



RESEARCH PAPER**Error Analysis of English Language Competence of Computer Science Students at University of Kotli Azad Jammu and Kashmir**

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ABSTRACT

Use of technology has brought revolution in every sphere of life especially it has provided higher level of facilitation to the students on correct writing in English language. It has not only helped students preserve their written work, it has also facilitated their language related problems also. However, technological use for written work in English language has affected correct language use at a greater extent. The uses of grammar checker, grammarly software and quillbot have made students dependent on technology. The students of Computer Science excessively make the use of technology and spend most of their time on laptops and computers which has badly affected their correct language use. Keeping in view the phenomenon, current study was conducted to investigate the types and level of language errors made by the students at University of Kotli Azad Jammu and Kashmir. In this respect, 20 students of Computer Science were selected randomly to carry out the study. These students were given the topic, 'My Dreams' and they were asked to develop an essay of 200 words. Their writings were collected and their copies were distributed to three different English teachers for identification of mistakes. Finally, most common mistakes were highlighted and categorized. The categorized data was analyzed through simple statistical tool and the researchers found problems such as cohesion, lack of cohesive devices, inappropriate use of subject-verb agreement, spelling errors, prepositional errors, punctuation mistakes and errors in the use of capitalization.

KEYWORDS Computer Science, English Language, Error Analysis

Introduction

Mistakes and errors are common in the language of second learners of English language. Most of the studies indicated that second language learners make various mistakes in the use of English. However, those students are technology friendly, they commit various errors in their English language use. Mistakes and errors both are two different terms. When the students make errors under the influence of anger, anxiety, sadness, excitement and carelessness and are not made consistently, these are mistakes whereas when language mistakes are made consistently and the language user is unable to remove them, these are termed as errors. In addition, inter-language errors and intra-language errors perform an adverse role in English language teaching and learning at higher level students' linguistic competence. Corder (1974), affirm that inter-lingual error interferes due to transfer error. Taylor (1983) states that in early stage of learning a language, inter-language transfer dominates in the learning process. Intra-lingual errors were classified by Richards (2004) and Brown (2007) who claimed that these errors are responsible for every type of mistakes. However, some other researchers, like, Gürsel

(1998), Yılmaz (2004), Çepni (2014), Suhono (2016), Suwastini and Yukti (2017) and Mantarlı (2019) found and claimed that intra-lingual errors prevail over inter-lingual errors. Errors are those mistakes which are the part of learner's competence which need to be addressed. Different teaching methodologies are used to develop the errors from the communication of the students. In Pakistan, exam mode is written where the students' linguistic competence is judged on the basis of their written responses, that is why, written linguistic expression is of paramount importance for the teachers and researchers to develop written communication of the students. In this respect, different writing modules are applied to improve their writing skills but the students of Computer Science need different treatment and already introduced contents and modules are insufficient to cater the language issues of technology related students which demands for different teaching methodologies and techniques to reduce their English language errors and enhance their written communication.

Literature Review

Numerous studies have been conducted to investigate the phenomenon of error analysis in the linguistic competence of second language learners. Coder (1967) introduced three key elements of error analysis. First one is related to the comprehension of the researcher or teacher to identify the nature of the errors made by the learners of second language. In other words, the students of second language need to have mastery over different linguistic aspects particularly including phonetic and phonological aspect, semantic and syntactic aspect, pragmatic and discourse aspect in order to determine the errors which may be taught and the students can be targeted on the basis of certain specific error areas. Moreover, structure system of every language is difficult and even complex for the second language learners (Wilkins, 1972). Secondly, content or material is required to be selected and it is finished once the researcher/teacher of English language understands the problem areas. When it is done, the teacher decides the kind of content and material to be included to make it effective for the students to settle the linguistic issues mentioned above.

A study conducted by Erdogan (2005) indicates that when mistakes and errors of the learners are analyzed, process of language acquisition can possibly be understood. Moreover, it is pertinent to draw a difference between mistake and error. In this respect, Ellis (1997) and Brown (2007) made a distinction where common point is that when an incorrect form is found in the use of language consistently, and the learner is unable to remove or correct that mistake, it is error whereas an error which is made often due to lack of attention, excitement, carelessness and fatigue that is a mistake.

