

The Impact of Adopting an Eclectic Spelling Program on Minimizing KAU Engineering Students' Spelling Mistakes

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Competence in a certain language including correct spelling is very crucial for successful communication. Spelling mistakes may convey a totally different message and cause disastrous consequences. This study investigates the frequency of spelling mistakes in the writing of preparatory year engineering students at King AbdulAziz University. The researchers prepared three main questions related to reasons behind spelling mistakes, suggested solutions and the impact of an eclectic training program on students' ability to minimize their spelling mistakes. They interviewed five instructors and five students and made the students write five essays about topics related to their IE200 course after receiving a training course. The findings of the study revealed determination and seriousness on the part of instructors and students to eliminate this dilemma. This was very clear in their diagnoses of the problem and their suggestions for minimizing the spelling mistakes. The study recommended giving more attention to spelling mistakes and doing more research with a bigger sample and over a longer time.

INTRODUCTION

Effective written communication is crucial in various academic disciplines, including engineering. However, a growing concern among educators is the increasing frequency of spelling mistakes in engineering students' writing. These errors not only undermine the quality of their work but can also hinder effective communication and comprehension. Therefore, it is essential to investigate the reasons behind this trend and explore strategies to minimize spelling mistakes among engineering students. This research aims to address these issues by examining the impact of adopting an eclectic spelling program (a program taken from different backgrounds) on minimizing spelling mistakes among King Abdulaziz University (KAU) engineering students. Spelling mistakes are a pervasive problem among engineering students, hindering their academic performance and professional communication. Research has consistently documented the high prevalence of spelling mistakes in engineering students' writing. Studies have attributed this to a combination of factors, including inadequate basic spelling skills, exposure to technical vocabulary, and time constraints (Chanie, 2013). Spelling mistakes can have detrimental consequences for engineering students, impeding comprehension, lowering grades, and damaging credibility. According to previous studies, the frequency of spelling mistakes in EFL and particularly engineering students' writing has been on the rise (Chanie, 2013; Citrawati & Setyawan, 2021; Sterling, 1983). This trend creates concerns among instructors and educators, who observe that students struggle with spelling accuracy, particularly when writing on paper. Therefore, it is essential to identify the underlying factors contributing to this phenomenon and develop effective interventions to mitigate the issue. Chanie (2013) found that students at Trunojoyo Madura University made numerous spelling mistakes in their scientific works, with errors in the use of letters, prefixes, prepositions, punctuation, and absorption elements. Similarly, in an investigation into the writing skills of pre-engineering, Citrawati & Setyawan (2021) revealed in their study that students at Bahir Dar University frequently made errors in spelling, word choice, and subject-verb agreement in their argumentative essays. These findings suggest that

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engineering students may benefit from more intensive guidance in both the theory and application of spelling and writing, as well as additional grammar and lexical exercises to improve their written proficiency and conceptual clarity. These studies also indicate the need for a comprehensive approach to tackle this issue and enhance students' writing skills.

To address the prevalence of spelling mistakes in engineering students' writing, various strategies have been proposed, including explicit spelling instruction, use of technology, peer feedback, mnemonic devices, and eclectic spelling programs. Eclectic spelling programs combine various strategies to address different aspects of spelling, providing a comprehensive approach to spelling improvement. The National Council of Teachers of English (NCTE) advocates for the use of evidence-based practices in spelling instruction, including explicit spelling instruction, teaching spelling patterns and strategies, and providing students with opportunities to write and receive feedback on their spelling (NCTE, 2008). Despite the existence of research on spelling mistakes, there is a lack of studies examining the impact of eclectic spelling programs on their spelling competence. This study aims to fill this gap by investigating the effectiveness of an eclectic spelling program in minimizing spelling mistakes in engineering students at King Abdulaziz University, Jeddah, Saudi Arabia. This study aims to investigate the multifaceted reasons behind the prevalence of spelling mistakes in engineering students' writing and explore effective strategies to minimize them. Furthermore, the study examines the impact of implementing an eclectic spelling program on reducing spelling errors in engineering students. This study will contribute to the body of knowledge on spelling instruction for engineering students and provide valuable insights for educators seeking to improve students' writing skills. By understanding the reasons behind spelling mistakes and exploring effective strategies to minimize them, we can empower engineering students to become confident and proficient writers. To this end, the primary research questions guiding this study are as follows:

1. Why are spelling mistakes becoming more frequent in engineering students' writing?

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2. How can instructors and students minimize engineering students' spelling mistakes?
3. What is the impact of adopting an eclectic spelling program on engineering students' spelling mistakes?

