

**Scrutinizing Grammatical Challenges
within Indonesian-developed Mobile Game: ‘Code Atma’**

Erina Andriani

erinaelisabet@gmail.com

Sanata Dharma University of Yogyakarta, Indonesia

Article History:

Received: 6 June 2022

Accepted: 2 December 2022

Keywords:

code atma game; error
analysis; grammatical
challenges; mobile game

The use of another language can cause barriers to transferring ideas from one language to another, such as grammatical challenges. It happens when the structures for delivering information are different within languages. Grammatical challenges can also occur for Indonesian EFL users. To combat this, various media are continuously developed to assist with language learning and give exposure to the English language in use. Games are an example of excellent learning sources that provide texts, descriptions, and stories. However, games might not be developed by natives and could potentially contain errors. Yet, previous research rarely conducted grammatical error analysis on games. Therefore, this study aimed to investigate the grammatical challenges within the Code Atma game. This study used document analysis to evaluate the grammatical accuracy of the passages in Code Atma. The findings showed that there were 630 grammatical errors, with verb errors accounting for the highest percentage and incomplete sentences for the lowest. is-selection was the type with the highest number of errors, while blends were the lowest. The implications of this study are the improvement of the game’s grammatical aspect, the use of games as EFL learning sources, and the identification of grammatical errors using error analysis.

INTRODUCTION

Grammar is essential in a language as it regulates the components of language to achieve effectiveness in communication. Different language possesses different grammar. Some grammar rules from different languages can be very similar in certain aspects, but very different in the others (Rana, Owaidh, & Harbi, 2019). This may lead to confusions and challenges in transferring the message from one language to another (Catford, 1965). Non-native speakers sometimes do literal translation to the target language, which may cause grammatical errors (Aini, 2018; Heryanti, Sucipto, & Makmur, 2017). Previous studies have revealed the influence of L1 grammatical rules on the grammatical errors in L2 through grammatical error analysis (Khumphee & Yodkamlue, 2017; Heryanti et al., 2017; Rana et al., 2019).

The study on linguistics also often covers the study on grammar use, including grammatical challenges. Khumphee and Yodkamlue (2017) argue that grammatical challenges in form of errors cannot be avoided, at least at the early stages of target language use. In Indonesian context, this case of grammatical error towards English language may be more common than other countries with English as their second language, as English is not often as often. As the Indonesian people are not used to using English, their grammatical accuracy in English may be lower than in Indonesian. It is even more challenging as the root of English language and Indonesian language are different (Aini, 2018), leading to significant grammatical differences. The English as Foreign Language (EFL) users may face difficulties and make more grammatical errors as they lack the grammatical fluency, which lets the language users to adjust their grammatical knowledge based on the context of use (Sakaguchi, Napoles, Post, & Tetreault, 2016). Therefore, transferring information to the target language can still be difficult, that even a big platform that relies heavily on the texts in English such as games can make grammatical errors.

Many types of games provide stories, whether in form of plots of the game or character introduction, to engage the players. Some game types, such as visual novels, even rely mainly on the playable stories. These types of game can be learning

sources for language learners (Hidayat, Imani, & Ma'arif, 2021), as they provide engagement and entertainment for the students. In addition, they are great sources of actual use of language examples for the students but in an attractive form (Jabali, Supriyono, & Nugraheni, 2020; Kurniawan, Jamaludin, & Heryana, 2020). As a platform that relies heavily on texts, it is crucial for the games to reduce grammatical errors in the stories and descriptions. Even if those games are not intended for language learning, reducing grammatical errors can help avoiding possible confusions for the players (Heryanti et al., 2017). Though previous studies have revealed the use of game as the source of target language and investigated the grammatical errors in texts (Amalo, Agusalm, & Murdaningtyas, 2017; Atashian & Al-Bahri, 2018; Hidayat et al., 2021; Kumala, Aimah, & Ifadah, 2018; Kusumawati, 2020; Qamariah, Sri Wahyuni, & Meliana, 2020), to the best of the researchers' knowledge, they rarely conducted grammatical error analysis on games, especially those made by non-native developers. Therefore, this study intended to conduct grammatical error analysis on an Indonesian-developed game, Code Atma. The research question for this study is "What are the common types of grammatical errors in the texts from Code Atma Game?" This study may promote the improvement of English language usages within games, whether for entertainment or language learning media and the use of games to provide actual examples of English language in use.

