An Exploratory Investigation of Bangladeshi Students' Perceptions regarding Autocorrection in Academic Writing Proficiency

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A thesis submitted to Department of English Daffodil International University, in partial fulfillment of the requirements for the degree of Bachelor of Arts (Hons) in English

Daffodil International University

May 2024

Declaration

I, Md. Alief Al Amin, affirm that I had spent enough time adequately reviewing the research paper guidelines set by the Department of English held at Daffodil International University. I am committed to being bound by all the policy's particulars, complete rules, and regulations. During my research, I have carefully examined all relevant resources and adequately cited and mentioned each one.

The research paper was conducted during the spring 2024 semester under the supervision of Md. Rafiz Uddin, Lecturer in the Department of English. The project significantly contributed to my English Honor's degree. I endorse that this document, or any part, has never been submitted to anything similar, like scholarship, degree, publication, or others. I guarantee that the text of this particular piece is the result of my efforts.

I take full responsibility for this work's authenticity.

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The thesis titled “An Exploratory Investigation of Bangladeshi Students’ Perceptions regarding Autocorrection in Academic Writing Proficiency” submitted by

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of Summer 2020 has been accepted as satisfactory in partial fulfillment of the requirement for the degree of Bachelor of Arts (Hons) in English on 27 May 2024.

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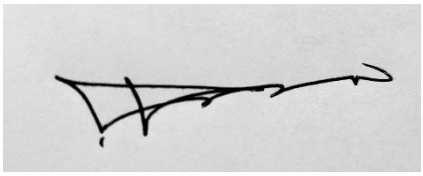

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Acknowledgement

First and foremost, I would like to give thanks to Almighty Allah for the strength and willpower I possessed, which enabled me to finish my thesis. I am delighted to express my sincere gratitude to my supervisor, Mr. Rafiz Uddin. My paper was achievable with the unwavering support, guidance, and detailed comments, summaries, and revisions he gave. His comments and observations were often the needed gears that drive the whole research engine.

I also want to thank to my best friend for giving me accompany in my hard times, for always be there for me, for always cheering me up, without whom, I would not be here today writing my thesis in fresh mind.

I owe a special acknowledgment to my father, a constant source of inspiration in my life. He always supported me no matter what I did, he always believed in me. For which I am truly grateful. I also extend my deepest appreciation to my mother, my pillar of strength and motivation, who never left my side during the challenging times of my academic journey.

Abstract

This study aims to explore Bangladeshi students' perceptions of autocorrection (AC) tools and their impact on academic writing proficiency. Conducted using a quantitative research method, the study involved an online survey distributed via Google Forms to 99 students from various universities across Bangladesh, predominantly targeting undergraduate students, with a minority of graduate participants. The survey comprised questions assessing students' views on the importance of spelling skills, their awareness and use of AC features, and the perceived educational value of AC tools. The main findings indicate that while AC tools provide immediate benefits by reducing spelling errors and enhancing writing efficiency, they also pose significant long-term risks. Students reported a high dependency on AC, which led to decreased attention to spelling accuracy and reduced confidence in their spelling abilities when AC was disabled. Moreover, the reliance on AC tools appears to negatively affect their overall writing skills, suggesting that these tools, while helpful in the short term, may hinder the development of essential spelling and writing competencies over time.

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Chapter 1
Introduction

Sometimes, when we write, the words might not look the way we expect them to. This can happen, especially for people who speak a different language as their first language. When a word is written unusually, it is called a spelling error. Spelling errors make the text harder to read and understand. For computers to understand language, they need the words to be spelled correctly.

However sometimes, writers do not have enough time or skill to fix spelling errors. That is where autocorrect (AC) systems come in. These systems help to find the right spelling of a word. They look for words that might be spelled wrong and suggest different options to fix them. The suggestions are usually ranked based on how likely they are to be the right word and how well they fit in with the rest of the sentence. Then, the best suggestion can be chosen either by the user or automatically by the system.

One way these systems work is by highlighting the misspelled word and offering suggestions for corrections. The person using the system can then choose the best suggestion. This is often used in programs that help with checking and fixing spelling errors in documents. Autocorrect (AC) system is helpful for professionals who work with a lot of written text. They also make it easier to use mobile devices and search the internet by correcting mistakes as we type. These systems are also useful for learning a new language and making it easier to type on smartphones or search for things online.

While autocorrection (AC) systems offer valuable assistance in identifying and correcting spelling errors, their widespread use in academic writing contexts raises concerns regarding their potential negative impact on students' writing proficiency. This is a study to see what Bangladeshi students think about autocorrect when they are writing schoolwork. This research specially wants to find out if they think autocorrect makes their writing worse in the long run.

The prevalence of autocorrection software in digital communication platforms including Microsoft Word, Google Docs, Grammarly, Ridmik Keyboard, Gboard, SwiftKey, has led to

its integration into various aspects of academic writing. However, the convenience offered by autocorrection may come at a cost, as it may foster overreliance among students and undermine their ability to develop essential writing skills independently.

In the context of Bangladesh, where English language proficiency plays a crucial role in accessing educational and employment opportunities, understanding the implications of autocorrection on students' writing skills is of paramount importance. While autocorrection may initially appear to facilitate spelling accuracy and enhance writing efficiency, its long-term effects on language acquisition and critical thinking skills warrant closer examination.