By addressing these questions, this study aims to shed light on the underlying factors contributing to the increase in spelling mistakes, identify effective strategies to minimize these errors, and evaluate the effectiveness of an eclectic spelling program as a potential solution. This research holds significant implications for both academia and the engineering education community. Understanding the reasons behind the increasing frequency of spelling mistakes among engineering students is crucial for developing targeted interventions and support systems. By implementing an eclectic spelling program, which includes various strategies, mnemonics, memory exercises, and spelling rules, this research aims to equip engineering students with the tools necessary to improve their writing accuracy. The findings of this research will not only benefit the engineering students and instructors at KAU but also have broader implications for other educational institutions. As spelling mistakes can impede effective communication and comprehension, the outcomes of this study can inform pedagogical approaches in engineering education and contribute to the overall improvement of students' writing skills.

REVIEW OF LITERATURE

Importance of Spelling

Spelling is an essential component of written communication, allowing readers to decode words accurately and efficiently, which is crucial for comprehension. Correct spelling also conveys professionalism and credibility, especially in academic and professional settings (Daffern, Mackenzie & Hemmings, 2017). For engineering students, spelling mistakes can hinder their ability to communicate effectively in written reports, presentations, and other engineering documents.

Spelling is not just a matter of correctly arranging letters; it is a fundamental aspect of effective written communication. The importance of spelling cannot be overstated, as it directly impacts comprehension and the overall quality of written work. When words are misspelled, readers may struggle to decode them accurately, leading to confusion and potential misinterpretation of the intended message.

In academic and professional settings, correct spelling is particularly crucial. It conveys professionalism and credibility, indicating that the writer has taken the time and effort to ensure accuracy in their work. For engineering students, who are expected to communicate complex ideas and technical concepts, spelling mistakes can severely undermine their ability to convey information clearly and effectively.

In the realm of engineering, accurate spelling is of utmost importance in written reports, presentations, and other documents. Engineers need to communicate their ideas precisely, ensuring that technical terms and specialized vocabulary are spelled correctly. Incorrect spelling in engineering documents can lead to misunderstandings, errors in calculations, and even safety hazards in real-world applications.

Furthermore, spelling mistakes can have a negative impact on the perceived competence and credibility of engineering students. In academic and professional contexts, the presence of spelling errors can create doubt about the writer's attention to detail and overall proficiency. It is essential for engineering students to demonstrate a mastery of spelling to establish themselves as competent professionals in their field. Developing strong spelling skills not only improves comprehension but also builds confidence in the writer's abilities. To sum up, spelling plays a vital role in written communication, enabling readers to decode words accurately and comprehend the intended message (Graham, Harris & Chorzempa, 2002). For engineering students, correct spelling is essential for effectively conveying complex ideas and technical concepts.

Prevalence and Causes of Spelling Mistakes in Engineering Students

Spelling mistakes are a pervasive problem among engineering students, hindering their academic performance and professional communication (Russak &

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Kahn-Horwitz, 2015). Research has consistently documented the high prevalence of spelling mistakes in engineering students' writing, attributing it to a combination of factors:

1. **Inadequate basic spelling skills:** Engineering students may enter university with insufficient foundational spelling skills, making them more prone to errors. Insufficient exposure to proper spelling instruction during their earlier years of education can contribute to this deficiency. Factors contributing to these errors also included limited time allocated for learning to write, insufficient mastery of spelling rules, and a lack of accuracy in writing (Chanie, 2013). Therefore, it is crucial to address these foundational skills to minimize spelling mistakes among engineering students.
2. **Over-reliance on technology:** While assistive technologies like spell checkers can help identify errors, they can also lead to complacency and a decreased emphasis on memorizing correct spellings (Fasting & Lyster, 2005). Students may become overly reliant on technology to correct their mistakes, neglecting the importance of independently mastering spelling skills.
3. **Changes in educational practices:** Some educational reforms have shifted the focus away from explicit spelling instruction, leading to a decline in basic spelling skills (Mustadi & Amalia, 2020). As a result, engineering students may not receive sufficient guidance and practice to develop strong spelling abilities.
4. **Exposure to informal language:** The widespread use of informal language in social media and texting has normalized the use of non-standard spellings and abbreviations (Fasting & Lyster, 2005). Consequently, engineering students may unknowingly transfer these informal spelling habits into their academic and professional writing.
5. **Time constraints:** The demanding nature of engineering coursework often leaves students with limited time to focus on spelling accuracy. Engineering students often face a heavy workload and tight deadlines, leaving them with limited time to focus on meticulous spelling. As a result, errors may occur due to rushed writing and a lack of attention to detail. Elementary students in SD

Negeri Kadipiro, Kasihan Bantul, also demonstrated a high rate of spelling errors in their nonfiction essays. Factors contributing to these errors included limited time allocated for learning to write, insufficient mastery of spelling rules, and a lack of accuracy in writing (Chanie, 2013).

6. Psychological and Developmental Factors: Research into the spontaneous writing of 12-year-old children indicates that some spelling errors are related to incorrect articulation rather than poor spelling ability. Additionally, errors can be influenced by morphemic factors in the spelling of inflected words, and by a monitoring device that checks the identity of what is written (Sterling, 1983).

By examining these various causes of spelling mistakes among engineering students, educators and institutions can develop targeted interventions and strategies to address these challenges. It is imperative to prioritize explicit spelling instruction, provide opportunities for independent practice, and create awareness about the importance of accurate spelling in both academic and professional contexts. Addressing these issues also requires a multifaceted approach that includes targeted educational interventions, increased practice opportunities, and an understanding of the underlying cognitive processes involved in learning to spell.

Strategies to Overcome Spelling Errors in EFL Context

For EFL learners, overcoming spelling errors requires a multifaceted approach that addresses both language-specific challenges and general spelling strategies (Albeshar, 2018; Lehri, Soomro & Pathan, 2021).

Language-Specific Challenges

Pronunciation differences: EFL learners may struggle to spell words correctly due to differences between their native language pronunciation and English pronunciation.

Unfamiliar vocabulary: Engineering students often encounter specialized technical vocabulary that they may not be familiar with, making it difficult to spell correctly.

General Spelling Strategies

1. Explicit spelling instruction: Providing students with explicit instruction on spelling rules, patterns, and strategies can enhance their spelling competence Cañado, M. (2006). A study by Rauber & Gil (2004) highlights the benefits of explicit instruction in English spelling. The research, which involved a pre-test, post-test, and delayed post-test control group design, demonstrated that drawing students' conscious attention to various spelling dimensions significantly improved their performance. This approach aligns with the interface hypothesis, suggesting that explicit knowledge can become implicit over time through practice. The study emphasizes the importance of raising learners' awareness about spelling rules and patterns, which can lead to more durable learning outcomes.
2. Use of technology: Spelling checkers and other assistive technologies can help students identify and correct spelling errors. However, it is important to use these tools as supplements to, not replacements for, explicit spelling instruction. Students should be encouraged to rely on their own knowledge and skills to identify errors and make corrections, while using technology as a helpful resource.
3. Peer feedback: Engaging students in peer review and feedback sessions can help them identify and correct spelling mistakes. By providing constructive criticism on each other's work, students can identify and correct spelling mistakes, while also enhancing their understanding of spelling rules and patterns. According to Mowlaie (2014), peer feedback, alongside teacher feedback, was found to be effective in reducing spelling errors among Iranian EFL learners. The study compared the effects of peer feedback, teacher feedback, and self-revision on learners' writings and found that both peer and teacher feedback led to better performance in spelling compared to a control group with no feedback. Interestingly, the study also noted that the impact of feedback on content revision was not as clear-cut, indicating that the benefits of feedback might be more pronounced in the area of form, such as spelling. Additionally,

incorporating peer feedback into spelling interventions can be highly effective. By engaging students in peer review and feedback sessions, students can learn from each other's mistakes and provide constructive criticism. This collaborative approach promotes active learning and allows students to develop a deeper understanding of spelling rules and patterns.