Languages have sets of rules to govern their use and delivery. Different languages often have different grammatical rules, and they sometimes are affected by different roots of the languages (Aini, 2018). Therefore, the grammar of one language may be different from the grammar for another language. The grammatical rules are the framework of a language that rule the form, meaning, and usage (Hsu, 2013). They also regulate the structures, punctuations, word choices, and spellings, among other aspects (Din & Ghani, 2019). They are important for communication, especially in order to avoid ambiguity and misunderstanding. People use grammar in spoken and writing contexts to communicate with others and it helps the users to adjust based on the messages and occasions (Erlina et al., 2019). The use of grammar in spoken language may not be as emphasized as in writing, as in writing, people

Erina Andriani

need to carefully mind the grammar use and syntactic accuracy (Fithriani, 2020; Marzulina et al., 2019; Mukminin et al., 2019).

The differences in grammatical rules from one language to another may contribute to the challenges in mastering the grammar of the target language. For example, Bahasa Indonesia and English have different sets of sounds and spelling rules. This difference causes the users from each language to have the difficulties in pronouncing and spelling the words (Fadda, 2012). Another example, in Bahasa Indonesia, the plurality of words does not influence the forms of the verbs or predicates, unlike in English. This concord or subject-verb agreement may be another challenge for EFL learners, especially if they do not have this type of rule in their native language (Fadda, 2012). Aside from the plurality and verb form, another example related to the verb form is tenses. Some languages may not change the verb form due to the temporal influence, like Bahasa Indonesia. This may be a challenge, as the absence of temporal influence may cause confusions in distinguishing different tenses and therefore cause grammatical inaccuracy (Atashian & Al-Bahri, 2018). Not only the form and structure, the grammatical changes also influence the meaning of sounds or words, so target language users need to be wary of the word choices and use the proper vocabulary (Olsen, 1994). Indeed, their native language may influence the use EFL users, and may be one of the factors (Watcharapunyawong & Usaha, 2013) that causes challenges in learning and applying a new language.

The challenges in transferring the grammar to one language to another may lead to grammatical errors. The error in this case is the alteration from the proper grammar (Najla & Fatimah, 2020), that shows the EFL learners' language proficiencies. Experts make distinctions between grammatical errors and mistakes, where mistakes refer to the 'slips' that are not systematic (Brown, 2000). Even native speakers can make grammatical mistakes. However, errors refer to the use of incorrect grammatical forms, meanings, and usages (Hsu, 2013), which can be systematic or repeated. The differences in the grammar from the native language can make foreign language learner to make grammatical errors (Derrick, Paquot, &

Plonsky, 2018; Khumphee & Yodkamlue, 2017), such as the forms of noun, omissions, or sentence structures. In addition to the interference of the native language, there are several other sources of grammatical errors. Iamsiu (2014) shares four factors of grammatical errors, including overgeneralization, rule restriction ignorance, incomplete rule application, and false concepts. Brown (2000) argues that there are two sources of errors, including interlingual the native language interference (interlingual error) and the lack of target language proficiencies as influenced by the difficulty of the grammar (intralingual transfer). To improve grammar use, language learners need to know the sources of their grammatical errors and evaluate their grammatical errors.

One way to identify the errors in a written or spoken text is to conduct a grammatical error analysis. An error analysis (EA) is a way that helps students or researchers in identifying, grouping, and elaborating the errors within certain sources (Corder, 1967; Khumphee & Yodkamlue, 2017; Heryanti et al., 2017). In case of grammatical error analysis, it collects the improper use of language forms and classify them (Crystal, 2018). This grammatical error analysis can be a helpful tool to show the language learners' knowledge of their target language, so they can evaluate their language learning process (Corder, 1967; Fithriani, 2020; Promsupa, Varasarin, & Brudhiprabha, 2017). For example, if the language learners have higher error in their verb use compared to their preposition use, the lesson can focus more in improving their verb use for a more effective learning process. The grammatical error analysis may focus on several language aspects, including in form of the wrong language forms, meanings, and uses (Hsu, 2013; Kumala et al., 2018; Qamariah et al., 2020).

There are several perspectives regarding the target aspects of grammatical error analysis. For instance, James (1998) shared five types of errors, including omission (the absence of certain needed items), over-inclusion (the addition of unnecessary items), misselection (the wrong used item), misordering (the wrong order of morphemes), and blends (the use of two grammatical forms which resulting in something ungrammatical). Atashian and Al-Bahri (2018) shared seven

grammatical errors, including tenses, concords, apostrophes, adverbs, passive voice, pronouns, and punctuations. Taşçi and Aksu Ataç (2018) shared the errors regarding the incorrect use of parts of speech. Others argued more error components, including 11 (Qamariah et al., 2020), 12 (Heryanti et al., 2017), 26 (Khumphee & Yodkamlue, 2017), to 32 (Promsupa et al., 2017) components of grammatical errors for English language. They revolve in similar categories, including the use of parts of speech, punctuations, proper words to convey certain meanings, tenses, inclusion or omission or certain morphemes or verbs, concord, and noun plurality among many other varieties.