According to Hemchua & Schmit (2006), there are four types of errors which the learners commonly make. These errors are classified as lexical errors, semantic errors, grammatical errors and mechanical errors. First category of errors include lexical errors which means that errors made as misspelling, borrowing, coinage and claque or literal translation (Llach, 2007). Second category is a semantic error which means errors in the meaning of words, phrases and clauses. Third category is that of grammatical errors which includes grammatical errors which include inappropriate verb use or misplaced modifier use etc. Fourth category is that of mechanical errors related to punctuation and capitalization (Maner, 1996).

Chiang (1981) claimed that errors which are made by the learners of second language face problems and insufficiency related to language composition. The moment, errors are identified and material is selected for teaching to give appropriately required input of second language material to the learners, then comes the third step. This includes

the kind of teaching methodology selected for teaching purposes. There are many ways of analyses including Contrastive analysis and Error Analysis where the former was introduced by Brown (1980) which arose from the critique of audio-lingual method and the latter arose from the need of objective statistics to prove the previous hypothesis. However, some linguists believe that contrastive structure system does not bring fruitful results to cater the phenomenon of removing the language errors and developing the language skills of the learners of the second language. Further, Coder's (1971) idiosyncratic dialect and Nemser's (1971) approximative systems are used to describe the same linguistic issue. Selinker (1972) observed inter-language phenomenon which riggers the latent psychological structure in the brain of a learner that gets activated once the learner begins learning the second language. Selinker (1972) introduced six types of language developmental errors including interference, overgeneralization, performance errors, markers of transitional competence, strategies of communication and assimilation, and teacher induced errors. However, there is another type or factor 'technology' which makes the students dependent upon the laptop, and computer use and the learners give up improving their language because they mostly use grammarly application and quillbot application to remove their mistakes and for paraphrasing purposes. This creates a gap for the present study to investigate the errors made by the students of information technology at University of Kotli Azad Jammu and Kashmir.

Material and Methods

The study aims at investigating the phenomenon of English language errors present in the writing of the students who are closely attached to technology. In this respect, 20 students of Computer Science at University of Kotli Azad Jammu and Kashmir were selected randomly for the current study. These students were given topic, 'My Dreams' with word limit of 200 words. The written topics were collected, copied and were provided to three English language teachers to identify the mistakes. The teachers highlighted their mistakes and common mistakes were categorized. The collected data was tabulated and analyzed through simple statistical tool to obtain the results. The results found that cohesion, lack of use of cohesive devices, inappropriate use of subject-verb agreement, spelling errors, punctuation and capitalization errors were found at a great extent which lead to a particular teaching methodology, use of specific type of text material and particular learning environment to be used by giving different linguistic treatment to the students of Computer Science to fix their language errors from their written communication expressions.

Results and Discussion

The selected individuals were given topic, 'My dreams' with word limit of 200 words. The written material was collected, copied and handed over to three English language teachers who evaluated, identified the errors and highlighted them. Most common errors were selected and categorized. These categorized errors were counted and written in numerical form. This numerical data was tabulated and then analyzed through the use of simple statistical tool. The error categories were coded and given the codes such as: CoE stands for Cohesion errors, CDE stands for Cohesive devices, SVAE stands for Subject-verb agreement, SE stands for Spelling errors, PunE stands for Punctuation errors, PPE stands for Prepositional errors, and CapE stands for Capitalization errors. The results are as under:

Table 1
Frequency distribution of different categories of language errors

Students	CoE	CDE	SVAE	SE	PunE	PPE	CapE
Student 1	10%	7%	30%	18%	27%	16%	31%
Student 2	13%	8%	25%	3%	26%	02%	09%
Student 3	19%	40%	34%	33%	22%	12%	22%
Student 4	29%	35 %	33%	18%	25%	28%	33%
Student 5	35%	12%	22%	25%	23%	06%	25%
Student 6	15%	10%	21%	24%	18%	14%	32%
Student 7	21%	29%	12%	13%	24%	13%	14%
Student 8	18%	33%	15%	24%	25%	12%	27%
Student 9	22%	25%	33%	18%	13%	19%	34%
Student 10	5%	12%	20%	21%	12%	13%	22%
Student 11	21%	22%	18%	29%	10%	12%	35%
Student 12	8%	14%	25%	32%	16%	02%	27%
Student 13	17%	34%	28%	37%	18%	14%	34%
Student 14	23%	18%	22%	25%	12%	13%	23%
Student 15	28%	23%	19%	19%	14%	15%	22%
Student 16	22%	18%	34%	28%	13%	20%	27%
Student 17	2%	22%	21%	20%	23%	10%	24%
Student 18	19%	27%	18%	37%	14%	12%	22%
Student 19	30%	33%	36%	27%	15%	09%	20%
Student 20	18%	21%	19%	25%	20%	08%	35%
Total	18.8%	22.2%	24.3%	23.8%	18.5%	12.5%	25.9%

