

Computer-Mediated Communication and Orthographic Competence: A Linguistic Pattern Analysis Among Senior High School Students

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Abstract:

Communication trends such as abbreviations and acronyms have dominated Computer-Mediated Communication (CMC) worldwide. These shortened words are used for speed and convenience in communicating with friends and family members. This research assesses the frequent utilization of linguistic patterns in CMC and the orthographic competence among 319 senior high school students in the public school system. It employed a descriptive-correlational research design utilizing an adapted questionnaire from a texting dictionary and Agbon, R.L (n.d), and Questionnaire on Textese. The data gathered were statistically treated with average mean, standard deviation, and p-value to assess the central tendency, variability, and significance of the findings, respectively. The result revealed that the mean average of (1) frequent utilization in terms of acronyms yielded a score of 2.47 (Competent), while for abbreviations, it was 3.02 (Incompetent). The (2) level of orthographic competence in the essay was 63.63% (Did Not Meet Expectation), and for sentences, it amounted to 39.5% (Satisfactory). The researchers also found that the mean (3) perception score regarding the impact of CMC on their orthographic competence was 3.05 (Incompetent). Statistically, there is no significant relationship between the frequent utilization of linguistic patterns and the respondents' orthographic competence, which implies that although the usage of acronyms and abbreviations is a prevalent linguistic feature in digital communication, it cannot affect the spelling ability of the users. However, this indicates that other significant factors, apart from linguistic patterns, could significantly influence orthographic competence.

Keywords: orthographic competence, linguistic pattern, Computer-Mediated Communication (CMC), acronyms, abbreviations

1. Introduction

Language shortcuts such as acronyms and abbreviations are prevalent in computer-mediated communication (CMC). Communication in the 21st century has reached its peak, and online messaging applications such as Messenger and WhatsApp combine to send more than 60 billion messages daily (Goode, 2016). CMC users continue to show growth across all demographics. A recent study in the Philippines by Statista Research Department found that most of the country's population used Messenger and Short Message Service (SMS) to communicate with friends and family (Mateo, 2022). As users continue to use technology for messaging, the emergence of new language sets to occur as they use shorthand methods of writing rather than using complete words. Users are more interested in getting their messages across and thus becoming less concerned about the correct spelling of the terms (Shafie et al., 2010). The study of Thubakgale & Chaka (2016) investigated the effects of text messaging on the written works of grade 11 students at a public school in Petoria. It has shown unsatisfactory results; thus, CMC negatively impacts the orthographic competence of the users. In contrast, the findings of Petrillo (2006) revealed that instant messaging gives the respondents exposure to written words, possibly resulting in higher literacy attainment. Hence, this study aims to investigate the effects of frequent utilization of linguistic patterns in Computer-Mediated Communication on the orthographic competence of senior high school students as the basis of crafting instructional material.

1.1 Gap of the Study

This study bridges the gap by focusing on the respondents' orthographic competence based on the emergence of linguistic patterns among youth, such as using acronyms and abbreviations in online messaging. This study is timely since new language terminologies are continually introduced within youth subcultures, especially when using communication technologies. Thus, the conduct of this study would give additional insights into the existing literature on linguistic ethnography.

1.2 Objectives

This study aims to investigate the effects of frequent utilization of linguistic patterns in Computer-Mediated Communication on the orthographic competence of senior high school students as the basis of crafting instructional material.

2. Theoretical Background

The theoretical underpinnings of this study are the linguistic adaptivity theory proposed by Segerstad (2002) and the retroactive interference and decay theory. In addition, Republic Act No. 10533 - an act enhancing the Philippine basic education system and Republic Act No. 10844 – an act creating the Department of Information and Communications Technology served as the legal basis of this study.

The language Adaptivity theory of Segarstad (2022) posits and expounds on the context of CMC, which supports the present study. The theory suggests language is a dynamic and adaptive system shaped by social interaction, cognitive processes, and cultural influences. It is relative to the rational behavior of language users' communicative competence, which is highly evident in CMC as one of the variables of the present study.