Previous studies have conducted grammatical error analysis to reveal and evaluate the use of English as foreign language (EFL). Fithriani (2020) shared the grammatical error analysis conducted on social study and mathematics and natural science students' writing, and showed that MNS students created more errors than SS students, and that omission was the highest type of error done by the students. Similarly, Kumala et al. (2018) revealed the results of grammatical error analysis and found that omission was the highest type of grammatical error. Khumphee and Yodkamlue (2017) found 4.909 errors and shared 26 found types of grammatical errors, with punctuation as the overall highest type of error found and noun plurality as the highest type of grammatical error caused by L1 influence. Similarly, Promsupa et al. (2017) found 32 sub-types of grammatical errors under morphological and syntactical error types and found that noun plurality was the highest sub-type of grammatical error. To improve grammar accuracy, a game can be an engaging media to provide exposure for English grammar in use. Amalo et al. (2017) shared that games, especially visual novel games can be used to enhance language knowledge and even developed the game for English learners. Kusumawati (2020) shared that a game could help the students' understanding on provided stories within the game, but found that subtitles were ineffective in improving their vocabulary. Games can be an effective tool to introduce language use of the target language while engaging them; however, the grammatical error analysis on games had not been greatly explored yet, perhaps as they were expected

to minimize the grammatical errors. Due to the possible prospective of games as one of learning media sources, the researcher intended the exploration of grammatical errors within an Indonesian-developed game Code Atma.

METHOD

This research employed qualitative research with document analysis. Document analysis allowed the use texts as the data source (Creswell, 2012; Reger & Kincaid, 2021). The data were gathered from the passages within Code Atma game. Code Atma is a turn-based RPG game that provides stories as the context while the players progressing in the game. In this research, the passages are limited to: the chapter stories, the compendium (Atma/character) stories, the skill descriptions, the lore, and the announcements. Therefore, this study used purposive sampling to gather the data (Ary, Jacobs, Sorensen, & Razavieh, 2010) to select the sources from those categories. There were seven chapters, two compendium stories, Atma lore and skill descriptions from 27 Atma, and 22 announcement and notice texts used in this study. The study was conducted on January to February 2022.

This research used a structured observation sheet as the instrument to gather the data. The instrument was based on the theories by Fithriani (2020), James (1998), Taşçi and Aksu Ataç, (2018); Promsupa et al. (2017), Rana et al. (2019) resulting in 11 items, including: parts of speech, incomplete sentence, and punctuation, and 5 types of error, including omission, over inclusion, miss-selection, miss-ordering, and blends. To analyze the data, the researcher first read through the story chapters, compendiums, skill descriptions, and announcements. During reading the texts, the researcher reviewed the sentences to assess the grammatical accuracy for each sentence and the components based on the instrument. As the texts were still in form of digital corpus within the game, the researcher transcribed the passages and highlighted the found grammatical errors to code them and record the grammatical inaccuracies into the instrument. Then, the researcher used the items in the instrument (rubric) to group the data into their respective grammatical error categories. To provide further validity, the researcher

used Grammarly application and assigned a proof-reader. The results then were presented in groups based on the categories using percentages.

FINDINGS AND DISCUSSIONS

This study tried to evaluate the grammatical challenges experienced by an Indonesian-made RPG mobile game: Code Atma. The grammatical challenges might occur within its stories, instructions, descriptions, and announcements. Previous studies have evaluated grammatical challenges by conducting grammatical error analysis (EA), resulting in errors in parts of speech, capitalizations, syntactic constructions, or punctuations (Khumphee & Yodkamlue, 2017; Promsupa et al., 2017; Rana et al., 2019). In addition, James (1998) grouped those errors into five categories, including omission, over-inclusion, blend, incorrect selection, and incorrect order.

After conducting the study, the researcher found total 630 grammatical errors from the texts available in Code Atma game. The distribution of those errors is as follows: 38 errors in 27 Atma's lore texts, 35 errors in 22 announcement texts, 33 errors in 27 skill descriptions, 234 errors in compendium from three Atmas, and 290 errors from seven story chapters (Table 1). The number of errors might seem to be gradually larger, but the lengths of the text from each category also got longer. Among those text sources, the verb form had the highest number of errors.

