

Pluralization in English and Arabic, Similarities and Differences
Paper written in a comparative study between Plural in both English and Arabic language

الجمع في اللغة الانجليزية واللغة العربية - التشابه والاختلاف
دراسة بحثية مقارنة بين الجمع في اللغة الانجليزية واللغة العربية
عثمان خليفة عبدالله كريد- المعهد العالي للعلوم والتقنية تيجي.

ملخص :

الهدف من هذه الورقة البحثية هو تسليط الضوء على دلالات الجمع في اللغة الإنجليزية واللغة العربية, البيانات التي جمعت تم ترتيبها بحيث تتلاءم مع منهجية البحث من خلال دراسة مقارنة تحليلية.

من الواضح أن هناك اختلافات لأبأس بها في أنماط الجمع بالنسبة للأسماء في اللغتين فيما يتعلق بالجنس, والعدد, والنوع, و الجمع القياسي والجمع الشاذ. فكلا اللغتين لهما نظامهما الخاص والفريد والطريقة المميزة لكل منهما في صياغة الجمع.

تتكون هذه الورقة البحثية من جزئين اثنين؛ يتعلق الجزء الأول بفكرة الجمع في اللغة الانجليزية فيما يتعلق الجزء الثاني بالجمع في اللغة العربية. كذلك سنحاول في هذه الورقة توضيح بعض الاختلافات والتشابه في الجمع القياسي والجمع الشاذ في كلا اللغتين.

الدراسة المتبعة في هذه الورقة هي دراسة مقارنة تعتمد على جمع البيانات من عدة مصادر ومراجع ومن ثم مقارنة بعضها ببعض وتصنيفها وإظهارها بالشكل الذي يخدم الغرض من هذا البحث.

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By : Othman Khalifa Abdullah kareed.

Abstract

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The objective of this research is to explore plural indicators in both English and Arabic. The information has been collected is sorted to meet the extent of this research through contrastive analysis. It is clear that there are numerous considerable differences in patterns of plural nouns in relation to gender, number, kind, regular and irregular. Each language has its own unique system and its significant way of making plural. This paper consists of two parts. Part one deals with the idea of pluralization in English language; and the second part discusses it in Arabic language. I will also try in this paper to show the differences and similarities between regular and irregular plural in both languages.

The approach of this research is comparative one that depends on gathering material and data from different sources and acknowledge reference books, comparing and classifying them and pressing them in a way that serves the aim of this paper.

1.Plural in English Language

The notion of accountability exists in almost all languages round the world but the grammatical rules and categories of number are different between languages.

“ English has two number classes ; singular and plural. Basically, in English a noun which expresses more than one is simply called as plural noun. In this case, English plural nouns have two forms; regular and irregular” (Azar , 1999)

The plural form of a noun is the form a noun takes when it refers to more than one item, for example *a book* is a singular noun while *books* is plural. In English there are many rules and exceptions for pluralizing nouns.

Plural forms are an essential grammatical feature in English, indicating when there is more than one entity of a noun, pronoun, or determiner. The transformation from singular to plural is termed pluralization. While pronouns and determiners have unique plural forms e.g. (*we, you, they*) this discussion will focus on the pluralization of nouns.

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Nouns can be pluralized in several ways, typically categorized into regular plurals, irregular plurals, and uncountable or non-countable nouns, which do not have a separate plural form.

Regular plural nouns are formed by adding an 's' or 'es' to the singular form. This process involves an inflectional affix, which is a grammatical element added to a word to express a change in its grammatical function without altering its intrinsic meaning. Inflectional affixes can indicate number, case, tense, aspect, mood, or comparison; for example, the plural of 'cat' is 'cats' and 'dog' becomes 'dogs', indicating more than one of each animal without changing the fundamental meaning of the word.

In general, English plural can be classified into regular plural, and irregular plural.

1.1 Regular plural in English

Regular plural is formed according to many rules, these rules to be explained as follows.

- The plural of nouns is usually formed by adding an 's' to the singular noun. For example:

<i>chair</i>	<i>chairs</i>
<i>flower</i>	<i>flowers</i>
<i>computer</i>	<i>computers</i>
<i>map</i>	<i>maps</i>

- Nouns ending in *s*, *ss*, *ch*, *sh*, *z*, and *x*, are changed into plural by adding 'es' as follows:

<i>dish</i>	<i>dishes</i>
<i>bus</i>	<i>buses</i>
<i>church</i>	<i>churches</i>
<i>box</i>	<i>boxes</i>

- Nouns ending in 'y' preceded by a vowel is changed into plural by adding an 's' only. For example:

<i>play</i>	<i>plays</i>
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<i>goof</i>	<i>roofs</i>
<i>grief</i>	<i>griefs</i>
<i>hoof</i>	<i>hoofs</i>

1.2 Irregular plural in English

- There are many nouns in English language changed into plural differently, they aren't changed into plural by adding 's', 'es' or 'ves'. These nouns have their own form of plural. For example:

<i>man</i>	<i>men</i>
<i>woman</i>	<i>women</i>
<i>child</i>	<i>children</i>
<i>foot</i>	<i>feet</i>
<i>tooth</i>	<i>teeth</i>
<i>ox</i>	<i>oxen</i>
<i>mouse</i>	<i>mice</i>

- Some nouns have no singular in English language, as follows:

<i>scissors</i>	<i>oats</i>	<i>victuals</i>
<i>trousers</i>	<i>tongs</i>	<i>bellows</i>
<i>tweezers</i>	<i>measles</i>	<i>mumps</i>

- Some nouns have no plural. For example:

<i>gold</i>	<i>silver</i>	<i>corn</i>
<i>wheat</i>	<i>cotton</i>	<i>molasses</i>

2.Plurality in Arabic Language

‘Unlike English number classifications which are divided into singular and plural, Arabic number class is categorized into three; singular, dual, and plural’.(Karin C Ryding, 2005) thus, English and Arabic plurals start from the count of three. As well as English plural, Arabic plural is classified into regular and broken (irregular) (Al-Ghalayini, 2011).

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Arabic plural system is also divided into regular and irregular;

2.1 Regular plural in Arabic

When the Arabic regular plural is formed the root of the word should be free from any additional letters. And it must be noted that the stem (*wazan*) of an Arabic word consists of three letters (*hijaiyyah*), which are commonly represented with ف, ع, ل, . Every Arabic noun or adjective has a gender: masculine and feminine. Therefore, they employ different inflectional suffixes to form the plurals and usually do not have any internal change. (McCarthy and Prince, 1999).

2.1.1. Arabic Masculine Plural (Jama'a Mudzakar Saalim)

Al-Ghalayni (2011) states that those employable nouns in masculine regular plurals are the sensible masculine proper nouns, whose bases do not end in (*t*), and the sensible masculine adjectives. For masculine regular form, the suffixes attached are (و) *waaw* and (ن) *noon*, when the nouns are in (*rafa'a*) (nominative case) position, while (ي) *yaa* and (ن) *noon*, when the nouns are in (*nasab*)

(accusative case) and (*jaar*) (genitive case).

The following example shows the plural of the Arabic word مسلم

(*muslim*).

مسلم / *muslim* / in singular becomes مسلمون / *muslimuun* / in (*rafa'a*) (nominative case), مسلمين / *musilmeen* / in (*nasab*) (accusative case) and (*jaar*) (genitive case) plural or

2.1.2 Arabic Feminine Regular (jama' muannanth salim)

Arabic feminine regular plural applies to both humans and nonhumans as well as adjectives. This plural is formed by adding the suffix (ت) and (ل)

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(aat) to the singular word. For example: بنت (*bent*) becomes in plural بنات (*banat*) Yet, it must be noticed that when the stem has (ة) *taa marbuta* (تاء مربوطة) the suffix (aat) substitutes the (*taa marbuta*) (ة) (Ryding, 2005), for example:

قوة (*quwwa*: power) is changed into plural as قوات (*quwwaat* : powers).

2.1.3 Arabic Irregular Plural (Jama' Taksir)

“ The Arabic broken plural system is highly allomorphic” (Saeed and Fatihi 2011) It is known that the plural type involves the vowel pattern shift within the word stem, such as the English words, *woman – women tooth – teeth* (McCarthy and Prince, 1999, and Ryding, 2005).

Though, it sometimes might involve the affixation of extra consonant, which are commonly *hamza* or *waaw*. (Al-Ghalayani 2011) also states that reduction of the letters happens in forming the Arabic broken plural. Different from the English (irregular) are frequently and mostly used (Abu – Chacra, 2007).

Unlike the English irregular plural which is stable and non-generative, the Arabic irregular plural is generative and changeable. For example, English irregular forms like “ *man* ”, “*tooth*”, “*child*”, etc. are limited and restricted, and known by English language users. New English plural words are formed by adding an “*s*” to the singular form of the word, not by changing it. While many new Arabic words enter the Arabic irregular plural, which is known in Arabic as “ جمع تكسير ” / *jama taksir* /, for example, “ حاسوب ” / *həsu:b* / “ حواسيب ” / *hwəsi:b* /

Conclusion

This paper has shed light on the formation of noun plurals in both Arabic and English. It is clear that English plurals start from the count of two

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whereas Arabic plurals start from the count of three. And it is also clear that both Arabic and English have regular and irregular patterns.

Arabic irregular plurals (broken plurals) are more frequent than the English plurals, and they also have the exact patterns which sometimes can be explained through morpheme - based model. The affixation of irregular plural in Arabic also engages the gender, such as *iin* or *uun* for masculine plural and *aat* for feminine.

It is also noticed that English plural marking occurs only in nouns. Whereas Arabic plural deals with both nouns and adjectives. And it is found that English irregular plural is stable and not generative in contrast Arabic irregular plural is generative and changeable.

Finally, according to the comparison between both plurals, it can be said that the plural marking system in both languages is different rather than parallel. It is also found that the English plural marking system is less complex rather than the Arabic and easier to be learnt

References

- Abu-Chacra, F. 2007. *Arabic: An Essential Grammar*: Routledge.
- Azar, Betty S 1999. *Understanding and Using English Grammar* (third edition).
- Al-Ghalayini, Al-Sayh M. 2011. *Jaami' Al-Durus Alarabiyyah (The Comprehensive study of Arabic Lessons)*. Lebanon : Dar Al-Kotob Al-imiyah.
- McCarthy, John J. and Prince, A 1990. Foot and Word in Prosodic Morphology; The Arabic Broken Plural. *Linguistics Department Faculty Publication Series* Paper 11 Available at:

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http://scholarwork.umass.edu/linguist_faculty_pubs/11.

- Ryding, Karin C 2005. *A Reference Grammar of Modern Standard Arabic*, Cambridge: Cambridge University Press.
- Saeed, Ghazwan, M. and Fatihi, A.R 2011. A Contrastive Analysis of Inflectional Affixes in English and Arabic. *Language in India*. 11, 1930- 2940.

عرض أهمية الفارس الأخضر في "السير جاوين والفارس الأخضر"
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صبراتة

الملخص:

تبحث هذه الورقة البحثية عن دور وأهمية شخصية الفارس الأخضر في العمل الأدبي "السير جاوين والفارس الأخضر". هذه القصيدة كتبها كاتب مجهول، يُعرف غالبًا باسم شاعر اللؤلؤ أو شاعر جاوين. ينتمي هذا العمل إلى أدب العصور الوسطى، وتحديدًا لأواخر القرن الرابع عشر. مخطوطة هذه القصيدة بقيت في نسخة واحدة، بعنوان "كوتون نيرو أ. س"، و محفوظة في الجامعة البريطانية. كما ورد في نيميكايوفا (26)، يشير نيتز إلى أن هذا العمل الأدبي هو "سرد معقد مليء بالعناصر الخيالية المثيرة، ولغة وصفية حية، وبنية شعرية مقنعة، وشخصيات معقدة ومثيرة للاهتمام، وعمق أخلاقي يجعله نادرًا يُنسب إلى الرومانسية" (351). يعتبر "السير جاوين والفارس الأخضر" قصيدة روائية عن شهامة الفرسان، حيث إنها تنتمي إلى أسطورة الملك آرثر. يُقدم الشاعر المجهول خصمه، الفارس الأخضر، من خلال مفارقة ناول فيها الشخصية في قالب متناقض. في الأدب، عادةً ما يكون الفرسان المتميزون مثاليين، ولكن من خلال هذا العمل المكثف به، يبدو أن بطل الرواية، السير جاوين، يرتكب الأخطاء كأى إنسان. لهذا يُمثّل الفارس الأخضر اختبارًا لفضائل جاوين، وهو اختبار أخلاقي يكشف فيه عن عيوب هذه الشخصية. لذلك، يُقرّ الفارس الأخضر بأنه لا يوجد فارس كامل، فالرجال العظماء يخطئون أيضًا. باختصار، تُصوّر علاقة الفارس الأخضر والسير جاوين كشخصين: المُختَبَر والمُختَبَر؛ علاوة على ذلك، يُجسّد الخصم انعكاسًا لشخصية البطل، وكلاهما يكشفان عن التوترات الكامنة وراء مجد الملك آرثر.

**The Presentation and the Importance of the Green Knight
in “Sir Gawain and the Green Knight”**

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in “Sir Gawain and the Green Knight”**

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This paper investigates the role and the significance of the Green Knight character in the literary work, *Sir Gawain and the Green Knight*. This poem is written by anonymous author; he is often referred as Pearl Poet or Gawain Poet. This work belongs to the medieval literature, specifically the late 14th century. The manuscript of this poem is survived as a single copy, Cotton Nero A.x., housed in the British University. As cited in Nemeckayova (26), Nitze indicates that this literary work is a “complex narrative full of exciting fantastical elements, vivid descriptive language, compelling poetic structure, complex and interesting characters, and a moral depth rarely credited to romance” (351). However, *Sir Gawain and the Green Knight* is considered as a chivalric romance which belongs to the Arthurian legend. The anonymous poet introduces his antagonist, the Green knight, through a paradox in which the character is portrayed in a contradictory mold. Generally; in literature, extraordinary knights are always tend to be perfect, but throughout the assigned work, the protagonist, Sir Gawain appears to commit mistakes as any human being. Thus, the Green Knight serves to test Gawain’s virtues, a moral test in which he reveals the flaws of such a character. Therefore, the Green Knight would approve that approve that no knight is perfect, great men have sin too. In brief, the relationship between the Green Knight and Sir Gawain is brief shown as the tester and the tested; moreover, the antagonist mirrors the protagonist, they both reveal the tensions beneath Arthurian glory.

The hero of *Sir Gawain and the Green Knight* volunteers to challenge the Green Knight in order to save the life and the fame of King Arthur and his court. On one hand, the Green Knight plays a very important role in showing Gawain’s character. As Stone mentions in his introduction

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to *Sir Gawain and the Green Knight*, “So it is worth emphasizing that the main reason for the existence of the Green Knight and all his works associates is that the hero may be tested, and he may reveal his true self in his behavior while under the threat of death” (19). On the other hand, the Green Knight shows to the reader that the knight, Gawain, is not always an ideal character. However, the Green Knight is presented as both a supernatural figure and a human. Throughout the poem, the poet shifts the character of the Green Knight: once as a green man, and the other as a normal person. Both of those characters share and differ from each other in terms of appearance and behavior.

In over ninety lines, the Gawain poet describes the action of the Green Knight’s entrance into Camelot. The poet gives a carefully detailed portrait of the way the Green knight dressed and looked. On the contrary, Gawain is not presented in a very detailed description. Being a well-known figure in the medieval literature could be the reason for not describing him. Therefore, the poet only focuses on the creation of the Green Knight and there is no need to describe Gawain because he “came to him fully formed by the tradition” (Benson: 95). However, although the reader, King Arthur, and his knights are familiar with the Green Knight’s features, his real identity is ambiguous and the reason could be, as Benson mentions, “the plot requires that the challenger be a mysterious character” (58-59).

The description of the Green Knight starts “as if it were to be the usual romance portrait,” (Benson: 59) from head-to-toe:

There hurtles in at the hall-door an unknown rider,
One the greatest on ground in growth of his fame:
From broad neck to buttocks so bulky and thick,
And his loins and his legs so long and so great,
Half a giant on earth I hold him to be, (136-40)

In these lines, the Green Knight is nearly a monster, but in the following lines the reader sees him as a handsome man:

But believe him no less than the largest of men,

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And that the seemliest in his stature to see, as he rides,
For in back and in breast though his body was grim,
His waist in its width was worthily small
And formed with every feature in fair accord
was he. (141-45)

This alternating between the ugliness and beauty continues throughout the description of the Green Knight. After these lines, the reader learns that the Green Knight is completely green. Then, the poet turns again to present him as an attractive figure, after that he describes the head of the Green Knight as a monstrosously bearded person. Consequently, the poet shifts his focus from the description of the Green Knight to the description of his weapon, which is also described in two different ways: Once as a terrifying equipment, “a huge and immense” (208), and as a nice work of art, which is inscribed with “goodliest work” and decorated with lace (216). Also, the poet gives other contradictory signals when he says, “Half a giant on earth I hold him to be, / But believe him no less than the largest of men,” so the reader, at first, does not know if the Green Knight is a human or a giant. Therefore, there is a contradiction in the presentation of the Green Knight’s, so “it is impossible to visualize a coherent figure of the challenger” (Benson: 61).

The last item the poet describes regarding the Green Knight is his axe. The Green Knight gives his axe as a gift to the knight who will behead him. His offer meets silence. This reaction by the court, they “kept its counsel” (307), makes the Green Knight inquire about their fame:

“What, is this Arthur’s house,” said that horseman then,
“Whose fame is so fair in far realms and wide?
Where is now your arrogance and your awesome deeds,
Your valor and your victories and your vaunting words? (309-120)

The Green Knight claims that their failure to answer his questions proves them as cowards. Then, Gawain steps forth and accepts the Green Knight’s challenge. By taking the axe and beheading the Green Knight,

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King Arthur asks Gawain to “hang up your ax” (477), he wants the horrible object to be safely removed. Kathryn points out that, “metaphorically speaking” the axe “hangs over Gawain throughout the poem” (14). Wall in “The Axe in Sir Gawain and the Green Knight,” clarifies that the only critic who discusses the axe’s significance is Joseph Longo. In his interpretation of the poem focusing on Gawain as a Christian Everyman, he suggests that the axe echoes John the Baptist’s words in Mathew 3.10: “And also the axe is laid to the root of the trees: every tree which bringeth not forth good fruit is hewn down” (75). Unlike the girdle, the significance of the axe has not been interpreted by the poet. However, A. H. Krappe says that the appropriateness of axe to the Green Knight is “the only deathless executioner known, Death itself” (208). R. E. Shoaf notes that New Year’s Day, the day of the Green Knight’s arrival at the court of king Arthur, is the day of the Feast of the Circumcision, the association of the axe and the knife. But, as Kathryn notes, Krappe and Shoaf have been unable to illustrate “why the Green Knight’s implement is not scythe” (14). Thus, the significance of the Green Knight’s axe is ambiguous like his presentation at the beginning of the poem.

The strangest thing in the Green Knight’s appearance is his greenness. The color green in medieval literature has many different interpretations. For example, Stone implies that the green man is a personification of spring. Also, it is a symbol of youth when it is linked to gold. Moreover, Benson in *Art and Tradition in Sir Gawain and the Green Knight*, says that the Green Knight and the character, Youth, in *The Parlement of the Thre Ages*, share the same features like their green appearance and their interest in fighting.

According to Benson, the color green represents five things: First, it could represent the “fiend” and Gawain’s pentangle is evidence as a protection against the evil spirits. Moreover, Stone regards the Green Knight as ‘the common enemy of man’ because he thinks that he “resembles the kind of devil who tempts within the system and on behalf of God, like Satan in the Book of Job; he knows what good and evil are” (117).

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Second, green is the color of death, so the Green Knight himself may signify death in terms of Gawain's fear to meet him. Third, it represents rebirth because in one later romance the hero is saved from death by green liquor that makes his complexion green. Forth, green is a symbol of love because of its association with spring. In the romances there are “Maying” knights and ladies who are dressed in green clothes, which are beautified with flowers. Fifth, it is the color of nature and vegetation, the poet emphasizes this relation throughout the poem. First by the description of the Green Knight: the beard like a bush, his movement like lightning, then by the accounts of Bertilak's interest in hunting and finally by the Green Chapel where Gawain says, “Well may the grim man mantled in green” (2191).

Another important medieval theological reference to green, according to Stone, is as the color of truth. He concludes this from the first great English morality play, *The Castle of Perseverance*, “The iiij daughters shall be clad in mantles, Mercy in white, Righteousness in red altogether. Truth in sad green...” (Eccles: 1). This play was written at the end of the Fourteenth century, a few years after the poem: *Sir Gawain and the Green Knight*. Throughout the poem, Gawain's main concern is truth, although “pursuit of it naturally involves him in the defense of other virtues such as courtesy, generosity, loyalty, moderation, bravery, and chastity” (Stone: 131). Furthermore, the pentangle is also a sign of truth, “To be a token of truth, by its title of old” (626). Stone illustrates the connection between the pentangle and truth as following:

It is worth emphasizing the ‘fiveness’ of the multiple concept of ‘truth’: the five wits and five fingers make up the spiritual and physical human self which can practice virtue or vice; the five wounds of Christ and the five joys of the Virgin stand for heaven's grace and power in man's moral and spiritual life and the ‘pure five’ virtues make up the ‘truth’...this complex ‘truth’ has the special significance of being established as the knight's symbol and motto immediately before he sets out on his quest. It will therefore remain the central concern of the adventures and of the poem itself. (Stone: 131)

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In fact, the interpretations of the color green, which are mentioned above, are not connected. For example, death and love are completely different; hence, green as a symbol of truth seems the best signification in *Sir Gawain and the Green Knight*. However, the Gawain poet is very clever in applying the color green, he makes the reader wonder whether green implies good or evil. It is a technique used in order to add suspense and pleasure to the poem. At the very beginning, Gawain thinks that the Green Knight is a fiend, “Now I feel it is the Fiend, in my five wits,” but towards the end when the latter leans on his axe and chuckles at the former, Sir Gawain realizes that the Green Knight is a friend not a fiend (2193). Furthermore, Benson suggests that the green skin of the Green Knight helped the Gawain poet solve his most difficult problem in the creation of the Green Knight, who combines two different figures as the wild man and the green man.