In addition, as discussed in Andersson (2015), retroactive interference and decay theory explain the connection between the language in CMC and its adverse effects on literacy. Andersson mentioned that retroactive interference and decay theory are interrelated to memory, providing an extensive interpretation of an individual's orthographic competence. Retroactive interference theory explains that an individual cannot recall past information because of the new information added. This new

information blocks the retrieval of the old data. For instance, an individual who already acquired the standard spelling of a word might need to remember to spell it if the non-standard spelling of the word is frequently used. In this case, retroactive interference theory disrupts learning. Moreover, decay theory suggests that if old information is not seen or used for a quiet period, it may disappear gradually. For example, if the standard spelling of the words is not used daily, and the language used in CMC is frequently used, then it would be difficult for an individual to remember the standard spelling.

Based on the Republic Act No. 10533, also known as the "Enhanced Basic Education Act of 2013", implementing the K-12 program during the two years lengthening for high school will improve Filipino students' linguistic skills to exhibit competence, including spelling competency further. This educational system will give students enough time to master a field, enhance their skills, and ensure their readiness before proceeding to college. Furthermore, the Republic Act No. 10844 known as the "Department of Information and Communications Technology Act of 2015". In Section 2, the law mentioned that promoting ICT enhances public services, particularly in education. This promotes digital literacy and ICT expertise in the classroom setting. The teachers will be using computers, and the internet will provide an innovation in teaching and learning activities. Throughout the implementation of ICT in the classroom, it is expected that computer-mediated technology will be the means of communication between teachers and students for educational-related updates. The chances are high that the students will spend most of their time roaming on social media rather than spending it for educational purposes. Oche & Aminu (2010) posit that most students and adolescents nowadays own Facebook accounts, gradually resulting in a massive decline in students' academic performance. Additionally, students use social media to communicate with their peers, and Obi et al. (2012) observed that the majority of students who often explore social media routinely have coined and adopted peculiar practices of writing and abbreviating words in formal settings and during chatting, which is gradually becoming integral to their formal writing skill.

3. Methods

This study used a descriptive method that employed quantitative and qualitative research types to analyze the collected data. The researchers utilized qualitative research for non-standardized data based on meanings that needed to be expressed through words, such as the students' perceptions. Moreover, such a method fits the purpose of the study as it intends to describe the linguistic patterns via computer-mediated communication, students' orthographic competence, and the relationships among these variables. Meanwhile, the researchers utilize quantitative research to strengthen the foundation of the study by supporting numerical data as it aims to examine the senior high school student's level of orthographic competence. The frequency and simple percentage are used to describe the demographic profile of the respondents as well as their average number of online messages sent per day, average hours spent in online messaging, the availability of gadgets at home, and the speed of the internet connection. The Weighted Mean determines the level of exposure and usage of the commonly used words and statements (acronyms and abbreviations) in online chat or CMC. However, to test the respondent's level of orthographic competence through a scoring procedure, the Department of Education (DepEd) K-12 grading scale, descriptors, and remarks as of 2015 are utilized. The respondents' level of perception of the effects of CMC on orthographic competence is also tested using the Weighted Mean. Furthermore, the hypothesis is tested by determining the data's p-value and alpha.

4. Results and Discussion

In the frequent utilization of linguistic patterns via CMC in terms of acronyms, the respondents' level of orthographic competence has a general weighted mean of 2.47, which is described as incompetent (composite mean). The result implies that the infrequency of acronyms in asynchronous environments may be due to the nature of online communication, where users have time to write their replies (Viberg, n.d.). The acronyms that got the highest frequency count are TY (Thank You), BTW (By The Way), and NVM (Nevermind). The findings indicate that CMC users used acronyms that are easier to interpret correctly than others because some could be difficult to interpret, even within the context of the whole message being sent and often leads to miscommunication (Kleen, 2008; Williams, 2021). On the other

Figure 1: Frequent Utilization of Linguistic Patterns via CMC in terms of Acronyms

