Interlanguage syntactic temporary, permanent, and fossilized errors in second language writing

Andi Rustandi[1], R. Bunga Febriani[1*], Maria Teresa Asistido[2], Syafryadin[3]

[1]English Education, Faculty of Teacher Training and Education, Universitas Galuh, Ciamis, Indonesia
[2]English Department, STI West Negros University, Bacolod, Philippines
[3]English Education, Post Graduate Program, Universitas Bengkulu, Bengkulu, Indonesia
*Email: bunga.febriani@gmail.com (corresponding author)

Abstract

Although writing argumentative essays has been widely investigated, limited research has focused on types of syntactic fossilization errors, let alone in doctoral students of English department contexts. This study investigated the interlanguage temporary, permanent, and fossilized errors in the second language writing of seven doctoral students from one private university in Jakarta, Indonesia. The study employed a linguistics content analysis method using the argumentative essay products taken from the course of Lexicology and Lexicography during one semester. The data were analyzed using the framework of four syntactic fossilization errors: verb omission, subordination, double verb, and passive voice. In addition, inter-rater reliability was used to measure the trustworthiness of fossilized error analysis in students' argumentative essays. The findings revealed that the doctoral students made four fossilized errors: subordination, omission, double verb, and passive voice. However, verb omission and sub-ordination emerged as temporary fossilization errors and a double verb and passive voice as permanent syntactic fossilization errors in writing argumentative essays. This result suggests that doctoral students need a bridging course to reduce all kinds of errors in writing an argumentative essay as the requirements before they join the real classroom.

To cite this article: Rustandi, A., Febriani, R. B., Asistido, M. T., & Syafryadin. (2023). Interlanguage syntactic temporary, permanent, and fossilized errors in second language writing. *Journal on English as a Foreign Language, 13*(1), 339-364. https://doi.org/10.23971/jefl.v13i1.6090

To link to this article: https://doi.org/10.23971/jefl.v13i1.6090

Introduction

One of the challenges second language learners face in learning is the linguistic phenomena, including syntactic features, which are part of second language grammar as a set of rules for creating a coherent and grammatically correct sentence (Zhang & Xie 2014). This challenge may emerge as the result of the prior linguistics capacity of the learners in developing a second language. According to Ying (1999), before learners learn their second language, they have their grammar in their language repertoire which is determined by their prior linguistic knowledge. As a result, the learners will subconsciously apply their first language grammar, including syntactic features, while learning a new language (Jensen & Westergaard, 2022). This phenomenon may happen because of the difference between their first and second languages' grammatical and syntactic features (Ying, 1999). Therefore, many learners find it challenging to learn their second language since they are afraid of making errors in dealing with syntax (Ying, 1999).

Making errors in developing a second language commonly happens because it is part of learning and acquiring. Krashen (1982) stated that errors would naturally and necessarily happen for language learners to achieve second language competence. In this sense, errors are no longer regarded as a failure, but they are considered an essential learning process that the students should experience to develop their competencies. Therefore, Selinker (1972) affirms this phenomenon is known as interlanguage, which refers to the language system of the learner. In addition, Davies (1989) pointed out the notion of the language of the learner as the natural way in the development process to get the target language through systemic approximation. In this regard, making temporary,

permanent, and fossilized errors are parts of natural ways of second language writing and could happen as part of the second language learning process.

The process of making an error in interlanguage may lead to fossilization (Han, 2009; Han, 2013; Nurhayati, 2015; Selinker, 1972). In this regard, fossilization refers to the permanent cessation of interlanguage learning before the learner has attained the target language norm at all levels of linguistic structure and all discourse domains (Selinker, 1972). In addition, Nemser (1971) claimed this phenomenon is a stabilized intermediate system of the development in second language learning because the learning process stops before the learners attain the native competence of the target language. Therefore, Han (2013) affirmed that fossilization is a founding concept in second language acquisition and learning. So, in this sense, making errors in second language acquisition and learning is not viewed as a separate process but is part of long terms process for someone to get native competence.

Several previous studies concerning fossilization errors have been investigated in different areas of study. For example, in the area of pronunciation and phonology, Acton (1984), Aziez (2016), Demirezen and Topal (2015), Kim (1985), Mossop (1996), and Smaoui and Rahal (2015) claimed that fossilized pronunciation and phonological items occur as the effect on their thoughts of first language (L1) interference and lack of exposure. In addition to speaking practice, Zimmerman and Valva (2016) postulated that fossilization errors commonly happen in the speaking practice of the second language learner due to inappropriate input from the instructor in the classroom. Then in the area of grammar and writing, Benati (2018), Butler-Tanaka (2000), Fauziati (2011), Nozadze (2012), Nurhayati (2015), and Zhang and Xie (2014) revealed that grammatical errors such as omission, addition, misinformation, and misordering might happen in the process of writing as a result of systematicity, permeability of language transfer, strategy of second language learning, and overgeneralization. Therefore, fossilization errors could not only exist in learning pronunciation, speaking, and grammar but also in writing by several influential factors.