Sanchez, Arcila, Baldomero, Cahanding, Leon & Samson (2023) suggests that autocorrection systems, while effective in identifying and correcting spelling errors, may inadvertently discourage students from actively engaging with language mechanics and rules (Sanchez, Arcila, Baldomero, Cahanding, Leon & Samson, 2023). The automatic correction provided by autocorrection software may lead to a superficial understanding of spelling and grammar, hindering students' ability to independently identify and correct errors. Moreover, the ubiquity of autocorrection in digital communication may contribute to a decline in spelling proficiency and literacy among students, raising concerns about the overall quality of academic writing (Hladek, Staš & Pleva, 2020).

This exploratory investigation aims to address these concerns by exploring Bangladeshi students' perceptions regarding autocorrection in academic writing proficiency. By conducting quantitative research methods, this study seeks to uncover the nuanced attitudes and experiences of students regarding autocorrection usage. Specifically, the focus will be on explaining the effects of autocorrection on spelling accuracy, writing skills development, and language proficiency among Bangladeshi students.

Chapter 2
Literature Review

2.1 Introduction

This chapter will review existing research on autocorrection technology, spelling proficiency, and its implications for language education, particularly in the context of Bangladeshi students. Students who come from non-English background and pursue study in English at tertiary level in Asia, particularly in Bangladesh face great difficulty in their academic writing classes (Rahman & Hasan, 2019). Effective writing requires strong grammar, vocabulary, and the ability to express ideas clearly and concisely. In the digital age, autocorrection has become an important feature in word processing software and mobile devices, aiming to enhance writing accuracy and efficiency (Sanchez, Arcila, Baldomero, Cahanding, Leon & Samson, 2023). This literature review examines existing research on autocorrection, its effects on writing skills, and its specific relevance to the Bangladeshi educational context. This chapter will also include literature to highlight how autocorrection is affects in students' learning, especially in learning English as a second language. Lastly it will analyze some possible challenges for using autocorrection as an educational tool.

2.2 Autocorrection Technology: Advancements and Limitations

Autocorrection technology, also known as spell checkers and grammar checkers, has advanced significantly over a long time. Initially, these devices depended on essential rule-based systems that hailed potential mistakes based on predefined language rules (Kukich, 1983). However, with advancements in computational linguistics and natural language processing, modern autocorrection tools utilize more sophisticated algorithms to analyze context and provide more accurate suggestions (Miller & Ginsburg, 2017).

Despite these advancements, autocorrection tools are not without limitations. The effectiveness of autocorrection depends on various factors, including language complexity, writing context, and the accuracy of the underlying language model (Kukich, 1983). For instance, autocorrection tools may struggle with detecting errors in non-standard language

varieties or context-specific terminology, leading to inaccurate suggestions or false positives (Miller & Ginsburg, 2017).

2.3 Impact of Autocorrection on Vocabulary and Spelling

Several studies examine the relationship between autocorrection and vocabulary development. Gholizadeh & Rahimi (2023) investigated the mediating role of academic self-regulation in the association between autocorrect use and vocabulary size. Overreliance on autocorrection can hinder vocabulary development and relying too much on autocorrect can make it harder to learn how to write well freely (Gholizadeh & Rahimi, 2023). Similarly, students who used autocorrection more frequently exhibited lower vocabulary knowledge. Relying on autocorrection tools influence students' writing skills (Ismael, Saeed, Ibrahim, & Fatah, 2022).

Research suggests that students often rely on autocorrection to correct spelling errors without actively engaging with the correct spelling suggestions (Branham, 2014). This overreliance on autocorrection may lead to a lack of attention to spelling patterns and word recognition skills, ultimately impeding vocabulary acquisition (Liu & Sadler, 2003). Autocorrection tools may not always accurately identify spelling errors, especially in the context of non-standard or context-specific terms. As a result, students may accept incorrect autocorrections, further perpetuating spelling errors (Miller & Ginsburg, 2017).

However, autocorrection can improve students' spelling accuracy, particularly for low-frequency words (Hussein, 2024). This aligns similar that autocorrection use can be helpful for students with weaker spelling skills (Sanchez, Arcila, Baldomero, Cahanding, Leon & Samson, 2023).

2.4 Autocorrection and Critical Thinking

The potential influence of autocorrection on critical thinking skills is a growing concern. Some students reported relying too heavily on the technology, potentially hindering their ability to self-correct errors (Hladek, Staš & Pleva, 2020). This highlights a crucial aspect of critical thinking – the ability to identify and address errors independently. Overdependence on autocorrection may create a false sense of security, leading students to believe their writing is error-free when it might not be.

Further supporting this concern, Wood (2014) suggests that autocorrection can weaken students' proofreading abilities and critical thinking (Wood, 2014). Critical thinking in writing involves not only identifying errors but also understanding the underlying reasons for those errors. When students rely solely on autocorrection for error detection, they may miss opportunities to develop essential skills like analyzing sentence structure, grammar, and word choice (Wood, 2014). This, in turn, can hinder their ability to critically evaluate their own writing and make informed revisions.

Students may become complacent, relying on autocorrection to fix errors without critically evaluating the underlying grammar rules or language conventions (Vie, 2019). Also, autocorrection tools may limit students' opportunities for self-editing and revision, hindering the development of essential critical thinking skills (Tardy & Snyder, 2004).