The number of errors might seem to be gradually larger, but the lengths of the text from each category also got longer. Though, it is worth to note that the errors in the main stories were significantly lower than in Compendium stories, with exception in main story's Chapter 7. Among those text sources, the *verb form* was the element with the highest number of errors, with more than half number of errors (>50%) from each text category. This is in line with Fithriani (2020), Heryanti et al. (2017), Khumphee and Yodkamlue (2017), and Qamariah et al. (2020). The second highest number of errors belonged to *punctuation* for Compendium (12.4%) and main story (29.3%) chapters, in line with Heryanti et al. (2017) and Khumphee and Yodkamlue (2017), that punctuation errors often occur. Other text categories had different elements with the second highest number of errors, including *determiner*

in skill descriptions (14.7%), *noun* in announcement (20%), and *conjunction* errors in Atma lore (13.2%). This finding regarding the determiner is in line with Fithriani (2020), Heryanti et al. (2017), Hikmah (2020), and Rana et al. (2019). The findings regarding the noun is in accordance with Fithriani (2020), Khumphee and Yodkamlue (2017), and Promsupa et al. (2017), that noun errors occur quite several times. The results regarding conjunction errors are in line with Fithriani (2020), but in contrast to Khumphee and Yodkamlue (2017). Other elements had very low errors (<10%) and some elements, such as *pronoun*, *preposition*, *adjective*, *adverb*, *word choice*, and *dependent clause*, did not even have any error in several text sources. The *dependent clause* category (incomplete sentence) even only occurred once. The results regarding the low occurrences of preposition and word choice are in contrast to Heryanti et al. (2017), Promsupa et al. (2017), and Rana et al. (2019), while the findings regarding the low occurrences of pronoun and adverb are in contrast to (Atashian and Al-Bahri (2018). The low adjective and incomplete sentence errors are in line with Khumphee and Yodkamlue (2017).

Table 1. Errors within Code Atma Game

Errors	Atma Lore		Announcemen t		Skill descriptio n		Compendiu m chapters		Main story chapters	
	n	%	n	%	n	%	n	%	n	%
Noun	3	7.9	7	20	3	8,8	6	2.6	5	1.7
Verb	2	65.	20	57	23	67.6	160	68.4	15	54.
	5	8							7	1
Pronoun	1	2.6	1	2.9	2	6	6	2.6	5	1.7
Determiner	-	-	1	2.9	5	14.7	2	0.8	-	-
Conjunctio n	5	13.	1	2.9	-	-	17	7.3	21	7.2
		2								
Preposition	1	2.6	-	-	-	-	5	2.1	10	3.5
Adjective	-	-	-	-	-	-	4	1.7	3	1
Adverb	-	-	-	-	1	2.9	2	0.8	2	0.7

Erina Andriani

Punctuation	2	5.3	2	5.7	-		29		85	29.3
								12.4		3
Word choice	1	2.6	3	8.6	-		3		1	
								13		0.4
Dependent clause	-	-	-	-	-	-	-	-	1	0.4
Total	3	100	35	100	34	100	234	100	29	100
	8								0	

The results in Table 1 show the grammatical challenges within the passages found in Code Atma game. The errors within the found eleven elements could be categorized into five types of errors, in accordance to Hikmah (2020), James (1998), and Kumala et al. (2018). Those types are: omission, over-inclusion, blend, incorrect selection, and inaccurate placement. The 630 errors were categorized into those five categories, as presented in Table 2.

Table 2. Types of Errors within Code Atma Game

Errors	Atma Lore		Announcement		Skill description		Compendium chapters		Main story chapters	
	n	%	n	%	n	%	n	%	n	%
Omission	13	34.2	21	60.1	26	76.5	54	23.1	84	29
Over-inclusion	1	2.6	6	17.1	2	5.9	14	6	15	5.2
Mis-selection	18	47.4	6	17.1	5		155		186	
						14.7		66.2		64.1
Mis-ordering	6	15.8	2	5.7	1		11		4	
						2.9		4.7		1.4
blends	-	-	-	-	-	-	-	-	1	0.3
Total	38	100	35	100	34	100	234	100	290	100

When the researcher identified the errors in the text, the researcher also recorded in what way the grammatical errors were considered inaccurate. The errors then were grouped into five categories, as presented in Table 2. The categories with the highest number of errors are *mis-selection* for main story (64.1%), Compendium (66.2%), and Atma Lore (47.4%) text sources and *omission* for announcements (60.1%) and skill descriptions (76.5%). The high occurrences of omission are in line with Kumala et al. (2018), while the high occurrences of mis-selection category are in line with Fithriani (2020). The categories with the second highest number of errors are *omission* for Atma Lore (34.2%), Compendium (23.1%), and main story (29%) texts; *mis-selection* for announcements (17.1%) and skill descriptions (14.7%); and *over-inclusion* for announcements (17.1%). Mis-ordering type of error got especially high in Atma lore texts (15.8%). Other than those, over-inclusion and mis-ordering had low occurrences (<10%), while blends only appeared once, in the main story. The low occurrences of over-inclusion category contradict the results from Fithriani (2020) and Kumala et al. (2018) that share over-inclusion appeared quite often. However, the low appearances of mis-ordering and blends are in line with Fithriani (2020).