The presentation of the Green Knight’s appearance resembles the giant in *The Alliterative Morte Arthure*. Like Gawain who describes the Green Knight as a fiend, King Arthur also characterizes the giant as a fiend, “The Fiend have your soul!” (1061). The following lines are the description of the giant in *The Alliterative Morte Arthure*:

And darkly splotched as the skin of a frog;
He was hooknosed as a hawk, with a hoary beard,
Haired to the very eyeholes with hanging brows;
Rough as a houndfish, as anyone could have seen,
Was the whole dark hide of that hulk, from end to end.
Enormous ears he had and ugly to view.
His eyes were terrible and burned like fire; (1080-86)

Although the giant is not green, there is a reference to the color of his skin by mentioning the frog. He is also fierce in manner and crowned with the beard and hair, “His beard was bristly and black and stretched to his breast” (1089). Also, the eyes of the giant are compared to fire, which are similar to the red eyes of the Green Knight, “And roisterously his red eyes he rolled all

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about” (304). Robert B. White in his “A Note on the Green Knight’s Red Eyes”, states that the Green Knight’s red eyes have been traced back to any significant motifs in the folklore and mythology of prehistory. White explains further that the color red in the early literature was associated with blood, cruelty, and violence. He points out that all of the Green Knight’s courage and manliness are indicated by his red eyes, which make the hesitation of Arthur and his knights even more understandable.

After Gawain’s departure from Camelot, he arrives at the castle where the other identity of the Green Knight lives. During Gawain’s journey, Benson thinks, he starts to act a bit more like the Gawain of tradition than the ideal knight of the Pentangle. Furthermore, Stone implies that Gawain perceives the castle as the direct result of a Christian prayer that he might do proper service to God on the following day, Christmas day. Bertilak, the host, has a fiery face with a thick, gray-black beard and solid, strong legs. But, his speech to Gawain reveals him as gracious and gentle; furthermore, his wife “embodies the beauty of the Green Knight’s portrait” (Benson: 94). She is beautiful, but her husband is not. Hence, it is like the principle of alternation between the ugliness and the beauty of the Green Knight. Moreover, Prior in *The Pearl Poet Revisited*, says that the set of parallels and contrasts does not only apply to the figures and motif, but it also organizes the plot of the poem. However, the duality of the green man emphasizes his complexity in this poem by presenting him in two different personalities.

In *Sir Gawain and the Green Knight*, there are three main themes: First, the beheading game, the main plot, depends on keeping their word ; second, the temptation where Bertilak’s wife seduces Gawain in order for her husband may have power over him; and finally, the exchange of winnings, in which Bertilak gives Gawain what he hunts. Thus, all of these themes are connected to each other and “the framework of the whole poem becomes a game of truth” (Stone: 13). Both the temptations and the exchange of winnings function as humorous parallels, but the latter game contrasts with the former in terms of aggressiveness and intensity. Bertilak

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hunts three different animals: deer, bear, and fox. These three victims represent, as Stone highlights, the Flesh, the Devil, and the World. However, “the animals hunted suggest those qualities which Gawain must conquer—timidity, ferocity, and cunning” (Howard: 171).

In addition to the Green Knight’s role, the presentation of his wife and Morgan is also very important, as Fisher notes that the real power behind the romance is Morgan and its main active player is Bertilak’s lady. Stone indicates that in romance, there are two kinds of woman who declare their desire openly. The first kind is the lady who falls in love with a knight and she vows service to him. The other one is the woman who wants to distract the knight from a quest in which “loss of his chastity would be fatal to success, and so appeals directly to his lust” (119). However, the presence of the two ladies’ characters shows the reader that “a romance castle can be more complex place than the idyllic Camelot” (Benson: 101).

In the third part, the alternating hunting scenes and bedroom scenes parallel one another. For both Gawain and the hunters, the danger each day increases. Thus, the three days spent in the host’s castle with the lady is the real test for Gawain. In fact, During Gawain’s stay at Bertilak’s castle, he feels secure in his reputation as a famous knight, even the lady acknowledges that, “Sir Gawain you are, / Whom all the world worships, whereso you ride; / Your honor, your courtesy are the highest acclaimed” (1226-28). Later on, he starts to feel less secure and the lady begins to doubt his identity, “But our guest is not Gawain” (1293). However, in the three hunting scenes, Bertilak seems to be very strong and fearless, whereas in his castle, he acts like a child. However, “without the haunting scenes, one might assume Bercilak to be merely some sort of a fool, a pawn in the hands of Morgan la Faye, to be lord of the castle in name only” (Roney: 33-34).

The third day seems very different from the other two days in terms of how the hostess behaves with Gawain and the host’s final hunt. On this day, the temptation “shifts from a simple trial of continence to a more complex testing of Gawain’s famous courtesy” (Benson: 220). Moreover,

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the lady's flirtation has become morally dangerous and it resembles the scene of a hunter who chases his prey. Her husband hunts a fox, which is generally a decisive creature and this victims refers to Gawain's disloyalty to his host. Benson says that Bertilak's capture of the fox is related to his final capture of Gawain.

Stones compares this hunting scene to the last bedside conversations between the hostess and Gawain and “fox and knight seem like to have escaped...Bertilak's disgust with the fox's skin parallels the savour of Gawain's little deception in concealing the gift of the girdle” (17). Hence, by hiding the girdle under his armor, Gawain is no longer the perfect knight who “was Gawain in good works” (633).

In Gawain's journey to the Green Chapel, there is no hardship and danger from beasts, so his fear is not physical; rather, it is spiritual. The guide tries to persuade Gawain to flee from the Green Knight's land—Gawain does not actually flee. So, the guide is offering Gawain the chance to escape, “To conceal this day's deed, nor say to a soul / that ever you fled for fear from that I knew” (2124-25). This resembles the lady's offer when she asks him to hide the green girdle, “And besought him for her sake to conceal it well, / Lest the noble lord should know—and the knight agrees” (1862-63). The guide plays the role of a tester because he does his best to scare Gawain in order to make him fail another test, which is keeping his word to the Green Knight. Fortunately, Gawain does not pay attention to the guide's speech and insists to go to the Green Chapel. Benson points out that in order for Gawain to be completely tested, the plot needs an episode that has the same relation to the first agreement as the lady's temptation has to his bargain with the host. Thus, the scene between the Gawain and his guide is such an episode.

Many critics argue that the guide is really the Green Knight in disguise. Benson claims that the poet's later designation of the guide suggests that “Gawain's tempter is Bercilak in another shape” (230). In fact, the poem fails to explain his role, just like the ambiguity of Morgan le Fay's hatred for Guinevere. However, Delany indicates that both of the

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the castle and goes to the Green Chapel, the poet describes his armor and the green lace.

Again, the contradiction occurs. The alternation of ugliness and beauty is found in the poet's description of the castle and the Green chapel. The castle is very beautiful, whereas the Green chapel is not. When Gawain arrives at the Green Chapel, the Green Knight welcomes him as the host does in his castle. At this time the lady of the castle is not with them, but her presence is felt as long as Gawain wears the green girdle. However, the Green Knight heaves his axe and brings it down, but Gawain shrinks, so the blow is interrupted. His shrinking, as Benson notes, leads him to a new development. The Green Knight says:

You are not Gawain the glorious,
That never fell back on field in the face of the foe,
And now you flee for fear, and have felt no harm:
Such news of that knight I never heard yet! (2270-73)

Thus, Gawain is not the knight who the poet introduces at the beginning of the poem.

The Green Knight cuts Gawain's neck and he wants him to bear it bravely as he did at Camelot but our knight does not get that. As with other tests, Gawain does not realize the nature of his tests. Each test shifts from physical to “a more abstract plane” (Benson: 233). The second time, the Green Knight raises his axe and Gawain “stood still as a stone, or else a stout stump (2293), but the blow is withheld and the reason according to Benson is “to goad Gawain into the mode of conduct this natural imagery implies” (234). So, by doing this, Gawain passes the test of bravery. In the third time, the Green Knight hurts Gawain's neck. But, why does the former hit the latter for the third time? Maybe because Gawain in the third day cheats his host, so the Green Knight wants to punish him by nicking his neck.

Benson notes that Gawain's new personality becomes more obvious when the blow falls. When Gawain sees his blood on the snow, the poet switches the way of designing the hero that he has used in the guide's

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episode. The poet starts to use the same vocabulary for Gawain as he uses for the Green Knight. As Benson mentions many critics have claimed that Gawain feels as if he has undergone a type of rebirth, a new beginning to life. Two of the green color's symbols are death and rebirth. Although those symbols are different from each other, they may imply that Gawain who commits a mistake, concealing the green girdle, has died not physically but he learns his lesson and of course he will not be that cunning Gawain again. As the Green Knight says, “As you had free of fault since first you were born” (2394). Thus, wearing the green girdle as a reminder of his sin shows the readers that we have a new Gawain as if he was born again. In other words, it is the death of his old personality and the birth of his new one.

The Green Knight tells Gawain that he knows about the girdle, its story, and the kisses. Then, the Green Knight excuses him for his fault and says:

So is Gawain , in good faith, to other gay knights.
Yet you lacked, sir, a little in loyalty there,
But the cause was not cunning, nor courtship either,
But that you loved your own life; the less, then, to blame. (2365-68)

Gawain confesses his fault to the Green Knight and tells him that he has learned from his cut, “Your cut taught me cowardice, care for my life” (2379). Gawain realizes that disloyalty and lying are not the traits of a good knight. So, he learns “something about the knighthood and himself. The “fol chevalier” has become wiser through the initiation into a broader life than knighthood comprehends” (Benson: 239).

The falling action of the poem is when the Green Knight reveals his real identity to Gawain. He tells Gawain that his name is Bertilak de Hautdester and Morgan le Fay, who is his aunt and Arthur's half-sister, is the one behind the entire story. Morgan is a complex character. Haines points out that neither Bertilak nor the poet himself knows if she is malevolent or benevolent. She is powerful and uses magic. Her role is

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testing the knight's virtue by using both Bertilak and his wife. Moreover, his wife, as Haines notes, may not be that friendly with the old woman because she “led her by the left hand” (947), and “this side always associated with fairy powers in this poem” (148). So, the lady protects herself by using her left hand. However, Haines goes further and suggests that maybe Gawain needs only to blame himself and Morgan is innocent.

At the end, both of the reader and Gawain realize that the Green Knight is gentle. He calls Gawain “good friend” and invites him to his house. Even Bertilak's manner of speech shifts to formal and he starts to call him sir after he gives him the girdle. However, Gawain refuses to Bertilak's invitation and then he adds:

And commend me to that comely one, your courteous wife,
Both herself and the other, my honored ladies,
That have trapped their true knight in their trammels so quaint.
(2411-13)

Gawain asks Bertilak to commend the lady, after that he includes the old woman. Kinney in "The Best Book of Romance: Sir Gawain and the Green Knight," suggests that “the relative clause which qualifies ‘both’ makes the old lady and the young suddenly co-partners in the deceiving of Gawain” (460). Kinney goes further and explains that Gawain assumes that even the older woman is one of the Green Knight's tricks. After the Green Knight mentions his name, he introduces the name and the story of the old woman as if he wants to show Gawain that he is not guilty and it is all Morgan's trickery. However the syntax of lines (2446-62), as Kinney suggests, is clumsy and the narrative is not clear. Moreover, Bertilak begins to move into “a series of paratactic explanatory asides, and there is no real closure to the wheel of the stanza” (462). Although those lines add suspense to the poem, Gawain does not pay attention to what has been said by the Green Knight. In other words, the poet does not include Gawain's reaction after he hears the story of his aunt. Also, when he goes back to the court, he tells

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King Arthur and his knights what happens to him in the castle and the Green chapel, but he does not mention anything about Morgan.

Morgan’s role helps the reader to know the identity and the role of the Green Knight and the motif of Gawain’s test. Carson in "Morgain la Fée as the Principle of Unity in Gawain and the Green Knight," thinks that the lady is Morgan, and when the hostess offers her ring to Gawain, R.S Loomis suggests that Morgan is giving her magic ring, which depends on tradition. There is an indication that “in Celetic and Celtic-influenced folklore, those fees who derived from Morgain also give rings to their lovers” So the two roles are played by her. Thus, Morgan uses the Green Knight as a tool to get what she wants.

Benson indicates that, “the most trying of all Gawain’s humiliations at the Green Chapel is the fact that the Green Knight refuses to take him seriously” (240). Gawain is the one who takes it seriously. When he comes back to Camelot with regret and tells his sad story to King Arthur and his knights, they start to laugh whereas he does not join in the laughter. Both of the Green Knight and the court’s laughter show, as Benson says, that Gawain has learned from his adventure that chivalry takes itself a bit too seriously.

In conclusion, at the beginning of the poem Gawain has been presented as a superman, a knight of the pentangle, but at the end he turns out to be a human. Gawain is a man who has “his own weakness, but the poet is on his side” (Bloomfield: 50). However, Gawain’s disloyalty towards his host, his confusion over whether to maintain his chastity and courtesy, and his shaking in the first blow of the Green Knight reveal him to be an imperfect knight. Benson suggests that Gawain “is the one hero in romance who is famous for his conventional faults as for his virtues and who comes near perfection but never attains it” (107). Additionally, the Green Knight plays an important role in revealing the personality of the hero of *Sir Gawain and the Green Knight*. First, when the former comes to Arthurs’s court and asks about who is going to behead him, Gawain accepts it. So, the reader believes that Gawain is brave. Second, when Gawain

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stays in Bertilak’s castle, Gawain appears to be loyal except the third day. Thus, Gawain commits a mistake as any human does. Third, in the first blow of the Green Knight, he shakes and is afraid and in the second blow, he does not move. Hence, he proves to the reader that he keeps his word as he does with his coming to the Green Chapel. So, it is through the Green Knight, we know who Gawain is.

References

- Benson, Larry D. Art and Tradition in Sir Gawain and the Green Knight. New York: The State University, 1965.
- Bloomfield, Morton W. “Sir Gawain and the Green Knight: An Appraisal.” Critical Studies of Sir Gawain and the Green Knight. Ed. Donald R. Howard and Cristian Zacher. London: University of Notre Dame Press, 1968. 24-55.
- Borroff, Marie. Sir Gawain and the Green Knight, Patience, and Pearl. New York: Norton & Company, 2001.
- Carson, Mother Angela. "Morgain la Fée as the Principle of Unity in Gawain and the Green Knight." *Modern Language Quarterly* 23.(1962): 3-16.
- Delany, Paul. “The Role of the Guide in Sir Gawain.” Critical Studies of Sir Gawain and the Green Knight. Ed. Donald R. Howard and Cristian Zacher. London: University of Notre Dame Press, 1968. 227-235.

The Presentation and the Importance of the Green Knight in “Sir Gawain and the Green Knight”

Haines, Victor Yelverton. The Fortune Fall of Sir Gawain: The Typology of Sir Gawain

and the Green Knight. New York: University Press of America, 1982.

Howard, Donald R. “Structure and Symmetry in Sir Gawain.” Critical Studies of Sir

Gawain and the Green Knight. Ed. Donald R. Howard and Cristian Zacher.

London: University of Notre Dame Press, 1968. 159-173.

Kinney, Clare R. “The Best Book of Romance: Sir Gawain and the Green Knight.”

University of Toronto Quarterly: A Canadian Journal of the Humanities 59.4

(1990): 457-473.

Krappe, A.H. “Who Was the Green Kight?” *Speculum* 13 (1938): 206-15.

Loomis, R. S. Arthurain Tradition and Chretien de Troyes. New York, 1949.

Longo, Joseph H. “Sir Gawain and the Green Knight: The Christian Quest for

Perfection.” *Nottingham Medieval Studies* 11 (1967): 57-85

Nemeckayova, Nickoleta. *Sir Gawain and the Green Knight and the Critique of Medieval*

State of Knighthood and Chivalry. May 16, 2021. Masaryk Univesity. Faculty of

Arts, Department of English and American Studies, English Language and

Literature.

MA

Thesis.https://is.muni.cz/th/zx2it/449161_Nemeckayova_Thesis.pdf

Nitze, William A. “Is the Green Knight Story a Vegetation Myth?” *Modern*

Philology, vol. 33, no. 4, 1936, pp. 351-366.
www.jstor.org/stable/434285

(accessed January 29, 2021)

**The Presentation and the Importance of the Green Knight
in “Sir Gawain and the Green Knight”**

Roney, L. Y. "Sir Gawain and the Green Knight." *Explicator* 37.1 (1978): 33-34.

Shoaf, R. E. The Poem as a Green Girdle: Commencium in Sir Gawain and the Green

Knight. Gainesville: Up of Florida, 1984.

Stone, Brian. Sir Gawain and the Green Knight. Great Britain: Hazell Watson, 1974.

Prior, Sandra Pierson. The Pearl Poet Revisited. New York: Twayne Publishers, 1994.

Walls, Kathryn. "The Axe in Sir Gawain and the Green Knight." *ANQ: A Quarterly*

Journal of Short Articles, Notes, and Reviews 16.1 (2003): 13-18.

White, Robert B. "A Note on the Green Knight's Red Eyes." Gawain and the Green

Knight. Ed. Donald R. Howard and Cristian Zacher. London: University of Notre

Dame Press, 1968. 223-226.

Wirtjes, Hanneke. "Bertilak de Hautdesert and the Literary Vavasour." *English Studies: A*

Journal of English Language and Literature 65.4 (1984): 291-301.

الذكاء الاصطناعي والذكاء البشري: تكامل وليس تنافس

"رؤية تربوية في ضوء التعليم العالي"

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الملخص :

مع تنامي حضور الذكاء الاصطناعي (AI) في مختلف مناحي الحياة، تصاعد الجدل وبرزت عدة تساؤلات حول طبيعة علاقته بالذكاء البشري، بين من يرى فيه تهديدًا للقدرات البشرية ومن يراه شريكًا معرفيًا يُعزز من الفاعلية وفرصة التكامل. من هنا فإن الهدف من هذه الورقة هو مناقشة فرضية مفادها أن العلاقة بين الذكاء الاصطناعي والبشري يجب أن تُبنى على التكامل لا على التنافس، وذلك عبر تحليل الفروقات الجوهرية بين النوعين، وتسليط الضوء على نماذج تعاونية ناجحة جمعت بين الإنسان والآلة في مجالات عديدة، من بينها مجال التعليم العالي موضوع هذه الدراسة.

اعتمدت الدراسة الحالية على المنهج الوصفي التحليلي، من خلال مراجعة الأدبيات الحديثة التي تناولت الإمكانيات التكاملية بين الذكاءين، والتحديات الأخلاقية والوظيفية التي تعترض هذا التعاون. وقد بيّنت النتائج أن الذكاء الاصطناعي لا يمكنه بطبيعته الخوارزمية، أن يحل محل الإنسان في مجالات الحكم الأخلاقي، الإبداع، والحدس، لكنه يُعد أداة فعّالة لتوسيع قدرات البشر وتحسين أدائهم، وأن فعالية الذكاء الاصطناعي في التعليم العالي تعتمد بدرجة كبيرة على التوجيه البشري، والتكامل مع الخبرة التربوية، وليس على الاستبدال الكامل.

وتوصي هذه الدراسة بتبني إطار تعاوني تشاركي مستدام تحت ما يسمى بـ (الذكاء التشاركي) Collaborative Intelligence ، والذي يُعزز التفاعل الإيجابي بين الإنسان والآلة، ضمن إطار أخلاقي وتنظيمي واضح، أيضًا فهو يُعزز من كفاءة الممارسات الأكاديمية مع الحفاظ على الدور المحوري للعقل البشري في قيادة العملية التعليمية.

Artificial Intelligence and Human Intelligence: Complementarity, Not Competition

الكلمات المفتاحية: الذكاء الاصطناعي، الذكاء البشري، التعليم العالي، الذكاء التشاركي التعاوني، التعلم التكيفي.

Artificial Intelligence and Human Intelligence: Complementarity, Not Competition

"A Pedagogical Perspective in Light of Higher Education"

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Abstract

With the growing presence of artificial intelligence (AI) in various aspects of life, controversy has escalated and several questions have emerged about the nature of its relationship with human intelligence, between those who see it as a threat to human capabilities and those who see it as a cognitive partner that enhances effectiveness and the opportunity for integration. Hence, the aim of this paper is to discuss the hypothesis that the relationship between artificial intelligence and humans should be built on complementarity rather than competition. This is achieved by analyzing the fundamental differences between the two types and highlighting successful collaborative models that have brought together humans and machines in various fields, including higher education, the subject of this study. The current study relied on the descriptive analytical approach, through a review of recent literature that addressed the complementary potential between the two intelligences, and the ethical and functional challenges that hinder this cooperation. This study recommends adopting a sustainable collaborative framework called "Collaborative Intelligence," which promotes positive interaction between humans and machines within a clear ethical and regulatory framework. It also enhances the efficiency of academic practices

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while preserving the pivotal role of the human mind in leading the educational process.

Keywords: Artificial Intelligence, Human Intelligence, Higher Education, Collaborative Intelligence, Adaptive Learning.

Introduction

Higher education has undergone radical transformations in the last two decades due to rapid developments in digital technology, most notably artificial intelligence (AI). AI tools have become an essential element in designing adaptive learning systems, supporting academic decision-making, and analyzing learner data in a way that allows for personalized learning and improved outcomes (Zawacki-Richter, Marín, & Bond, 2020). In light of these transformations, extensive scientific and philosophical debates have emerged about the future of the relationship between AI and human intelligence, raising serious questions about the possibility of replacing teachers or reducing their role in a digitally augmented learning environment. But what some overlook is that the human brain is one of the most advanced and efficient systems. While AI is able to process massive amounts of data and identify patterns, it lacks the nuanced understanding that humans naturally possess. It lacks emotions, and humans do not make decisions based on reason and logic alone, but human emotional intelligence is capable of successfully handling a complex transaction or leading a team through a crisis (TRENDS, 2025). The mainstream approach that views AI as a competitor to the human mind ignores the true potential of human-machine partnership, made possible by what is known as “collaborative intelligence,” a model that combines the algorithmic computational capabilities of machines with the cognitive and creative abilities of humans (Wilson & Daugherty, 2018), so human intelligence, with its mental flexibility, ethical awareness, and contextual expertise, remains an indispensable element in guiding AI, which so far lacks the understanding of complex human contexts, so human capabilities are more expansive.

Unlike AI capabilities that only respond to available data, humans have the ability to imagine, anticipate, feel and judge changing situations, allowing them to shift from short-term to long-term concerns. These abilities are

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unique to humans and do not require a constant flow of externally provided data to function as is the case with AI .