Demirezen and Topal (2015) discussed the fossilization errors in writing and phonology at secondary school by claiming that the fossilization errors resulted from L1 and second language (L2) interference and the lack of language practice. In addition, Zimmerman and Valva (2016) discussed the fossilization errors in speaking practice in secondary school. The result of the research indicated that the fossilization errors have happened as the result of the inappropriate input of the instructors while they practiced the skill in the classroom. However, Zhang and Xie (2014) discussed the fossilization errors in terms of grammatical issues.

The result indicated that the errors might happen due to the language transfer and over-generalization of second language learning. Therefore, fossilization errors may happen in second-language writing since the learners have influential factors during learning.

The previous studies are limited to examining the factors that influence errors in the area of writing, speaking, and pronunciation (Darmirezen & Topal, 2015; Zhang & Xie, 2014; Zimmerman & Vavla, 2016). In addition, the previous studies were only concerned with the level of the secondary school (Aziez, 2016; Benati, 2018; Butler-Tanaka, 2000; Demirezen & Topal, 2015; Fauziati, 2011; Mossop, 1996; Nurhayati, 2015; Smaoui & Rahal, 2015; Zimmerman & Valva, 2016). However, in contrast with previous studies, the present study focuses on the issue of the types of errors in syntactic categorization in the argumentative essay of doctoral students. This study is important to investigate because writing argumentative (academic writing) is an absolute requirement for students who will graduate with a doctoral degree. Therefore, the present study aimed to analyze the types of temporary, permanent, and fossilized errors in the product writing of the argumentative essay of doctoral students in one private university. These participants were taken because doctoral students are required to write perfectly as the responsibility of their academic title. We believe that doctoral students have different results of the types of fossilization errors in writing argumentative essays. Therefore, two research questions are employed:

(1) What are the types of syntactic temporary and permanent errors emerged from doctoral students' argumentative essays?
(2) What are the types of fossilized syntactic errors emerged from doctoral students' argumentative essays?

Literature review

Interlanguage and fossilization in the second language

Interlanguage and fossilization have a strong relationship in developing second language acquisition (SLA) since fossilization happens in the learner's language (Han, 2010; Long, 2003; Rodriguez, 2016; Selinker, 1972; Tarone, 2018). In this regard, Selinker (1972) explained that fossilization might happen since the acquisition of the language system, rules, and application in learning language contains the properties of both L1 and L2. Moreover, Han (2010); Long (2003), Wang and Fan (2020), and Wang (2011) viewed the relationship between these two notions since fossilization emerged as a natural process to stabilize and develop second language learning and the manifestation of the failure of the

development of first language and second language. However, Tarone (2018) viewed fossilization in interlanguage as a natural process since crosslinguistic happens as the impact of social and psychological context. As a result, fossilization errors might happen in learning through this crosslinguistic of two language systems.

However, fossilization is a linguistic phenomenon of linguistic items, rules, and subsystems that speakers of a particular native language (NL) keep in their interlanguage language (IL) relative to a particular target language (TL) no matter what the age of the learner or the amount of explanation and instruction he receives in the TL (Selinker, 1972; Wei, 2008). In addition, Han (2013), Shabani-Jadidi (2018), Valette (1991), and Yang (2015) define the notion as an interlanguage-unique phenomenon in which a semi-developed linguistic form or construction shows permanent resistance to environmental influence and thus fails to progress toward the target. Accordingly, these two notions contribute to developing second language learning (Nemser, 1971; Vigil & Oller, 1976; Xin-guang, 2015). Therefore, Han (2013) and Tollefson and Firn (1983) claimed that interlanguage fossilization is the founding concept of second language acquisition.

Syntactic fossilization errors in second language acquisition

Syntactic fossilization refers to the syntactic error in L2 learners as part of grammar issues since it refers to a process occurring from time to time in which incorrect linguistic features become a permanent part of the way a learner speaks or writes in his target language (Han, 2013; Selinker, 1972; Zhang & Xie, 2014). In this regard, syntactic fossilization errors as the condition where the learners have fossilized in terms of structuring and making a coherent sentence in second languages. However, Wei (2008) argued that syntactic fossilization might happen in the development of second language learners because different languages have their own syntactic rules.

This notion of syntactic fossilization error has recently been developed as part of grammatical fossilization errors (Benati, 2018; Butler-Tanaka, 2000; Nozadze, 2012; Selinker, 1972; Zhang & Xie, 2014). In this regard, they argued that syntactic fossilization errors refer to twelve types of grammatical fossilization errors in the student's writing composition, i.e., article, number, tense, passive, collocation, choice of word, part of speech, be structure, run-on sentence, conjunction, overuse second person, and double verbs.