Every floors have prizes that you can win.

Figure 1. Noun and Verb Errors (announcement)

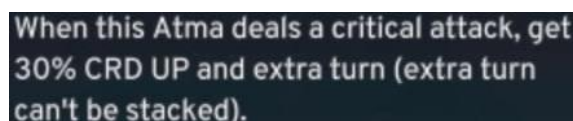
In most cases, the errors occurred within one sentence. In Figure 1, the errors regarding the concord in one sentence occurred, and it included the errors for verb and noun elements. The determiner *every* is followed by a singular form of noun (Azar & Hagen, 2016), so the *floors* that follows it is wrong. The error occurred from the extra 's' that indicated plural, so the error was categorized into over-inclusion of the suffix -s. As for the verb, it should be a singular verb because the subject is singular (Azar & Hagen, 2016; Khumphee & Yodkamlue, 2017; Rana et al., 2019), with added -s in the end, so the verb form *have* is incorrect. The verb was

mis-selected, so the error got into mis-selection category, in line with Fithriani (2020).

As the days passed, the heavier Drona heart became. What if the Pandawas

Figure 2. Pronoun Error (Compendium-Drona)

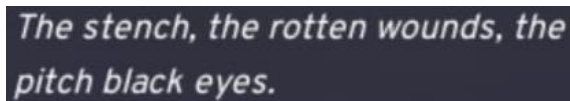
Figure 2 is an example for pronoun errors found in Code Atma game. There are several categories of pronoun; one of them is possessive pronoun (Azar & Hagen, 2016; Khumphee & Yodkamlue, 2017). To indicate possessive, one can alter the pronoun forms or add 's after the subject (Khumphee & Yodkamlue, 2017). However, in Figure 2., in the noun phrase *Drona heart*, it lacks possessive pronoun ('s) that indicates the heart belongs to Drona. As the error is caused by the lack of pronoun, it is categorized into omission (Kumala et al., 2018).



When this Atma deals a critical attack, get 30% CRD UP and extra turn (extra turn can't be stacked).

Figure 3. Determiner Error (skill description)

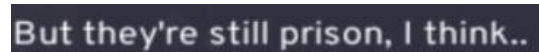
All determiner errors in Code Atma game fell into omission category. An example for determiner error is presented in Figure 3. To indicate singular noun, article *a/an* is often precedes the phrase (Heryanti et al., 2017; Qamariah et al., 2020; Rana et al., 2019). In this case, the first phrase *extra turn* lacks the article *an*, as it is an indefinite noun phrase, and the second *extra turn* phrase in the parentheses lacks the article *the* as the readers know now what extra turn is being talked about, based on Azar & Hagen (2016), Hikmah (2020), and Khumphee and Yodkamlue (2017). This sentence lacks determiners, thus the type of error is omission, in line with Fithriani (2020).



The stench, the rotten wounds, the pitch black eyes.

Figure 4. Conjunction and Punctuation Errors (main story-Chapter 1)

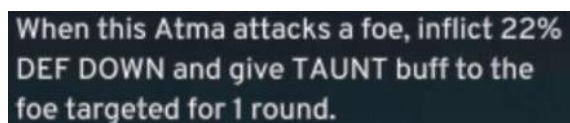
Figure 4. shows an example of conjunction and punctuation errors. This sentence has an error due to the lack of conjunction *and* to connect the noun phrases (Fithriani, 2020). There should be a conjunction after the comma and before *the pitch black eyes* phrase. In addition, the pre-modifier for eyes, *pitch black* needs a hyphen to connect '*pitch*' and '*black*' (Azar & Hagen, 2016). As this sentence lacks conjunction *and* and a hyphen, the errors are included in omission category, in accordance to Kumala et al. (2018).



But they're still prison, I think..

Figure 5. Preposition Error (main story-Chapter 7)

The occurrences of preposition error were rather low in all text sources. Figure 5 shows an example of preposition error from the main story. The chunk *they're still prison* does not make sense, as it lacks a preposition *in* to indicate location (Azar & Hagen, 2016), so it becomes '*they're still in prison*'. As the sentence lacks the preposition, the error is categorized as omission (James, 1998).

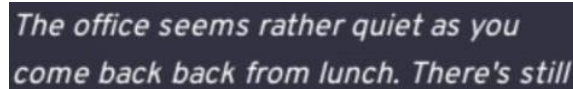


When this Atma attacks a foe, inflict 22% DEF DOWN and give TAUNT buff to the foe targeted for 1 round.