4. Mnemonic devices: Using mnemonic devices, such as rhymes, acronyms, and visual aids, can aid students in memorizing correct spellings. These devices provide memorable associations that help students recall the correct spelling of challenging words. They also tap into the power of imagery and creativity, making the learning process more engaging and enjoyable (Sener & Belfiore, 2005; Khabiri, & Rezagholizadeh, 2014). Furthermore, the use of mnemonic devices can aid in memorizing correct spellings, particularly for challenging technical terms. English language students can be encouraged to create rhymes, acronyms, or visual aids that help them remember the correct spelling of complex words. These mnemonic devices tap into the power of association and visualization, making the learning process more engaging and memorable (Khabiri, & Rezagholizadeh, 2014).
5. Eclectic spelling programs: Eclectic spelling programs combine various strategies, including explicit instruction, mnemonic devices, and feedback, to address different aspects of spelling. These programs provide a comprehensive approach to spelling improvement, addressing both basic skills and specific challenges faced by students. By integrating multiple approaches, educators can cater to the diverse needs of students and provide a well-rounded spelling curriculum. Ismaiel & Asmari (2018) highlight the Eclectic Method of language teaching, which combines various teaching techniques and approaches to cater to the diverse learning styles and intelligence levels of students. In this study, a training program based on specific spelling strategies significantly improved the spelling skills of female EFL students compared to a control group. This method was found to be effective in improving the communication skills and academic performance of EFL learners in all four language skills: Listening, Speaking, Reading, and Writing (LSRW). The study emphasizes the importance

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of learner-centered approaches and suggests that the Eclectic Method can be adapted by teachers to meet the specific needs of their students, making learning more effective and engaging.

By implementing these general spelling strategies, educators can empower students to become proficient spellers. By providing explicit instruction, utilizing technology appropriately, fostering peer feedback, employing mnemonic devices, and adopting eclectic spelling programs, students can develop strong spelling skills that will enhance their academic performance and professional communication. These strategies not only address the challenges specific to EFL students but also cultivate a lifelong appreciation for accurate spelling.

Specific Strategies for Engineering Students

In addition to general spelling strategies, engineering students may benefit from specific strategies that address the challenges they face. Here are specific strategies tailored for engineering students to address their unique challenges in spelling:

1. **Technical vocabulary instruction:** Engineering students often encounter a wide range of technical terms and specialized vocabulary specific to their field. Providing explicit instruction on the spelling of these terms can help students overcome the challenges posed by their unfamiliarity. By focusing on the spelling of technical vocabulary, educators can equip engineering students with the necessary skills to accurately communicate their ideas and concepts (Azmirad, & Osman, 2019).
2. **Use of glossaries:** Encouraging engineering students to utilize glossaries can be highly beneficial. Glossaries provide students with a compiled list of technical terms and their corresponding definitions. By actively using glossaries to look up the spelling of unfamiliar technical terms, students can expand their vocabulary and improve their spelling accuracy. This practice not only enhances their spelling skills but also deepens their understanding of key engineering (Manchanayaka, 2019).

3. Incorporating spelling into engineering class competitions and assignments: Effective engineering challenges in middle school science courses engage students in creative processes and promote cooperation, while reducing competition and promoting scientific methodology (Sadler, Coyle & Schwartz, 2000). Moreover, integrating spelling practice into engineering assignments, such as technical reports and presentations, can be an effective way for students to apply their spelling skills in a meaningful context. By emphasizing the importance of accurate spelling in their written and oral communication, educators can create an environment that values precision and professionalism. This integration encourages students to pay attention to spelling details and reinforces the significance of accurate spelling in their future engineering careers.

By utilizing these specific strategies, engineering students can enhance their spelling skills in a way that directly aligns with their field of study. Through technical vocabulary instruction, the use of glossaries, and the incorporation of spelling practice into engineering assignments, students can develop a strong command of the specialized terminology and effectively communicate their ideas. These strategies not only address the challenges specific to engineering students but also equip them with the necessary skills to excel in their academic and professional endeavors.