However, deWit (2007) found several fossilization errors in four linguistics elements: morphology, syntax, semantics, and vocabulary. This linguistic element of errors refers to intralingual errors since the learners do not have

sufficient knowledge of L2 (Keshavarz, 2015). In this sense, writing errors might lead to fossilization errors such as wrong categorization, analogy, lack of rules, and overgeneralization of the target language. Consequently, it can lead to the insufficient structure of the target language and deviation of conventional mechanisms from the target language structure (Terzioğlu & Bensen-Bostanci, 2020). In this sense, syntactic fossilization errors may refer to various errors in the construction of the second language learner. Therefore, syntactical fossilization errors were determined as one of the steps in the internalization of the first language toward the second language, and this error contributes to the development of second language acquisition since the errors remain to exist as the result of L1, input, and learning materials (Keshavarz, 2015).

Types of syntactic fossilization errors in second language writing

Syntactic fossilization errors have a significant contribution toward second language writing. It means that the product of the writing of a second language encounters syntactic fossilization errors. Generally, syntactic fossilization error in language writing is imperfect, incomplete grammatical items, and incorrect linguistic features become permanent (Ricard, 1986; Selinker, 1972). In this regard, fossilized errors are born from temporary errors to permanent errors of linguistics features. Concerning the pivotal contribution of syntactic fossilization errors in writing, Aini et al. (2020) explain that syntactic errors refer to the tense construction, inflexional morpheme, and article of L2. However, Muliati et al. (2017) argued it refers to the types of errors in singular and plural marking, tenses, voice and agreement, and nominalization. Thus, Talosa and Maguddayao (2018) claim that it refers to the sentence structure of tense, verb agreements, and parallelism.

Several studies have investigated the issue of syntactic fossilization in second-language writing with different views. Huang (2018) found that the types of syntactical fossilization errors are auxiliary verb systems. Moreover, Onwuta and Ndimele (2015) revealed articles, non-count nouns, passive, pluralization, irregular nouns, and concord. Then Mufid (2017) reported word order, articles, tenses, concord, and voice, and Toyota (2009) found passive verbs. Through these studies, it can be generated that the type of fossilized syntactic errors such as verb, concord, word order, passive voice, verb omission, and article are the major types of errors that contribute to the fossilization errors in the development of second language writing.

Method

Design

This study used the linguistics content analysis (LCA) method proposed by Eltinge and Roberts (1993) to analyze and classify the sentence structure of the argumentative essay products of the students. The LCA refers to a method of encoding textual data by categorizing keywords and identifying the relationships among these words (Eltinge & Roberts, 1993). With this content analysis, the raters encode each word and the relation of the words among the sentence structure by categorizing syntactic temporary, permanent, and fossilization errors. Then, the textual data of argumentative text was encoded by categorizing keywords and identifying the relationships among these words. For this study, this content analysis aimed at analyzing the argumentative essays of doctoral students based on the criteria of syntactic fossilization errors. The content analysis aims to organize and elicit meaning from the data collected and draw realistic conclusions (Bengtsson, 2016). Based on the explanation above, we assumed that the LCA approach suits this research. Therefore, we analyzed the phenomenon of syntactic fossilization errors in writing argumentative essays.

Context and participants

This research context was taken from the class of Lexicology and Lexicography at one private university in Jakarta, Indonesia. This site was chosen due to some reasons. The first reason is the course of Lexicology and Lexicography related to the writing process, which focuses on analyzing words and their meaning. Through this analysis, the students were needed to write a good essay based on the interrelationship between words and their meanings. The second reason, in this class, the act of writing and editing were performed as one of the assignments to build the connection between meaning and the word or sentence. Therefore, through this course, doctoral students would know how to write connections among the words and the meaning in a sentence to build a good essay.

The participants of this study were seven doctoral students, four males, and three females. The participants were selected purposively based on the assignment of argumentative essays assignment completely from the first and the last assignment in the lexicology and lexicography subject. Creswell (2003) stated that the purposive sampling technique chooses the participants based on their experience and knowledge in a certain context. In selecting the participants, some criteria were used, such as joining the Lexicology and Lexicography course and submitting the first and last assignments. Therefore, they could give complete writing products from the first and last assignments of the

argumentative writing. Moreover, to get more valid information about the participants, we distributed a consent form to determent the participants' willingness to participate in the research. In this study, we used the name anonymously to conceal the participant's identity. In this regard, the seven participants were given the codes S1, S2, S3, S4, S5, S6, and S7. The participants' demographic information is completely shown in Table 1.

Table 1
The demographic information of the participants

Participants	Gender	Age (year)	Semester	Degree	Place of origin	1st language (L1)
S1	Male	42	2nd	Doctoral	Bandung	Sundanese
S2	Male	35	2nd	Doctoral	Jakarta	Sundanese
S3	Male	35	2nd	Doctoral	Jakarta	Java
S4	Male	27	2nd	Doctoral	Bogor	Sasak
S5	Female	38	2nd	Doctoral	Tangerang	Sundanese
S6	Female	35	2nd	Doctoral	Serang	Sundanese
S7	Female	32	2nd	Doctoral	Balikpapan	Dayak

As shown in Table 1, the participants consist of four males and three females with ages ranging from thirty-two to forty-two. They came from different places of origin and a different first language (L1) in Indonesia. They came from Bandung, Jakarta, Bogor, Tangerang, Serang, and Balikpapan. Moreover, they also came from different L1, namely Sundanese, Java, Sasak, and Dayak.