Although AI seems to be at odds with human intelligence, they are also complementary. In the context of organizations, both types of intelligence offer a set of specific talents, which are activated as required capabilities to meet performance requirements - needed to achieve optimal performance. It is first and foremost important to emphasize that "talent can win games, but it often won't win championships" the meaning here is clear, which is why we believe that combining the talents inherent in both AI and human intelligence, working in tandem, is what will create the future of smart working. It will create the kind of intelligence that will allow organizations to be more efficient and accurate, and at the same time more creative and proactive. This type of intelligence resulting from the integration of the two intelligences is called augmented intelligence or collaborative intelligence (De Cremer & Kasparov, 2021).

The integration of human and artificial intelligence has become a necessity for countries and individuals, and what we must do is focus on the strengths of these technologies and develop them wisely, while adhering to ethical standards that ensure everyone benefits. AI complements human capabilities with its speed and accuracy in processing and analyzing data, contributing to more rational decision-making. However, human intelligence remains essential in guiding these modern technologies towards humanitarian goals. Through this harmonious cooperation and integration between AI and human intelligence, we can look forward to a prosperous and sustainable future for all, where advanced technologies and human creativity cooperate to achieve achievements that were not possible before, and improve the quality of life comprehensively and profoundly. It is an ambitious vision for the future that deserves to be realized with all our effort and creativity. We also need to invest heavily in education and training to develop human skills in keeping pace with technological changes, and to ensure that AI is an empowering tool that enhances our capabilities and not a substitute for us; innovation, creativity, and human critical thinking are

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elements that cannot be replaced by any machine, no matter how sophisticated it is (Muthanna. A, 2024).

Human intelligence represents the innate and mental abilities of humans, which include thinking, analyzing, innovating, remembering, learning, and adapting to different circumstances. Since ancient times, human intelligence has been the main driver of all developments and innovations in various scientific and intellectual fields, and only humans are capable of thinking about complex issues, understanding emotional and social contexts, and making decisions based on their experiences and self-awareness, which allowed humanity to reach the advanced stages of civilization that we witness today, in other words, human intelligence is capable of empathy, critical thinking, understanding moral values, and emotional communication with others, these abilities make humans unique, as it is difficult for machines to possess them, even with the development of artificial intelligence techniques. Humans also have a unique ability to solve issues in unexpected circumstances, as they rely on their personal experience and innovative thinking, which is a limited ability for AI that relies on programming and analyzing data according to specific patterns, so the relationship between AI and human intelligence requires a careful balance to ensure that society benefits from modern technology without harming human aspects and social values.

On the other hand, AI is a set of technologies and systems designed to emulate some aspects of human intelligence, such as the ability to learn, recognize patterns and make decisions based on the analysis of big data. AI relies on techniques such as machine learning, deep neural networks and natural language processing, which aim to make machines understand and behave in ways similar to humans. Although AI does not have the ability to think consciously or feel human, it surpasses humans in some fields, especially those that require processing huge amounts of information in a short time, or performing complex calculations, the relationship between AI and human intelligence is complex, as AI is a technical development that arose due to human intelligence, and it is designed to serve humans and facilitate their daily and professional lives, as it is used to improve work

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efficiency in multiple fields, including higher education, Accordingly, (Roll & Wylie, 2016) believe that the most important technological transformation in education has been the use of artificial intelligence, not to solve problems for humans, but rather to help them think about them in a more organized and innovative way. Artificial intelligence is a powerful tool in the hands of man, capable of achieving great achievements and providing innovative solutions to the major issues facing humanity, but at the same time, we must remember that artificial intelligence remains a product of the human intelligence that developed and guided it, and human intelligence remains the origin, and possesses a special value stemming from its complexity and ability to sense, create, and determine values. is a product of the human intelligence that developed and directed it, and human intelligence remains the original, and possesses a special value stemming from its complexity and its ability to sense, create, and define values, and this complex relationship between the two intelligences requires a conscious and responsible interaction from society to ensure the maximum benefit from modern technology while preserving the value of the human being.

According to (Kambhampati, 2019), human-AI collaboration is the practice of combining human expertise with the computational resources of AI to solve complex issues. It is an emerging field that could shape future science, business, and policy approaches, so AI should not ideally replace the human workforce, for example, an AI machine can recognize human emotions that do not utilize their full potential in social awareness, self-assessment, self-management, etc. due to their limited cognitive skills that limit their performance in intelligence and decision-making. (Al-Essi, 2022) also discusses the issue that humans will remain the ultimate decision-maker in the educational environment, regardless of the advancement of algorithms, because educational value depends on human understanding, not just digital analysis.

In higher education specifically, the goal is not to replace teachers or academic administration, but to enhance and optimize their efficiency through learning analytics tools, intelligent recommendation systems, and data-driven adaptive learning (Holmes, Bialik, & Fadel, 2021). However,

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realizing this integration requires a thorough understanding of the nature of the relationship between the two intelligences and identifying the ethical and pedagogical norms that govern this partnership.

Therefore, it is important that humans work to develop AI within ethical and human rights limits, as scientists and researchers seek to establish laws and controls that govern the use of AI and prevent its exploitation in a way that threatens human rights or harms society. In addition, emphasis should be placed on education and enhancing human skills in areas that are difficult for AI to imitate, to ensure that AI complements rather than replaces human intelligence, and the organizations that will succeed in the future will be those that use AI wisely while still valuing human employees. AI is not here to replace humans - it is here to help them. The future of work will depend on how well organizations and their employees are able to adapt and use AI as a tool for success. By embracing AI as a complement rather than a replacement, organizations will be able to create a more dynamic and agile workforce. In other words, to ensure a balanced approach, educational institutions should strive to provide proper training, update curricula to include AI fundamentals, and create policies that protect workers while fostering innovation. As AI becomes more integrated into society, human adaptability will be the key to long-term success (Edward, 2025).

In conclusion, we cannot treat AI as a threat to humanity, but rather we must use it as an opportunity to make breakthroughs in various fields of life, especially in the field of higher education; by balancing the power of analysis and accuracy provided by AI with human wisdom and creativity, we can build a better world for all. This is the historical responsibility that falls on all of us, to ensure that technological developments remain at the service of humanity. Therefore, based on the above, this paper aims to provide a modern analytical reading of the relationship between AI and human intelligence in higher education, from an integrative rather than competitive perspective. The paper reviews the theoretical framework, integrative educational models, and future challenges, supporting the transition towards more personalized and effective education.

1. General Framework of the Study

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1.1 Study Problem

Despite rapid progress in the use of AI technologies in higher education settings, the relationship between AI and human intelligence remains a subject of widespread epistemological and educational debate. While these technologies promise unprecedented capabilities for data analysis and personalized learning paths, concerns are growing that the role of the academic human will be diminished, transforming the educational process into automated models devoid of human interaction and educational meaning.

Many AI-based applications also lack adequate ethical and educational context, raising questions about fairness, privacy, and algorithmic bias. This coincides with regulatory challenges represented by the lack of clear policies for integrating AI into university systems in a comprehensive and safe manner.

Based on this problematic, the study's problem revolves around: "How can we achieve effective integration between artificial intelligence and human intelligence in higher education, enhancing the quality of academic practices without compromising the human and ethical role of the educational process"?

1.1.1 Study Questions:

This study begins with a central question:

How can we achieve effective integration between artificial intelligence and human intelligence in higher education, contributing to improving the quality of the educational process and addressing the ethical and regulatory challenges associated with such integration?

This main question gives rise to a set of sub-questions:

1. What are the fundamental differences between human intelligence and artificial intelligence in terms of their characteristics and capabilities in higher education?
2. How does educational literature view the philosophy of integrating intelligences? What is the contemporary concept of collaborative intelligence?

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3. What are the most prominent successful applied models that embody the partnership between human intelligence and artificial intelligence in higher education?
4. What are the most important ethical and functional challenges facing higher education institutions when integrating AI technologies?
5. What are the future prospects for the human-machine relationship in the university context? What are the requirements for building a smart and sustainable education system?

1.2 Study Objectives

The current study aims to achieve a number of objectives, including:

1. Clarify the fundamental differences between human intelligence and artificial intelligence in the educational context.
2. Explore the philosophy of "collaborative intelligence" as an integrative model for future university education.
3. Analyze successful applied models for the integration of the two intelligences in higher education.
4. Highlight the ethical and functional challenges that hinder this integration.
5. Present a future vision that enhances the integration of artificial intelligence with human capabilities in university environments.

1.3 Importance of the Study

The importance of this study stems from the topic's relevance and sensitivity in a period of unprecedented digital transformation. The study's theoretical significance lies in its contribution to framing the relationship between human and artificial intelligence within a balanced, integrative model that transcends the dichotomy of "competition and substitution" toward "partnership and reinforcement".

The practical significance lies in providing educational and practical insights that can benefit decision-makers in higher education institutions, faculty members, and researchers interested in artificial intelligence technologies in building smart learning environments that preserve the human dimension, support

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educational justice, and direct technologies toward lofty educational goals.

1.4 Study Delimitations

1. Objective Limits

The study examines the relationship between artificial intelligence and human intelligence from an integrative perspective, focusing solely on higher education, without addressing other educational levels or the technical aspects of artificial intelligence.

2. Methodological Limits

This study is a theoretical study that relied on a descriptive analytical approach, through analyzing relevant scientific literature and modern sources, without using field tools (such as questionnaires or interviews).

3. Timeline

The study focused on scientific production and recent trends over the past five years (2016–2025), a period that witnessed a radical shift in the use of artificial intelligence in education.

4. Spatial Limits

The study examined higher education environments globally and in the Arab world, focusing on experiments and models conducted at universities in developed countries and the Arab world.

1.5 Reasons for Choosing the Topic

1. The researcher's keen interest in this topic, given that "artificial intelligence" is a new topic, sought to delve into its details.
2. The researcher's desire to understand the relationship between artificial intelligence and human intelligence, and to leverage their integration to develop the higher education system, was also highlighted.
3. This was due to the recent surge in interest in its use and the use of its tools by some professors, students, and other groups.

1.6 Study Methodology

The current study relied on a descriptive-analytical approach, through a review of recent literature that addressed the nature of both

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artificial intelligence and human intelligence, as well as the complementary potential between these two intelligences, and the ethical and functional challenges that hinder this cooperation.

1.7 Study Terminology

■ Artificial Intelligence

Artificial intelligence is defined as "the ability of machines to perform tasks that normally require human intelligence, such as learning, reasoning, problem solving, and decision making" (Abdul Razzaq, 2024).

(Gignac, & Szodorai, 2024) also define it as "the maximum capacity to successfully complete new goals through computational operations".

In addition, (Aqoun, 2024) stated in his book "Artificial Intelligence and Its Advanced Applications" that artificial intelligence "is the ability of a machine to simulate the human mind and its functions, such as its ability to think, discover, and benefit from previous experiences".

Artificial intelligence is a field of computer science and its systems capable of performing specific tasks that mimic human intelligence and behavior. It has multiple applications in various fields. Its applications can be employed to help researchers reach more accurate and rapid results, while relying on ethical standards that suit researchers in the educational field in Arab and Islamic societies (Al-Makkawi, 2023).

Artificial intelligence is defined in this study: The use of smart applications in higher education for the purposes of supporting the educational process, improving academic performance, and analyzing learners' behaviors based on big data.

■ Human Intelligence

Human intelligence is defined as "the human ability to learn, think, understand ideas and concepts, and use knowledge and skills to solve problems and make decisions" (Maaaid, 2022)

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Human intelligence is defined as "the intellectual prowess of humans, characterized by complex cognitive functions and high levels of motivation and self-awareness" (Hashemi, R., and Meliani, A., 2024).

It can be said that "human intelligence is, in general, the mental quality that consists of the ability to learn from experience, adapt to new situations, understand and handle abstract concepts, and use knowledge to control the environment." (Robert, 2025).

The researcher defines human intelligence procedurally as: The pedagogical abilities and academic expertise possessed by faculty members that enable them to guide, interact, and make ethical and pedagogical decisions within the higher education environment.

- Collaborative Intelligence

Collaborative Intelligence (CI) is a concept where humans and artificial intelligence (AI) work together to solve problems, innovate, and make decisions. It leverages diverse perspectives and skills to achieve synergistic outcomes that surpass what either humans or AI could achieve independently. CI emphasizes creating an ecosystem where human expertise and AI capabilities are combined effectively (Askarov, 2024).

"Collaborative intelligence is a model of human-machine partnership, where the efficiency of each party is enhanced through continuous collaboration, with the machine taking over the precise computational tasks, while the human retains the ability to judge and interpret" (Wilson & Daugherty, 2018).

The researcher defines it as follows: The distribution of roles between human intelligence and artificial intelligence within higher education institutions, so that the strengths of each party are integrated to enhance the quality of the educational process and achieve advanced adaptive education.

- Higher Education

Higher education is defined in the document of the General Conference of UNESCO at its twenty-seventh session as programs

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of study or research training at the post-secondary level, provided by universities or other educational institutions recognized as institutions of higher education by the competent authorities of a State (Saleh, 2024).

It is also known as: the pinnacle of the educational pyramid through which the human capital necessary to serve society and achieve its progress is prepared (Daly & El Morsy, 2023).

(Al-Balout, 2024) identified him as: the highest level of education, and it is the advanced educational efforts and programs that take place at the level of universities, colleges, institutes, and associated centers.

Higher education from the researcher's point of view: The academic environment that includes university programs, scientific research, and interaction between faculty and students, which is used as an applied framework to study the integration of the two intelligences.

- Adaptive learning

Adaptive learning is a methodology for teaching and learning that strives to personalize lessons, readings, practice activities, and assessments for individual students based on their current skills and performance (McGuire, 2021)

Adaptive learning is an educational approach that uses computers as interactive learning devices to organize, allocate, and distribute human resources according to the individual needs of each learner. Computers adapt the way educational material is presented to suit the learning needs of students, as evidenced by their responses to questions, tasks, and experiences. The technology incorporates aspects drawn from various fields of study, including computer science, education, psychology, and brain science (El-Maghawry, 2017)

Adaptive learning, from the researcher's perspective, an innovative teaching method that addresses individual student needs. Content and activities are tailored to each learner's abilities and interests,

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enhancing learner support systems and achieving optimal educational outcomes.

2. The Theoretical Framework of the Study

Axis One: Human Intelligence and Artificial Intelligence – A Theoretical Comparison in the Context of Higher Education

Human intelligence and artificial intelligence (AI) represent a unique cognitive system with distinct characteristics, and understanding the relationship between them has become an urgent necessity in light of the increasing overlap in teaching and learning tasks within higher education institutions. Human intelligence is characterized by cognitive flexibility, reflection, social interaction, and non-linear creativity, which are closely related to the learner's experience and dynamic learning contexts (Gardner, 1983). AI, on the other hand, relies on its enormous computational power and data learning algorithms, making it effective in performing repetitive tasks and analyzing large patterns with a precision that surpasses human capabilities.

In theory, human intelligence is based on the interaction between genetics and the environment, and includes multiple modes as in Gardner's theory of multiple intelligences, such as linguistic, social, logical, and others. In contrast, AI is built on mathematical and statistical foundations, where machine learning systems rely on data and repetition to improve performance without awareness of context (Russell & Norvig, 2021).

In higher education, these differences are even more pronounced. While AI can deliver personalized content and analyze student behaviors through Intelligent Tutoring Systems, human intelligence remains the critical element in interpreting results, making ethical and pedagogical decisions, and enhancing the human dimension of learning (Zawacki-Richter O. , Marín, Bond , & Gouverneur , 2019).

Despite its sophistication, AI still lacks concepts such as intuition, values, and intentions, which are inseparable from conscious pedagogical practice. Studies indicate that real effectiveness is achieved when AI is used as a supportive tool for the human mind rather than a substitute for it, within

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flexible complementary models that take into account the characteristics of both parties (Holmes et al., 2021).

The comparison between the two intelligences is not an end in itself, but rather a prelude to a better understanding of how roles are distributed in a hybrid learning environment that integrates machine precision and human flexibility, with the aim of improving learning outcomes and achieving more personalized, equitable, and effective learning.

Axis Two: The Philosophy of Integrating Intelligences – From Competition to Cooperation in Higher Education

Recently, educational and technical studies have tended to reconsider the role of artificial intelligence, shifting attention from focusing on its potential risks to highlighting its potential as an effective partner in supporting and enhancing human efforts, especially in the field of higher education. This shift is based on the philosophy of "Collaborative Intelligence", which calls for constructive interaction between humans and machines, rather than exclusion or replacement (Wilson & Daugherty, 2018).

In the context of higher education, the integration of the two intelligences has become one of the most important contemporary cognitive and practical challenges. A university teacher cannot be replaced by an algorithm, as he or she carries emotional, educational, and cultural dimensions that are beyond the ability of AI. However, AI systems can be used to provide real-time feedback, track student performance, and optimize learning patterns (Holmes et al., 2021).

(Al-Essi, 2022) argues that AI in the education environment should not be used as a substitute for the human element, but as a knowledge partner that enhances the quality of the educational process, especially in analyzing data and making evidence-based decisions. (Al-Dulaimi, 2021) argues that effective integration between the two parties requires an educational vision that goes beyond superficial technical uses to strategies that integrate AI into course design, classroom management, and scientific research guidance.

The philosophy of integration is based on the distribution of roles: AI performs tasks that require precision and processing speed, while human

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intelligence retains its tasks related to moral judgment, contextual appreciation, and pedagogical solutions. In this way, a balance is achieved between technical efficiency and human wisdom, producing an advanced learning environment that does not exclude either party, but rather builds on their combined strengths.

This philosophical conceptualization - supported by international and Arab experiences - reflects a recent trend towards redefining the relationship between man and machine, leading to a university environment based on intelligent cooperation, not artificial conflict .

Axis Three: Successful collaborative applications between artificial intelligence and human intelligence in higher education

The contemporary reality of higher education reflects a remarkable development in integrating artificial intelligence (AI) technologies into educational practices, but the real value lies not in mere technical use, but in achieving true integration between machine and man, through applied models that enhance the efficiency and effectiveness of the educational process.

Adaptive Learning Systems, which use AI algorithms to analyze student learning data and provide personalized content that is appropriate for the student's level and speed of comprehension. In this model, the role of the human teacher remains pivotal, supervising the results and guiding the educational process according to educational and humanitarian standards (Holmes et al., 2021).

Predictive Learning Analytics, which employs artificial intelligence to predict students' future paths based on performance patterns, has also emerged, enabling faculty members to intervene early and provide appropriate support. A recent study by (Zawacki-Richter et al. ,2019) indicated that this integration contributes to reducing dropout rates and improving learning outcomes.

Educational robots and smart assistants are among the modern applications that support the teacher in responding to repeated student inquiries or performing administrative tasks, without replacing him or her in building educational relationships or providing human guidance. In this

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context, (Al-Essi, 2022) study emphasizes that the use of these tools improves time efficiency and enhances the productivity of teaching staff without compromising the essence of the educational process.

AI Recommendation Engines, which are used to deliver personalized scholarly resources to each student based on their academic interests and educational history, are an effective tool in promoting learner autonomy, with human supervision to ensure proper ethical and cognitive guidance (Luckin, Holmes, Griffiths, & Forcier, 2016).

In the Arab world, (Al-Khalidi, 2021) refers to qualitative initiatives in some Gulf universities that combined the use of smart dashboards and predictive performance reports to support faculty members in making more informed and proactive decisions.

These examples, and there is no room for more, but they emphasize that when AI is integrated into a pedagogical context under conscious human guidance, it becomes an enhancement, not a threat, and a partner in improving the quality of higher education, not a substitute for humans in it.

Axis Four: Ethical and Functional Challenges of Integrating the Two Intelligences in higher Education

Despite significant advances in the utilization of AI in university settings, this shift raises a number of ethical and functional challenges that cannot be ignored. The increasing reliance on algorithms to make educational decisions may lead to issues of transparency, fairness, and privacy (Williamson & Eynon, 2020).

❖ Ethical Challenges

One of the most prominent ethical concerns associated with the use of AI in higher education is related to algorithmic bias. AI systems may inadvertently perpetuate patterns of discrimination between students based on their social backgrounds or patterns of digital behavior, especially if unbalanced training models are used (Binns, et al., 2018).

The educational literature also highlights the importance of preserving students' academic privacy, as many analytics systems rely on sensitive data, such as student performance, psychological state, and interactive engagement. (Floridi, et al., 2018) point to the need for clear ethical

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frameworks governing how data is collected, who it is shared with, and why.

❖ Functional and organizational challenges

Functionally, universities face a challenge related to the redistribution of roles between human and machine intelligence. As reliance on AI tools increases, concerns have arisen among faculty members about losing or diminishing the pedagogical role, especially in aspects related to analyzing performance or making pedagogical recommendations (Popenici & Kerr , 2017).

(Al-Otaibi, 2022) argues that integrating AI into the university system without effective training or clear administrative empowerment may produce a knowledge gap and internal resistance from some academics, weakening the chances of true integration between the two intelligences.

Axis 5: The Future of the Partnership between Human Intelligence and Artificial Intelligence in Higher Education

This theme highlights future trends, technological and pedagogical possibilities, and institutional concepts that outline the features of sustainable integration between man and machine in the university environment.

Talking about the future of higher education is no longer possible in isolation from artificial intelligence, nor from the expected relationship between it and human intelligence in the formulation of academic and administrative practices. Recent trends confirm that the integration between the two parties will represent the backbone of smart university systems that integrate advanced computing and human pedagogical expertise to achieve high-quality, inclusive, and sustainable education (Zawacki-Richter et al., 2019).

❖ Collaborative Intelligence as a strategic path'

Leading universities around the world are adopting the "Collaborative Intelligence" model, which is based on the distribution of tasks between humans and machines according to their relative strengths. While AI is entrusted with repetitive, analytical tasks, humans retain the roles of

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leadership, moral judgment, and complex context management (Wilson & Daugherty, 2018).

❖ Building human capacity to use AI

Universities' investment in AI should not be limited to developing software and platforms, but should also include raising the competence of faculty and curriculum developers, so that they can use these technologies ethically and effectively. (Holmes et al. 2021) recommend integrating AI into university teacher preparation and continuing professional development programs.

❖ Hybrid learning ecosystems

(Popenici & Kerr , 2017) suggest that the future of higher education is moving towards hybrid systems, where AI-powered automated learning environments are integrated with traditional and digital classroom models, creating a personalized and rich learning experience.