The concern extends beyond simply identifying errors. Critical thinking also involves the ability to analyze information, synthesize ideas, and develop well-supported arguments. By relying on autocorrection to "fix" their writing, students may miss opportunities to engage in the deeper cognitive processes necessary for critical thinking. Without actively analyzing their writing and making deliberate revisions, students may struggle to develop the critical thinking skills crucial for academic success.

2.5 The Influence of Autocorrection on Grammar and Punctuation

The impact of autocorrection on grammar and punctuation skills remains a topic of debate. While some studies suggest minimal impact on these areas, others raise concerns about potential drawbacks (Hussein, 2024).

Research was conducted on investigating the effects of autocorrection on student writing and findings indicate that autocorrection can improve students' spelling accuracy, particularly for low-frequency words (Hussein, 2024). This suggests a potential benefit for grammar and punctuation, as misspelled words can often disrupt sentence structure and clarity. In some cases, autocorrection tools may introduce errors or provide incorrect suggestions, leading to confusion among students (Branham, 2014). This reliance on autocorrection can undermine students' understanding of grammar and punctuation rules, ultimately impeding their writing proficiency.

Gholizadeh and Rahimi (2023) posits that autocorrection has limitations in identifying and correcting grammatical errors. Students may develop a false sense of security, believing their writing is grammatically correct when it might contain errors that autocorrection simply missed which led to a decline in students' ability to identify and correct grammatical mistakes on their own (Gholizadeh & Rahimi, 2023).

Autocorrection tools offer real-time feedback on grammatical errors and punctuation mistakes, providing students with opportunities to improve their writing accuracy (Bitchener & Knoch, 2010). However, the effectiveness of autocorrection in enhancing grammar and punctuation skills depends on various factors, including the accuracy of the underlying language model and the complexity of the writing context (Miller & Ginsburg, 2017).

Overall, the research on the influence of autocorrection on grammar and punctuation presents a mixed picture. While there may be some benefits for spelling accuracy, concerns exist regarding its ability to effectively address grammatical errors and potentially hinder students' development of independent grammar and punctuation skills.

2.6 Focused other areas of technology in case of academic writing

Technological tools are playing a mass role in diminishing students’ academic writing proficiency. In addition, owing to these technological devices, students tend to use short forms of words which hampers the writing skill as they mostly do not know the actual term for these (Alhusban, 2016). Contrarily, mobile skill is mandatory to improve writing skill. There is a method of teaching writing through using video and the result is effective and beneficial. Hence, students’ ability to run technological devices is significant at all (Siregar, 2020). Furthermore, another investigation depicts that there is ‘padlet’, a technological tool which is used to assess students’ writing proficiency properly. This tool can be added as a new dimension in handling students’ writing proficiency (Jon & Tan, 2021). Information and communication technology along with social media helps students in shaping writing proficiency. It is also noticed that in case of EFL learners and to enhance positive attitude towards a new learnt language, social media is effective for undergraduate students (Bakeer, 2018). It is to be mentioned that a new dimension is already added in writing which is Artificial Intelligence (AI). In the case of teaching-learning process, this tool is effective. Integration of this tool for teaching writing and usage of it for learners both are beneficial

(Kaharuddin,2021). Nevertheless, enhancing beginner learners' writing skills through "online diary" is also effective. It is assessed by students' grades (Chuchuen, 2021). Also, a social media platform, Facebook is also integrated in developing students' writing skills. From the cognitive and applied linguistics aspects, it is exponentially helpful for the EFL learners (Klimova & Pikhart, 2019).

However, tertiary level students' overall English language skills are also enhanced through using Facebook. Apart from class, overall activities also gradually improve language skills (Alam,2022). This tool can also diminish students' English learning, especially of EFL and ESL learners (Islam, 2018). In addition, non-native users' orthographic errors are also studied. It is explored that through traditional spellcheckers, correction is instantly done but why the error is made it is not focused and so progress is too few (Reynolds, Janda & Nesset, 2022)

2.7 The Bangladeshi Context

English is taught as a second language in Bangladesh, and students often face challenges related to language proficiency and academic writing conventions (Haque, 2016). Moreover, cultural attitudes towards technology and education influence how Bangladeshi students engage with autocorrection tools (Khan, 2018). While some students may embrace technology as a tool for learning and communication, others may be more skeptical or resistant to its use in academic contexts.

Autocorrection technology is widely used among Bangladeshi students, both in academic and non-academic contexts. With the proliferation of smartphones and internet access, autocorrection has become an integral feature of digital communication platforms, including social media, messaging apps, and word processing software.

Despite its prevalence, there is limited research on the impact of autocorrection on writing proficiency among Bangladeshi students. Understanding students' perceptions of autocorrection and its implications for language learning and writing instruction is crucial for informing academic practices and curriculum development efforts in Bangladesh.

2.8 Gaps in the Literature

Despite the growing importance of autocorrection technology in academic writing, there are notable gaps in the literature, particularly concerning Bangladeshi students' perceptions and experiences. While existing research provides a foundation for understanding the impact of autocorrection on academic writing, existing research predominantly focuses on Western contexts, overlooking the unique linguistic and cultural factors that shape writing proficiency in Bangladesh. Moreover, studies examining the impact of autocorrection on critical thinking and problem-solving skills among Bangladeshi students are limited (Hyland, 2021). Addressing these gaps is essential for developing a comprehensive understanding of the role of autocorrection in writing proficiency among Bangladeshi students.