Data collection

An open-ended questionnaire (Creswell, 2003) was used to collect the data to get information on the participants' involvement in this research. Open-ended questionnaires were questions for which we did not provide the response option but provided their response to the question (Creswell, 2003). In this regard, the questionnaires adopted the framework of Zhang and Xie (2014), which consisted of two parts: participants' personal identity and their product assignments of writing an argumentative essay based on the first and final assignment in the course. For validity and reliability, this study used a holistic approach. Charney (1984) explains that in the holistic method, the examiner studies the response and judges its quality, and then the evaluators evaluate the participant's general answer.

The questionnaires were given to the participants after the Lexicology and Lexicography class ended by asking about their willingness to participate. After that, we used the WhatsApp platform to share the questionnaire with the

participants. Then, we asked them to send the essay product via email. The participants were given one week to complete the questionnaire and to send their writing product of an argumentative essay. In the next step, we classified the writing product individually based on their name. In this study, fourteen argumentative essays were collected to be analyzed, taken from the first and final assignments of the course within the semester.

Data analysis

This study used analytical scoring inter-rater reliability proposed by Wang (2009) to establish the trustworthiness and validity of the fossilized errors of the argumentative essay by using percentages. The inter-rater is important in evaluating argumentative essays' consistency and assessment decisions (Kayapinar, 2014). Therefore, this measurement effectively assesses the writing ability using the analytical grading score of the writing product. In this case, the first and last data assignments were given to two raters to be analyzed for syntactic fossilization errors in the argumentative essays. The analytical scoring was used to analyze the doctoral students' performance in writing argumentative essays regarding syntactic types of errors. The description of each component is given at different scoring levels. In this regard, analytical scoring of each component was given to the two raters by giving the score and correction towards the essay compared to the first and final assignments.

The two raters were the experienced lecturers and specialists in English as applied linguistics and licensed as a reviewer of an international journal. The two raters had given the fulfillment of strict selection criteria of fossilization errors such as verb omission, subordination, double verb, and passive voice. The argumentative essay analytic scoring of the examinee's essay was carried out according to the analytic scoring of fossilization errors (Corder, 1975; Kayapinar, 2014). The analytic marking method includes a detailed catalog of types of errors in syntactic fossilization. In this case, several steps are used to analyze errors, such as collecting samples of learner writing, identifying, describing, and explaining errors.

The first step is the collection of sample learner writing. In this case, a massive sample of writing products was collected from many students to compile a comprehensive type of error. Then the second step is the identification of errors by distinguishing temporary, permanent, and fossilized errors. The third step is the description of errors which is aimed at classifying different errors and putting them into the categorization. The fourth step explains why the errors happen based on each category of errors, such as temporary, permanent, and fossilized

errors. Finally, after identifying all categories of errors, the next step is describing and interpreting its errors by relating to each sentence construction in the essay.

Findings

In this part, we provided the results of qualitative data regarding the aim of this study. This study aimed to explore the types of temporary, permanent, and fossilized errors. Therefore, we divided it into two subtopics consisting of the types of temporary and permanent errors and types of fossilization errors in doctoral students in argumentative essays.

Types of syntactic temporary and permanent errors in an argumentative essay

Table 2 shows that temporary and permanent errors are made in the four categories of syntactic errors. It means that the students still make errors in verb omission (27 errors), subordination (82 errors), double verbs (32 errors), and passive voice (20 errors). As a result, they make 161 errors from the whole categories of syntax.

Table 2
Inter-rater analysis of the first assignment

Types of syntactic errors	Students' number of errors							Total
	S1	S2	S3	S4	S5	S6	S7	
Verb omission	5	5	4	5	4	3	1	27
Sub-ordination	25	15	12	10	10	5	5	82
Double verb	10	4	5	5	3	2	1	32
Passive voice	5	2	2	4	3	3	1	20
Total errors	45	26	23	24	20	13	8	161

Table 3 shows the inter-rater analysis from the last assignment of argumentative essays. The seven students still make syntactic errors in the two categories. They still make errors in verb omission, which total 15 errors, and subordination, 30 errors. Meanwhile, in the categories of double verbs and passive voice, the students had no errors, which were identified as 0 errors. As a result, they make 45 errors from the whole categories of syntax.