Figure 6. Adjective Error (skill description)

Figure 6 shows another error found in Code Atma game, specifically the adjective element. The phrase *the foe targeted* is supposed to be a noun phrase, in accordance to Wright and Hope (1996). However, the placement of the adjective *targeted* is mis-located, as it needs to precede the noun *foe* (Andriani, Noviani, &

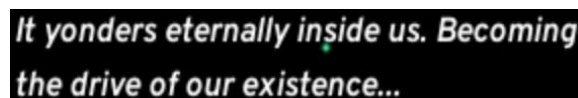
Bram, 2021). Therefore, that phrase is considered as an error and the type of error is mis-location (Fithriani, 2020) due to the misplacement of the adjective.



*The office seems rather quiet as you
come back back from lunch. There's still*

Figure 7. Adverb Error (main story-Chapter 6)

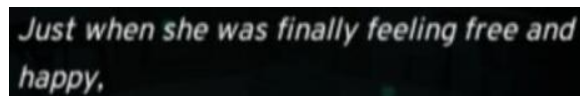
Over-inclusion was one of the types of error with low appearances in most of the text sources, along with mis-location. One example of over-inclusion is an adverb error, as shown in Figure 7. In this case, the adverb *back* followed the verb *come*, and it was a proper placement (Azar & Hagen, 2016). However, the adverb *back* was repeated, which was abundant (Heryanti et al., 2017). Therefore, it was classified as an error, and it went to over-inclusion category (James, 1998), as the adverb was repeated.



*It yonders eternally inside us. Becoming
the drive of our existence..*

Figure 8. Word Choice Error (main story-Chapter 0)

The next error is regarding the word choices. This error only occurred less than ten times in the observed text sources. Figure 8 is an example of word choice error. In this case, the word *yonders* is an error, as its placement and meaning in the sentence do not link with the rest of the words in the sentence. According to Oxford Learner's Dictionaries, the word *yonder* is defined as 'over there' (www.oxfordlearnersdictionaries.com, accessed in February 2022). It is grammatically and semantically inaccurate to be placed in this sentence after the subject to replace the predicate. The writer might want to use the word *wanders*, which could make sense. Therefore, this sentence has a word choice error (Heryanti et al., 2017), and the error belongs to the mis-selection category (Fithriani, 2020), as the writer incorrectly choose the word *yonder* in place of something else.



Just when she was finally feeling free and happy,

Figure 9. Dependent Clause Error (main story-Chapter 3)

The last error is dependent clause or incomplete sentence error. This type of error occurred once in the game. As presented in Figure 9, the clause *'just when she was finally feeling free and happy'* is not a complete sentence, yet, because the conjunction *just when* is a subordinating conjunction that requires an independent clause to complete it, in line with Khumpee and Yodkamlue (2017). As this sentence lacks an independent clause, the error is categorized as omission error, as stated by James (1998).

The researcher evaluated the grammatical challenges within an Indonesian-developed game, Code Atma. This game is an excellent example for promoting Indonesian culture and folklore into an entertaining format using English language, which allows broader target users. The researcher found 630 grammatical errors within the game text sources, including the announcements, Lore, skill descriptions, Compendium, and main stories. The errors mostly were in form of verb errors, along with other errors in a smaller number of occurrences regarding the noun, conjunction, adverb, punctuation, determiner, pronoun, preposition, adjective, word choice, and dependent clause (Heryanti et al., 2017; Khumpee & Yodkamlue, 2017; Promsupa et al., 2017; Rana et al., 2019). Those errors were categorized into omission and mis-selection, as the types with the most errors, along with mis-ordering, over-inclusion, and blend (Fithriani, 2020; James, 1998; Kumala et al., 2018). Though the game might have quite some errors, it is a good start to take revolutionize Indonesian tales and stories into an entertaining platform with English language, which can be enjoyed by international users. In addition, it can also be a fun learning media for English as Foreign Language (EFL) learners to be exposed with English language from which they can learn (Amalo et al., 2017; Hidayat et al., 2021; Kusumawati, 2020).

CONCLUSIONS AND SUGGESTIONS

This study investigated the grammatical challenges within an Indonesian-developed idle game, Code Atma. 630 grammatical errors were found within the text sources in the game, including in the announcement, Lore, skill description, Compendium, and main story texts. The verb errors occurred the most, more than half of the number of errors, and followed by the errors regarding the noun, conjunction, adverb, punctuation, determiner, pronoun, preposition, adjective, word choice, and incomplete sentence. Those errors were categorized into five types of errors, with omission and mis-selection as the types with the most errors, along with mis-ordering, over-inclusion, and blend with the least number of errors. This game is an excellent example for promoting Indonesian culture into an entertaining game using English language, which can be enjoyed by international users. The implications of this study are for the improvements of the game's grammatical aspect in their texts, for the EFL students and teachers to utilize games, such as Code Atma, as a learning media to get English language in use exposure from which they can learn, and for them to observe and identify the grammatical errors using error analysis. This study is still limited from the data source and validity perspectives. Further researchers are suggested to find more convincing ways to validate the results and expand the data sources.