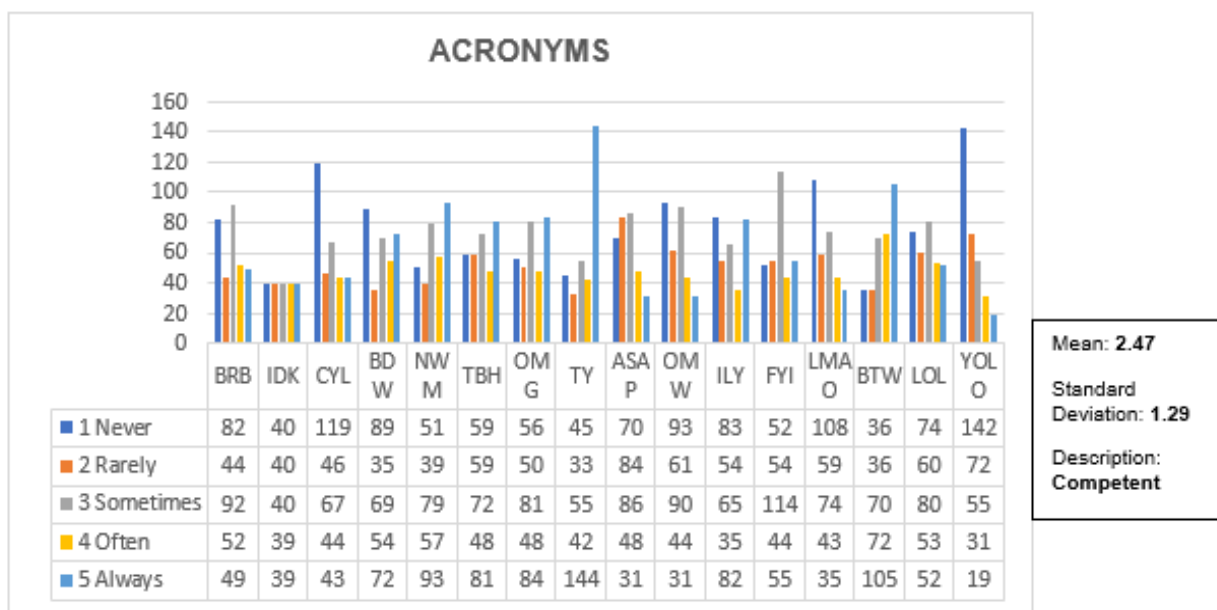
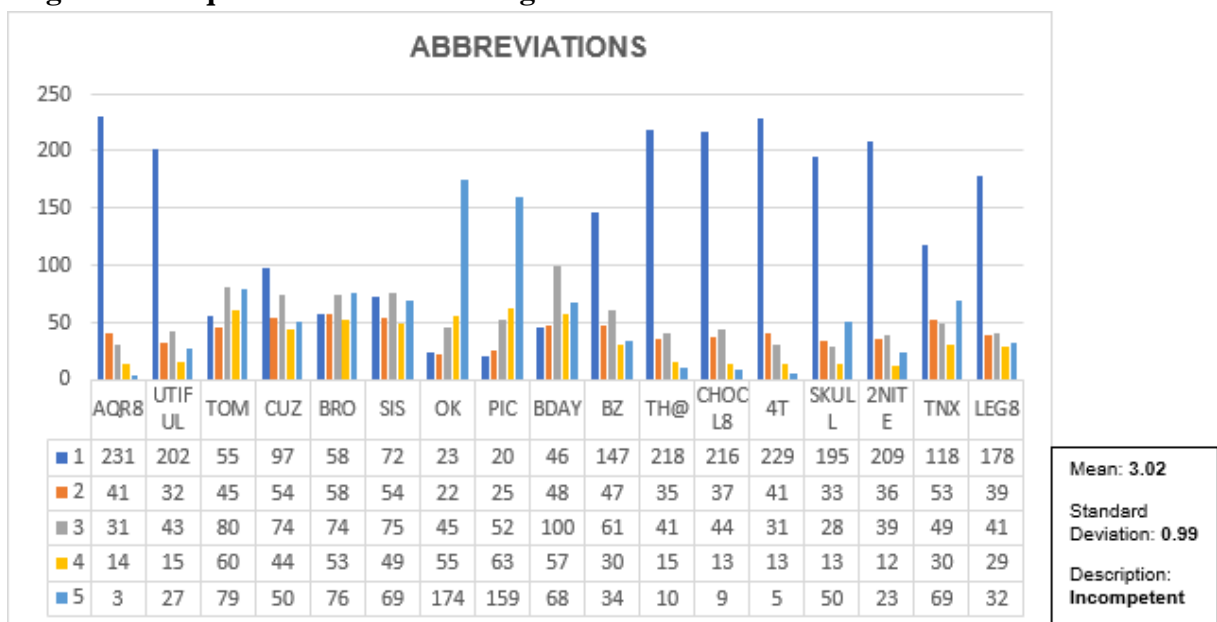


Figure 2: Frequent Utilization of Linguistic Patterns via CMC in terms of Abbreviation



hand, the frequent utilization of linguistic patterns via CMC in terms of abbreviations has a general weighted mean of 3.02, with the description incompetent. The data indicates that students are not adept at using long abbreviated words.

