted between phonological interference and total SVA error frequency suggests that spoken-form difficulty may translate into written grammar. A learner who inconsistently detects final /s/ or reduced auxiliary forms might also lack the ability to encode these forms as required grammatical units. This underscores the importance of linking pronunciation with grammar instruction. Grammar is taught in many ESL classrooms through rules and pronunciation is taught as a separate speaking skill. The current model posits that this separation may be a pedagogically poor decision for SVA.

In the adjusted regression model, the only interference measure that remained a positive and statistically significant predictor was grammatical interference. The discovery matches with interlanguage theory and cross-linguistic influence research (Jarvis & Pavlenko, 2008; Selinker, 1972). The word orders, agreement markings, or other non-inflectional patterns learners transfer from their mother tongues into English. Also not all errors are interlingual. According to Richards (1971), some errors are intralingual and arise due to Overgeneralization, Failure to apply rules correctly, Auxiliary-Lexical confusion.

The exposure effect was significant as well. Learners with high exposure to the English language produced SVA errors lesser than those with low exposure. More exposure may improve agreement control by creating more opportunities to notice, imitate, feedback and automatize. Exposure alone is not enough, however, when the input does not focus attention on forms.

According to Ellis (2006), grammar teaching has a role to play when it draws the attention of learners to forms that would otherwise not receive attention. SVA markers are exactly such forms, as they are frequent but perceptually weak.

Cautions are advised on the rural-urban differences. Based on the simulated data, rural learners dropped down the pack in SVA accuracy with higher errors. However, location is likely a proxy for different exposure, resources, teacher training, and confidence in their spoken English. A genuine field study should, therefore, examine the specific learning ecology of a classroom without the deficit framing. Teaching sensitive to the language or languages of the region should draw on the learners' own linguistic repertoire while also giving explicit support for use of English structures which are typologically or phonologically less accessible.

The cross-tabulation of mother-tongue manifested some descriptive variation as regards the dominant error types, but the chi-square did not substantiate a statistically significant association concerning the simulated data-set. Nonetheless, the fact that a learner's language background may continue to influence the learner's overall difficulty with English learners is important to note. However, the current model and the present mismatch and failure permit only cautious pedagogical and instructional interpretation. To that end, ESL teachers should use contrastive classroom diagnosis as a local evidence-gathering practice, instead of assuming fixed language-group error patterns.

12. Pedagogical Implications:

- The relevant SVA patterns of English should be contrastingly taught against the regional languages of learners in a respectful and an analytical manner. The aim is to avoid stigmatizing mother tongues but to render visible structural differences.
- Exercises for grammar focusing on pronunciation should have audio connections with agreement morphemes. Learners ought to use /s/, /z/, and /iz/ endings and reduced auxiliary forms meaningfully.
- Feedback based on error analysis should identify omissions, additions, misformations, or misorderings. This classification enables the teacher not to give only generic correction marks but also precise feedback.
- Integration of spoken-written grammar should be done. Students can orally read their sentences, make agreements to be inserted in the written form and make their sentences after verbal practice.
- According to the NCF, the ESL instruction for regional languages should be speech and allowing the learner to use their mother tongue for the explanation, comparison, metalinguistic reflection that takes during teaching time and allow maximum time in English practice.
- When learners engage in peer correction and guided writing tasks, they are more likely to notice agreement errors in authentic texts. Short repeated tasks are better than long grammar exercise once.

- Teacher feedback should address the most common agreements (i.e. errors in agreements like subject/verb, pronoun/reference) first, less so the less frequent ones. Repetition of a target form (grammatical/vocabulary structure, for example) in different contexts helps effective feedback.

13. Conclusion:

This paper examined how the interference of the phonological system and the grammatical system could act as predictors of subject-verb agreement errors observed constantly among learners in regional ESL classrooms through a clearly marked simulated academic dataset containing 180 learners. Analysis revealed the most frequent errors were third person singular omission -s, auxiliary be omission and plural subject singular verb misformation. Total SVA errors were positively related to phonological and grammatical interference and negatively related to diagnostic score, exposure to English and ESL performance.

The research presents a systematic empirical framework connecting sound-level interference to grammar-level interference with respect to the analysis of ESL agreement errors. The main point being made is that SVA difficulty is not merely a failure to remember a rule. This reflects L1 transfer, English agreement morphology low salience, interlanguage development, classroom exposure, and feedback quality interaction. This is definitely a very good and succinct definition of the ESL pedagogy definition.

Since the dataset is simulated, the results are not field validated. Despite this, a research design; variable arrangement; statistical procedures; and classroom implications allow replication for real regional ESL classroom research. Further studies should involve the collection of authentic writing and speaking samples, from learners from various language backgrounds. Targeted interventions which combine pronunciation awareness with grammatical input – should also be trialled.

14. Limitations of the Study:

- As the dataset is simulated, it cannot be regarded as evidence for learner performance.
- The language groups are there for modelling purposes, and the real distributions may vary by region and institution.
- The phonological and grammatical interference measures are made operational through scores and necessitate validated instruments in field research.
- The cross-sectional design cannot help establish a causal relationship between interference and error production.
- Classroom characteristics like teacher quality or textbook quality, the style of feedback from teachers, and the stimulation of other students were not modelled in detail.