Effectiveness of Spelling Interventions

Research has consistently demonstrated the effectiveness of various spelling interventions in improving spelling accuracy among students. Explicit spelling instruction, particularly when combined with other strategies, has been shown to yield positive results (Butyniec-Thomas & Woloshyn, 1997; Robinson-Kooi & Hammond, 2020).). For engineering students, who often face specific challenges in spelling due to technical vocabulary and terminology, it is crucial to adopt interventions that cater to their unique needs.

One effective approach is the use of eclectic spelling programs. These programs combine multiple strategies, including explicit instruction, peer feedback,

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mnemonic devices, and more, to provide a comprehensive and tailored approach to spelling improvement. By integrating various techniques, eclectic spelling programs address both the language-specific challenges faced by engineering students and the general spelling strategies applicable to all learners (Ismaiel & Asmari, 2018).

Recent studies have suggested that an eclectic approach to spelling instruction, which combines elements from various teaching methodologies, can be more effective in addressing the diverse learning styles and needs of EFL and technical students such as engineering students (Elghotmy, 2022). In implementing an eclectic strategy, academicians can provide practical and strategic insights to overcome the increasingly prevalent issue of spelling mistakes among engineering students. By incorporating explicit spelling instruction, educators can equip students with the necessary knowledge and skills to tackle technical vocabulary and terminology. This instruction can include lessons on spelling rules, patterns, and the correct spelling of commonly used engineering terms (Alharbi, 2017).

By adopting an eclectic strategy that incorporates these various interventions, academicians can effectively address spelling mistakes among engineering students. This comprehensive approach not only focuses on the language-specific challenges faced by this group but also provides general spelling strategies that enhance overall spelling accuracy.

In conclusion, spelling mistakes among engineering students can be overcome with effective interventions and strategies. By adopting an eclectic approach that combines explicit spelling instruction, peer feedback, and mnemonic devices, educators can provide practical and strategic insights to tackle this prevalent issue. Through these interventions, engineering students can improve their spelling accuracy and enhance their written communication skills, ultimately preparing them for success in their academic and professional endeavours.

METHOD

Population and Sample of The Study

The population of the study is all male and female engineering students and instructors at King Abdulaziz University Jeddah/KSA (Kingdom of Saudi Arabia).

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This population was chosen as instructors discovered that their students tend to make a lot of spelling mistakes especially while writing on paper. The sample of the study was ten students and five instructors from the preparatory year at the faculty of engineering at KAU.

Design of The Study

The study intends to answer the three questions mentioned above in the introduction. First to investigate the reasons behind the frequency of spelling mistakes in students' writing. Second, to find out the most appropriate procedures to deal with these mistakes and help instructors and students minimize them. The third question is to investigate the effectiveness of an eclectic spelling program on minimizing spelling mistakes. To investigate the first two questions, the researchers interviewed five students and five instructors about the reasons of spelling mistakes and their preferred strategies to minimize them. To answer the third question, the researchers used an eclectic program throughout the study that consists of strategies, mnemonics, and memory exercises; in addition to spelling rules to help students write with the least number of mistakes (see appendix 1). Before writing, the researchers held a workshop for a group of ten students in the preparatory year in the faculty of engineering at KAU. In this workshop, they taught the eclectic program using detailed exercises and training. Then the students were asked to write a weekly essay over five weeks on a variety of topics taken from their IE200 (a general course given to Engineering students in the preparatory year) syllabus. Each essay was followed by a feedback session about the common mistakes. The spelling mistakes in the five writing tasks were counted to see if spelling mistakes are decreasing due to the workshop and the feedback sessions.

FINDINGS AND DISCUSSIONS

FINDINGS

Table 1. The results of the instructors' interview.