. ❖ Policies and Legislation

Another key feature of the future is the need to develop flexible legislative and ethical policies that govern the use of AI in universities, especially with regard to predictive analytics, academic pathway recommendations, and automatic assessment. (Floridi, et al., 2018) suggest that academic communities are required to establish value frameworks and technical accountability to prevent the uncontrolled use of these tools.

❖ From technical empowerment to cognitive empowerment

Finally, the future of the two-intelligence partnership is not limited to the technological aspect, but extends to building a cognitive institutional culture that values algorithmic analysis without losing sight of human judgment, and develops the critical and digital thinking skills of students and faculty alike (Eynon & Young, 2021).

Study Results

1. Artificial intelligence and human intelligence are integrated in higher education through successful application models that include adaptive learning systems, predictive analytics, and intelligent

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assistants, without eliminating the role of humans in education or leadership.

2. Artificial intelligence does not possess the capacity for moral judgment or contextual understanding, so human intervention remains necessary to ensure its use is directed safely and effectively.
3. Universities face challenges related to algorithmic bias, privacy, and the loss of human interaction, requiring the development of advanced ethical frameworks and technical accountability.
4. Future trends indicate that the success of higher education depends on the development of so-called collaborative intelligence, which blends technical capabilities with human wisdom.
5. There is a gap in faculty readiness to fully utilize AI, which calls for systematic training and awareness intervention.

Conclusion of Study

This paper highlights the interconnected relationship between artificial intelligence and human intelligence in the higher education environment, through a theoretical and applied analysis of the areas of convergence and integration between the two parties. The presentation demonstrated that artificial intelligence, despite its technical advancements and its ability to analyze data and customize educational paths, cannot be viewed as a direct competitor to human intelligence, but rather as a strategic partner that contributes to developing the educational process and enhancing its effectiveness.

The adoption of artificial intelligence in education does not diminish the role of humans, but rather reshapes it in light of contemporary changes, transforming the teacher from a transmitter of knowledge to a guide and designer of the educational experience. Furthermore, the university environment is now required to revisit its technical and educational structure to keep pace with this transformation and optimize its investment within balanced ethical and legislative frameworks.

Ultimately, we stand at a crossroads, and all we have to do is choose the path that achieves balance and integration between artificial intelligence

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and human intelligence, ensuring a more prosperous and just future for all. This is the historic responsibility placed on all of us, to ensure that technological developments continue to serve humanity. In other words, the difference between human and artificial intelligence is fundamental; they are neither synonymous nor interchangeable. Even amid the intense internal debate over the definition of human and artificial intelligence, the differences between them are clear. Therefore, in conclusion, the competition between human intelligence and artificial intelligence is an unrealistic scenario and completely unacceptable fears. Human intelligence and artificial intelligence have different fields of application, and the main goal of artificial intelligence is to enhance human capabilities and help them achieve their goals and provide solutions to the complex challenges in this digital world. Human development enhances creative thinking and the fundamental human values that form the foundation of our development, while the development of artificial intelligence technologies adds the computational and analytical power needed to meet the challenges of our time.

Study Recommendations

Based on the results of this study, the researcher recommends several things, including:

1. Adopting the Collaborative Intelligence model as an institutional framework in universities ensures an integrated distribution of tasks between humans and machines.
2. Design specialized training programs for faculty members on how to employ AI technologies in an effective, educational, and safe manner.
3. Develop legislative and ethical policies that regulate the use of artificial intelligence in higher education, protect learner privacy, and ensure digital justice.
4. Integrating digital ethics education into university curricula to enable students to engage critically and consciously with smart devices.

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5. Promote applied scientific research in the fields of intelligence integration, and support partnerships between universities and technology companies specializing in education solutions.

Suggestions

Through this harmonious collaboration and integration between artificial intelligence and human intelligence, we can look forward to a prosperous and sustainable future for all, where advanced technologies and human creativity collaborate to achieve previously unimaginable accomplishments and profoundly improve the quality of life. It's an ambitious vision for the future, one that deserves our full effort and creativity. We also need significant investment in education and training to develop human skills to keep pace with technological changes, and to ensure that artificial intelligence is an enabling tool that enhances our capabilities, not a substitute for us. Human innovation, creativity, and critical thinking are elements that no machine, no matter how advanced, can replace.

References

- Askarov, R. (2024, 10 9). *What Is Collaborative Intelligence?*
<https://www.monitask.com/en/business-glossary/collaborative-intelligence>.
- Binns, R., Kleek, M. V., Veale, M., Lyngs, U., Zhao, J., & Shadbolt, N. (2018, 4 21). *'It's Reducing a Human Being to a Percentage': Perceptions of Justice in Algorithmic Decisions*. pp. 1-14.

Artificial Intelligence and Human Intelligence: Complementarity, Not Competition

- Eynon, R., & Young, E. (2021). *The politics of AI in education. Educational Philosophy and Theory*. pp. 166-191.
- Floridi, L., Cows, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., . . . Vayena, E. (2018). *AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations*. pp. 689-707.
- Popenici, S. D., & Kerr, S. (2017, 11 23). *Exploring the impact of artificial intelligence on teaching and learning in higher education*. RPTTEL 12, 22 (2017). <https://doi.org/10.1186/s41039-017-0062-8>.
- Williamson, B., & Eynon, R. (2020, 7 14). *Historical threads, missing links, and future directions in AI in education*. <https://doi.org/10.1080/17439884.2020.1798995>, pp. 223-235.
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). *Systematic review of research on artificial intelligence applications in higher education – Where are the educators?* International Journal of Educational Technology in Higher Education, 16(1), <https://doi.org/10.1186/s41239-019-0171-0>, pp. 1-27.
- Abdul Razzaq, G. (2024). *Conceptual and Technical Foundations of Artificial Intelligence and Its Development – From Computational Models to Machine Learning*. Arab Center for Research and Policy Studies.
- Al-Balout, S. A. (2024). *The Higher Education System and Economic Development*. Journal of Legal and Economic Research, pp. 1-37.
- Al-Dulaimi, N. A. (2021). *Artificial Intelligence and Education: From threat to empowerment*. Arab Journal for Quality Assurance of University Education, 19(4), pp. 113-132.
- Al-Essi, A. (2022). *Integrating artificial intelligence with human competencies in university education: An educational vision*. Journal of Education and Technology, 12(2), pp. 45-67.
- Al-Khalidi, A. (2021). *The effectiveness of artificial intelligence applications in supporting academic decision-making in Gulf universities*. Arab Journal of Technology and Data, 7(1), pp. 92-110.

Artificial Intelligence and Human Intelligence: Complementarity, Not Competition

- Al-Makkawi, I. K. (2023). *Towards an Ethical Code for the Use of Artificial Intelligence in Educational Research*. Educational Journal. Sohag University, pp. 391-442.
- Al-Otaibi, M. (2022). *Barriers to integrating artificial intelligence in university education from the perspective of faculty members*. . Journal of Educational Sciences, 14(3), , pp. 88-106.
- Aqoun, M. (2024). *"Artificial Intelligence and Its Advanced Applications"*. Noor Library.
- Daly, S. E., & El Morsy, E. (2023). *The Role of Total Quality Management in Higher Education Institutions in Meeting Labor Market Needs*. Journal of the Faculty of Education for Humanities and Literature., pp. 209-281.
- De Cremer, D., & Kasparov, G. (2021, March 18). *AI Should Augment Human Intelligence, not Replace It*. Harvard Business Review. <https://hbr.org/2021/03/ai-should-augment-human-intelligence-not-replace-it>.
- Edward, S. (2025, 3 20). *The Future of Work: How AI and Human Skills Can Work Together*. <https://www.linkedin.com/pulse/future-work-how-ai-human-skills-can-together-edward-serafin-iii-xvh6e>.
- El-Maghawry, T. (2017). *Adaptive learning: A coming educational revolution*. . Faculty of Education, Egypt.
- Gardner, H. (1983). *Frames of Mind: A Theory of Multiple Intelligences*. New York: Basic Books.
- Gignac, & Szodorai. (2024). . *Defining intelligence: Bridging the gap between human and artificial perspectives*. *Intelligence*, 101, 101832.
- Grifoll, J.,et. (2010). *Quality Assurance of E-learning, Helsinki, Finland*. pp. 40-41.
- Hashemi, R., and Meliani, A. (2024). *The Conceptual Framework of Artificial Intelligence*. Al-Turath Journal, 14(2),, pp. 47-56.
- Holmes, W., Bialik, M., & Fadel, C. (2021). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign. <https://curriculumredesign.org>.

Artificial Intelligence and Human Intelligence: Complementarity, Not Competition

- Kambhampati, S. (2019). *Synthesizing Explainable Behavior for Human-AI Collaboration*. Arizona State University, pp. 13-17.
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence Unleashed: An Argument for AI in Education*. Pearson.
<https://www.pearson.com/content/dam/corporate/global/pearson-dot-com/files/innovation/Intelligence-Unleashed-Publication.pdf>.
- Maaid, H. (2022). *What is the concept of human intelligence?* . Quora Review. <https://ar.quora.com/>.
- McGuire, R. (2021, 11). *WHAT IS ADAPTIVE LEARNING AND HOW DOES IT WORK TO PROMOTE EQUITY IN HIGHER EDUCATION?* everylearner everywhere.
- Muthanna, A, A. (2024, July 16). *Between Artificial and Human Intelligence*. Aljazeera Review.
<https://www.aljazeera.net/blogs/2024/7/16/%D8%A8%D9%8A%D9%86-%D8%A7%D9%84%D8%B0%D9%83%D8%A7%D8%A1-%D8%A7%D9%84%D8%A7%D8%B5%D8%B7%D9%86%D8%A7%D8%B9%D9%8A-%D9%88%D8%>.
- Picciano, A. G. (2017). *Theories and frameworks for online education: Seeking an integrated model*. Online Learning Journal, 21(3), pp. 166-190.
- Robert, S. (2025). *"Thinking Patterns" and "The Triune Mind"*. IBM Corporation and Dean of the School of Arts and Sciences at Tufts University.
- Roll, I., & Wylie, R. (2016). *Evolution and Revolution in Artificial Intelligence in Education*. Int J Artif Intell Educ 26,
<https://doi.org/10.1007/s40593-016-0110-3>, pp. 582–599.
- Russell, S., & Norvig, P. (2021). *Artificial Intelligence: A Modern Approach(4th ed.)*. Pearson Education.
http://lib.ysu.am/disciplines_bk/efdd4d1d4c2087fe1cbe03d9ced67f34.pdf.
- Saleh, E. A. (2024). *Evaluating the Application of Artificial Intelligence in Higher Education: Pros and Cons*. Al-Zaytoonah University of

Artificial Intelligence and Human Intelligence: Complementarity, Not Competition

- Jordan Journal for Legal studies, Special Issue, Faculty of Law and Political Science, University of M'hamed Bouguerra, Boumerdes.
- Sri Hartati 1*, Sumarto2, Diding Nurdin 3 , Asep Suryana. (2023). *Taking Up the Challenges Faced by Higher Education Institutions in Technology to Create Smart Campus*, Department of Educational Administration, Universitas Pendidikan Indonesia, Bandung, Indonesia,. pp. 671-683.
- TRENDS. (2025, May 13). *Integration of human and artificial intelligence*. TRENDS Research and Advisory Center Review. <https://alwatan.ae/posts/1554736>.
- UNESCO. (2023). Right-to-Education. <https://www.right-to-education.org/ar/node/1316>.
- Wilson, J., & Daugherty, P. (2018, 7). *Collaborative Intelligence: Humans and AI Are Joining Forces*. Harvard Business Review, pp. 114-123.
- Zawacki-Richter, O., Marín, & Bond. (2020). *A systematic review of research on artificial intelligence applications in higher education - where are the teachers?* <https://doi.org/10.1186/s41239-019-0171-0>.

**استخدام "قرامرلي" كمدقق كتابة آلي مدعوم بالذكاء الاصطناعي -
آراء الطلاب-المعلمين الليبيين الذين يدرسون اللغة الإنجليزية كلغة أجنبية
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الملخص :

"قرامرلي" هو أحد أدوات فحص الكتابة الآلية المدعومة بالذكاء الاصطناعي والذي يَدقق لغة النصوص المكتوبة من قبل طلبة اللغة الانجليزية كلغة أجنبية ويحدّد الأخطاء ويقدم ملاحظات حول كيفية تصحيحها، وعلى الرغم من أن العديد من الدّراسات استقصت وقيمت فاعلية (قرامرلي) في سياقات مختلفة، إلا أن مراجعة الأبحاث المنشورة حالياً حول استخدامه في السياق الليبي كشفت عن وجود فجوة في الأدبيات.

وهدفّت هذه الدراسة إلى استكشاف آراء الطلاب-المعلمين الليبيين الذين يدرسون اللغة الانجليزية كلغة أجنبية في قسم اللغة الانجليزية بكلية التربية حول استخدامه كمدقق كتابة آلي مدعوم بالذكاء الاصطناعي أثناء كتابة مقالاتهم والتحديات التي واجهوها أثناء استخدامه، وقد استخدم في هذه الدراسة تصميم منهج دراسة حالة الاستكشافي، وتكوّنت عينة الدراسة من 41 طالبة-معلمة ليبية مسجلة في مقرر كتابة المقالات، وتم جمع البيانات من خلال المقالات التأملية ومجموعات التركيز. وقد تم تحليل البيانات نوعياً، وكشفت النتائج أن معظم الطالبات- المعلمات ينظرن إلى "قرامرلي" بشكل إيجابي وأفادوا بأنه حسّن كتابتهن من حيث قواعد اللغة الانجليزية والتهجئة وأغنى مفرداتهن الأكاديمية وعزز جودة كتابتهن بشكل عام وزاد من ثقتهن بأنفسهن، وقد واجهوا تحديات أثناء استخدامهن له تمثلت في المشكلات التقنية وتكاليف الاشتراك واختلافات اللغة والاعتماد على التقنية، وتفتح هذه الدراسة آفاقاً لمزيد من البحث حول تأثيره على مهارات الكتابة لطلاب اللغة الانجليزية كلغة أجنبية.

الكلمات المفتاحية: الذكاء الاصطناعي، مدققات الكتابة الآلية، الطلاب-المعلمون، اللغة الإنجليزية كلغة أجنبية، "قرامرلي".

Utilizing Grammarly as an AI-Powered Automated Writing Checker: Libyan EFL Student-Teachers' Perceptions

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Abstract

Grammarly, one of the AI-powered automated writing checkers, checks EFL writers' text, identifies inaccuracies, and provides feedback on how to correct them. Although many studies investigated and evaluated Grammarly in different contexts, a review of currently published research on using Grammarly in the Libyan context revealed a gap in the literature. Thus, this study aimed at exploring Libyan EFL student-teachers' perceptions on utilizing Grammarly as an AI-powered automated writing checker while writing their essays and the challenges they faced while using it. Exploratory case study design was the chosen research design. The participants were 41 Libyan student-teachers taking an essay writing course. Data were collected through reflective essays and focus groups. Data were analyzed qualitatively. Findings revealed that most of the student-teachers perceived Grammarly positively and reported that it improved their grammar, spelling and mechanics, enriched their academic vocabulary, enhanced their overall writing quality, and increased their confidence. Their negative perceptions were over-reliance, Grammarly's limited features, and the need for teacher feedback. Technical issues, subscription costs, language nuances, and dependency on technology were their challenges while using Grammarly. This study's results open doors for further research on the impact of Grammarly on EFL writers' writing skills.

Keywords: Artificial Intelligence (AI), automated writing checkers, EFL student-teachers, essay writing, Grammarly.

Introduction

Writing is the productive skill that many EFL students find challenging to develop because it requires mastering cognitive and language skills. Effective writing requires thought-provoking content, rhetorical ability, language competence, and accurate use of the language (Lim &

Phua, 2019). The difficulty EFL students find in writing is not only a result of being unable to express their ideas in English in an accurate academic essay format, but also a result of being incompetent in grammar, spelling, and punctuation (Fairbairn & Winch, 2011; Hanauer, Sheridan, & Englander, 2019; Fitria, 2021; Maharani, 2018). EFL students' lexical semantic errors usually involve confusion of sense relations, such as in near-synonyms, hyponymy, and homonymy relations (Letsoela & Matlosa, 2022). They also include collocation errors and stylistic errors that are related to redundancy, underspecification, and translation (Letsoela & Matlosa, 2022).

Similarly, research studies published in the Libyan context have shown that many Libyan EFL university students encounter difficulties while writing essays in English. For instance, Alsied, Ibrahim, and Pathan (2018) investigated the main errors the Libyan EFL students at Sebha University commit while writing in English and found that their errors were in grammar, mechanics, and spelling. They also found discourse and lexical errors. Similarly, Milad, Almalul & Lawej (2021) examined the difficulties Libyan EFL students at Elmergib University face in academic writing and what caused those academic writing difficulties. Their results showed that they encountered difficulties in vocabulary, grammar, spelling, punctuation, and style rhetorical problems. Demotivation, writing deficiency, idea scarcity, and reading neglect were found as the main causes of those difficulties. In a recent study, Aldabbus and Almansouri (2022) conducted a study on the difficulties some university students face in academic writing and the factors affecting their academic writing skills. Their results shown that difficulty in finding and selecting the suitable academic words, struggling with the development of strong thesis statements, issues in their organization of ideas, and writing coherent paragraphs were the challenges they face while writing in English. Lack of resources, low levels of English language proficiency, and having no opportunities for writing practice were reported as the main factors influencing students' writing. In a more recent study, Hadia (2023) conducted an observational case study that investigated the challenges the students of English department at the Faculty of

Languages and Translation at Al-Zytuna University faced while writing academic essays in English. Data was gathered through classroom observations and essay writing analysis and then analyzed qualitatively. The study's findings revealed that the challenges they faced were in finding information, organizing their ideas, and in achieving coherence. The researcher stated that their lack of knowledge of different the types of essays, paragraph organization, and coherence, and their low levels of language proficiency were the factors behind their difficulties.

One solution to help EFL students overcome their problems is by utilizing automated writing checkers that employ Artificial Intelligence (AI) and natural language processing (NLP) technologies (Li, Huang, Wu, & Whipple, 2024). These advanced software tools known as AI-powered automated writing checkers assist EFL students in improving their essays by providing timely feedback that students use to finish their different academic tasks (Jen & Salam, 2024; Lim & Phua, 2019). Utilizing AI-powered automated writing checkers in EFL academic writing classes help EFL students recognize their errors and mistakes as they detect their grammatical, spelling, and punctuation errors as well as their contextual inaccuracies (EFL Cafe, 2024; Zhang, Zhu, & Zhang, 2024). This leads EFL students to enhance their written performance by correcting their errors and mistakes using the tools' real-time feedback and personalized suggestions.

Recent technological advancements resulted in the emergence of several effective AI-powered automated writing checkers, such as *Grammarly*, *ChatGPT*, *ProWritingAid*, *LanguageTool*, *Virtual Writing Tutor*, and *QuillBot* (Cafe, 2024). Grammarly was launched in 2009. It is one of the AI-powered automated writing checkers that checks students' grammar, spelling, punctuation, and style and provides personalized feedback and suggestions that improve students' ideas and written work whether its academic or for communication. It is available as an app for IOS and Android and can be used with Microsoft Word as a plugin. It is claimed to be the most widely used writing checker by EFL students, especially with sloppy writers (Grammarly, n.d.). There are two versions of Grammarly to users to choose from: the free version (Grammarly Free) and the paid

version that is known as the Grammarly Premium. Its features include Grammar Checker, Plagiarism Checker, Citation Generator, Essay Checker, Paraphrasing Tool, AI Writing Tools, Tone Detector, and Style Guide (Grammarly, n.d.).

Review of current literature showed that interest in Grammarly is growing. Some researchers investigated the Premium version's impact on students' writing and reported that Grammarly had a positive impact on students' writing as it checks their spelling and grammar, corrects errors in punctuation and capitalization, and runs on an AI system that analyses their sentences giving the students timely feedback (Fitria, 2021; Ummah & Bisriyah, 2022). The findings of the studies that investigated the free-version effectiveness revealed that Grammarly improved students' writing skills (Guo, Feng, & Hua, 2021; Karyuatry, 2018; Pratama, 2020), instilled students' confidence (Alotaibi, 2023), and saved their time (Nova, 2018). Some studies specified Grammarly's shortcomings in not being able to provide direct feedback when internet service is unstable (Pratama, 2020; Fitria, 2021), giving inaccurate feedback (Dodigovic, 2021; Fitria, 2021; Nova, 2018; Pratama, 2020), and the potential of overreliance on it (Alotaibi, 2023).

Findings of recently published studies on students' perceptions of Grammarly emphasized positive perceptions of EFL students of Grammarly (Dwei, 2022; Fahmi & Cahyono, 2021; Hidayah & Irawati, 2024). For instance, Fahmi and Cahyono (2021) investigated the perceptions of undergraduate students on the use of Grammarly and teacher feedback on their writing. The participants were 26 undergraduate students of the Faculty of Law who were taking English for Specific Purposes (ESP) writing course. Data were gathered through questionnaires and their TOEFL scores. Questionnaire data were analyzed quantitatively whereas TOEFL scores were used to identify students' levels. Their results demonstrated students' positive perceptions on using Grammarly and teacher feedback together. The researchers highlighted that the students' English proficiency levels did not affect their perceptions as the positive responses were given by both those with high level of English proficiency and those with low level of

English proficiency. They concluded that blending automated writing feedback and teacher feedback was helpful to students and teachers.

Dewi (2022) conducted a study that explored the perceptions of students on the effectiveness of Grammarly as an automated writing evaluation. The participants were 75 EFL students who were taking a writing class and using Grammarly. Data from questionnaires were analyzed quantitatively whereas data from interviews were analyzed qualitatively. Her results showed that the participants had positive perceptions and their perceived advantages included minimizing errors as it helps in identifying and correcting grammar, spelling, punctuation, and word choice errors as well as improving their paraphrasing skills. The students' negative perceptions were having limited features in the free version of Grammarly, being expensive in the Premium version, and not being accessible when its offline.

In a recent study, Hidayah and Irawati (2024) conducted a case study at Universitas PGRI Jombang that explored English Education students' perceptions of Grammarly. Twenty-three students who were enrolled in essay writing classes responded to a questionnaire that was distributed via Google Forms whereas 4 students participated in structured interviews. The findings showed that the students perceived Grammarly positively and considered it as an effective aid while writing essays. They identified its user-oriented design, helpful suggestions, clarity of explanations, precise grammar corrections, and quick corrections as the most helpful features as they improved their writing and enhanced self-confidence.