Tables 2 and 3 show the different scoring of the seven students who take part in the study. Table 2 shows high-score errors in the four types of syntactic errors. However, Table 3 shows several significant improvements in the types of syntactic fields. These scores indicated that the students are categorized as having permanent errors in verb omission (15) and sub-ordination (30) in

constructing the argumentative essay. Moreover, the students had no errors in the categories of double verbs and passive voice. It is indicated by (0) errors for double verbs and (0) for passive voice in the final assignments.

Table 3

Inter-rater analysis of the final assignment

Types of syntactic errors	Students' number							Total
	S1	S2	S3	S4	S5	S6	S7	
Verb omission	3	1	3	1	4	1	1	15
Sub-ordination	10	2	5	7	2	1	3	30
Double verb	-	0	0	0	0	0	0	0
Passive voice	-	0	0	0	0	0	0	0
Total errors	13	3	8	8	6	2	4	45

Table 4 shows the types of syntactic fossilization errors made by doctoral students. In this case, the errors were made in two categories types of errors namely verb omission and sub-ordination. In the first assignment (part 1), the total number of errors of verb omission is 27 (64.3%), and the subordination error is 82 (73.2%). Then, the last assignment (Part 2) shows that the verb omission error is 15 (35.7%) and subordination is 30 (26.8%). In this regard, the students still made verb omissions and sub-ordination errors. These errors still existed in the first assignment for double verbs and passive voice categories. It is indicated by 32 errors and 20 errors for each category. However, the final assignment showed differently, with no errors for each category. In this regard, the double-verb and passive voice categories significantly improved writing.

Table 4

Types of syntactic fossilization in the argumentative essays

Types of level	Types of errors	Part 1 (First assignment)		Part 2 (Final assignment)		Total number	
		Total	%	Total	%	Total	%
Syntactic level	Verb omission	27	64.3	15	35.7	42	20.3
	Sub ordination	82	73.2	30	26.8	112	54.4
	Double verb	32	15.6	-	0	32	15.6
	Passive voice	20	09.7	-	0	20	09.7

As shown in Table 4, the total number of syntactic fossilization errors consists of verb omission (20.3%), subordination (54.4%), double verbs (15.6%), and passive voice (09.7%). Through this score, it can be indicated that doctoral students still make errors in constructing the sub-ordinate in the sentence. In addition, they still make errors in constructing the verb, such as verb omission

and double verb, which were pivotal elements in making meaning of the essay. Then the last error is the existence of passive voice. In this regard, they still make errors in constructing the passive voice.

Table 5 shows an example of the realization of the "*verb omission*" on the argumentative taken from the essay produced by the doctoral students. The revised version from the inter-rater also provides the examples above. Based on the example of the students (S1) from the assignment, the student produces some fossilization errors in terms of verb omission *"is"* in the sentence "the best one for analysis this word use…. an alternative approach". In the same sense, the same errors appeared in the last assignment of the last meeting by producing the verb omission *"is"* in the sentence "It, not just the media that's changing." Therefore, the inter-rater provided a revised version by adding the verb *"is"* in the sentence. Comparing both writing products, it can be deduced that syntactic fossilization errors in the verb omission remain. It means doctoral students are postulated to have problems constructing a sentence when it needs a verb. Moreover, subordination is one of the essential elements in constructing sentences in second-language writing. It means that if the learners have some fossilized errors in sentence writing, the meaning cannot be well-comprehended.

Table 5

An example of the verb omission error

Participant	Excerpts of the assignments	
S1	Excerpt 1: First assignment of the argumentative essay: *… with respect to the words that have multiple categories such as "**back**" the best one for analysis, this word uses an **alternative approach** to assume that the lexicon contains a different lexical entry for each use*	Excerpt 2: Last assignment of the argumentative essay: *It not just the media that's changing*
	Excerpt 3: Revised version from inter-rater: *… with respect to the words that have multiple categories such as "**back**" the best one for analysis this word use is an **alternative approach** to assume that the lexicon contains a different lexical entry for each use*	Excerpt 4: Revised version from inter-rater: *It is not just the media that's changing*

Table 6 reflected the subordinate fossilization errors in writing argumentative essays taken from the second student (S2). The student writes a

fossilized error in the sentence "<u>One</u> you learned how to identify the lemma, you would go in the meaning of dictionary" and "The lemma is an element of the dictionary, it has different interrelated word meaning on it." However, the revised version from the inter-rater is "*Once you learned how to identify the lemma, you would go to the meaning of dictionary*" and "*'the lemma is an element of the dictionary. Still, it has interrelated word meaning on it.*" The first assignment sentence has an error of subordination by the incorrect "*one*" instead of "*once,*" and subordinate *"you go"* instead of *"you would go,"* and the last assignment sentence has an error on the mission of coordination marker " *however*" in the second clause since it has coordinated-marker to create a coherent and cohesive sentence.