No	The First two questions of the Study	Common answers of the interviewees
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| 1 | Why are spelling mistakes getting more and more frequent in engineering students' writing? | Nearly all the interviewees agreed that the excessive use of social network sites that provide students with instant help for spelling deprived them of challenging their memories to remember how words are spelt. In addition, word processors offer the same help of correcting spelling though less effective than SNS. Such instant help made available at students' finger- prints creates no need for students to remember how words are spelt. Another important reason for the frequency of spelling mistakes is the lack of writing practice, most people including students find it easier to send voice messages other than write. Fahad, one of the teachers in the prep. year said that students are ready to sacrifice their grade in writing especially with a strict teacher who makes the necessary follow up and asks students about their spelling mistakes. When the teacher discusses the common mistakes and sometimes gives worksheets as remedial work, students feel embarrassed when compared to their colleagues. They are ready to absent themselves to avoid such situation. When teachers ask their students not to use their mobile phones while writing, their writing quality is greatly affected, it changes from almost perfect with good choice of vocabulary, perfect structure, and effective transitional expressions and punctuation marks to a very poor writing quality. |
| 2 | How can instructors and students minimize engineering students' spelling mistakes? | Instructors suggested more and more practice in writing particularly pen and paper writing. Two teachers emphasized the importance of asking students to write a second or even third draft after feedback and discussing the common mistakes. Dr. Salah- an instructor in the prep. Year in the faculty of engineering suggested that implicit feedback is more effective and beneficial than correcting spelling mistakes explicitly on paper. He continued that when students do some effort to discover their mistakes, they tend to remember them and be less probable to do them again. Adulrahman- another instructor said that pre-teaching and training on spelling rules with detailed |
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examples, worksheets and exercise will definitely help in minimizing mistakes. Jalal-another teacher said that giving more weight to spelling in writing assessment will make students more careful about spelling. Dr. Abdulaziz said that students don't meet the enthusiasm of their teachers with regard to writing in general and spelling in particular. Teachers are very ambitious to see their students very excellent in writing as it is the most challenging skill. They arrange competitions and spelling workshops, but they are usually shocked by students' carelessness and reluctance to participate in these activities. Teachers shouldn't lose hope; they shouldn't give up trying to motivate their students to bring spelling back to the scene. Jalal added that students are assessment- oriented and they care much about grades as some fields of engineering are highly demanding. Giving more weight to writing may help a lot in this concern. In order to help students improve their writing tasks, teachers should do some effort to provide them with the necessary input in terms of content, structure, transitional expressions, and any other helpful techniques.

Table 1 above shows the instructors' answers to the first two questions of the study. With regard to the first question there is unanimous agreement among instructors that social network sites and keyboards are behind the carelessness of students and the complete dependence on technology for correct spelling. The answers to the second question emphasized the role of practice in minimizing spelling; in addition to the feedback from instructors after the first draft. Instructors also agreed that pre teaching of spelling rules and strategies will definitely help students write better with less spelling mistakes.

Table 2. Results of the Students' Interview

No	The first two Questions of the Study	Common answers of the interviewees
1	Why are spelling mistakes getting more and more	Most of the students refer the frequency of spelling mistakes to time constraints, students tend to write in a hurry to submit earlier;

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frequent in engineering students' writing consequently, they make mistakes. Some said students are weak in spelling because they don't practice writing specially on paper. Ahmed, Wael and Sary said that using keyboards while writing makes students rely on correction programs. When they are overwhelmed by ideas, they can't concentrate on spelling, and they don't even do proof reading before submission. They also share the same idea with instructors with regard to the role of social network sites in making the spelling problem more deteriorating. Yazeed, one of the prep. year students said that the moment I start writing, I find the whole word written in full and with choices, singular, plural, noun, adjective, adverb This makes students rely on this instant help and do almost no effort to memorize or even try to remember how words are spelt. Khaled, another student said that students currently find it strange when a teacher asks them to write using pen and paper. They consider this very old fashioned and complain because they don't find this a life function as very few people find themselves in need to write on paper.