Another study explored 120 EFL students' perception of Grammarly was conducted at the University of Muhammadiyah Prof. Dr. Hamka Jakarta by Khonirin & Roslaini (2024). They used a quantitative approach and administrated a 20-item 5-Likert Scale close-ended questionnaire that was distributed via Google Forms. Data was analyzed using Microsoft Excel generated averages. Their findings revealed that even though the students perceived Grammarly as a useful tool and conveyed that it raised their writing confidence and skills, they expressed their worries that Grammarly might lead to over-reliance. Khonirin and Roslaini (2024) also highlighted

the effectiveness of Grammarly as a “supplementary tool in EFL writing instruction” and recommended to be utilized along with teacher feedback (p. 192).

As can be seen, the reviewed studies were conducted in different contexts and the findings of all studies shown EFL students' positive perceptions and that they highly appreciated Grammarly's features. This brief review revealed a population gap as EFL student-teachers in general and Libyan EFL student-teachers specifically are underrepresented in research on perceptions of utilizing Grammarly as AI-powered automated writing checker. Even though interest in Grammarly is increasing, research on Grammarly in the Libyan context seems to be scarce. Thus, the purpose of this study was to fill a gap in the literature by exploring the perceptions of Libyan EFL student-teachers at one of the well-known Libyan public universities on utilizing Grammarly as an AI-powered automated writing checker and the challenges they faced while using it. The study aimed to achieve the following objectives:

1. Explore the Libyan EFL student-teachers' perceptions on utilizing Grammarly as an AI-powered automated writing checker in the essay writing process.
2. Identify the Libyan EFL student-teachers' perceived challenges of implementing Grammarly as an AI-powered automated writing checker in the essay writing process.

To achieve these objectives, two research questions were raised:

1. What are the Libyan EFL student-teachers' perceptions on utilizing Grammarly as an AI-powered automated writing checker while writing their essays?
2. What are the Libyan EFL student-teachers' perceived challenges while using Grammarly as an AI-powered automated writing checker while writing their essays?

This paper reports the findings on the perceptions of Libyan student-teachers on using Grammarly as an AI-powered writing-assistant tool while writing academic essays and identifies the challenges they faced while using the application. The significance of this study lies in that the findings lay the

ground for our ongoing study on the impact of Grammarly on the student-teachers' writing. The findings may also highlight new areas for other interested researchers, especially for those who are interested in AI-powered applications and how they are utilized in TEFL education programs in general and in EFL writing instruction. In addition, the findings can inform EFL teachers and educators on utilizing AI-powered writing tools and encourage them to implement them as essential or supplementary tools.

Methodology

The exploratory case study design was chosen to explore the Libyan EFL student-teachers' perceptions of using Grammarly as an AI-powered writing-assistant in the essay writing process. Case study is defined as "an empirical inquiry that investigates a contemporary phenomenon (the 'case') in-depth and within its real-world context" (Yin, 2014, p. 16). It was chosen as the precursor to a large-scale study on the impact of Grammarly on the student-teachers' writing.

The study was conducted at the English Language Department at the Faculty of Education at the University of Tripoli. The department offers a TEFL Teacher Education program in which students take courses that develop their language proficiency and prepare and train them to become effective EFL teachers. Thus, in this study, they are identified as student-teachers. The target population was Libyan student-teachers who were taking the Writing 3 course that trains them on writing academic essays. The participants were forty-one female student-teachers. All participants were females because the site is identified as girls-only institution.

Libyan student-teachers who were taking the Writing 3 course learned how to write essays in different genres. Whenever they submitted their essays, it was observed that they, most of the time, submitted essays with issues in grammar, spellings, mechanics, and other stylistic issues. Consequently, as teacher educators and writing instructors, we had to consider providing the student-teachers with AI-powered writing tools that provide automated written corrective feedback to assist them through their essay writing process. Since Grammarly is considered the most popular students' assistant while writing essays, they were asked to use Grammarly

to improve their essay writing skills before submitting their final drafts. They were first trained on how to use it in class and then were asked to proofread and edit their essays using Grammarly as an AI-powered writing checker.

Data were collected through reflective essays and focus groups. Written reflections were chosen as the first data collection tool because writers usually explore their own beliefs, experiences, and subjectivities with a critical perspective through their self-reflections (Cohen, Manion, & Morrison, 2007). By the end of the semester, student-teachers were asked to write reflective essays in which they were required to reflect on the whole semesters' essay writing experience in paragraphs. The essay instructions stated each paragraphs' content among which they were asked to write their reflections on Grammarly. The prompt of the paragraph on Grammarly stated:

6th body Paragraph: Your impression about using Grammarly and other proofreading tools

Write a paragraph about your experience with using Grammarly answering the following questions in details: How was it like to use Grammarly and other proofreading tools to correct your mistakes and error? Was it helpful? Why? Why not? Did using Grammarly and other proofreading tools help you improve your writing? Why? Why not? Explain with examples.

Focus groups were chosen as the second data collection tool to have group interactive interviews instead of having question-and-answer individual interviews "to elicit more of the participants' points of view" (Mertens, 2010, p. 240). Another reason behind choosing focus groups is that Libyan Female student-teachers usually do not prefer participating in individual interviews. The Focus group discussion began with three main questions that elicited more questions from the student-teachers' responses. The questions were: (1) After using Grammarly as an AI-powered automated writing checker for the whole semester, what do you think of Grammarly?, (2) How do you perceive using Grammarly throughout the

essay writing process?, and (3) As a Libyan EFL student-teacher, what are the challenges you faced while using Grammarly?

To adhere to research ethics, the student-teachers were given informed consents that explained the research procedures and were informed that they had the right to withdraw at any time. They were also assured that anonymity will be maintained throughout data collection and analysis as well as when publishing the research article. To ensure anonymity, all participated student-teachers were given codes to be used instead of names, ex. ST1 and they were used in the findings section as (ST1, 2024).

After getting the signed consents from the student-teachers, data collection procedures began with gathering the reflective essays and ended with conducting focus group meetings. By the end of the course, the student-teachers submitted their reflections that included a number of points to reflect on among which the experience of using Grammarly as an AI-powered writing assistant. Then, two focus groups were conducted in which student-teachers were asked questions that elicited the student-teachers' views and how they perceived Grammarly and the challenges they faced while using it.

Data were mostly analyzed qualitatively. A thematic inductive approach was used which began by line-by-line reading and memoing, and then ended with coding (Coffey & Atkinson, 1996). Data analysis began with analyzing the data that were gathered through the reflective essays and then data that were gathered through the focus groups. A final phase of data analysis was by creating themes from the codes emerged from the reflective essays and focus groups. Numbers were only used to specify the numbers of student-teachers who used the different AI-powered writing checkers.

Findings

To achieve the research objectives, two research questions were raised to investigate the Libyan student-teachers' perceptions of utilizing Grammarly throughout their essay writing process and identify the challenges they faced while using it. When students were asked about the AI-powered automated writing checkers as tools they use while writing their

essays, data analysis revealed that most of the student-teachers used Grammarly because it was assigned by their course instructors. Only four of the student-teachers reported not using any of the writing checkers. Thirteen of the student-teachers admitted using other AI-powered tools to check their essays along with Grammarly: six of them used Proofreader, four of them used QuillBot, two of them used ChatGPT, and only one of them used Fixy. When they were asked how frequently they used Grammarly, twenty of the student-teachers who used Grammarly indicated that they “always used” the app, which reflects a strong commitment. In the meantime, fifteen of them reported that they “sometimes used” it, which suggests occasional commitment. On the other hand, only four of the student-teachers stated that they have “never used” Grammarly. In the following section, the findings are presented in accordance to their relevance to the raised research questions.

Libyan EFL Student-Teachers' Perceptions of Using Grammarly

The first research question inquired about the student-teachers' perceptions on utilizing Grammarly as an AI-powered automated writing checker. Data analysis showed that Libyan EFL student-teachers mostly had positive perceptions of Grammarly and appreciated its free features. One of student-teachers' wrote:

As EFL students, it is natural to have grammatical mistakes, and as students in a writing course, we need to avoid these mistakes. When we write a complete essay, our teacher asked us to check for grammatical mistakes using Grammarly and other writing tools. This is one of the advantages of this course, as we can submit our assignments without any mistake, ensuring their accuracy. (ST3, 2024)

They considered the experience of using AI-powered writing tools to eliminate their mistakes and errors and provided suggestions that improved their writing as a “transformative” experience as one of the student-teachers wrote:

My experience in using Grammarly and other proofreading tools has been transformative. I used these tools to enhance the quality of my

writing, as these tools provided support in identifying my mistakes and issues and then providing suggestions for better words and phrases. (ST5, 2024)

Even though student-teachers mostly reported positive views on Grammarly, there were a number of points they perceived as the negative side of this automated writing checker. The following sections will present the student-teachers positive and negative perceptions of Grammarly.

Student-Teachers' Positive Perceptions

Data analysis revealed that most of the student-teachers perceived Grammarly positively and reported that it improved their grammar, spelling and mechanics, enriched their academic vocabulary, enhanced their overall writing quality, and increased their confidence.

Improved Grammar, Spelling, and Mechanics. Most of the student-teachers believed that Grammarly improved their grammar, spelling, and mechanics. They explained that they were able to identify a number of grammatical, spelling, and punctuation issues that they usually overlook. As put in one of the student-teachers' words:

Whenever there is any problem in grammar, spelling or in punctuation, Grammarly will notify me to correct it. It usually flags the mistakes so that I can easily correct them and spontaneously. I've found this to be especially valuable when drafting my essays using technology rather than by just using handwriting because it's easy for me to overlook my mistakes (ST12, 2024).

Enriched Academic Vocabulary. Nearly most of the student-teachers believed that Grammarly enriched their academic vocabulary. They highlighted how Grammarly offered synonyms and alternative phrases that they used to replace their "basic words" with "more sophisticated words" (ST7, ST10, & ST20, 2024). The examples that were mentioned by most of them are words like "good", "interesting", and "important". They explained that they overly used "interesting" and "important" but Grammarly suggested more sophisticated words such as "intriguing" and "significant". They added that Grammarly enriched their academic vocabulary because the more it highlighted their errors and suggested words they rarely use or new

words that are more suitable for their context, the more words they learned through corrections.

Enhanced Overall Writing Quality. Student-teachers admitted that utilizing Grammarly throughout their essay writing process improved their overall writing quality. One of the student-teachers explained:

I have found Grammarly and similar proofreading tools to be quite helpful in improving the quality of my writing. These tools identify my mistakes quickly and give me the chance to correct them. This makes the quality of my writing become better because there are no mistakes. The suggestions Grammarly provided me helped me refine my writing and express myself and my ideas more clearly. (ST30, 2024)

They also detailed that Grammarly gave them writing style related feedback that helped them enhance their writing. The examples they gave showed how they used “a lot of” and “many” and it helped them to replace those words with “numerous”, which gave them the chance to achieve clarity in their writing (ST1, ST15, & ST22, 2024). Finally, most of the student-teachers believed that Grammarly helped them avoid plagiarism, which enhanced their overall writing quality. They appreciated that Grammarly alerts them stating that a certain part of their writing as potential plagiarism encouraging them to rephrase the text and produce original statements with proper citation.

Increased Student-teachers' Confidence. Most of the student-teachers admitted that the instant-feedback that is given by Grammarly raised their confidence in their writing skills. They confessed that the instant alerts and real-time feedback on their grammar, spelling, punctuation, and vocabulary that helped them to correct their errors immediately increased their confidence because they felt that they submitted nearly error free essays. As put in one of the student-teachers' words, Grammarly enhanced her “confidence in [her] writing because it makes it more accurate and polished” (ST5, 2024). They also mentioned that Grammarly raised their confidence because it alerts them whenever there was a possibility of committing plagiarism. They explained that having Grammarly raise their

awareness on the issue of plagiarism minimized their fears and helped them improve their writing with confidence.

Student-Teachers' Negative Perceptions

Data analysis shown that some of the student-teachers had negative perceptions of Grammarly and reported that it leads to over-reliance, has limited features when it is free, and reveals the need for teacher feedback.

Over-relying on Grammarly. Some student-teachers believed that using Grammarly may lead to over-relying on its features, which will hinder student-teachers' ability to proofread and edit their writing independently. They thought that students will become dependent and that it might lead to being unable to write and spot errors and correct them without an electronic assistant.

Limited Features of the Free Version. Most of the student-teachers explained the differences between the Premium and Free versions of Grammarly. They stated that the free version has limited features compared to the Premium features and that it was so expensive for them to upgrade the features.

Need for Teacher Feedback. Many students admitted that the feedback that is given by Grammarly does not replace the feedback that is given by writing teachers as they give contextual personalized feedback that cannot be given by Grammarly. They also stated that there were instances when they did not understand its feedback. One of the student-teachers explained: "I really struggled with its suggestions. I didn't get why it was wrong and how I'm supposed to correct it. If this feedback was given by my teacher, I would have asked for more clarification" (ST3, 2024). Their struggles made them conclude that there is a need to combine personalized teacher feedback and Grammarly for students' greater writing skills.

Libyan EFL Student-Teachers' Perceived Challenges while Using Grammarly

The second research question inquired about what the student-teachers perceived as the challenges they confronted while using Grammarly as an AI-powered automated writing checker. Data analysis showed that technical issues, language nuances, subscription costs, and

dependency on technology as the challenges Libyan EFL student-teachers faced while using Grammarly. The following sections presents the student-teachers' challenges they confronted while using Grammarly.

Technical Issues

Analysis of student-teachers' responses revealed that the technical challenges they encountered were in that Grammarly was not user-friendly and in not being able to use it when Internet service is not stable or weak. One of the student-teachers wrote: "Although I found it difficult to use Grammarly and not as user-friendly as I hoped, I used it for basic grammar checks" (ST40, 2024). She stated that she found "QuillBot was more effective" and used it alongside with Grammarly (ST40, 2024). Also, a number of students complained of not being able to use it when their Internet was unstable or too weak.

Language Nuances

A number of student-teachers' responses revealed that they faced some difficulty in understanding what was flagged as being incorrect and the suggestions of Grammarly. They stated it many times highlighted some words or phrases stating that they were informal, while they thought that they were formal. They also explained that it asked them to change phrasal verbs and colloquial expressions to more formal words and phrases, which made them think that the new words did not express their exact ideas or feelings. One of the students explained that she used the phrase "piece of cake" and Grammarly suggested changing it, which made her feel confused (ST33, 2024).

Subscription Costs

Even though they were not asked to do so, a number of student-teachers stated that they tried to subscribe when they found that Grammarly Premium features were more effective and failed to subscribe because it was so expensive. They complained that subscription costs hindered them from benefiting from Grammarly's "more sophisticated" features (ST7, ST10, & ST20, 2024).

Dependency on Technology

Some student-teachers believed that using Grammarly made them excessively rely on its features, which made them unable to proofread and edit their writing independently. They thought that they depended on Grammarly heavily that they felt they were unable to recognize their errors and correct them without an electronic assistant.

Discussion

The study sought to explore the Libyan EFL teachers' perspectives on utilizing Grammarly as an AI-powered automated writing checker while writing their essays and the challenges they encountered while using this writing tool. The findings revealed that there was an overall satisfaction with Grammarly among Libyan EFL student-teachers even though they had come across a number of challenges. In the following section, the findings are discussed according to their relevance to the raised research questions and current literature findings.

Libyan EFL Student-Teachers' Perceptions of Using Grammarly

Libyan student-teachers reported having both positive and negative perceptions towards Grammarly. While their positive perceptions indicated a constructive and encouraging viewpoint, their negative perceptions, on the other hand, featured a critical or discouraging view.

Libyan EFL student-teachers mostly had positive perceptions of Grammarly and claimed that it improved their grammar, spelling and mechanics, enriched their academic vocabulary, enhanced their overall writing quality, and increased their confidence. This contributes to the existing body of knowledge and aligns with previous research results that were conducted in different geographical areas and cultural contexts (Dwei, 2022; Fahmi & Cahyono, 2021; Guo, Feng, & Hua, 2021; Hidayah & Irawati, 2024; Karyuatri, 2018; Khonirin & Roslaini, 2024; Pratama, 2020). Student-teachers' positive perceptions were a result of how they harnessed Grammarly's immediate feedback that helped them recognize their strengths and weaknesses and how they can tackle their areas for improvement. This aligns with what Dwei (2022) and Hidayah and Irawati (2024) explained in that Grammarly's feedback leads to minimizing errors by identifying and

correcting grammar, spelling, punctuation, and word choice errors and improving their paraphrasing skills. The student-teachers' satisfaction with Grammarly improved the quality of their writing and therefore raised their confidence as EFL writers, which correspond with the findings of Alotaibi (2023) and Hidayah and Irawati (2024) as they reported that Grammarly instilled students' confidence.

Some Libyan EFL student-teachers had negative perceptions of Grammarly that included concerns of over-reliance, free version's limited features, and the need for teacher feedback, which also align with existing literature (Alotaibi, 2023; Dodigovic, 2021; Dwei, 2022; Fitria, 2021; Fitria, 2021; Pratama, 2020; Nova, 2018). The findings of this study are in line with what Alotaibi (2023) and Khonirin and Roslaini (2024) highlighted regarding concerns towards over-relying on Grammarly, which might result in lowering students' writing performance and skills. Findings also showed that the student-teachers perceived Grammarly Free features negatively as they found them to be limited compared to Grammarly Premium features, which supports Fitria's (2021) findings. Finally, this study's findings reinforce Khonirin and Roslaini's (2024) findings regarding how the student-teachers perceived Grammarly as a supplementary tool that does not eliminate teachers' feedback. Both studies' students admitted that even though Grammarly is helping them improve their writing quality, teachers' feedback is still needed because it is personalized and contextual, which made them assert the need for combining Grammarly's feedback with teachers' feedback.

Libyan EFL Student-Teachers' Challenges of Using Grammarly

Since research on the challenges the student-teachers face while using Grammarly is limited, this study fills this gap. While utilizing AI-powered automated writing checkers truly helped EFL student-teachers in refining their writing, they reported there were significant challenges and limitations. The findings revealed that Libyan EFL student-teachers perceived Technical issues, language nuances, subscription costs, and dependency on technology as the challenges they faced. These findings agree with the previously published research results (Alotaibi, 2023;

Dodigovic, 2021; Dwei, 2022; Fitria, 2021; Khonirin & Roslaini, 2024; Nova, 2018; Pratama, 2020). Like other users of Grammarly who participated in the studies conducted by Fitria (2021) and Pratama (2020), Libyan EFL student-teachers encountered technical issues as they were not get direct feedback when internet services were unstable or weak. They also had concerns about subscription costs. These are general issues that are faced whenever technology is implemented in the EFL classroom as research has proven that software glitches to internet connectivity problems and subscription costs were among other challenges of using technology in education (Alamri, 2021; Mauliska & Karlsson, 2024). In addition, language nuances were among the challenges the Libyan EFL student-teachers encountered while using Grammarly. They claimed that Grammarly made occasional inaccuracies a teacher would not make. Their claims indicate that Grammarly cannot grasp their narrative intricacies, contextual nuances, and stylistic preferences and therefore it is overshadowing their personal style and voice, which is in line with Giray's findings (2024). They confirmed that Grammarly does not substitute teachers' feedback, which also confirms Giray's (2024) conclusions. Finally, some of the Libyan student-teachers self-confessed that they were over-relied on Grammarly and felt that it led them to being unable to recognize their mistakes and errors. This confirms the findings of Alotaibi (2023) and Khonirin and Roslaini (2024).

Conclusion

Findings showed that the student-teachers had both positive and negative perceptions. They mostly perceived Grammarly positively because it improved their grammar, spelling and mechanics, enriched their academic vocabulary, enhanced their overall writing quality, and increased their confidence. Some of the student-teachers perceived Grammarly negatively as they had concerns of overly relying on Grammarly, limited features of Grammarly Free, and their need for teacher feedback. The challenges they encountered were that they faced some technical issues, language nuances, the expensive subscription costs, language nuances, and becoming dependent on technology. Even though there were some concerns that lead to student-teachers' negative perceptions, Grammarly can be considered as

an effective application for AI-powered automated writing that help EFL writers improve their writing skills.

This study mirrors the positive perceptions of the participants of previous studies. It also contributes to the existing literature by focusing specifically on the Libyan students and the challenges they faced. For instance, the study that was conducted by Fitria (2021) showed that the students' scores were higher after using Grammarly. In this study, the participants' perceptions aligned with those findings as they reported increase in their writing quality.

The findings provide valuable insights into Libyan EFL student-teachers' perceptions of Grammarly highlighting its advantages and drawbacks as well as the challenges they encountered while using it. They demonstrate the complexity of student-teachers' experiences by revealing their dual perspectives regarding the utilization of Grammarly, which stresses the need for a balanced understanding of using AI-powered automated writing checkers. As a writing instructor, it can be suggested that EFL writing instructors can choose one of the AI-powered automated writing tools and train their students with them along with their valuable feedback. It can be concluded that the key to improving students' writing quality is in combining the teacher's feedback with the AI-powered automated writing checkers' feedback that will ensure the quality of input and students' performance.

The small sample size, reliance on self-reported data, and the nature of the student-teachers' perceptions, as it might be subjective, are the limitations of the study. Future research might involve a wider range and more diverse student-teachers or EFL writers and larger sample size. Further research is needed to investigate the effectiveness of Grammarly compared with other applications and teacher feedback. Researchers might also examine its effectiveness compared to peer feedback. As there is no complete research, this study has moved the body of knowledge on AI-powered automated writing and the utilization of Grammarly forward and opened doors for interested Libyan researchers and other researchers around the world to further investigate the issue employing a variety of research

methods and diverse participants.