REFERENCES

- Aini, N. (2018). The grammatical errors in the translational text: Indonesian-English structure. *Tell: Teaching of English Language and Literature Journal*, 6(2), 55. <https://doi.org/10.30651/tell.v6i2.2109>
- Amalo, E. A., Agusalim, I. D., & Murdaningtyas, C. D. (2017). Developing visual novel game with speech-recognition interactivity to enhance students' mastery on English expressions. *Jurnal Sosial Humaniora*, 10(2), 129. <https://doi.org/10.12962/j24433527.v10i2.2865>
- Andriani, E., Noviani, S., & Bram, B. (2021). Implementing stylistics in IELTS writing preparation focusing on noun phrases. *Journal of Foreign Language Teaching and Learning*, 6(2), PRESS. <https://doi.org/10.18196/ftl.v6i2.11824>

- Ary, D., Jacobs, L. C., Sorensen, C., & Razavieh, A. (2010). *Introduction to research in education*. Wadsworth Cengage Learning.
- Atashian, S., & Al-Bahri, K. (2018). Towards Arab students' grammatical errors in academic writing & their perceptions. *Arab World English Journal*, (1), 140–145. <https://doi.org/10.24093/awej/mec1.10>
- Azar, B. S., & Hagen, S. A. (2016). *Understanding and using English grammar: Student's book (5th ed.)*. New York: Pearson.
- Brown, H. D. (2000). *Principles of language teaching and learning*. White Plains, NY: Longman.
- Catford, J. (1965). *A linguistic theory of translation*. Retrieved from <http://books.google.com/books?id=ukUwmgEACAAJ&pgis=1>
- Corder, S. (1967). Intenational review of applied linguistics in language teaching. *International Review of Apllied Linguistics in Language Teaching*, 5(4), 161–170.
- Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. *Educational Research*.
- Crystal, D. (2018). *The Cambridge encyclopedia of the English language* (3rd ed.). Cambridge University Press. <https://doi.org/10.1017/9781108528931>
- Derrick, D. J., Paquot, M., & Plonsky, L. (2018). Interlingual versus intralingual errors. *The TESOL Encyclopedia of English Language Teaching*, pp. 1–6. <https://doi.org/https://doi.org/10.1002/9781118784235.eelt0079>
- Din, M., & Ghani, M. (2019). Analyzing problem-causing factors for Pakistani EFL learners in translating present indefinite and past indefinite tenses from Urdu into English. *English Language Teaching*, 12(5), 194. <https://doi.org/10.5539/elt.v12n5p194>
- Erlina, D., Marzulina, L., Astrid, A., Desvitasari, D., Sapriati, R. S., Amrina, R. D., ... Habibi, A. (2019). Linguistic intelligence of undergraduate EFL learners in higher education: A case study. *Universal Journal of Educational Research*, 7(10), 2143–2155. <https://doi.org/10.13189/ujer.2019.071012>
- Fadda, H. Al. (2012). Difficulties in academic writing: From the perspective of King Saud University postgraduate students. *English Language Teaching*, 5(3), 123–130. <https://doi.org/10.5539/elt.v5n3p123>
- Fithriani, R. (2020). Grammatical errors in Madrasah Aliyah students' narrative texts: An error Analysis of the surface strategy. *Ta'dib: Jurnal Pendidikan Islam*, 25(1), 6–20. <https://doi.org/10.19109/td.v25i1.5098>