2.9 Significance of the Current Study

The current study seeks to address these gaps by exploring Bangladeshi students' perceptions of autocorrection in academic writing proficiency. By examining the impact of autocorrection on vocabulary, spelling, critical thinking, grammar, and punctuation skills, this study aims to provide valuable insights into the complex interplay between technology and writing development in the Bangladeshi context. Through quantitative research methods, the study will explore students' experiences, beliefs, and strategies related to autocorrection use. The findings will contribute to a deeper understanding of the Bangladeshi context and inform the development of effective writing instruction strategies that integrate technology without compromising critical thinking and language acquisition skills.

2.10 Research Questions:

1. Has spelling improved for Bangladeshi students after using autocorrection in everyday life?
2. What effect does autocorrection have on Bangladeshi students’ academic writing skills?

Chapter 3
Methodology

3.1 Research Method

This study uses a quantitative research design to investigate Bangladeshi students' perceptions regarding the use of autocorrection (AC) in academic writing proficiency. The primary method of data collection is an online survey distributed through Google Forms to many university students of Bangladesh. The survey is structured to gather detailed responses on students' experiences and attitudes towards AC, particularly focusing on its impact on spelling skills and overall English academic writing proficiency.

3.2 Participants

The participants of this study consist of 99 students from various universities across Bangladesh. Most of the people in this study were undergraduate students but there were also some graduate students. Age of the participants were between 18 to 27. The participants were asked to join their survey by sending them through chatting apps of social media. Anyone who is currently a student in Bangladesh and has ever used autocorrect on their computer stuff could join, but it was totally voluntary, no one was forced. It was promised to them that everything will be kept confidential.

3.3 Data Collection Instruments

The primary data collection instrument is an online survey administered through Google Forms. The survey consists of 14 questions designed to assess students' perceptions of autocorrection in academic writing. The questions are structured as statements, and respondents are asked to indicate their level of agreement using a five-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree." The survey questions are as follows:

1. In these days, Spelling skill is essential in learning English using autocorrection.

2. In the days coming, Spelling skill is essential in learning English writing using autocorrection.
3. I know that writing software on my computer has an autocorrection feature.
4. I know that writing apps on my smartphone have an autocorrection feature.
5. I am aware of how autocorrection functions on my own computer.
6. I am aware of how autocorrection works on my smartphone.
7. I find autocorrection to be a significant app.
8. Using autocorrection assists me in overcoming difficulties with spelling English words.
9. I depend on autocorrection entirely.
10. When using autocorrection, I make sure to notice and correct any misspelled words.
11. I make an effort to learn the new words that autocorrection catches as misspelled.
12. When I deactivate autocorrection, I find myself confused about the spelling of words I write.
13. I believe that relying on autocorrection has made me less careful about spelling English words correctly.
14. I feel that depending on autocorrection has a negative impact on my writing skills.

3.4 Data Collection Procedure

The data collection procedure involves some steps. A survey is developed in Google Forms, ensuring that it is user-friendly and easy to navigate. The questions are carefully designed to capture the key aspects of students' perceptions regarding autocorrection. Before the final administration of the survey, Cronbach’s alpha (α) was used to ensure clarity and reliability of the questions.

The final version of the survey is distributed to students through chatting apps of social media platforms. The distribution message includes a brief introduction to the study, the purpose of the survey, and instructions on how to complete it. The survey remains open for a period of 3/4 days to allow ample time for students to participate. Reminders are sent out periodically to encourage participation and ensure a high response rate.

During the data collection period, the responses are monitored to ensure the completeness and accuracy of the data. Any incomplete or duplicate responses are identified and addressed.

3.5 Data Analysis

The data collected from the survey are analyzed using quantitative methods. The following steps outline the data analysis procedure:

Data Cleaning: The survey responses are reviewed and cleaned to remove any incomplete or duplicate entries. This ensures the accuracy and reliability of the data set.

Descriptive Statistics: Descriptive statistics, including means, standard deviations, frequencies, and percentages, are calculated for each survey question. This provides an overview of the general trends and patterns in the data. SPSS 25 version was use to analysis data.

Correlation Analysis: Correlation analysis is used to explore the relationships between students' perceptions of autocorrection and their reported impact on spelling skills and writing proficiency. This helps to identify any significant associations between the variables.

Reliability analysis: Cronbach’s alpha (α) was used to ensure reliability of the questions. Cronbach's alpha measures the level of agreement on a standardized 0–1 scale. Higher values indicate more agreement between items. High Cronbach's alpha values indicate that each participant's response values across a series of questions are consistent.

Chapter 4

Result and findings

4.1.1 Demographic Information

The study surveyed a total of 99 students from various universities across Bangladesh, focusing on their perceptions of autocorrection and its impact on their academic writing proficiency. The demographic information of the participants provides a comprehensive understanding of the sample's diversity, which is crucial for interpreting the results.