References

- Alamri, B. (2021). Challenges of implementing technology in ESL writing classrooms: A case study. *English Language Teaching*, 14, 36-36. 10.5539/elt.v14n12p36.
- Aldabbus, S. & Almansouri, E. (2022). Academic writing difficulties encountered by university EFL learners. *British Journal of English Linguistics*, 10(3), 1-11.
- Alotaibi, A. H. E. (2023). The impact of AI-powered Grammarly on enhancing grammar proficiency among Saudi EFL students. *Remittances Review*, 8(4), 3718-3726. DOI: <https://doi.org/10.33182/rr.v8i4.256>
- Alsied, S. M., Ibrahim, N. W., & Pathan, M. M. (2018). Errors analysis of Libyan EFL learners' written essays at Sebha University. *International Journal of Language and Applied Linguistics*, 3(1), 1-32.
- Dewi, U. (2022). Grammarly as automated writing evaluation: Its effectiveness from EFL students' perceptions. *Lingua Cultura*, 16(2), 155-161. <https://doi.org/10.21512/lc.v16i2.8315>
- Dodigovic, M. (2021). Automated writing evaluation: The accuracy of Grammarly's feedback on form. *International Journal of TESOL Studies*, 3(2), 71-87. <https://doi.org/10.46451/ijts.2021.06.06>
- EFL Cafe. (2024, December 12). *AI for Writing Proficiency: Drafting, Editing, and Polishing EFL/ESL Essays*. EFLCafe.net.
- Fahmi, M. A., & Cahyono, B. Y. (2021). EFL students' perception on the use of Grammarly and teacher feedback. *Journal of English Educators Society (JEES)*, 6(1), 18-25. <https://doi.org/10.21070/jees.v6i1.849>
- Fairbairn, G., & Winch, C. (2011). *Reading, Writing and Reasoning: A Guide for Students*. McGraw-Hill Education (UK).
- Fitria, R. A. (2021). Students' perceptions of the use of Grammarly in undergraduate thesis writing at IAIN Palangka Raya. IAIN Palangkaraya. <http://digilib.iaain-palangkaraya.ac.id/3680/1/SKRIPSI%20RINA%20ALYA%20FITRIA.pdf>
- Fitria, T. N. (2021). Grammarly as AI-powered English Writing Assistant: Students' Alternative for Writing English. *The Journal of English Language and Literature*, 5, 65-78. <https://doi.org/10.31002/METATHESIS.V5I1.3519>

- Giray, L. (2024). "Don't let Grammarly vverwrite your style and voice:" Writers' advice on using Grammarly in writing. *Internet Reference Services Quarterly*, 28(3), 293–303. <https://doi.org/10.1080/10875301.2024.2344762>
- Grammarly. (n.d.). *Grammarly: Free writing assistant*. Grammarly, Inc. <https://www.grammarly.com/>
- Guo, Q., Feng, R., & Hua, Y. (2021). How effectively can EFL students use automated written corrective feedback (AWCF) in research writing? *Computer Assisted Language Learning*, 1–20. <https://doi.org/10.1080/09588221.2021.1879161>
- Hadia, G. (2023). Improving the academic writing essays of EFL Libyan students: Observational case study on the Faculty of Languages and Translation at Al-Zytuna University. *Bani Waleed University Journal of Humanities and Applied Sciences*, 8(2), 612-630.
- Hanauer, D. I., Sheridan, C. L., & Englander, K. (2019). Linguistic injustice in the writing of research articles in English as a second language: Data from Taiwanese and Mexican researchers. *Written Communication*, 36(1), 136–154. <https://doi.org/10.1177/0741088318804821>
- Hidayah, A. N. and Irawati, T. (2024). Grammarly in essay writing through the lens of students' perception. *Jurnal Bahasa, Sastra, dan Studi Amerika*, 30(1), 11-18. DOI: <https://doi.org/10.20961/jbssa.v30i1.87858>
- Jen, S. L. & Salam, A. R. H. (2024). A systematic review on the use of Artificial Intelligence in writing. *International Journal of Academic Research in Progressive Education and Development*, 13(1), 1819- 1892. 10.6007/IJARPED/v13-i1/20584. <https://ijarped.com/index.php/journal/article/view/683/665>
- Karyuatry, L. (2018). Grammarly as a tool to improve students' writing quality: Free online-proofreader across the boundaries. *Jurnal Sains Sosial Dan Humaniora (JSSH)*, 2(1), 83-89. <https://doi.org/10.30595/jssh.v2i1.2297>
- Khonirin, F. A., & Roslaini, R. (2024). EFL Students' Perceptions towards the Use of Grammarly Application in Learning Writing Skills. *Scripta: English Department Journal*, 11(2), 187-194. <https://doi.org/10.37729/scripta.v11i2.5370>
- Letsoela, P. M. & Matlosa, L. (2022). Lexical semantic errors in undergraduate students' academic writing. *FOSTER: Journal of English Language Teaching*, 3(3), 172-184.
- Li, J., Huang, J., Wu, W., & Whipple, P. B. (2024). Evaluating the role of ChatGPT in enhancing EFL writing assessments in classroom settings: A preliminary investigation. *Humanities and Social Sciences Communications*, 11(1), 1268. DOI:10.1057/s41599-024-03755-2
- Lim, F. V. & Phua, J. (2019). Teaching writing with language feedback technology. *Computers and Composition*, 54, 102518. <https://doi.org/10.1016/j.compcom.2019.102518>

- Maharani, M. M. (2018). Graphic Organizers to Improve Students' Writing on Recount Paragraphs. *Metathesis: Journal of English Language, Literature, and Teaching*, 2(2), 211–221. <https://doi.org/10.31002/metathesis.v2i2.942>
- Mauliska & Karlssön, (2024). Challenges and opportunities in the use of technology for teaching English as a foreign language. *International Journal of English Language Teaching, Literature, and Linguistics*, 2(1), 25-31.
- Milad, R. M., Almalul, R. M. & Lawej, A. I. (2021). Academic writing difficulties faced by Libyan EFL undergraduates at Elmergib University. *International Journal of Research in Humanities, Arts and Literature*, 9(11), 15-24.
- Nova, M. (2018). Utilizing Grammarly in evaluating academic writing: A narrative research on EFL students' experience. *Premise: Journal of English Education*, 7(1), 80-97. <https://doi.org/10.24127/pj.v7i1.1332>
- Pratama, Y. D. (2020). The investigation of using Grammarly as online grammar checker in the process of writing. *English Ideas: Journal of English Language Education*, 1(1), 46–54. <https://journal.unsika.ac.id/index.php/IDEAS/article/view/4180/2434>
- Ummah, L. K. & Bisriyah, M. (2022). EFL students' perception on Grammarly premium's feedback and dealing with inaccuracies. *JEES (Journal of English Educators Society)*, 7(2), 163-172. <https://doi.org/10.21070/jees.v7i2.1687>
- Zhang, J. Zhu, C. & Zhang, Z. (2024). AI-powered language learning: The role of NLP in grammar, spelling, and pronunciation feedback. *Applied and Computational Engineering*, 102, 18-23. DOI: 10.54254/2755-2721/102/20240962

**Advanced Artificial Intelligence Technologies and Developments
inScientific Translation**

تقنيات الذكاء الاصطناعي المتقدمة ودورها في تطور الترجمة العلمية
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الزاوية / ليبيا

الملخص:

يستكشف هذا البحث تداخل تقنيات الذكاء الاصطناعي المتقدمة وتأثيرها على مجال الترجمة العلمية، ومع تزايد الطلب على ترجمة دقيقة وفعالة للمواد العلمية نتيجةً للعولمة، أصبحت الأدوات المعتمدة على الذكاء الاصطناعي لا غنى عنها، وتُقيم الدراسة التطورات الحالية في تقنيات ترجمة الذكاء الاصطناعي، وتدرس قدراتها وحدودها، وتناقش آثارها على التواصل العلمي. من خلال تحليل الأدبيات ودراسات الحالة ورؤى الخبراء، تهدف هذه الورقة إلى تقديم فهم شامل للمشهد المتطور واقتراح توجهات للبحوث المستقبلية.

الكلمات المفتاحية: الترجمة الآلية العصبية – الترجمة العلمية – الذكاء الاصطناعي - الترجمة الآلية

**Advanced Artificial Intelligence Technologies and Developments
inScientific Translation**

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Abstract:

This research paper explores the intersection of advanced artificial intelligence (AI) technologies and their impact on the field of scientific translation. As globalization intensifies the demand for accurate and efficient translation of scientific materials, AI-driven tools have become indispensable. The study evaluates current developments in AI translation technologies, examines their capabilities and limitations, and discusses their implications for scientific communication. Through literature analysis, case studies, and expert insights, this paper aims to offer a comprehensive

understanding of the evolving landscape and propose directions for future research.

Keywords:

Artificial Intelligence (AI) - Scientific Translation - Neural Machine Translation (NMT) - Machine Translation (MT).

Introduction:

Scientific translation plays a crucial role in disseminating knowledge across linguistic and cultural boundaries. With the exponential growth of scientific publications worldwide, the need for timely and precise translation has never been more urgent—traditional translation methods, although effective, often fall short in speed and scalability. The integration of advanced AI technologies, particularly neural machine translation (NMT), has revolutionized the translation process, making it faster and more accessible. This paper investigates how these technologies are transforming scientific translation and evaluates their performance and potential.

School is a critical time for youngsters to grow and learn. In order to provide a strong basis for their future social lives and careers, teachers should focus more on helping students improve their English speaking and translating abilities. Students should also be able to utilize English freely. When AI is used effectively in university English instruction, students can become highly motivated, develop their creative thinking skills, and be inspired to actively participate in English language learning as translators. Teachers are not conducive to pupils' translation skills being effectively improved¹.

Effective use of AI in university English instruction can substantially inspire students to actively participate in learning English as translators, encourage them to think creatively, and motivate them. As a result, academics are becoming increasingly aware of it. Nonetheless, certain issues persist. Students' ability to translate is hampered by the absence of specialized translation courses and instructional resources for college English instruction. The way that translation tutors educate has some irregularities that make it difficult for students to effectively improve their translation abilities². Secondly, the development of university English textbooks emphasizes students' foundational knowledge while providing limited

opportunities for critical thinking, which is primarily evident in the lack of certain relevance of translation content formulas and the inability to develop targeted translation teaching contents according to students' majors. Although some translation contents are introduced in the arrangement of current university English textbooks, they focus on basic knowledge and lack practical training content for translation skills. In general, the development of students' English translation skills is still missing and needs further research³.

Historically, human translation has served as the primary method of translation since ancient times. However, with the development of computer technology and the rapid growth of the Internet, machine translation technology is gradually moving into history. As far as the definition is concerned, machine translation (MT) is a technology that can efficiently use computer computing power to convert and transfer information between two languages. The development of machine translation technology has moved from the research stage to the practical application stage. Machine translation is also the main driver of the dynamic development of translation services in the world. Deep learning also does well in NLP tasks including sentiment analysis, semantic extraction, word stem extraction, and text summarization. The machine Computational Intelligence and Neuroscience Machine translation is considered a major research task in the field of natural language processing in both academic and industrial applications due to its wide range of applications but also its complexity. With the start of the AI revolution, machine translation technology is definitely getting a boost from deep learning. Translation agencies and professionals frequently use neural machine translation (NMT) systems, such as Google Translate, DeepL Translator, and Microsoft Translator, to name a few. The goal of NMT is to develop algorithms capable of translating text between languages. NMT models are based on neural networks, which are computer systems that are modeled after the human brain⁴. By identifying patterns in the vast amounts of text in multiple languages they are trained on, these models can offer translations⁵. However, more recently, ChatGPT has become one of the most common AI tools used by professional translators,

as it has an easy-to-use interface and is suited to both individual and wide-scale use ⁶.

Objectives of the Study

1. To analyze the current state of AI technologies in scientific translation.
2. To evaluate the effectiveness and limitations of these technologies in handling scientific texts.
3. To identify the implications of AI-driven translation for researchers, publishers, and global knowledge dissemination.

Questions of the Study

1. What are the most advanced AI technologies currently used in scientific translation?
2. How do these technologies compare with traditional translation methods in terms of accuracy, efficiency, and scalability?
3. What challenges do AI tools face when translating scientific material?
4. How can the scientific community leverage AI while ensuring quality and ethical standards?

Methodology of the Study

This study employs a qualitative research methodology. Data is collected through a comprehensive review of scholarly articles, white papers, and case studies published in the last decade. In addition, expert interviews and surveys with professional translators and computational linguists provide practical insights. Comparative analyses are conducted between AI-generated translations and human translations to assess performance. The study also incorporates scenario-based evaluations to explore real-world applications and limitations.

Literature Review

The field of machine translation (MT) has evolved from rule-based systems in the mid-20th century to statistical methods and now to deep learning approaches. Recent breakthroughs in NMT, notably through models such as Google's Transformer and OpenAI's GPT architectures, have significantly improved translation quality. Studies by Vaswani et al. and Brown et al. demonstrate how transformer-based models outperform previous methods in

fluency and accuracy⁷. Furthermore, domain-specific adaptations and fine-tuning techniques have enhanced the applicability of these models in scientific contexts⁸.

Despite these advances, challenges remain. Scientific texts often contain specialized terminology, and complex sentence structures, and require high semantic precision. Researchers like Specia et al. have highlighted the limitations of general-purpose AI models in maintaining domain fidelity. Moreover, ethical concerns, data privacy, and the need for human oversight are recurrent themes in the literature.

Artificial Intelligence

Artificial intelligence has revolutionized the language translation sector. However, even the most advanced artificial intelligence translation services aren't going to force human translators out of a job anytime soon. In fact, AI has redefined the sector, bringing exciting new job prospects and career opportunities for translation professionals.

Technology has undoubtedly become a necessary component of our everyday life. Technology and its highly developed artificial intelligence (AI) systems dominate life and have surpassed people in practical and administrative tasks. However, people can still succeed in other tasks that need intelligence and thought. However, there is a sharp rise in the amount of scientific translation. The quick development of science and technology in a number of domains is to blame for this. The enormous volume of materials will make it impossible for translators to handle, so technology is a necessary and urgent answer to boost translation productivity. "A new translation concept like artificial intelligence translation has emerged with the development of automated translation tools," Yang said⁹.

Although the number of translation apps that are comparable to human translators has been increasing for some time, detractors contend that there is still a performance gap between the two (Li et al., 2020; Hassan et al., 2018). The following list will include the most significant categories of AI applications:

1. ChatGPT

Chat GPT is a popular and practical app these days. Diaz (2023) provided additional information about Open-AI's creation of Chat GPT, a chatbot that was made available in November 2022. It makes use of the GPT-3 series and has been enhanced through reinforcement and supervised learning.

2. Chat on Bing

According to Moneus and Sahari (2024), Bing Chat is a recently introduced Microsoft tool that offers a "copilot for the web" experience through the use of AI technology. As users explore the web, communicate with friends, or use the Edge browser, Bing, and Skype apps, it enables them to receive tailored suggestions, responses, and insights. Now accessible on Skype and Bing Mobile, Bing Chat appears to be becoming more and more well-liked by customers who are looking for AI-powered solutions.

3. Perplexity

The conversational search engine Perplexity AI is marketed as an "answer engine" that uses natural language predictive text to deliver answers to queries. Launched in 2022, it uses web sources and incorporates links into the text response to generate replies.

4. Gemini

Gemini, formerly known as Bard, is a generative artificial intelligence chatbot developed by Google. Based on the large language model (LLM) of the same name and developed as a direct response to the meteoric rise of OpenAI's ChatGPT, it was launched in a limited capacity in March 2023 before expanding to other countries in May.

5. Poe

According to the Web Search Results, Poe is a chatbot platform developed by Quora that allows users to interact with AI chatbots powered by large language models like ChatGPT. It was announced in December 2022 and launched to the public on February 3, 2023, with desktop browser access made available on March 4, 2023. The name "Poe" is an acronym for "Platform for Open Exploration". Poe aims to provide an easy-to-use interface for people to interact with and explore different AI language

models through natural conversation and can answer any question and provide translation services.

6. Sider AI

Sider AI is an advanced AI assistant platform that offers a wide range of tools and functionalities, including chat, writing, reading, translation, and image testing with AI models like ChatGPT 3.5/4, Gemini, Claude, and more. It serves as an all-in-one AI assistant, providing features like group AI chat, AI reader, AI writer, ChatPDF, integrated image tools, and support for various AI models like GPT-3.5, GPT-4, Claude, and Gemini, allowing users to ask questions and receive immediate solutions from multiple AI bot.

How AI is redefining the translation industry

Even though AI won't be knocking human translators out of a job anytime soon, it is helping alter the translation services sector. It's making the entire process significantly more streamlined and has far-reaching applications. AI makes it simple for users to obtain fast and somewhat accurate translations on a daily basis. For travelers who are around the world, this can mean using a tool like Google Translate, which offers real-time translations for common conversations.

AI can facilitate communication between translators and non-native speakers. Artificial intelligence fills in vocabulary gaps by translating when necessary because even the most skilled translators cannot fully understand the second language they work in.

AI Changes How We Work as Translators:

Many professional translators view automation and artificial intelligence (AI) as dangers to their trade and are suspicious of the latest developments in AI. Professional translators will mostly be required to edit texts that have been machine-translated and teach AI to do so, according to the worry that artificial intelligence will transform the nature of the translation profession.

AI is indeed altering the way we do our work as translators, so in a way, this anxiety is warranted. The interface that manages the submissions, peer review, revisions, and editing and production procedures involved in publishing a journal article incorporates AI technology, which has been included in the editorial workflow in numerous scientific journals. However,

human translators or other AI tools frequently review translations produced by machines. It has been demonstrated that this improves the editing process. Additionally, a lot of us already utilize tools like GPT-4 to double-check our translations and Grammarly and PaperPal to check our grammar¹⁰. It is feared that with all the new technological advancements, the creativity that translation and linguistic abilities require would be lost. Examining the AI tools, we use in our work and critically considering the hazards they may pose are essential in scholarly publishing, where neutrality is crucial.

AI's Inherent Linguistic Bias:

English, Spanish, Chinese, and French are examples of high-resource languages that tend to perform better in NMTs and other large language models (LLMs), which have a notable imbalance in their coverage of languages. Due to the fact that ChatGPT and other advanced LLMs are primarily made to function better in English than any other language, they nevertheless have imbalances¹¹. Because of this disparity, translations or writings written in languages other than English will not be as accurate or culturally appropriate as they ought to be. Furthermore, while AI systems like GPT-4 appear to be capable of translating a large number of languages into English, they encounter difficulties when attempting to translate English into any other language, particularly ones with non-Latin alphabets like Korean. There is a long history of colonization that has led to English being prioritized as the lingua franca in the scientific community. The bias in the AI tech industry makes sense, thus it's not surprising that the majority of NMTs and LLMs find it difficult to grasp the richness and context of non-English languages¹². Numerous languages having a lesser online presence or spoken by smaller populations in under-represented locations are under-represented in the creation of NMTs and LLMs. According to critics, artificial intelligence (AI) could aid in the translation of widely used Western languages like English, Spanish, and French. However, for languages deemed "low-resource," such as Bengali, Swahili, isiXhosa, Tigrinya, Tamil, or Amharic, the same models and algorithms find it difficult to get the same results¹³. The prevalence of low-resource languages in developing nations with a history of colonization and oppression is not

surprising. As a result, it is our duty as members of the scientific and academic publishing community to recognize these possible biases and take action to counter them. However, a paradigm shift in the field of professional translation has been sparked by the advancement of artificial intelligence. AI translation is being used by people, including professional translators. Research on whether AI software can translate different documents more accurately than human translators is lacking, though¹⁴. However, there is a need for translation in the field of scientific translation, and the complexity of these terms—particularly those that contain acronyms and abbreviations—may give rise to a subject of study. In order to identify potential answers to these issues and boost translation productivity and efficiency, this research looks into the difficulties and approaches associated with translating scientific texts using either human or artificial intelligence. Additionally, it attempts to assess the caliber of the translations generated and ascertain the degree of human-AI cooperation in translating scientific literature.

Studies Related to Scientific Translation

Scientific translation refers to the process of translating scientific texts, documents, and materials from one language to another. The texts may cover various scientific disciplines, such as medicine, biology, chemistry, physics, medicine, engineering, environmental sciences, and mathematics¹⁵. Al-Smadi conducted a study investigating the main problems encountered by translators in translating scientific texts from English into Arabic and revealed the main reasons behind these problems. A qualitative research design was applied, and the sample consisted of one scientific text translated by twenty BA students. The study revealed that translators faced problems such as word diction, preciseness, terminological consistency, word order agreement, tense and aspect, and passive structure. Moreover, the study showed that a lack of translators' experience in this domain, and the lack of awareness of the sensitivity of scientific texts are some of the most important reasons for these problems¹⁶. Along the same line, Nouri looked at and examined mistakes university-level Iraqi students make when translating a scientific text from English to Arabic¹⁷. 66 students from Al-Mustansiriyah University's Level 4 participated in the study. After the

students completed translating a scientific text, the material was examined using a unique scoring system to highlight any issues with the translation. Because many of them relied on common dictionaries rather than specialized scientific dictionaries, the results demonstrated that students committed mistakes and had challenges when translating the text¹⁸.

Challenges Associated with AI and Machine Translation¹⁹

***Quality vs. Cost Balancing Act:**

Although the quality of Machine Translation (MT) has improved, there is still a trade-off between cost and quality. MT typically costs about \$0.10 per word, while human translation costs \$0.22. But when it comes to idiomatic idioms, cultural allusions, and complex language that needs human interpretation, machine translation quality still lags behind human translation.

***Potential for Bias:**

The quality of the training data has a significant impact on how well AI and machine learning algorithms work. Biases may also be present in the translations produced if the data used is biased. When translating politically charged or sensitive material, this becomes a serious issue because poor translations might have dire consequences.

***Accessibility Challenges:**

Machine translation can help remove language barriers, but if the translations are unclear or hard to understand, it may unintentionally create new ones. Machine translation can be particularly challenged by complex or technical language, which can result in translations that are difficult to follow or understand.

Machine translation will provide exciting employment prospects in the translation services industry.

AI and machine learning are making us reevaluate the function of human translators in the field. Even the greatest algorithms won't completely replace human translators, though. Instead, human translators are being called upon to fill new positions. Software is developing quickly, but it is still not yet able to produce entirely dependable results. Post-translation editors and proofreaders are therefore always needed. A business that wants to enhance its AI translations would require seasoned translators to go over

a lot of translated material. Many industries, such as e-commerce, which depends on the production of large volumes of often updated information, have adopted machine translation²⁰.

There are other unexpected uses for AI translations, such as the legal industry, where machine learning and AI-assisted translations enable legal professionals to mine large datasets, making it easy to sort through thousands of case documents and supporting notes. While AI-assisted translations can expedite preliminary research, humans will always be a valuable resource in the translation and AI industries until artificial intelligence can produce flawless results.