Table 6

Sub-ordination errors

Participant	The first assignment of the argumentative essay	Last assignment of the argumentative essay
S2	*One you learned how to identify the lemma; you go into the meaning of dictionary.*	*The lemma is an element of the dictionary, it has different interrelated word meaning on it.*
	<u>A revised version from inter-rater</u>: *Once you learned how to identify the lemma, <u>you would</u> go into the meaning of the dictionary.*	<u>A revised version from inter-rater</u>: *The lemma is an element of the dictionary, <u>but however</u>, it has interrelated word meanings on it.*

The third types of fossilized error are the "double verb error." This notion is related to the existence of two verbs in the same sentence, which is unnecessarily used due to its function. It means doctoral students still make errors in writing their argumentative essays. They use the double verb unconsciously because they think they have no errors in making this sentence. It may happen due to a different syntactical structure between their L1 and L2.

Table 7 reflects the existence of the double verb in the sentence of an argumentative essay. This sentence is taken from the third student (S3). The sentence in the first argumentative essay has a double verb, i.e., are and causes. In this case, "<u>*There are*</u>" has a function as a verb. It is not necessarily used in the sentence. The verb "<u>*causes*</u>" is more appropriate as the only verb in the sentence. In addition, the last assignment also has similar phenomena to the first assignment sentence by using the double verb such as "<u>*are*</u>" and "<u>*have.*</u>" Therefore, double verbs still occur in doctoral students' argumentative essays.

Table 7

Double verb errors

Participant	The first assignment of the argumentative essay	Last assignment of the argumentative essay
S3	*There are the headword causes changes in the meaning.*	*There are many changes have happened in the past two years.*
	Revised version from inter-rater: *The headword causes changes in the meaning patterns.*	Revised version from inter-rater: *Many changes have happened in the past two years.*

Another error in doctoral students' argumentative writing is using "passive voice." It refers to the inability of the students to construct the sentence when the subject of the sentence receives the action of the verb. The passive voice is constructed by joining together "to be" plus the verb's past participle. In addition, passive voice construction in a sentence always generates the preposition.

Table 8 indicates the occurrence of passive voice fossilization errors. The passive voice construction in the sentence is incorrect based on the inter-rater perspectives. The first errors emerge from the first assignment on the sentence "*the dictionary written in 1989*". This sentence is incorrect due to the missing of to be "was." Then, the second sentence is taken from the last assignment that presents the errors due to the missing of to be "is" and "past participle" verb. This phenomenon may happen due to the interference of their L1 in constructing the L2 passive voice.

Table 8

Passive voice errors

Participant	The first assignment of the argumentative essay	Last assignment of the argumentative essay
S7	*The dictionary written in 1989*	*In this regard, the component of lexical unit describe by the definition of the headword.*
	Revised version from inter-rater: *The dictionary was written in 1989*	Revised version from inter-rater: *In this regard, the component of the lexical unit is described by the definition of the headword.*

Types of syntactic fossilization errors in an argumentative essay

Table 9 shows the total number of temporary, permanent, and fossilized errors. The total errors in verb omission are 27 (64.3%), subordination 82 (73.2%), double

verb 32 (15.6%), and 20 (09.7%). However, the total score of final assignment errors is verb omission 25 (35.7%), sub-ordination 30 (26.8%), double verb 0 (0%), and passive voice 0 (0%). In this regard, temporary errors existed in double verbs and passive voice since the errors indicate 0 (0%) errors. Moreover, permanent errors have also emerged in verb omission and subordination since the categories still show a high score of errors in the final assignment. Consequently, these permanent errors are categorized as fossilized due to static errors that emerged from the first and second essays.

Table 9

Types of temporary, permanent, and fossilized errors

Types of syntactic errors	The total score of the first assignment		The total score of the final assignment		Temporary/ permanent	Fossilized/non fossilized
	Total	%	Total	%		
Verb omission	27	64.3	15	35.7	Permanent	Fossilized
Sub-ordination	82	73.2	30	26.8	Permanent	Fossilized
Double verb	32	15.6	0	0	Temporary	Non fossilized
Passive voice	20	09.7	0	0	Temporary	Non fossilized

In addition, temporary errors also happen in the double verb (0%) and passive voice (0%) constructions in the final assignment compared with the first assignment. It means that the students no longer make errors (double verbs and passive verbs) in the final assignment due to their learning progress. In this regard, 100 % double verb and passive voice errors can reach the target language.

Table 10 shows an example of the temporary errors of students in writing argumentative essays. The example was taken from the first and the final assignment. In this example, participants number 2 made temporary errors of double verb types in writing a sentence in a paragraph.

Table 10

Example of temporary errors in double verb

Participant	The first assignment of the argumentative essay	The final assignment of the argumentative essay
S2	*There are the layout causes changes in dictionary types*	*There are the changes derive from the development of the meaning of the word based on the lemma*
	Revised version from inter-rater: *The layout causes changes in dictionary types*	Revised version from inter-rater: *The changes derive from the development of the meaning of the word based on the lemma.*

The example was taken from the first and the final assignment. It indicated that student 5 made permanent errors of double-verb types when writing a sentence in a paragraph comparing the first and final assignments.