- 2 How can instructors and students minimize engineering students' spelling mistakes? Abdulhameed said that allowing students to write about a topic of their own choice makes them do fewer spelling mistakes. He added that using PCs or laptops minimizes students' spelling mistakes. Ahmed and others said that students can practice writing and improve their spelling through playing games. They said that when teachers deduct grades for spelling, students tend to be more careful and do less mistakes. Abdulrahman said that teachers should make students write more using pen and paper and give them feedback and discuss the common mistakes. The majority suggested that reading is very important for improving writing and spelling. Omar- one of the students in the prep. year said that teachers must not correct all the mistakes in every writing task explicitly. They can use certain codes to show mistakes and they can correct few mistakes at a time and delay others for the coming writing tasks other than correcting all mistakes. This

looks horrible and demotivating for students to see all their papers in red. Omar continued that it is very clear in my section that students tend to absent themselves whenever they have a writing task. They start to get embarrassed especially when the teacher asks us to count our spelling mistakes. Firas, another student said violently that technology was created to help people including students to do their jobs easily and professionally, so why don't we use it in writing?

Table 2 above shows the answers of students to the same two questions answered by instructors. There was unanimous agreement that the spelling mistakes refer to the limitations of time where students write in a hurry to submit earlier. Other reasons are the lack of practice and the total dependence on spelling options in word processors. With regard to the second question, most of the students suggest that allowing students to write about topics that are appealing to them and using their laptops and PCs will certainly minimize their spelling mistakes. They also recommended that teachers give more weight to spelling and deduct grades for the frequency of errors.

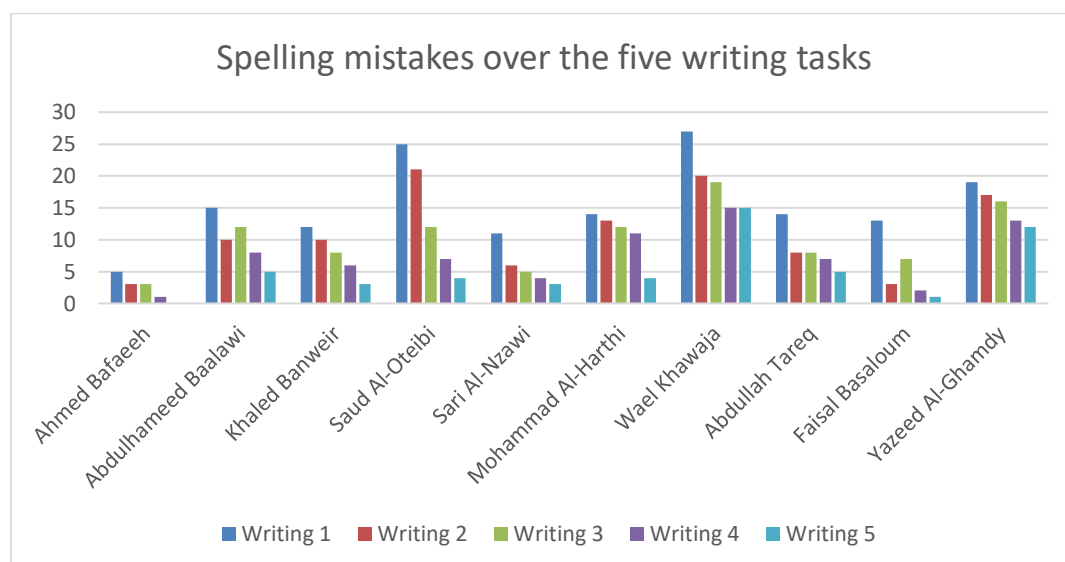


Figure 1. Shows the number of spellings mistakes the prep. year students (Engineering students before they join their fields of study) did in the five writing tasks they did after the training course.

Graphic above illustrates ten preparatory year engineering students' spelling mistakes over five writing tasks about different topics related to their IE200 syllabus. It is very clear in the chart that they have many spelling mistakes especially in their first writing task particularly Saud, Wael and Yazeed (25, 28 and 28) respectively. It is also noticeable that there is a dramatic drop in the number of spelling mistakes especially for Khaled, Saud, Wael and Faisal. Few of them didn't show clear response to the training program and continue to do spelling mistakes though less than before the training. This slow progress was very clear with regard to Mohammad and Yazeed.