Differences between human and machine translation²¹

To reach a global audience, translation is essential for any multinational business. Here's the problem, though: there are a lot of translation options. Either machine translation or human translation. These are the five ways that machine and human translation differ from one another.

1. Professional human translation works are translated from the source language to the target language by a professional translator, and machine translation translates content from one language to another with the help of a machine, with no human involvement.
2. Professional translators in human translation services are subject matter experts who have gained experience through years of translation work and have translation-related qualifications. Machine translations, on the other hand, make use of artificial intelligence (AI) and can be customized for specific industries²².
3. Professional translators and linguists can translate about 2000 words per day, whereas machine translation, in the best-case scenario, can translate double the number of words and phrases. Speed is a crucial difference between human and machine translation²³.

Conclusion

Advanced AI technologies, particularly NMT models, have significantly enhanced the field of scientific translation. While they offer remarkable speed and scalability, challenges related to domain specificity, semantic accuracy, and ethical concerns persist. Human-AI collaboration remains essential to achieving high-quality translation outcomes. Continued research

and development, focusing on domain adaptation, explainability, and hybrid approaches, will be vital in harnessing AI's full potential in scientific translation. The study emphasizes how artificial intelligence—in particular, neural machine translation—is leading this revolutionary trend. Improved comprehension of context, idioms, and subtleties has led to unprecedented levels of translation accuracy. According to the study, integrating human expertise significantly improves machine translation efficacy. Looking ahead, the development of multi-modal translation—which combines voice and visual recognition—offers encouraging prospects for more inclusive communication. The study acknowledges how crucial it is to address linguistic variety with contextually aware adaptive translation systems. The investigation of AI-driven translation, in summary, points to a future full of opportunities.

An infinite range of communication options is made possible by the combination of human ingenuity and AI accuracy, which helps to create a global society that can transcend linguistic barriers.

References:

1. F. Kong, "Application of artificial intelligence in modern art teaching," *International Journal of Emerging Technologies in Learning (IJET)*, vol. 15, no. 13, p. 238, 2020.
2. X. Cao, Z. Li, and R. Zhang, "Analysis on academic benchmark design and teaching method improvement under artificial intelligence robot technology," *International Journal of Emerging Technologies in Learning (IJET)*, vol. 16, no. 05, p. 58, 2021.
3. S. Nagi Alsubari, S. Deshmukh, A. Abdullah Alqarni, et al., "Data analytics for the identification of fake reviews using supervised learning," *Computers, Materials & Continua*, vol. 70, no. 2, pp. 3189–3204, 2022.
4. Vaswani, Ashish, et al. "Attention is All You Need." *Advances in Neural Information Processing Systems* 30 (2017): 5998-6008.
5. Kirov V, Malamin B. Are translators afraid of artificial intelligence? *Societies*. 2022;12:70. <https://doi.org/10.3390/soc12020070> .
6. Specia, Lucia, et al. "Findings of the WMT 2020 Shared Tasks on Machine Translation." *Proceedings of the Fifth Conference on Machine Translation* (2020): 1-55.
7. Specia, Lucia, et al. "Findings of the WMT 2020 Shared Tasks on Machine Translation." *Proceedings of the Fifth Conference on Machine Translation* (2020): 1-55.

8. Johnson, Melvin, et al. "Google's Multilingual Neural Machine Translation System: Enabling Zero-Shot Translation." *Transactions of the Association for Computational Linguistics* 5 (2017): 339-351
9. Yang, C. (2022). The Application of Artificial Intelligence in Translation Teaching. In *Proceedings of the 4th International Conference on Intelligent Science and Technology*, 56-60. <https://doi.org/10.1145/3568923.3568933>.
10. Dave P. ChatGPT is cutting non-English languages out of the AI revolution. [accessed February 5, 2024]. *Wired*, 2023. <https://www.wired.com/story/chatgpt-non-english-languages-ai-revolution/>.
11. Expert insights on the use of MT for low-resource languages. [accessed February 5, 2023]. *MachineTranslation.com*, 2023. <https://www.machinetranslation.com/blog/mt-for-low-resource-languages>.
12. S. Marzouk and S. Hansen-Schirra, "Evaluation of the impact of controlled language on neural machine translation compared to other MT architectures," *Mach. Transl.*, vol. 33, nos. 1–2, pp. 179–203, Jun. 2019, doi: 10.1007/s10590-019-09233-w.
13. Nicholas G, Bhatia A. Lost in translation large language models in non-English content analysis. The Center for Democracy & Technology, 2023. <https://doi.org/10.48550/arXiv.2306.07377>.
14. Diaz, M. (2023). How to use ChatGPT: Everything you need to know. Retrieved 25 Oct 2023 from <https://www.zdnet.com/article/how-to-use-chatgpt/> This preprint research paper has not been peer-reviewed. Electronic copy available at: <https://ssrn.com/abstract=4441379> Preprint not peer
15. Krein-Kuhle, M. (2005). *Equivalence in Scientific and Technical Translation: A text in context-based study*. Unpublished PhD thesis. Salford: Salford University.
16. Al-Smadi, H. M. (2022). Challenges in translating scientific texts: Problems and reasons. *Journal of language teaching and research*, 13(3), 550-560. DOI: <https://doi.org/10.17507/jltr.1303.11>
17. J. Yu and X. Ma, "English translation model based on intelligent recognition and deep learning," *Wireless Commun. Mobile Comput.*, vol. 2022, pp. 1–9, Mar. 2022, doi: 10.1155/2022/3079775.
18. Nouri, A. A. (2011). Difficulties Faced by Translation Students in Translating Scientific Texts from English - into - Arabic. *Diyala Journal for Human Science*, (50), 437-554
19. D. Munkova, P. Hajek, M. Munk, and J. Skalka, "Evaluation of machine translation quality through the metrics of error rate and accuracy," *Proc. Comput. Sci.*, vol. 171, pp. 1327–1336, Jan. 2020, doi: 10.1016/j.procs.2020.04.142.
20. L. Kong, "Artificial intelligence-based translation technology in translation teaching," *Comput. Intell. Neurosci.*, vol. 2022, pp. 1–9, Jun. 2022, doi: 10.1155/2022/6016752.

21. M. Hasyim, F. Saleh, R. Yusuf, and A. Abbas, "Artificial intelligence: Machine translation accuracy in translating French–Indonesian culinary texts," *Int. J. Adv. Comput. Sci. Appl.*, vol. 12, no. 3, pp. 186–191, 2021, doi: 10.2139/ssrn.3816594.
22. M. Hasyim, F. Saleh, R. Yusuf, and A. Abbas, "Artificial intelligence: Machine translation accuracy in translating French–Indonesian culinary texts," *Int. J. Adv. Comput. Sci. Appl.*, vol. 12, no. 3, pp. 186–191, 2021, doi: 10.2139/ssrn.3816594.
23. M. Hasyim, A. Y. Latjuba, A. M. Akhmar, Kaharuddin, and N. J. Saleh, "Human–robots and Google translate: A case study of translation accuracy in translating French–Indonesian culinary texts," *Turkish J. Comput. Math. Educ.*, vol. 12, no. 4, pp. 1194–1202, Apr. 2021.

Libyan Pupils' Attitudes, Interactions, and Perceptions Towards Teacher's Use of English in a Foreign Language Classroom

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مواقف وتفاعلات وتصورات التلاميذ الليبيين تجاه استخدام المعلم للغة الإنجليزية في فصل اللغة الأجنبية

أ. نورية بشير نصر أبوقدم – كلية اللغات والترجمة – جامعة مصراتة

الملخص

قد ينظر التلاميذ الليبيون إلى استخدام معلمهم للغة الإنجليزية في الفصل الدراسي بطرق مختلفة، مما قد يسهم في تسهيل أو تعقيد عملية تعلمهم، وهناك فجوة بين كيفية استخدام المعلمين الليبيين للغة الإنجليزية في الفصل وبين كيفية إدراك التلاميذ لهذا الاستخدام. كما أن هناك ندرة في المراجع التي تناولت هذا الموضوع. لذلك، تهدف هذه الدراسة إلى استكشاف مواقف التلاميذ، وتفاعلاتهم، وتصوراتهم تجاه استخدام معلمهم للغة الإنجليزية. تُعد هذه الدراسة كمية، حيث استخدمت الاستبيان كأداة لجمع البيانات، وقد وُزع الاستبيان على 58 تلميذًا من الصف الخامس في مدرسة الغيران المركزية. أظهرت النتائج أن تلاميذ الصف الخامس لديهم مواقف إيجابية تجاه استخدام المعلم للغة الإنجليزية. إن الاستخدام المستمر للغة الإنجليزية من قبل المعلم وتصحيح الأخطاء داخل الفصل شجّعهم وساعدهم على تعلم اللغة الإنجليزية بشكل أفضل. ويوصي الباحث بإعادة تقييم كتب الصف الخامس في مادة اللغة الإنجليزية وتصميمها بما يتناسب مع احتياجات التلاميذ، بما يُعدهم لمواقف الحياة الواقعية.

الكلمات المفتاحية: مواقف التلاميذ، التفاعلات، التصورات، استخدام المعلم للغة الإنجليزية، فصل اللغة الإنجليزية كلغة أجنبية

Libyan Pupils' Attitudes, Interactions, and Perceptions Towards Teacher's Use of English in a Foreign Language Classroom

Abstract

Libyan pupils may view their teachers' use of English in the classroom in various ways, which may either facilitate or complicate their learning process. There is a gap on how Libyan teachers use English in the classroom and how pupils perceive it. There is also a dearth in literature in this area. Therefore, this study investigates pupils' attitudes, interactions, and perceptions towards their teacher's use of English. This study is quantitative as it uses a questionnaire to collect data. The questionnaire was distributed to 58 fifth-grade pupils from Al-Ghiran Al-Markazia School. The results showed that the fifth-grade pupils had positive attitudes towards their teacher's use of English. The teacher's constant use of English and correction in the classroom encouraged and helped them to learn English better. The researcher recommends that book designers re-evaluate English fifth-grade textbooks and design them according to pupils' needs, which prepares them for real-life situations.

Keywords: Pupils' attitudes, interactions, perceptions, teacher's use of English, EFL classroom

Introduction

Teachers play a crucial role in English as a Foreign Language (EFL) education. They act as facilitators and role models who influence their pupils' learning experiences. As English teachers, the crucial aspect is the way they use the language in the classroom. The language choice that teachers make can greatly affect pupils' attitudes, motivation, and ability to acquire the language.

In Libya, the use of English has gained popularity after 2011. Now, it recognises how important English in today's global world is. English is taught in schools across the country, and learning it is regarded as an opening way to several opportunities. English is no longer merely a subject in the Libyan curriculum; it is also a fundamental skill for occupational development and a means of communication with the rest of the world.

English has a significant role in the EFL primary classroom. It is not considered a subject to study but a medium of instruction that enhances pupils' proficiency and exposure to the foreign language. Teachers' constant use of English may assist pupils in improving their four major skills (i.e., listening, speaking, reading, & writing). However, in Libya, there is a discrepancy between teachers' way of teaching the language and how the pupils perceive it. In addition, there is a gap between what the Teacher's Book recommends and the teachers' practical part of teaching in their classrooms. According to the Curricula and Educational Research Centre (2019), sometimes as a teacher, you want to explain things in Arabic but try other ways first. Only use Arabic if you have to. Demonstrating with actions or drawing on the board can help pupils understand. You can teach them a lot of real English by using English for classroom instructions and showing them what you mean. Slowly, pupils will grasp it, and some will even start speaking English themselves.

Several Libyan primary school teachers tend to overuse Arabic in their classrooms, which may affect pupils negatively. Abugadam's (2023) findings showed that the majority of Libyan primary school teachers used Arabic in their classrooms because they thought that pupils did not understand them if they used English constantly in their classrooms.

The effective use of the English language in the classroom is a fundamental factor in fostering language learning. Teachers play a crucial role in creating a conducive environment for language acquisition. Thus, this study delves into the attitudes, interactions, and perceptions of Libyan primary school pupils towards their teacher's use of English in the EFL classroom.

Statement of the Problem

As English is still widely used for communication across the world, it is important to make sure that it is taught effectively in countries, where it is considered as a foreign language such as Libya. Teachers' use of the English language in the classroom has a significant effect on how motivated pupils are to learn the language and how well they learn it. However, Libyan pupils may have varying attitudes towards their teachers' use of English, which can either facilitate or hamper their learning process. Some pupils

may find it beneficial to improve their language skills. Although pupils are motivated, they may be taken aback when they are challenged to respond to their teachers in English. In addition, pupils may encounter challenges in comprehending their teachers' use of English, which may affect their attitudes, interactions, and perceptions in learning the language. Therefore, this situation shows a gap in how pupils perceive their teachers' constant use of English. Understanding their attitudes, interactions, and perceptions is paramount because it shows the teaching strategies that teachers have to use to meet their pupils' requirements.

Nevertheless, there is limited research has been explored Libyan pupils' attitudes, interactions, and perceptions towards their teacher's use of English in EFL classrooms.

The Purpose of the Study

This research aims to investigate primary school pupils' attitudes towards the use of English language in the fifth grade. This study also explores pupils' attitudes towards their teacher's use of English in the classroom with the goal of improving teaching practices in Libyan primary schools. Moreover, it identifies the pupils' interactions and perceptions to enrich English language teaching.

Research Questions

To achieve the objectives of the study, it has to address the following research questions:

1. To what extent do pupils agree on the use of the target language in learning English?
2. To what extend do pupils interact when the teacher explains in English as the mode of instruction?
3. To what extent do pupils perceive their teacher's use of English?

Significance of the Study

This research may assist primary school teachers to know pupils' attitudes, interaction, and their perceptions towards the use of English inside the classroom. Furthermore, it may help them understand pupils' motivation in the EFL classroom. It may also aid English language inspectors to know the extent needed for the English language to be used by teachers and guide them in which condition they must use it and when they need to use the first

language. For book designers, it may assist them to know whether the topics included in the textbooks are understandable to pupils when their teacher uses English to explain the lessons.

Scope and Delimitation of the Study

The current study focused on the pupils' attitudes towards the use of the English language in fifth grade at Al-Ghiran Al-Markazia School and not in any other schools or other grades in Misurata.

Literature Review

The Use of English Language in an EFL Classroom

English language teachers need to take into account that the use of English in teaching young foreign language learners is not the same as second language learners. According to Rachmajanti (2008), some teachers agreed that foreign language instruction that starts at a young age significantly improves a child's chances of becoming highly skilled in that language. Additionally, extended language learning leads to greater proficiency. Abdallah (2024) mentioned that each learner has distinct experiences and expectations that can greatly shape their learning journey. Thus, an essential aspect of teaching English as a foreign language is recognising the significance of understanding students' backgrounds, motivations, and individual needs.

Scott and Ytreberg (1991) contended that learning a foreign language is similar to the first language. Children naturally enjoy fiction and imagination, and they respond well to activities involving movements, visuals, and music. In terms of recognising children's limited attention spans, the authors stressed the importance of varying the activities, pace, and tone of voice. They suggested using classroom grouping bearing in mind children's natural inclination to socialise with their peers. Cameron (2001) mentioned that lessons and activities are more effective when they are tailored to what pupils need to learn, instead of what the textbook dictates or what the teacher is interested in.

A study was conducted by Elibariki (2017) which investigated the challenges that primary school pupils encountered in learning English as a foreign language. The study was mixed method because of the three instruments that were used to collect data namely, questionnaire,

observation, and documentation. The participants were composed of 15 primary school teachers, one school inspector, and 3000 pupils specifically from levels three and six. The results indicated that due to an unsatisfactory classroom environment, pupils experienced a loss of motivation in learning the English language.

In EFL classrooms, teachers have to create a suitable environment that matches their pupils' interests. Abukhattala (2013) posited that a welcoming and encouraging classroom is essential for language acquisition. The Language Acquisition Devise (LAD) benefits from abundant input in such setting. However, student anxiety or a demotivating environment negates the value of that input. Yet, the motivation of foreign language learners is not restricted to the environment only. Petrides (2006) asserted that it is essential to recognise the significance of motivation in foreign language acquisition when creating learning resources or planning language programs.

Another factor that EFL teachers should consider is the way they correct pupils' errors, because it affects their motivation and their overall performance in learning the language. Amara (2015) explained that teachers are frequently concerned about students' errors and they are afraid that these mistakes will become fixed. This view originates from behaviourist learning theory, which suggests that language acquisition occurs through repeating correct forms while repeating incorrect forms is detrimental. In addition, Lightbown and Spada (1993) highlighted that teachers must recognise that errors are a normal part of both first and second language acquisition indicating that the language system of learners is evolving. These errors often result from overgeneralisation or native language interference. When persistent errors are prevalent, teachers should address them with patience because mastery requires time and repetition, especially when errors align with developmental patterns. Since excessive correction can hinder motivation, teachers remain responsible for guiding learners to improvement, which may require correcting errors that persist despite communicative practice.

Consequently, Broughton et al. (2002) explained that learning a foreign language requires learners to make errors, which should be seen as signs of

progress. When students are skeptical of how to express themselves, they use their knowledge of their first and the new language to make guesses. When students are practicing language, using both previously taught language and other language, error correction should focus on mistakes involving the previously taught language.

In line with this, Richards and Rodgers (2014) affirmed that teachers should avoid excessive interruption of pupils' speech to correct errors, especially in the early stages of learning. They argued that teachers should emulate parents, who typically correct their children's mistakes minimally as over-correction can hinder learning. Nonetheless, correction of common errors is also appropriate. In a class where students share the same first language, similar errors are likely to be repeated; thus, correcting them will benefit everyone. However, correction during speaking exercises can disrupt their flow of thoughts and impede fluency. Therefore, it is better to provide feedback after the activity is completed (Riddell, 2010).

Communication among learners or with their teacher in the EFL classroom is essential. According to Reilly and Ward (1997) although communication is key to the learning process, asking children to use only English when they are unable to do is equivalent to telling them to be quiet. The authors also recommended when teaching English to children, teachers should use words that are similar to the learners' first language. Nevertheless, they warned that children face the risk of assuming that English words that are similar to their native language have identical meanings due to their failure to recognise "false friends" [words with similar forms but different meanings]. However, the benefits of immediate comprehension and increased young learners' confidence are believed to outweigh this potential drawback. Cameron (2001) explained that asking a pupil to re-tell a story in a foreign language after listening requires significant effort, because young foreign language learners must find and produce appropriate language at the word, sentence, and discourse levels. Speaking demands more from language learners' resources and skills than listening. Because speaking is extremely difficult, it requires careful and extensive support not only for comprehension but also for production.

Forcing young learners to speak prematurely can cause considerable emotional distress. Even if young children are not speaking, they are still processing the language. It is also worth noting that some children might remain silent in class but demonstrate their learning by using the language at home. Thus, language teachers should take into account that children often need a significant period to absorb a language before they start producing it (Reilly & Ward, 1997). Cameron (2001) emphasised that children learn foreign languages better when the content is familiar. Teachers should teach communication strategies and ensure children's understanding, as they have difficulty understanding on their own.

Students' Attitudes Towards English as a Foreign Language

There are research studies from different countries that have been conducted on pupils' attitudes towards English in primary schools. Kızıltan and Atlı (2013) carried out a study on Turkish pupils enrolled in fourth grade to seek their attitudes towards learning English. Two questionnaires were used as tools for collecting data. The results showed that the pupils had positive attitudes towards learning English. The majority of pupils also showed positive attitudes towards learning grammar. Besides, the study revealed that there was no difference in the attitudes of pupils in terms of gender.

Firat's (2009) study aimed to investigate fifth grade pupils' attitudes and their English language proficiency. Two questionnaires were distributed to 300 Turkish primary school pupils in Adiyaman. The results demonstrated that pupils possessed a positive attitude towards the language, and there was a significant relationship between their attitudes and their language proficiency. Similarly, Mat and Yunus (2014) conducted a study on primary school pupils seeking for their attitudes and motivation towards the English language. The participants were 40 pupils from FELDA school. The researchers used a questionnaire and an interview for collecting data. The results revealed that the pupils were motivated and their attitudes towards the English language were positive.

While several research has shown a positive attitude towards English language learning among Arab and non-Arab students, some research has also indicated negative attitudes. For instance, Abidin et al. (2012) carried

out a study in Libya about the attitudes of secondary school students towards learning English language. The study invited 180 students to answer the questionnaire. The results showed that the students had a negative attitude towards learning English. Thus, the researchers recommended that teachers should shed light on the importance of learning English to the students. In addition, teachers should vary their teaching methods and create a relaxing environment, as well as motivate their students to learn the language.

All in all, although the aforementioned studies have some similarities with this current study regarding the research design, the instrument used to collect the data, and the primary level are the same. However, none of them focused on pupils' attitudes, interactions, and perceptions towards their teacher's use of English in the EFL classroom. They all investigated pupils' attitudes towards learning English language.

Methodology

Research Design

This study is quantitative in nature. Quantitative research is defined by Kothari (2004) as "based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity" (p. 3). Since the aim is to investigate the frequency and extent of agreement in the questionnaire responses, a quantitative research design is appropriate to achieve this objective.

Participants and Setting

The participants were 58 fifth-grade pupils in the primary level. They were all females and studying at Al-Ghiran Al-Markazia School which is located in Misurata city, Libya.

Data-Gathering Instrument

A questionnaire as a research instrument was utilised to collect data in this study. The questionnaire was defined by Kumar (2011) as "a written list of questions, the answers to which are recorded by respondents. In a questionnaire, respondents read the questions, interpret what is expected and then write down the answers" (p. 394). The questionnaire used in this study contained three sections. The first section consisted of six items about pupils' attitudes towards their teacher's instruction. The second section

consisted of seven items on pupils' interaction in the class. Meanwhile, there were eleven items in the third section which focused on pupils' perceptions towards their teacher's use of English in the classroom.

Validity and Reliability

Validity means "the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure" (Kothari, 2004, p. 73). However, reliability is "the ability of a research instrument to provide similar results when used repeatedly under similar conditions. Reliability indicates accuracy, stability and predictability of a research instrument: the higher the reliability, the higher the accuracy; or the higher the accuracy of an instrument, the higher its reliability" (Kumar, 2011, p. 396).

The questionnaire was handed to three English language experts for face validity. It was valid because of the score of validity that had been given, 2.9, based on the research instrument evaluation of Good and Scates (1972). For reliability, the questionnaire was given to a group of fifth-grade pupils studying in another class, and the results were determined by the consistency of the questionnaire, which resulted in 0.854.