Autocorrection software	Percent
Microsoft Word	23.9
Google Docs	19.6
Grammarly	17.4
Ridmik Keyboard	28.3
Gboard	8.7
SwiftKey	2.2
Total	100.0

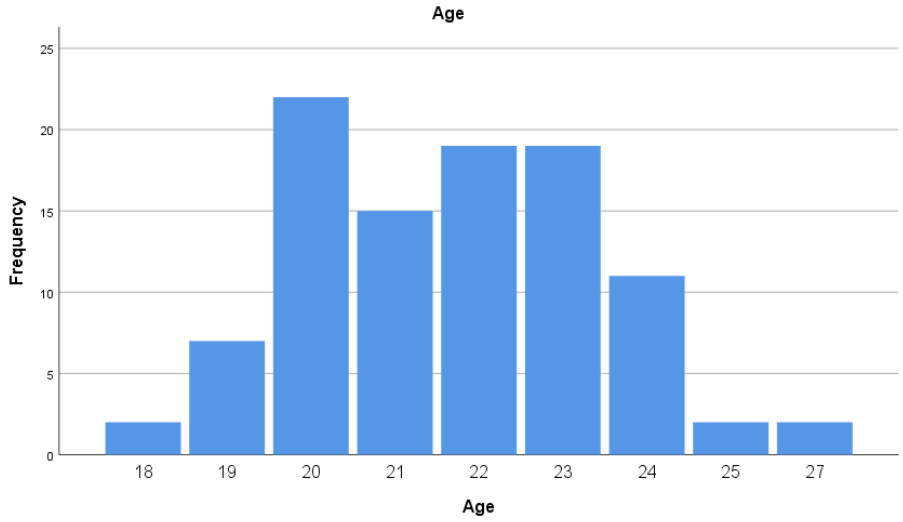
According to the survey, everyone uses autocorrection software in their everyday life. It shows that most of the students (28.3%) use Ridmik Keyboard as their autocorrection software. Then they tend to use MS Word (23.9%), Google docs (19.6%), Grammarly (17.4%) etc. as their autocorrection software.

The key findings from the survey indicate that while students acknowledge the importance of spelling skills in using autocorrection, there is a significant awareness of AC functionalities

on both computers and smartphones. However, there are mixed perceptions regarding the educational value of AC, with some students expressing concerns over complete dependency on these tools. The results also highlight a general agreement that relying on autocorrection might lead to a decline in carefulness about spelling accuracy and negatively impact overall writing skills.

4.1.2 Age

The age range of the participants spans from 18 to 27 years. The age distribution within the 18 to 27 range captures a key segment of the university population. Most participants are likely to be in their early 20s, which is typical for undergraduate students, while other proportion of participants in their mid to late 22s. This age group predominantly consists of undergraduate and graduate students, aligning well with the target population of this study. It represents a typical university demographic, encompassing both younger students who are new to higher education and older students who might be completing their graduate studies or have taken longer to complete their undergraduate education. Understanding the age distribution is important as it can influence familiarity with technology, including autocorrection tools, and different educational experiences.



4.1.3 Gender

Out of the 99 participants, 47 were male and 52 were female. This near-equal gender distribution ensures that the perspectives gathered are balanced and inclusive of both male and female students. This balance is crucial for assessing whether there are gender-specific

perceptions or uses of autocorrection tools. The slight female majority reflects broader trends in higher education enrollment in Bangladesh, where increasing numbers of women are pursuing university degrees. This gender balance is important for analyzing any potential gender-based differences in perceptions and usage of autocorrection tools. Studies in educational technology often highlight gender differences in technology adoption and usage patterns, making this a relevant factor for analysis in the context of autocorrection tools.

		Percent
Valid	Male	47.5
	Female	52.5
	Total	100.0

4.1.4 University Representation

The participants came from 11 different universities across Bangladesh, ensuring a broad representation of educational institutions, captures a wide range of academic environments. This diversity includes students from both public and private universities, encompassing a variety of academic environments and resources. The universities represented in the study include some of the major institutions such as the Daffodil International University, University of Dhaka, East West University, Bangladesh University of Engineering and Technology (BUET), Jahangirnagar University, North South University, and others. These universities likely vary in terms of resources, technological infrastructure, and educational practices. This mix of universities helps to capture a wide range of student experiences and access to technological tools, including autocorrection features. Including students from both public and private institutions, offers a comprehensive view of the educational landscape in Bangladesh and how it might affect the use of autocorrection tools.

		Percent
Valid	Daffodil International University	44.4
	East West University	10.1
	University of Dhaka	32.3
	National University	5.1
	Independent University Bangladesh	2.0
	BUET	1.0
	University of Asia Pacific	1.0
	BRAC University	1.0
	Jahangirnagar University	1.0
	North South University	1.0
	Islamic University	1.0
	Total	100.0