Additionally, the respondents' level of orthographic competence in the essay obtained a grade description of Did Not Meet Expectation. The result shows that the student's ability to remember correct

Table 1: Respondent's Level of Orthographic Competence in Essays

GRADE DESCRIPTION	FREQUENCY	PERCENTAGE
Outstanding	42	13.17
Very Satisfactory	14	4.39
Satisfactory	40	12.54
Fairly Satisfactory	20	6.27
Did Not Meet Expectations	203	63.63
TOTAL	319	100

spelling is poor. The influence of technological tools on students' spelling competence resulted in dependency on their writing tasks (Ali et al., 2022). Students had difficulty spelling words because of the auto-correction system built on their phone's keyboard. In addition, committing spelling errors results from various factors, including the education system, school syllabus, and student's learning attitude (Altamimi et al, 2019). Attitude towards learning is a significant discipline a student must possess. However, insufficient explicit spelling instruction and too much exposure to technological advancements deteriorate orthographic competence, hence, failure to pass the tests. Meanwhile, in the respondents' level of orthographic competence in sentences, the majority of the respondents obtained a grade description of Satisfactory which according to the DepEd K to 12 grading system, is a passing score.

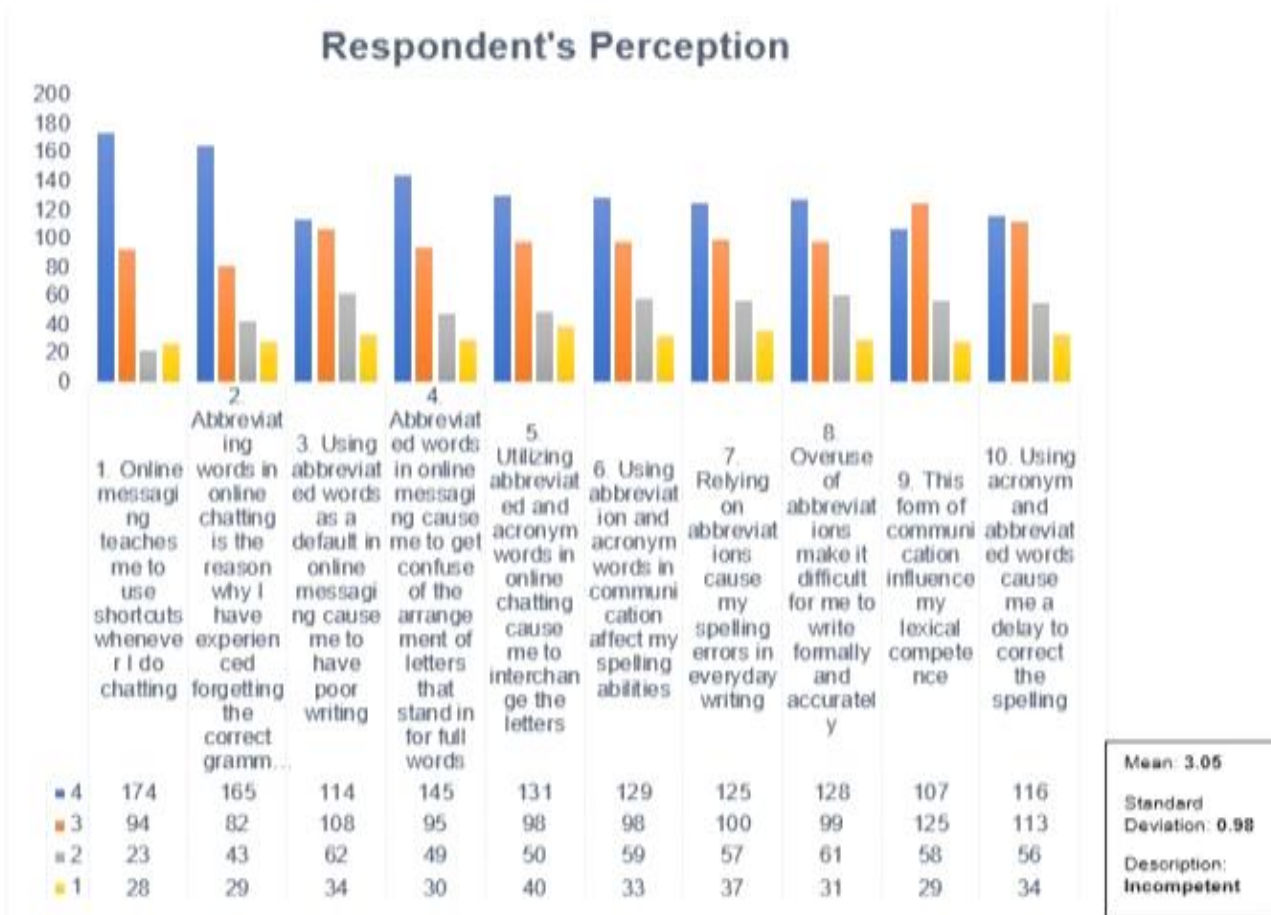
Table 2: Respondent's Level of Orthographic Competence in Sentences