Data Gathering

This research followed certain steps to obtain valid data. Initially, a formal letter of permission was written by the Dean of Faculty of Languages and Translation to seek the consent to conduct the study of the Education Inspectorate of Misurata and the headteacher of Al-Ghiran Al-Markazia School. After that, the pupils were informed about the purpose of the study. After obtaining the approval of both the participants and their parents, the questionnaire was distributed. It was translated into Arabic to ensure that they could answer the items precisely. The data were collected during the second semester of the 2023-2024 school year.

Data Analysis

The statistical method was chosen to match the nature of the study. The Statistical Package for Social Sciences (SPSS) 21 was used to analyse the collected data. Descriptive statistics was used to provide a general overview of the data including how it was organised, classified, summarised, and displayed clearly in tables. If an item is positive, it means that the

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participants agree with its content. If an item is negative, it means that the participants do not agree with its content.

Table 1

Level of Pupils' Attitudes and Interaction

Mean Scale	Interpretation
4.50 – 5.00	Always
3.50 – 4.49	Often
2.50 – 3.49	Sometimes
1.50 – 2.49	Rarely
1.00 - 1.49	Never

Table 2

Pupils' Perceptions Towards Their Teacher's use of English in the Classroom

Mean Scale	Interpretation
4.50 – 5. 00	Strongly Agree
3.50 – 4.49	Agree
2.50 – 3.49	Neutral
1.50 – 2.49	Disagree
1.00 – 1.49	Strongly Disagree

Ethical Considerations

Permission sought from the Education Inspectorate of Misurata, the head of primary office in Misurata, and the headmaster of the school, as well as pupils' parents in order to collect the data. They were informed about the aim of this research beforehand. Pupils were informed that they could withdraw from participation whenever they wanted. Besides, their participation in this research would not affect their scores during their study; also, their identities and personal information would be undisclosed.

Results

In order to answer the research questions, the questionnaire was divided into three sections. The first section aimed to answer the first research question which was about pupils' attitudes towards English instruction and the analysis of this is as follows:

Table 3

Items	Mean	SD	Range
I feel engaged and interested during English lessons.	4.068	0.923	1
I am comfortable when receiving instructions and explanations in English.	3.965	1.256	2
I am interested to use English only in my English subject.	3.362	1.552	6
I am happy when the teacher uses English in the English subject.	3.689	1.142	5
I am confident when I speak English in front of my teacher and classmates.	3.827	1.352	3
I can follow classroom discussions and activities when the teacher uses English.	3.724	1.120	4

In Table 3, it is stipulated that the first ranked item, the participants ($M = 4.068$, $SD = 0.923$) indicated that they often felt engaged and interested during English lessons. For the second ranked item, the participants ($M = 3.965$, $SD = 1.256$) showed that they were often comfortable when receiving instructions and explanations in English. The participants ($M = 3.827$, $SD = 1.352$) revealed that they were often confident when they spoke English in front of their teacher which is the third ranked item. For the fourth ranked item, the participants ($M = 3.724$, $SD = 1.120$) could often follow classroom discussions and activities when the teacher used English. Moreover, the participants ($M = 3.689$, $SD = 1.142$) in the fifth ranked item indicated that they were often happy when the teacher used English in the English subject. Finally, for the last item with the lowest mean the participants ($M = 3.362$, $SD = 1.552$) were sometimes interested in using English only in their classroom.

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In conclusion, the participants generally felt engaged and interested during English lessons. They were often comfortable receiving instructions in English and confident speaking English in front of their teacher. Participants often followed classroom discussions and activities when the teacher used English and were often happy when the teacher used English. However, they were only sometimes interested in using English solely in English subject.

Meanwhile, the second section of the questionnaire about pupils' interaction was written to answer the second research question.

Table 4

Items	Mean	SD	Range
I participate in the class activities with my English teacher.	3.637	1.238	5
I speak English with my classmates and teacher.	2.844	1.386	6
I can communicate well in English during the class.	2.137	1.369	7
I feel comfortable when my teacher corrects my mistakes in English.	4.224	1.228	3
I feel that my teacher's corrections help me learn English better.	4.258	1.228	2
I am excited to get involved in the English activities with the teacher.	4.172	1.126	4
My teacher uses varied activities that encourage me to interact in the class.	4.586	0.676	1

The results from Table 4 provide valuable insights into the participants' attitudes towards their classroom interaction and participation in English. Based on the result shown in Table 4, the item with the highest item mean ranged as number 1 indicated that the participants ($M = 4.586$, $SD = 0.676$) observed that their teacher always used varied activities that encouraged them to interact in the class. The second highest item ranged as number 2 showed that the participants ($M = 4.258$, $SD = 1.228$) often felt that their teacher's correction helped them to learn English better. Similarly, the participants ($M = 4.224$, $SD = 1.228$) often felt comfortable when their teacher corrected their mistakes in English; followed by the participants (M

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= 4.172, SD = 1.126) were often excited to get involved in the English activities with the teacher. Furthermore, the participants (M = 3.637, SD = 1.238) demonstrated that they often participated in class activities with their English teacher. The mean for item 6 showed that the participants (M = 2.844, SD = 1.386) sometimes spoke English with their classmates and teacher. However, the lowest item was ranked as number 7 revealed that the participants (M = 2.137, SD = 1.369) could rarely communicate well in English during the class.

In short, the results showed that according to the participants the primary English teacher used varied activities to encourage interaction in the class. The participants also felt that teacher correction was helpful and felt comfortable when they were corrected. Participants were generally excited to be involved in English activities. However, they reported that they sometimes spoke in English with their classmates and teacher. Nevertheless, they felt that they rarely communicated well in English during the class.

The last section of the questionnaire is about pupils' perceptions towards the teacher's use of English in the classroom aimed to answer the third research question.

Table 5

Items	Mean	SD	Range
My teacher's use of English helps me understand English better.	4.137	0.867	4
It is easy to understand my teacher when she uses English in the class.	3.344	1.000	9
My teacher speaks slowly enough for me to follow.	3.758	1.301	6
My teacher uses clear and simple vocabulary to explain in English.	4.224	0.955	3
It is easy to understand grammar and other language concepts when my teacher explains in English.	3.672	1.247	7
I can comprehend and respond to the teacher's instructions or questions in English.	3.465	0.955	8
My teacher supports and encourages me to use English in the class.	4.517	0.731	1

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Teacher's constant use of English helps me improve my English language skills.	4.224	0.817	3
Teacher's use of English in the class prepares me for real-life situations where English is commonly used.	3.172	1.141	10
The teacher's use of English positively influences my motivation to learn and participate in the English subject.	4.327	0.998	2
I understand my teacher when she speaks in English.	3.775	0.955	5

Table 5 shows the degree of agreement on the pupils' perceptions towards their teacher's use of English in the classroom. It is clear from the results in Table 5 that the participants ($M = 4.517$, $SD = 0.731$) strongly agreed that their teacher supported and encouraged them to use English in the class. For the item ranked as number 2, the participants ($M = 4.327$, $SD = 0.998$) agreed that their teacher's use of English positively influenced their motivation to learn and participate in the English subject. Moreover, the participants ($M = 4.224$) agreed on two items: their teacher used clear and simple vocabulary to explain in English ($SD = 0.955$), and their teacher's constant use of English helped them improve their English language skills ($SD = 0.817$). Similarly, the item ranked as number 4 showed that the participants ($M = 4.137$, $SD = 0.867$) agreed that their teacher's use of English helped them to understand English better. The participants ($M = 3.775$, $SD = 0.955$) also agreed that they often understood their teacher when she spoke English.

Furthermore, the participants ($M = 3.758$, $SD = 1.301$) agreed that their teacher spoke slowly enough for them to follow. In addition, the participants ($M = 3.672$, $SD = 1.247$) agreed also that it was easy to understand grammar and other language concepts when their teacher explained in English. However, the participants ($M = 3.465$, $SD = 0.955$) were neutral about their ability to comprehend and respond to the teacher's instructions or questions in English. Similarly, the participants ($M = 3.344$, $SD = 1.000$) were also neutral towards the item ranked as number 9, which demonstrated that it was easy to understand their teacher when she used English in the class. The

lowest item was ranked as number 10, which showed that the participants ($M = 3.172$, $SD = 1.141$) revealed that their teacher's use of English in the class prepared them for real-life situations where English was commonly used.

In brief, participants generally agreed that their teacher effectively used English in the classroom. They strongly agreed that their teacher encouraged them to use English. Participants agreed that the teacher's constant use of English positively influenced their motivation and improved their English skills. The participants also agreed that they could comprehend and respond to the teacher's English instructions or questions in English, and they agreed that their teacher spoke slowly enough for them to follow. However, they were neutral about the ease of their understanding towards their teacher's use of English, and they were also neutral towards their teacher's use of English prepared them for real-life English situations.

Discussion

Based on the results from Table 3, the participants generally show positive attitudes in their English lessons, but their interest in using English is limited primarily to the classroom setting. The high levels of involvement and interest reported by participants are positive indicators. This finding implies that the classroom setting and teaching techniques are successful in capturing pupils' interest and fostering their enjoyment of studying English. The participants' comfort when receiving instructions in English and their confidence in speaking in front of the teacher are also significant. These factors contribute to a more relaxing and learning environment, which can facilitate language production and learning. This can be a strong foundation for language acquisition. This result is in line with Abukhattala's (2013) explanation when he said that a positive and supportive classroom environment is crucial for language acquisition because it allows the Language Acquisition Device (LAD) to benefit from the input.

The ability of participants to follow classroom discussions and activities when the teacher uses English indicates that the teacher's use of the language is generally comprehensible. This is crucial for effective language learning, yet pupils need to understand the input they receive to make progress. Pinter (2006) notes that primary school teachers speak English

frequently during lessons to maximise pupils' exposure to the target language. Pupils may not comprehend all the teacher's words, but they can often deduce the meaning from the situation through their teacher's actions and the materials used in teaching them. Crawford (2004) asserted that in EFL classrooms, it is fundamental for teachers to use the target language. This is because it often represents the main or even the only opportunity for students to hear and understand the language. To enable students to become proficient language users, teachers themselves need to use the language actively and transform schools into environments where the language is dynamically practiced.

For the results of Table 4, the most significant finding shows that the participants strongly agree with their teacher's constant use of varied activities to promote interaction. This is a crucial element of effective language teaching. Varied activities can cater to different learning styles, maintain pupils' involvement; besides that, changing the activities during the class can draw pupils' attention and boost their motivation, which is confirmed by the results of this study. This aligns with Scott and Ytreberg (1991), who likened foreign language learning to first language acquisition, highlighting children's attraction for fiction and imagination and their engagement with movements, visuals, and musical activities. Additionally, the authors stressed the need for varied activities to address. The authors also recommended dividing the classroom into groups considering children's natural tendency to socialise with their classmates.

The results in Table 4 also show that the participants generally appreciate their teacher's correction, which helps them learn when their mistakes are corrected. This result is significant in reinforcing the idea that constructive feedback plays a crucial role in language development. Several authors (Lightbown & Spada, 1993; Richards & Rodgers, 2014) asserted that teachers should not interrupt learners when they practise the language because learners may be demotivated to participate or distracted.

However, the lowest-rated item indicates that participants rarely feel they can communicate well in English during class raises a significant concern. Although the ability to communicate effectively is a primary goal of language learning, teachers can neither expect a high level of fluency

from the pupils nor the teachers can force them to communicate in the class because pupils are still at the primary level and are still exploring the new foreign language. Cameron (2001) claimed that asking pupils to retell a story in a foreign language after listening to it is very demanding. Young language learners must understand and produce appropriate language at the word, sentence, and speech levels. Speaking requires more skills than listening; hence, it requires careful and extensive support from both comprehension and production. According to Reilly and Ward (1997), language teachers must consider that young learners often require a significant period of language absorption before they start producing it. Compelling children to speak before they are ready to do so can result in considerable emotional distress. It is essential to recognise that language acquisition occurs even when children are not actively speaking. Moreover, some children may not speak in class but will demonstrate their learning through language use at home.

The results in Table 5 indicate that there is a strong agreement among participants regarding their teacher's support and encouragement of English use. This is a crucial finding because teacher's encouragement plays a significant role in fostering a positive learning environment and motivating pupils to take risks with the language. This aligns with research emphasising the importance of teacher support and positive reinforcement in language learning. For instance, Wallace and Leong's (2020) results showed that pupils had positive views towards their teacher's support and motivation, which encouraged them to learn English. In addition, feelings of demotivation could be reduced by having a supportive teacher. Pupils' motivation to interact with the learning material increases when they believe that their teachers care about their welfare.

However, the lowest agreement is on preparing pupils for real-life English situations. Based on my own experience, I believe that the reason behind the low level of agreement regarding the teacher's use of English in preparing participants for real-life situations is that the topics in the fifth-grade English textbook may not equip pupils for real-life communication. The textbook topics focus on "Country Information File," such as facts about other countries (e.g., Oman, India, Lebanon, & London) and other

topics; for instance, insects, names of countries, and nationalities. These topics lead teachers to deliver information stipulated by the textbook designers which often has nothing to do with real-life situations. Such topics are beyond pupils' comprehension; thus, the content may not contribute to developing pupils' fluency in English. This is supported by Westwood (2008), teaching methods and curriculum content should align with the learner's age, be suitable within social and cultural contexts, and meet individual needs. Moreover, Moon (2005) asserted that the curriculum and materials should be attractive and appropriate for pupils' cognitive and language skills, considering their traits and learning preferences. For young learners, this often means a hands-on approach, i.e., relevant and uses real objects, prioritises communication, incorporates play, initially focuses on speaking, provides strong teacher support, and aligns with their cognitive capabilities.

Implications

The results provide meaningful implications for English language teaching, particularly in the context of enhancing pupils' interest, comfort, and language use in the classroom. The high mean score presents pupils' involvement and interest during English lessons which suggests that the current teaching strategies are effective in capturing pupils' attention and interest. This implies that continuous usage of interactive and student-centred activities promote interaction such as communicative activities, games, and the Total Physical Response method. Second, the fact that participants were often comfortable receiving instructions and explanations in English highlights the importance of consistent use of English as the medium of instruction. This level of comfort implies that immersion in the language is beneficial for comprehension and encourages the acquisition process. Therefore, teachers should maintain and increase their use of English in teaching young learners. Pupils also reported feeling confident when speaking English in front of their teacher which indicates that the classroom environment is supportive and reduces anxiety which assists speaking skill development. Teachers should benefit from this confidence by providing more speaking opportunities such as role-playing and peer dialogues to boost pupils' fluency. The ability of pupils to follow classroom

discussions and activities in English reinforces the idea that exposure to English input develops comprehension. This implies that teachers should continue integrating the use of the English language into all aspects of classroom activities and increase the complexity of the language gradually to support language growth.

Additionally, the results offer significant implications for enhancing classroom interaction and pupils' participation in English language learning environments. The high mean score for the item stating that teacher consistently used varied activities to encourage interaction suggests that such strategies are highly effective in encouraging pupils. This implies continued utilisation of different activities such as group work, games, role-playing, and practical tasks stimulate pupils' involvement and create an active classroom atmosphere. The results also indicate that error correction plays a supportive role in learning, as many participants felt that their teacher's corrections helped them improve and made them felt comfortable when they were corrected. This suggests that constructive and encouraging feedback helps pupils learn the language faster. Teachers also should take into account creating a safe space where pupils feel secure and motivated to take risks and learn from their mistakes. Training primary school teachers to use positive correction techniques can further enhance pupils' confidence.

Moreover, participants reported feeling enthusiastic about participating in activities with their teacher, which assures the importance of the teacher-student relationship in increasing pupils' motivation and enthusiasm. Teachers who show genuine interest in pupils' involvement can significantly influence pupils' willingness to interact in class. While participants showed a moderate level of participation in class activities, the low frequency of using English with peers and teacher, and particularly their struggles to communicate effectively in English reveal a critical area for improvement. These results suggest that while pupils enjoy participating and are open to interaction, their actual use of English remains limited, especially in peer communication. This implies a need to increase opportunities for authentic language use among pupils such as through pair work, small group activity, and communicative tasks that promote real conversations. Teachers should foster the intensive use of English in EFL

classrooms. They should also consider that pupils are EFL learners and they are in the initial stage of learning. In this phase, they are figuring out the foreign language instead of using it, because they need time to absorb it. They may say words or phrases in English, but they will not be able to express themselves perfectly.

Teacher's consistent and supportive use of English in the classroom has a strong positive influence on pupils' motivation, understanding, and language development. Pupils' agreement with teacher's encouragement and the use of simple and clear vocabulary indicates that these strategies are effective in building pupils' confidence and involvement in English lessons. When teachers encourage pupils to use English and make their input comprehensible, pupils become active in the class and their skills are improved as well, especially in listening and speaking. These results imply that teacher's language use plays a crucial role in shaping the learning environment. For young learners, exposure to English through meaningful input can enhance comprehension and boost motivation. Pupils felt their teacher's use of English improved their language skills, which highlights the importance of maximising target language use in EFL class, particularly when delivered in a clear and understandable manner.

The low level of agreement regarding the role of the teacher's English use in preparing pupils for real-life communication highlights a significant gap between classroom content and practical language use. This suggests that while teachers may use English in the classroom, the curricular content itself may not support the development of communicative competence in real-world contexts; for example, when the textbook topics are abstract or unrelated to pupils' daily experiences such as learning about distant countries or insects. They fail to equip learners with the language skills necessary for authentic communication. This result has important implications for curriculum developers, teachers, and educational policymakers. There is a clear need to revise and adapt English language materials to include content that reflects real-life and age-appropriate lessons. The topic should align more closely with pupils' everyday environments, interests, and communicative needs such as talking about family, school routines, shopping, and simple social interactions. This shift

would support pupils in using English accurately in different real-life situations.

Limitation of the Study

There were two pupils absent on the day of distributing the questionnaire for data collection. There is also a dearth of resources regarding the attitudes, interactions, and perceptions of pupils pertaining to their teacher's use of English in the EFL classroom. All studies examined how pupils felt about studying English.

Conclusion

This study delves into pupils' attitudes, interactions, and perceptions towards their teacher's use of English in an EFL classroom. The results showed that the participants had positive attitudes to their teacher's use of English. They revealed that their teacher utilised diverse activities which encouraged them to participate in the class. The questionnaire results showed that they strongly agree that their teacher supports and encourages them to use English in the class. However, the participants revealed that they could not communicate very well with their classmates and their teacher's use of English does not prepare them for real-life situations. This is attributed to the textbook contents, which unable to equip pupils with topics that benefit them in a real-world context. Thus, it forces primary school teachers to use the language that matches the lesson requirements.

Recommendations

Based on the results of the study, there is a need for the Ministry of Education and book designers to re-evaluate English fifth-grade textbooks and provide lessons that can benefit the Libyan primary school pupils in real-life situations. In addition, primary school teachers should use English in their classes, vary their activities, and encourage their pupils to learn the language.

References

- Abdallah, M. M. (2024). Effective principles of teaching English as a foreign language: Useful ideas and guidelines. Online Submission.
- Abidin, M. J. Z., Pour-Mohammadi, M., & Alzwari, H. (2012). EFL students' attitudes towards learning English language: The case of Libyan secondary school students. *Asian social science*, 8(2), 119.
- Abugadam, B. N. (2023). *English teachers' pedagogical knowledge and implementation of Total Physical Response at primary schools in Misurata* (Unpublished master's dissertation). The Libyan Academy-Misurata.
- Abukhattala, I. (2013). Krashen's five proposals on language learning: Are they valid in Libyan EFL classes. *English Language Teaching*, 6(1), 128-131.
- Amara, N. (2015). Errors correction in foreign language teaching. *The Online Journal of New Horizons in Education*, 5(3), 58-68.
- Broughton, G., Brumfit, C., Pincas, A., & Wilde, R. D. (2002). *Teaching English as a foreign language*. Routledge.
- Cameron, L. (2001). *Teaching languages to young learners*. Cambridge university press.
- Crawford, J. (2004). Language choices in the foreign language classroom: Target language or the learners' first language?. *Relc Journal*, 35(1), 5-20.
- Curricula and Educational Research Centre. (2019). *21st Century English for Libya-Primary 5 Teacher's Book*. Garnet Education.
- Elibariki, M. (2017). Challenges facing primary school pupils in learning English as a foreign language: A case of primary schools in Itigi District Council (Doctoral dissertation, The Open University of Tanzania).
- Firat, A. (2009). A study on young learners' attitudes towards learning English (Doctoral dissertation, Master Thesis, Unpublished. Turkey: Adana: Çukurova University).
- Good, C. V., & Scates, D.E. (1972). In Palmer-Calmorin, L., & Calmorin, M.A. (1997). *Statistics in Education and the Sciences*.
- Kızıltan, N., & Atlı, İ. (2013). Turkish young language learners' attitudes towards English. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 28(28-2), 266-278.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
- Kumar, R. (2011). *Research methodology: A step-by-step guide for beginners* (3rd ed.). Sage.
- Lightbown, P. M., & Spada, N. (1993). *How languages are learned*. Oxford University Press.
- Mat, S. S. C., & Yunus, M. M. (2014). Attitudes and motivation towards learning English among FELDA school students. *Australian Journal of Basic and Applied Sciences*, 8(5), 1-8.

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- Moon, J. (2005). Teaching English to young learners: the challenges and the benefits. British Council, 30-34.
- Petrides, J. R. (2006). Attitudes and motivation and their impact on the performance of young English as a foreign language learners. *Journal of language and learning*, 5(1), 1-20.
- Pinter, A. (2006). *Teaching young language learners*. Oxford University Press.
- Rachmajanti, S. (2008). Impact of English instruction at the elementary schools on the students' achievement of English at the lower secondary school. *TEFLIN Journal*, 19(2), 160-185.
- Reilly, V., & Ward, S. M. (1997). *Very young learners*. Oxford University Press.
- Richards, J. C., & Rodgers, T. S. (2014). *Approaches and methods in language teaching* (3rd ed.). Cambridge university press.
- Riddell, D. (2010). *Teach English as a foreign language*. (No Title).
- Scott, W. A., & Ytreberg, L. H. (1991). *Teaching English to children*. Longman.
- Wallace, M. P., & Leong, E. I. L. (2020). Exploring language learning motivation among primary EFL learners. *Journal of Language Teaching and Research*, 11(2), 221-230.
- Westwood, P. S. (2008). *What teachers need to know about teaching methods*. ACER Press