Table above indicates the frequency of students errors found in the form of seven categories including cohesion errors, errors of cohesive devices, inappropriate use of subject-verb agreement, spelling errors, punctuation errors, prepositional errors, and errors in capitalization. Following are the results of every error category including lowest frequency errors, highest frequency errors, frequency of errors between 10% and 20% and frequency of errors between 21% and 30%. In this respect, it is found that lowest category errors of cohesion are 2%, 5% and 10% while highest frequency errors of cohesion category are 30% and 35%. The error frequency for cohesion is consisted of 8 students ranging between 11% and 20% whereas frequency for cohesion ranging between 21 and 30 is consisted of 07 students. Second category is the use of cohesive devices for which lowest frequency is 7% and 8% and highest frequency category of use of cohesive devices is 33% 35% and 40%. Six students showed the frequency of use of cohesive device ranging between 10% and 20% 6 whereas 12 students results for the use of cohesive devices is 12. Lowest frequency has not been found for the category of subject-verb agreement whereas six students showed the highest frequency for the same category. 14 students showed frequency ranging between 10% and 20% for the category of subject-verb errors. Lowest percentage for the spelling error category is 3 and four students showed the highest percentage for the same category whereas 14 students were identified with percentage 10% and 20%. Nine students showed their percentage for the category spelling errors between 21% and 30%. Fifth error category is that of punctuation errors which showed neither the lowest percentage nor the highest percentage. However, 11 students showed frequency of spelling errors ranging between 10% and 20% and 09 students were identified with spelling error frequency between 21% and 30%. Sixth category is that of prepositional errors where the lowest error frequency was found 2%, 2%, 6%, 8%, and 9% and not single student was found with category of prepositional errors. Thirteen students were identified with prepositional error category whereas only one student was identified with prepositional error category. Last category of errors is that of errors of capitalization where not a single student was identified with the errors of capital letters while 09 students were identified with the highest frequency errors. Only two students were found in

capitalization error category whereas 12 students were identified with capitalization error category ranging between 21% and 30%.

English Language errors are common in the writings of university students but the students who are closely connected to technology commit linguistic errors at a greater level. In order to find the percentage of different types of errors, the study was conducted on the selected sample of the student of Computer Science at University of Kotli Azad Jammu and Kashmir. Seven categories of errors were found as a result of the current study including errors of cohesion, errors in the use of cohesive devices, inappropriate use of subject-agreement, spelling errors, punctuation errors, prepositional errors and errors of capitalization. Use of first two error categories is based upon an individual's personal knowledge and skills whereas errors in subject-verb errors has its connection with technology that helps the users to make correction of errors if found while writing on computers or laptops. In the same way, five other error categories are related to technological support as if there is any mistake related to these error categories, computer system highlights these errors with blue, green and red underlining which can be corrected just with one click. Results found as a consequence of this study indicated that highest total error frequency was found in error category of the use of capitalization (25.9%) which is the result of technological use as the computer system itself highlights the errors of capital letters and the students can correct it without applying their personal knowledge and skills. Second and third highest total frequency was found in error categories of subject-verb agreement (24.3%) and spelling errors (23.8%) which are related to the use of technology. The computer system itself highlights the errors of subject-verb agreement and spelling errors. Ultimately, it gradually makes the users dependent on itself that ultimately results in reduction of correct use of subject-verb agreement and spelling related competence. Only prepositional errors were found at the lower level (12.5%) as although these errors were present in the writing of the students but these are the errors rarely highlighted by the computer system.