GRADE DESCRIPTION	FREQUENCY	PERCENTAGE
Outstanding	72	22.57
Very Satisfactory	0	0
Satisfactory	126	39.5
Fairly Satisfactory	0	0
Did Not Meet Expectations	121	37.93
TOTAL	319	100

However, there is only a slight difference between those students whose scores are described as Did Not Meet Expectations. The gap of 1.57% from the results does not show much of a difference. The gap implies that the slight difference is that although 126 were able to get satisfactory scores, 121 students could not pass, and there is still a huge number of orthographic incompetence in terms of sentences.

Moreover, the respondent's perception of the effect of CMC on their orthographic competence is incompetent, with a mean score of 3.05. This suggests that students have concerns about the negative effects of CMC on their orthographic skills. The majority of the respondents stated that online messaging teaches them to use shortcuts. This result indicates that a considerable portion of the surveyed group recognizes that online messaging encourages the use of shortcuts in their chat conversations. Since young people spend their time communicating through text messaging, they are more engaged in texting practices, such as using abbreviations, intentional shortening of words and misspellings, eliminating punctuation, and omitting blank spaces, among other violations of common

Figure 3: Students Perception on the Effects of CMC to Orthographic Competence



spelling (Muhammad, 2011). The next explanation regarding this changed orthography is that people used to save time through short words, and they care less about precise spelling, grammar, and punctuation and are more concerned with conveying their messages (Bodomo, 2010). In addition, the majority of respondents view language shortcuts as reinforcing bad habits in writing, indicating that excessive reliance on these abbreviations and acronyms can foster an informal and relaxed tone, which may not be appropriate for various formal or academic writing contexts (Carlson, 2018). There is no doubt that text messaging and abbreviations in chatting impact how people talk and write, some negatively, others positively, depending on the content and context (Theophilus, 2007). This is because students have become more dependent on language shortcuts, also known as Short Messaging Services (SMS), which may adversely affect their formal writing skills (Carlson, 2018).

This study's findings revealed no significant correlation between the frequent utilization of linguistic patterns in CMC and the student's orthographic competence since the p-value is equivalent to 0.225 while the alpha is 0.05. Thus, the null hypothesis is accepted. Various factors may influence the outcome of the present study. Firstly, the mother-tongue interference. The respondents of the study are Visayan

Table 3: Relationship Between Frequent Utilization of Linguistic Patterns in CMC and Student's Level of Orthographic Competence

Variables	p - value	alpha	Remarks	Description
Frequent utilization of linguistic patterns in CMC and student's level of Orthographic Competence	0.225	0.05	Failed to Reject Null Hypothesis	Not Significant

students from South Cebu. Another factor is the setting of the study. Afzaal (2023) revealed in his study that text messaging impacted students' language utilization in an informal setting. However, when students were observed in a formal setting, they did not deviate from the standard way of writing. Finally, the last factor indicated by the researchers is the high level of language used in social media postings. Social media is one of the successful platforms used to market products and services. In this sense, there is less utilization of linguistic patterns in CMC in social media postings.

5. Conclusion

Based on the findings of the study, it is concluded that employing linguistic patterns in computer-mediated communication (CMC) does not affect the students' orthographic competence. However, the study revealed that students are lack of spelling proficiency. This suggests that factors beyond linguistics patterns might play a more substantial role in influencing their orthographic competence.

6. Recommendation

The findings and conclusion of the study indicate that the students are still incompetent in their orthographic ability. Hence, the researchers recommend utilizing the proposed instructional material to help them improve their writing skills, particularly their spelling ability.

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