Table 11 shows the example of temporary errors in double verbs in sentence construction. The students make an error in the sentence by using a double verb which one of them is not necessary to be used, such as the existence of the verb *"are"* instead of *"causes"* or *"derives."* The existence of the verb *"are"* not necessary in the sentence because the sentence has the verb "*causes"* and "*derives."* This fossilization error is categorized as temporary errors insubordination because the errors from the first assignment have not appeared in the final assignment. However, permanent errors were indicated in the sub-ordination sentence construction. The sentence from the first assignment contains the subordinate *"one"* instead of "*once.*".

Table 11
Example of permanent errors in subordination

Participant	The first assignment of the argumentative essay	The final assignment of the argumentative essay
S5	*One you learned how to identify the lemma, you would go in the meaning of dictionary.*	*The lemma is an element of the dictionary, it has different interrelated word meanings on it.*
	Revised version from inter-rater: *Once you learned how to identify the lemma, you would go into the meaning of the dictionary.*	Revised version from inter-rater: *The lemma is an element of the dictionary, but however it has interrelated word meanings on it.*

Discussion

This part discusses the findings to break down the relationship between the previous studies and doctoral students' argumentative writing in the current study. Since writing skill is obligatory for doctoral students, they must improve their writing skills by knowing the lack of their writing product. Comparing the writing product from the first and the final assignment, they still made various syntactic errors in constructing the sentence in the paragraph. In this regard, syntactic fossilization error is argued as a process occurring from time to time in which incorrect linguistic features become a permanent part of how a learner writes in his target language. These errors might happen in writing a second language learning due to the lack of knowledge and practice of writing

(Romrome & Mbato, 2023) and the interference of the first language structure (Zhang & Xie, 2014).

The findings revealed the doctoral students made two types of interlanguage fossilized errors, such as subordination and verb omission. The subordination error occurred when participants lacked the linguistics understanding between two languages. This finding is in line with the investigation of Adjei (2015); when two language repertoires are used, it will make errors, and more of them will be fossilized. However, Aini et al. (2020) and Cardenas (2018) opined that syntactical errors are common in constructing the writing process, such as morphological and inflexional elements. Through constructing writing between two languages, the learners will develop one process by adjusting one language to another (Talosa & Maguddayao, 2018).

Regarding syntactic fossilization errors in verb omission, doctoral students struggle with several verbs. These common errors will occur since they have two different language repertoires when some verbs between L1 and L2 are different (Talosa & Maguddayao, 2018; Toyota, 2009). However, Zhang and Xie (2014) postulated that these errors would happen due to different positions of verb placement in a sentence. As a result, they did not realize that the verb should exist for making a meaningful sentence.

Another type of fossilization error was double verb types. The double verbs occur in doctoral students' argumentative essays since they do not realize they are writing two verbs in one sentence. Brown (2000) and Zhang and Xie (2014) argued that the ability to construct good writing is related to the ability of the learners' tenses. It means that the problems influence the student's ability to apply verb tenses in writing sentences in learning English, such as intrinsic (personal) side activity and extrinsic (social) factors of L1 and L2. However, double verbs errors are the condition due to the different types of structure between L1 and L1 (Huang, 2018; Onwuta & Ndimele, 2015).

In addition, passive voice fossilization errors also happened in constructing argumentative writing. These errors happen due to the lack of knowledge of grammar and sentences due to Indonesian language interference (Chen & Zhao, 2013). Therefore, word ordering in the passive voice used by the student tends to be like the spoken Indonesian language. Therefore, this phenomenon happened due to the lack of knowledge of word families, word formation, and tenses (Limengka & Kuntjara, 2013). However, these fossilized errors occurred due to the differences in syntactic structure between L1 and L2 (Hong-wu & Jing 2014; Wang, 2011; Zhang & Xie, 2014).

Generally, the types of interlanguage fossilization errors in syntax that occur in writing essays include omission, addition, miss-formation, disorders, passive

voice, tense, noun phrase, auxiliary, subject-verb agreement, and determiner (Gao, 2020; Huang, 2018; Nurhayati, 2015). Furthermore, Gao (2020), Moskovsky and Ratcheva (2014) and Selinker and Lamendella (1976) claimed that the primary sources of errors are interlingual (first language interference) and intralingual factors (social factors). These fossilized errors are also part of the development of second-language writing, and it commonly happens as the representation of the differences between L1 and L2 linguistics repertoire (Muliati et al., 2017; Onwuta & Ndimele, 2015; Talosa & Maguddayao, 2018; Toyota, 2009; Wang, 2011).