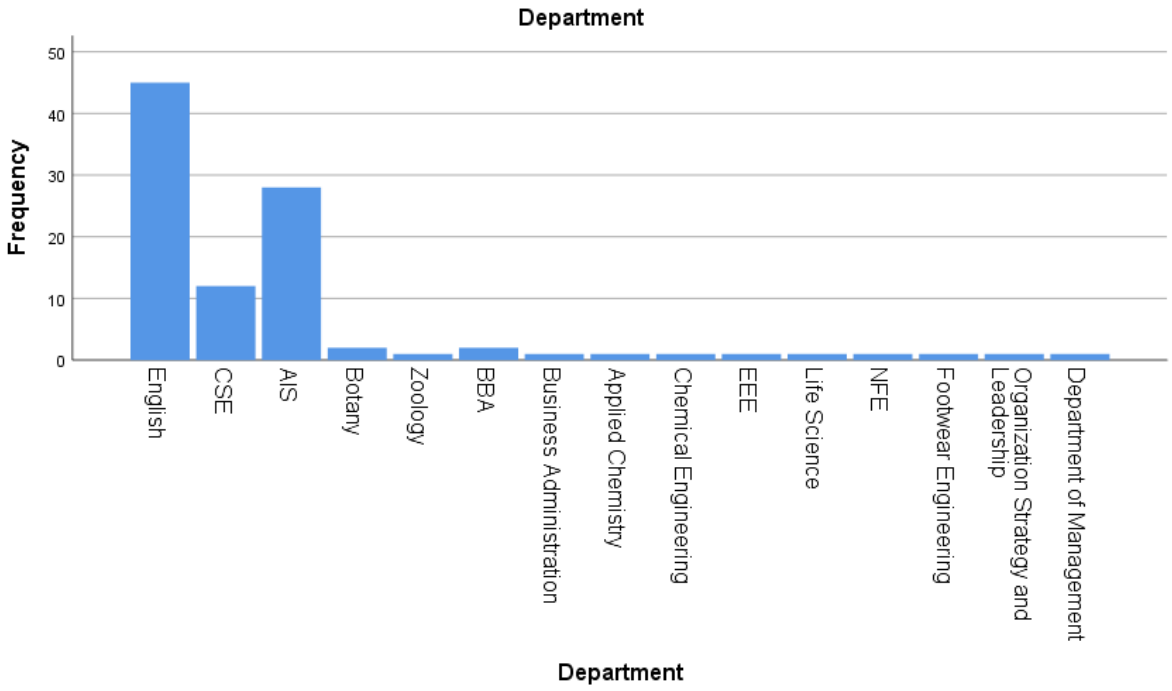
4.1.5 Academic Disciplines

The survey covered students from 15 different departments, ensuring a wide array of academic disciplines. This diversity in academic backgrounds includes students from the humanities, social sciences, engineering, business, and other fields. Such a varied academic representation is crucial for understanding how perceptions of autocorrection might differ

across disciplines. This variety allows for the exploration of disciplinary differences in the use of and attitudes towards autocorrection. For instance, students in language-intensive fields such as English or History might rely more on autocorrection for writing assignments, whereas students in technical fields such as Engineering or Computer Science might use these tools differently.

This demographic diversity in age, gender, university, and academic discipline provides a robust foundation for analyzing the impact of autocorrection on students' writing proficiency. It ensures that the findings are not limited to a specific subset of the student population but are reflective of a broad cross-section of university students in Bangladesh.

The demographic information suggests that the study's sample is adequately representative of the broader student population, encompassing a range of ages, gender, universities, and academic disciplines. This representation enhances the generalizability of the study's findings, allowing for more comprehensive conclusions about the impact of autocorrection on academic writing proficiency among Bangladeshi students.



4.2.1 Descriptive Statistics and Reliability Analysis

The study employed a survey instrument comprising five factors to assess Bangladeshi students' perceptions regarding autocorrection in academic writing proficiency. Each factor consisted of a set of questions aimed at capturing different aspects of students' attitudes and behaviors towards autocorrection. Descriptive statistics, including means and standard deviations, were computed for each factor to examine the central tendency and variability of responses. Additionally, Cronbach's Alpha coefficient was calculated to assess the internal consistency or reliability of each factor.

4.2.2 Factor 1: The Importance of Spelling Skills in Using AC

This factor comprised two questions exploring the perceived importance of spelling skills in utilizing autocorrection.

	Mean	Std. Deviation
In these days, spelling skill is essential in learning 1 using autocorrection.	3.59	1.000
In the days coming, spelling skill is essential in learning 1 writing using autocorrection.	3.54	1.023

The means for both items are above the midpoint (3.00), suggesting that students generally agree on the importance of spelling skills in the context of autocorrection. The factor demonstrated high internal consistency, with a Cronbach's Alpha coefficient of .887, indicating strong reliability.

4.2.3 Factor 2: AC Function Awareness

This factor included four questions related to participants' awareness of autocorrection functions on different devices. The mean scores and standard deviations for each question were as follows:

	Mean	Std. Deviation
I know that writing softwares of my computer have autocorrection feature.	3.91	.797
I know that writing apps of my smartphone have autocorrection features.	3.99	.814
I am aware of how autocorrection functions on my own computer.	3.89	.727
I am aware how autocorrection works on my smartphone.	3.90	.827

The means for all items are high, indicating a strong awareness among students about the autocorrection features on their devices. The factor exhibited good internal consistency, with a Cronbach's Alpha coefficient of .848, indicating high reliability.

4.2.4 Factor 3: Educational Value of AC

This factor included three questions assessing participants' perceptions of the educational value of autocorrection. The mean scores and standard deviations for each question were as follows:

	Mean	Std. Deviation

I know that writing softwares of my computer have autocorrection feature.	3.91	.797
I know that writing apps of my smartphone have autocorrection features.	3.99	.814
I am aware of how autocorrection functions on my own computer.	3.89	.727
I am aware how autocorrection works on my smartphone.	3.90	.827

The mean for Question 9 is notably lower than for the other items, indicating less agreement on the complete dependence on autocorrection. Other than question 9, mean of those 2 ques are high enough. The factor demonstrated relatively low internal consistency, with a Cronbach's Alpha coefficient of .417, suggesting lower reliability compared to other factors.