Conclusion

Based on research objectives, the study concludes that there are seven types of linguistic errors of English language which are commonly made by the students of Computer Science at the University of Kotli Azad Jammu and Kashmir, namely cohesion errors, errors in the use of cohesive devices, inappropriate use of subject-verb agreement, spelling errors, punctuation errors, prepositional errors, punctuation errors, and errors in the use of capitalization. Secondly, the study found that students of Computer Science have serious issue with their use of capital letters, correct use of spellings and in subject-verb agreement competence. Punctuation errors and errors in the use of prepositions are also common but as compared to the above mentioned categories, they were found with low intensity. Errors of cohesion, cohesive devices errors and errors in the use of prepositions are based on an individual's personal knowledge and skills and they have no direct connection with technological use. However, most surprising fact found was related to the errors found in the use of punctuation that is lower than other technology related linguistic issues because computers support the users to make corrections if present in any textual chunk and ultimately can make the users dependent upon themselves but in the current study, punctuation errors were found only 18.5%. Thus, the study recommends to design particular teaching methodology remedial to cater linguistically problematic areas (Peng, 1976) of the students of Computer Science to develop their written communication up to a required point.

Recommendations

The researchers can focus on comparative error analysis of the competence of the students of Computer Science with the students' competence of English language related to other academic disciplines. Moreover, similar kind of studies can be conducted on investigating error analysis of oral communication of the students of Computer Science or of the students of other academic areas. Teachers of English language can be interviewed for getting data regarding the causes of errors in the communication skills of the students and suggestions can be obtained from them to develop English language proficiency of the students of Computer Science or of any other academic discipline.

References

- Brown, H. D. (1980). The optimal distance model of second language acquisition. *TESOL quarterly*, 157-164.
- Brown, H. D. (2007). *Principles of language learning and teaching*. 5th edition. New Jersey: Prentice Hall.
- Çepni, G. (2014). *Error analysis in writings of English language teaching prep students: A study on bilinguals of Kurdish and Turkish majoring in English*. Unpublished MA Thesis, Çağ University, Mersin, Turkey.
- Chiang, T. H. (1981). Error analysis: A study of errors made in written English by Chinese learners. *Unpublished MA Thesis, NTNU*.
- Corder, S. P. (1967). The significance of learners' errors. *IRAL-International Review of Applied Linguistics in Language Teaching*, 5 (4), 161-170.
- Gürsel, E. (1998). *Error analysis of the English writings of the students from the department of foreign languages at the university of Gaziantep*. Master's Thesis, Gaziantep University, Gaziantep, Turkey.
- Hemchua, S., & Schmitt, N. (2006). An analysis of lexical errors in the English compositions of Thai learners. *Prospect*, 21(3), 3-25.
- Llach, M. P. A. (2007). Lexical errors as writing quality predictors. *Studia Linguistica*, 61(1), 1- 19. <https://doi.org/10.1111/j.1467-9582.2007.00127.x>
- Maner, M. (1996). Research writing: proofread for mechanical errors. *TEXT Technology*, 6 (2), 97-101.
- Mantarlı, B. (2019). *Error analysis of English writings of 11th and 12th grade students in foreign language classes*. Master's Thesis. Bartın University, Institute of Educational Sciences, Bartın, Turkey.
- Nemser, W. (1971). Approximative systems of foreign language learners.
- Peng, L. H. (1976). *An error analysis of English composition written by Malaysian speaking high school students*. Unpublished MA Thesis, University of California, Los Angeles, USA.
- Putri, D. A. (2019).
- Richards, J. C. (2004). *Error Analysis: Perspectives on second language acquisition* (3rd edition). London: Longman. Rivers, W. M. (1981
- Suhono, S. (2016). Surface strategy taxonomy on the efl students' composition: A study of error analysis. *Iqra'*, 1(2), p.1. <https://doi.org/10.25217/ji.v1i2.128>
- Suwastini, N.K.A. & Yukti, W.G.S. (2017). Errors analysis in short biography text written by the 11th grade students of a vocational high school in Singaraja. *International Journal of Language and Literature*, 1(1), 1-10. <https://doi.org/10.23887/ijll.v1i1.9612>
- Taylor, B. P. (1983). Teaching ESL: Incorporating a communicative, student centred component. *TESOL Quarterly* 17(1), 69 – 88. <https://doi.org/10.2307/3586425>

Wilkins, D. A. (1972). *Linguistics in language teaching* (Vol. 111). London: Edward Arnold.

Yılmaz, F. (2004). *A study on error analysis in the use of collocations and idiomatic expressions in sentence translation from Turkish to English*. MA Thesis, Selçuk University, Konya, Turkey.