DISCUSSION

This research intends to investigate the frequency of spelling mistakes in the writing tasks of the preparatory year engineering students at KAU. To do this, the researchers tried answering three main questions related to the reasons behind the frequency of spelling mistakes, the teachers, and students' suggestions to minimize these spelling mistakes. The third research question is related to the impact of using a training program that contains spelling strategies and rules on minimizing prep. year engineering students' spelling mistakes. The teachers and students' answers to the first two questions were almost identical. Both refer the frequency of spelling mistakes to the lack of practice and the entire reliance on technology and spelling correction programs. This is supported by Wilson (2018) who studied the negative effect of social media on students' spelling competence. He also intended to study the nature of this effect. The number of hours students spend on social media is the reason behind their carelessness about spelling. Some students usually look for reasons behind the frequency of spelling mistakes in their writing and ignore the real reason which is their weakness and reliance on technology (Graham & Harris, 2005). One more reason is the short time dedicated for writing and students' tendency to finish and submit earlier. This reflects a mature response by students and real determination to minimize their spelling mistakes. Another important reason for the possibility of making spelling mistakes is the big difference between English and Arabic. The two languages come from different families; English comes from the Indo-European language family whereas Arabic comes from the semitic language

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group from the Afroasiatic language family. Arabic language doesn't have vowels in writing; they use superfixes instead whereas English use vowels in writing. This creates a problem of confusion for EFL learners. Related to this is the phenomenon of silent letters and words coming from Latin origins where there are many letters that are written but not pronounced. Instructors and students also had nearly similar suggestions concerning minimizing spelling mistakes. Both agreed that practicing writing with detailed feedback and training is a very effective strategy for having better writing and less spelling mistakes. This agrees with Graham and Harris, (2005) who highlighted the importance of training in enhancing spelling competence. Teachers and students also suggested that extra reading is important for better writing as well as less spelling mistakes as students get familiar with new vocabulary. Antonio, P et al (2021) confirmed the idea of the importance of reading for better writing in terms of language, type of vocabulary used, techniques and inferential skills. Surprisingly, students suggested that teachers should give more weight to spelling mistakes and can deduct grades for spelling errors.

The results of the third questions represented in bar chart (1) are very clear evidence that the training program that contains spelling strategies and spelling rules is significantly effective on students' performance with regard to spelling mistakes. The alarming drop in the students' spelling mistakes leaves no doubt that the program is beneficial to students. It is very natural that not all students show the same degree of progress. All in all, the program is among the best recipes for minimizing the frequency of spelling mistakes.

In brief, the students' and instructors' responses to the interview questions even though they have some discrepancy they have much in common. They agreed on most of the points they discussed with regard to the reasons behind the alarming increase of spelling mistakes in students' writing including the reliance on social network sites, students' carelessness, and the lack of writing practice. Instructors are also asked to give more weight to writing as a very important skill, to do more practice and to give constructive feedback so that students avoid mistakes and enhance their performance. They also agreed on the suggestions for minimizing the spelling mistakes through changing all the reasons for the wide spread of spelling

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mistakes into active assets for improving and facilitating writing skills and writing practice.

CONCLUSIONS & RECOMMENDATIONS

The frequent spelling mistakes are very common in writing tasks specially in the EFL medium where there are plenty of differences between L1 and L2. Many words are of Latin origin and their pronunciation is totally different from their written form. This study intends to investigate this problem through tickling three questions related to the reasons behind the frequency of spelling mistakes in kau prep. year engineering students writing. It also probes the suggestions for minimizing the students' spelling mistakes. The third goal of the study is to test the efficacy of a training program that comprises spelling strategies and spelling rules. The results of the study showed clear enthusiasm and determination on the part of instructors and students to overcome this old and new problem. Their diagnoses of the problem and their suggestion are enough proof that they are serious and determined. The training program proved to be a very important step towards minimizing the spelling mistakes which is very clear in bar chart (1) above. The study was limited by time where only five essays were under investigation. More writing tasks will reveal more spelling mistakes and more chances of minimizing these mistakes. Another limitation was the sample size which is only ten perp. year engineering students. More students will show the effect of the program more apparent and clearer. The study recommends more research about the frequency of spelling mistakes in English language writing in other faculties at the university. It also recommends that engineering students and other students at the university level should do their best to minimize their spelling mistakes as they are a big barrier against successful communication. Even though they are engineers and not language specialist, it will be a bonus for them to write perfect English free of spelling mistakes.

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