4.2.5 Factor 4: AC Error Correction Function

This factor comprised two questions investigating participants' behaviors related to autocorrection error correction. The mean scores and standard deviations for each question were as follows:

	Mean	Std. Deviation
I find autocorrection as a significant app.	3.59	.990

Using autocorrection assists me in overcoming difficulties with spelling 1 words.	3.80	1.000
I depend on autocorrection entirely.	2.69	1.037

Both items have means above the midpoint, suggesting that students generally pay attention to and learn from the corrections made by autocorrection tools. The factor exhibited good internal consistency, with a Cronbach's Alpha coefficient of .791, indicating strong reliability.

4.2.6 Factor 5: AC Value in Learning English Spelling/Writing

This factor included three questions exploring participants' beliefs about the impact of autocorrection on their spelling and writing skills. The mean scores and standard deviations for each question were as follows:

	Mean	Std. Deviation
When using autocorrection, I make sure to notice and correct any misspelled words.	3.88	.704
I make an effort to learn the new words that autocorrection catches as misspelled.	3.73	.806

The means for these items are relatively high, indicating a general perception among students that reliance on autocorrection may negatively impact their spelling accuracy and overall

writing skills. The factor demonstrated moderate internal consistency, with a Cronbach's Alpha coefficient of .671, indicating acceptable reliability.

Cronbach's Alpha	N of Items
.699	14

The descriptive statistics and reliability analysis provide a detailed understanding of students' perceptions regarding autocorrection tools. The high means and acceptable to high Cronbach's Alpha (.699) scores of all the questions suggest that students recognize the importance and utility of autocorrection features. However, the lower mean for complete dependence on autocorrection (Question 9) and the relatively high means for the perceived negative impacts (Questions 12, 13, and 14) highlight concerns about overreliance on these tools.

This study showed that autocorrect can be helpful for improving writing, but it's important not to rely on it so much that students forget how to spell.

Chapter 5

Discussion

5.1 Introduction

The primary aim of this research was to explore the perceptions of Bangladeshi students regarding the impact of autocorrection (AC) on their academic writing proficiency. Specifically, the study sought to determine whether spelling skills have improved with the advent of autocorrection tools and to understand the overall effect of autocorrection on writing skills.

5.2 Recommendation

The findings of this study have several implications for educational practices in Bangladesh. Firstly, educators should emphasize the importance of maintaining strong foundational spelling skills even when using AC tools. Integrating AC training into the curriculum could help students use these tools more effectively as learning aids rather than crutches. Secondly, there should be a balanced approach to using technology in education. While AC tools can enhance writing efficiency and reduce spelling errors, overreliance on them can undermine students' cognitive engagement and critical thinking skills. Educators should encourage students to use AC tools as a supplement to traditional learning methods, ensuring that students continue to develop their spelling and writing skills independently.

Lastly, further research is needed to explore the long-term impacts of AC on students' writing proficiency. This study provides a snapshot of current perceptions, but longitudinal studies could provide deeper insights into how these tools affect learning outcomes over time.

Furthermore, this research has aligned with the previous studies in terms of sharing negative points of view about technology and language. Students tend to use short forms while writing anything using technological devices which affects their actual linguistic repertoire (Alhusban, 2016). However, apart from this viewpoint, this research has explored the effective outcomes of technology in terms of academic writing while previous scholarly articles also portrayed the same thing. According to Bakeer (2018), social media helps EFL learners to boost their linguistic repertoire. This paper has also examined that students'

writing proficiency became poor after using auto correction. Therefore, although the previous article provides the effectiveness of technological devices in writing, this paper puts emphasis on showcasing the fatal and long term effects of using technological devices. Moreover, this research has not entirely provided a devastating scenario of technology; rather, it has demonstrated that using it in an improper way can lead to severe downfall. Although this paper portrays the contrary viewpoint of the previous studies regarding technology and Writing, but to delve into thematically it aligns with the previous studies. In this fast-paced globalized era, one should boldly accommodate with technology to manifest himself while some of the core issued should also be kept in mind to omit pitfalls. Social media along with other online tools could enhance writing skills (Siregar, 2020), but some of the features such as, auto correction should be avoided and then the fruitful utilization will be depicted. Nevertheless, students' tendency of proofreading can also diminish the pitfalls.

5.3 Limitation

There are few limitations of this study found. Firstly, as the paper emphasised on students' perceptions, so, students' own perception might not accurately portray their proficiency level. Therefore, to strengthen the reliability, proficient or skilled personnel' perceptions could also be gathered. The primary focus was on undergraduate students, with only a few graduate students, might limit the generalizability of the findings to other educational levels. The data was collected only by the quantitative method. The result would be stronger if the study was taken in both quantitative and qualitative method.

According to the result, AC tools have a dual effect on students' writing skills. On the positive side, AC tools help students overcome spelling difficulties and learn new words, enhancing their vocabulary and writing confidence. On the negative side, overreliance on AC can lead to less carefulness in spelling and potentially hinder the development of writing skills. Students report confusion and decreased confidence in their spelling abilities when AC is deactivated, suggesting a dependency that could be detrimental to their writing proficiency in the long run. While AC tools have provided immediate benefits, their long-term impact on spelling improvement remains inconclusive.