- Heryanti, R., Sucipto, M. H., Makmur. (2017). The analysis of common grammatical errors in writing narrative essay of English study program students at Jambi University. *Edukasi: Jurnal Pendidikan dan Pengajaran*, 4(2), 83-92.
- Hidayat, R., Ha, A., Imani, L., & Ma'arif, B. I. (2021). Designing “Vention” as narrative text learning media for tenth - grade high school. *Saliency Journal*, 1(2), 88–97.
- Hikmah, H. (2020). Analysis of omission and addition errors found in the students’ English texts. *ELTICS : Journal of English Language Teaching and English Linguistics*, 5(1). <https://doi.org/10.31316/eltics.v5i1.526>
- Hsu, H. C. (2013). Revisiting causes of grammatical errors for ESL teachers. *Educational Research*, 4(6), 513–516. Retrieved from <http://www.interestjournals.org/ER>
- Iamsiu, C. (2014). *An analysis of grammatical errors in Srinakharinwirot University students’ writing*. (March).
- Jabali, S. G., Supriyono, S., & Nugraheni, P. (2020). Pengembangan Media Game Visual Novel Berbasis Etnomatematika Untuk Meningkatkan Pemahaman Konsep Pada Materi Aljabar. *Alifmatika: Jurnal Pendidikan Dan Pembelajaran Matematika*, 2(2), 185–198. <https://doi.org/10.35316/alifmatika.2020.v2i2.185-198>
- James, C. (1998). *Errors in language learning and use : exploring error analysis*. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=669855>
- Khumphee, S., & Yodkamlue, B. (2017). Grammatical Errors in English Essays Written by Thai EFL Undergraduate Students. *Journal of Education*, 11(4), 139–154.
- Kumala, B. P., Aimah, S., & Ifadah, M. (2018). An analysis of grammatical errors on students’ writing. *Journal on English as a Foreign Language*, 2, 144–149. Retrieved from https://simdos.unud.ac.id/uploads/file_penelitian_1_dir/c629f18aff882d2b65f607ccfeebadae.pdf
- Kurniawan, H. A. F., Jamaludin, A., & Heryana, N. (2020). Game Edukasi Pembelajaran IPA Berbasis Visual Novel Studi Kasus: SDN Cibalongsari IV Karawang. *JOINS (Journal of Information System)*, 5(2), 176–191. <https://doi.org/10.33633/joins.v5i2.3812>
- Kusumawati, E. (2020). *Visual Novel Game Subtitles and the Improvement of Vocabulary Comprehension Ability: Does It help L2?* 430(Conaplin 2019).

<https://doi.org/10.2991/assehr.k.200406.011>

- Marzulina, L., Mukminin, A., Erlina, D., Astrid, A., Ajriyah, N., Holandiyah, M., & Habibi, A. (2019). The grammatical awareness of student teachers: The case of an english education study program in Indonesia. *Universal Journal of Educational Research*, 7(9), 1847–1859. <https://doi.org/10.13189/ujer.2019.070902>
- Mukminin, A., Sari, S. R., Haryanto, E., Habibi, A., Hidayat, M., Marzulina, L., ... Ikhsan, I. (2019). They can speak English, but they don't want to use it." Teaching contents through english in a Bilingual school and policy recommendations. *Qualitative Report*, 24(6), 1258–1274. <https://doi.org/10.46743/2160-3715/2019.3580>
- Najla, N., & Fatimah, S. (2020). *Journal of English Language Teaching Common Grammatical Errors in Oral Communication Made by Indonesian EFL Learners*. 9(4), 740–749. <https://doi.org/10.24036/jelt.v9i4.110341>
- Olsen, M. J. B. (1994). *A Semantic and Pragmatic Model of Lexical and Grammatical Aspect*. Northwestern University, USA.
- Promsupa, P., Varasarin, P., & Brudhiprabha, P. (2017). An Analysis of Grammatical Errors in English Writing of Thai University Students. *Hrd Journal*, 8(1), 93–104.
- Qamariah, H., Sri Wahyuni, & Meliana. (2020). an Analysis of Students' Grammatical Errors in Writing English Text in the Second Grade Students of Smk-Smti Banda Aceh. *Getsempena English Education Journal*, 7(1), 58–71. <https://doi.org/10.46244/geej.v7i1.1041>
- Rana, S., Owaidh, L. Al, & Harbi, N. Al. (2019). Grammatical errors in English writing made by senior students of English department at Jubail University College- : Problem analysis , reasons and solutions. *International Journal of Arts and Commerce*, 8(5), 23–34.
- Reger, R. K., & Kincaid, P. A. (2021). Content and Text Analysis Methods for Organizational Research. In *Oxford Research Encyclopedia of Business and Management*. <https://doi.org/10.1093/acrefore/9780190224851.013.336>
- Sakaguchi, K., Napoles, C., Post, M., & Tetreault, J. (2016). Reassessing the Goals of Grammatical Error Correction: Fluency Instead of Grammaticality. *Transactions of the Association for Computational Linguistics*, 4, 169–182. https://doi.org/10.1162/tacl_a_00091
- Taşçi, İ., & Aksu Ataç, Y. (2018). Written Grammatical Errors of Turkish Adult Learners of English: An Analysis 1. *Uluslararası Sosyal Bilimler Eğitimi Dergisi Journal of International Social Sciences Education*, 2018(1), 1–13.

Watcharapunyawong, S., & Usaha, S. (2013). Thai EFL students' writing errors in different text types: The interference of the first language. *English Language Teaching*, 6(1), 67–78. <https://doi.org/10.5539/elt.v6n1p67>

Wright, L., & Hope, J. (1996). *Stylistics: A Practical Coursebook*. Routledge. Retrieved from <https://books.google.co.id/books?id=0Ap2Hf5W2DMC>