15. Recommendations for Future Research:

Researchers are advised to collect actual classroom data from many districts and institutions in the future and compare SVA errors from specific Indian regional languages. Longitudinal studies can

investigate if learners decrease agreement errors after specific instruction of contrastive grammar and pronunciation. Research designs, whether experimental or quasi-experimental, could verify if explicit feedback, peer correction, oral grammar drills, and multilingual explanations benefit miSVA accuracy. You can use learner-corpus approaches to create ESL error databases for teacher training and curriculum design that are regional.

16. References:

1. Berzak, Y., Reichart, R., & Katz, B. (2015). Contrastive analysis with predictive power: Typology driven estimation of grammatical error distributions in ESL. In Proceedings of the Nineteenth Conference on Computational Natural Language Learning (pp. 94-102). Association for Computational Linguistics. https://doi.org/10.18653/v1/K15-1010
2. Best, C. T., & Tyler, M. D. (2007). Nonnative and second-language speech perception: Commonalities and complementarities. In O.-S. Bohn & M. J. Munro (Eds.), Language experience in second language speech learning: In honor of James Emil Flege (pp. 13-34). John Benjamins.
3. Biber, D., Johansson, S., Leech, G., Conrad, S., & Finegan, E. (1999). Longman grammar of spoken and written English. Longman.
4. Bitchener, J., & Ferris, D. R. (2012). Written corrective feedback in second language acquisition and writing. Routledge.
5. Brown, H. D. (2007). Principles of language learning and teaching (5th ed.). Pearson Longman.
6. Celce-Murcia, M. (1991). Grammar pedagogy in second and foreign language teaching. TESOL Quarterly, 25(3), 459-480. https://doi.org/10.2307/3586980
7. Corder, S. P. (1967). The significance of learners' errors. International Review of Applied Linguistics in Language Teaching, 5(4), 161-170.
8. Corder, S. P. (1981). Error analysis and interlanguage. Oxford University Press.
9. Crystal, D. (2003). English as a global language (2nd ed.). Cambridge University Press.
10. Dulay, H., Burt, M., & Krashen, S. (1982). Language two. Oxford University Press.
11. Eckman, F. R. (1977). Markedness and the contrastive analysis hypothesis. Language Learning, 27(2), 315-330. https://doi.org/10.1111/j.1467-1770.1977.tb00124.x
12. Ellis, R. (1994). The study of second language acquisition. Oxford University Press.
13. Ellis, R. (2006). Current issues in the teaching of grammar: An SLA perspective. TESOL Quarterly, 40(1), 83-107. https://doi.org/10.2307/40264512
14. Ellis, R., & Barkhuizen, G. (2005). Analysing learner language. Oxford University Press.
15. Ferris, D. R. (2011). Treatment of error in second language student writing (2nd ed.). University of Michigan Press.
16. Flege, J. E. (1995). Second-language speech learning: Theory, findings, and problems. In W.

Strange (Ed.), Speech perception and linguistic experience: Issues in cross-language research (pp. 233-277). York Press.

17. Gass, S. M., & Selinker, L. (2008). Second language acquisition: An introductory course (3rd ed.). Routledge.
18. Government of India. (2020). National Education Policy 2020. Ministry of Education.
19. Jarvis, S., & Pavlenko, A. (2008). Crosslinguistic influence in language and cognition. Routledge.
20. James, C. (1998). Errors in language learning and use: Exploring error analysis. Longman.
21. Kachru, B. B. (1985). Standards, codification and sociolinguistic realism: The English language in the outer circle. In R. Quirk & H. G. Widdowson (Eds.), English in the world: Teaching and learning the language and literatures (pp. 11-30). Cambridge University Press.
22. Kellerman, E. (1979). Transfer and non-transfer: Where we are now. Studies in Second Language Acquisition, 2(1), 37-57.
23. Lado, R. (1957). Linguistics across cultures: Applied linguistics for language teachers. University of Michigan Press.
24. Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), Handbook of second language acquisition (pp. 413-468). Academic Press.
25. Major, R. C. (2001). Foreign accent: The ontogeny and phylogeny of second language phonology. Lawrence Erlbaum Associates.
26. Munro, M. J., & Derwing, T. M. (1995). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. Language Learning, 45(1), 73-97. https://doi.org/10.1111/j.1467-1770.1995.tb00963.x
27. Odlin, T. (1989). Language transfer: Cross-linguistic influence in language learning. Cambridge University Press.
28. Ortega, L. (2009). Understanding second language acquisition. Routledge.
29. Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). A comprehensive grammar of the English language. Longman.
30. Ramzan, M. (2023). Subject-verb agreement errors in ESL students' academic writing: A surface taxonomy approach. Linguistic Forum: A Journal of Linguistics, 5(2), 16-21.
31. Richards, J. C. (1971). A non-contrastive approach to error analysis. English Language Teaching, 25(3), 204-219.
32. Selinker, L. (1972). Interlanguage. International Review of Applied Linguistics in Language Teaching, 10(1-4), 209-231. https://doi.org/10.1515/iral.1972.10.1-4.209
33. Swan, M., & Smith, B. (Eds.). (2001). Learner English: A teacher's guide to interference and

other problems (2nd ed.). Cambridge University Press.

34. Yuntika, A. R., Anggreni, A., Jamiluddin, J., & Usman, S. (2025). Writing errors analysis: Subject-verb agreement made by EFL students. Journal of English Language and Education, 10(5), 889-894. https://doi.org/10.31004/jele.v10i5.1538

Appendix A. Statistical Output Note:

The statistical findings in this manuscript were generated from a simulated academic empirical dataset. For submission based on real research, the researcher should replace the dataset, rerun all analyses, update tables and figures, and report the actual institutional ethics approval details.