Overall, while autocorrection tools offer significant advantages in terms of spelling correction and writing efficiency, it is crucial to address their potential negative impacts on

students' writing skills. By fostering a balanced approach that integrates technology with active learning, educators can help students develop robust writing competencies in the digital age.

Chapter 6
Conclusion

The exploration into Bangladeshi students' perceptions regarding the use of autocorrection (AC) tools in academic writing proficiency reveals a complex landscape where benefits and challenges coexist. The findings underscore the importance of understanding students' attitudes towards technology integration in educational settings and highlight the need for a balanced approach to utilizing AC tools.

According to the result of this research, Bangladeshi students recognize the importance of spelling skills even when using AC tools. While they acknowledge the immediate benefits of AC in reducing spelling errors and improving writing efficiency, there are concerns about the potential long-term impact on spelling skills and overall writing proficiency. Students are generally aware of AC functionalities on their computers and smartphones and actively engage with these tools to notice and correct misspelled words and learn new vocabulary. The findings suggest that while AC tools offer significant benefits in terms of reducing spelling errors and improving writing efficiency, there are notable concerns about their impact on spelling skills and overall writing proficiency. Students report confusion and decreased confidence in their spelling abilities when AC is deactivated, indicating a dependency that could be detrimental to their writing proficiency in the long run.

In conclusion, this study showed that while spell checkers and other writing tools can help Bangladeshi students write faster and with fewer mistakes, they might also hurt their ability to spell and write well on their own in the long run. Teachers and people who make decisions about schools need to be aware of this. They should find a way to use these tools in a smart way that helps students but doesn't make them worse spellers. In the end, the most important thing is to teach students how to use technology wisely so they can write well in this digital world.

Chapter 7

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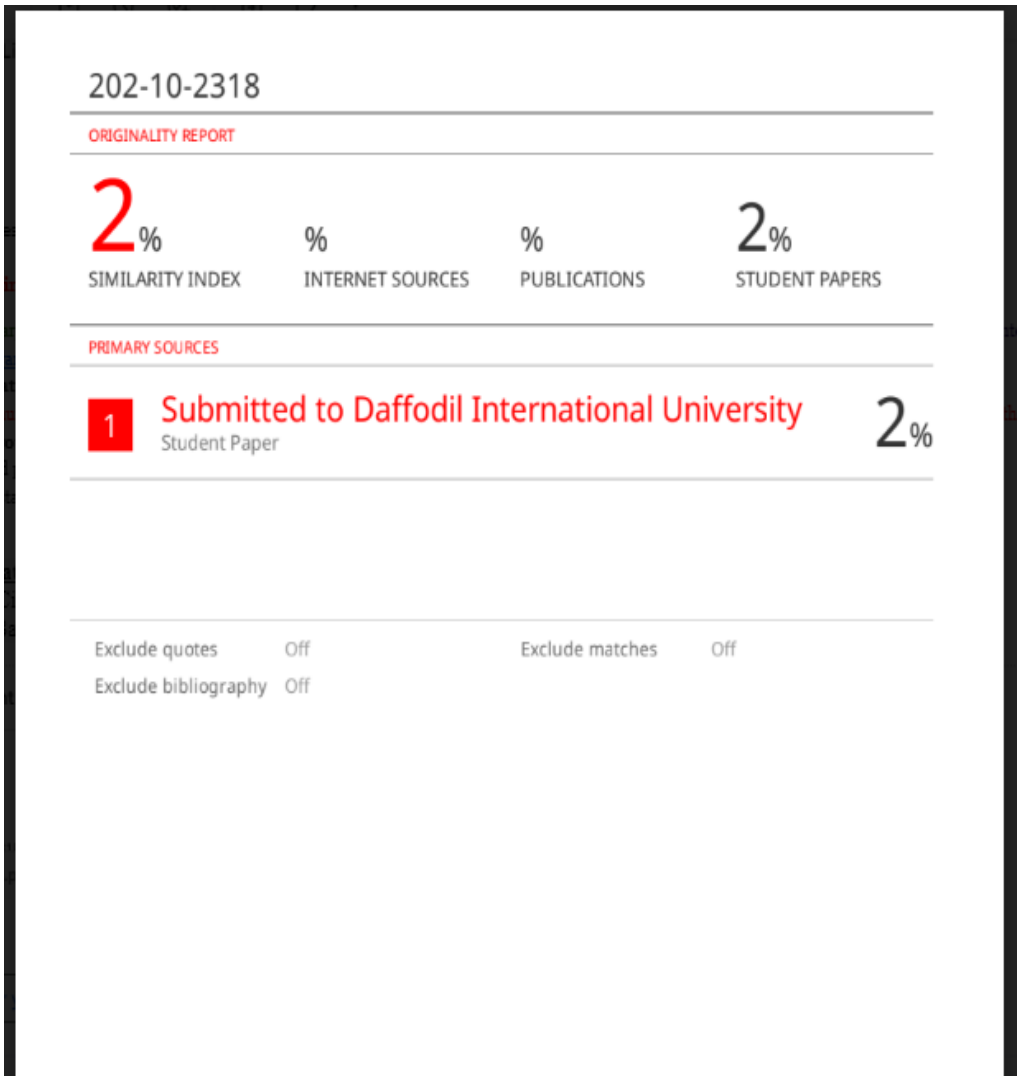
Chapter 8

Appendix



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