Regarding the issue of temporary and permanent fossilized errors, Chiullan (2012) and Hafiz et al. (2018) argued that this might happen in interlanguage due to the bilingual person whose language performance exhibits forms of immature for the speaker's age among monolingual speakers. In writing, temporary and permanent errors commonly happen, such as in verbs infection, tense, and the third singular, and it may heavily influence many speakers or writers' grammar (Crosthwaite et al., 2020). These errors commonly happen due to L1 interference (Chan, 2004). Therefore, interference as errors in the learner's use of the foreign language can be traced back to the mother tongue (Chan, 2004; Lott, 1983). However, the frequency of temporary and permanent errors remains to change over time based on the instructor's corrective feedback process during the learning (Crosthwaite et al., 2020; Vyatkina, 2010).

Concerning the result of the research, it implies that the doctoral students lacked knowledge of the practice of writing and overgeneralization between the first language and target language. It means the students lack the knowledge to know the culture of writing in a second language. Therefore, they still made permanent errors despite often writing argumentative essays. They need a long-term bridging course to train and practice contextual writing skills. This practice will help them know the sentence's construction in a paragraph. In this context, with appropriate training and practice, all learners can become better writers (Byrnes, 1992). Finally, through the training process, they will get proficient in writing academic essays based on knowing their errors.

Although the phenomena of temporary, permanent, and fossilization errors commonly happen in second-language writing, it implies suggestions and recommendations for theoretical and practical. Theoretically, the students be aware of knowledge on the different writing cultures between L1 and L2. Moreover, the practical instructor should give more corrective feedback to the students in order to help them know their errors in writing an argumentative essay. Furthermore, lecturers and educators need to motivate their students to create a sufficient writing product by minimizing errors.

Conclusion

Syntactic fossilization error is argued as a process occurring from time to time in which incorrect linguistic features become a permanent part of how a learner speaks or writes in his target language. This study investigated the syntactic types of temporary, permanent, and fossilization errors, particularly among doctoral students. Concerning the issue, the findings revealed that doctoral students of English produced temporary, permanent, and fossilized errors in writing argumentative essays. Four types of syntactic fossilization errors indicate these errors: verb omission, subordination, double verbs, and passive voice. It means that the students have difficulties constructing subordination, verb omission, double verbs, and passive.

Through this condition, the existence of permanent errors leads to the existence of fossilization errors. In this sense, the permanent syntax errors are sub-ordination and verb omission. In this regard, verb omission and subordination are categorized as permanent errors since the errors still appear in the final assignment of the argumentative essay. Due to this condition, verb omission and subordination are categorized as fossilized errors since the errors existed in the final assignments.

Consequently, this study offers pedagogical implications for the students and the lecturers to promote the importance of argumentative essay writing. Practically, the instructor needs to guide the student on the culture of second-language writing. Through this training, the students could improve their awareness of syntactic errors to cope with their argumentative essay for the betterment of writing the assignment. Moreover, the students should be aware that L1 syntax probably interferes with the second language syntactic errors in developing the second language. Besides that, doctoral students need to pay attention to consistent and objective corrective feedback from the instructor to improve their syntactic structure to produce a unified, coherent, and well-organized argumentative essay. Consequently, these ways allow students to reduce temporary, permanent, and fossilized errors.

However, this study has several limitations. The first is due to the small number of participants. In this regard, the participants only consisted of several participants. Therefore, future research should include more participants from other departments to enrich more data by comparing the syntactic fossilization errors. Through the comparison, it can be deduced the different results of argumentative writing fossilization errors.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

Andi Rustandi https://orcid.org/0000-0002-2422-8179
R. Bunga Febriani https://orcid.org/0000-0001-7335-1416
Maria Teresa Asistido https://orcid.org/0000-0001-9687-5634
Syafryadin https://orcid.org/0000-0001-8167-2930

References

Acton, W. (1984). Changing fossilized pronunciation. *TESOL Quarterly*, *18*(1), 71-85. https://doi.org/10.2307/3586336

Aini, N., Mufid, M. K., & Sari, E. M. (2020). An analysis on interlanguage fossilization in students' writing performance. *Indonesian Journal of Language Teaching and Linguistics*, *5*(1), 15-28. https://doi.org/10.30957/ijoltl.v5i1.612

Adjei, P. (2015). Analysis of subordination errors in students' writings: a study of selected teacher training colleges in Ghana. *Journal of Education and Practice*, *6*(8), 62-78. https://eric.ed.gov/?id=EJ1082738

Aziez, F. (2016). An analysis of interlanguage performed by students of an Islamic boarding school in Tasikmalaya. *ELT Perspective*, *4*(2), 103-122. https://jurnal.ugj.ac.id/index.php/Perspective/article/view/1543

Benati, A. (2018). Interlanguage and grammar. *The TESOL Encyclopedia of English Language Teaching*, *1*(2), 1-4. https://doi.org/10.1002/9781118784235.eelt0077

Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *Nursing Plus Open*, *2*(1), 8-14. https://doi.org/10.1016/j.npls.2016.01.001

Butler-Tanaka, P. (2000). *Fossilization: a chronic condition or is consciousness-raising the cure?*. University of Birmingham.

Byrnes, H. (1992). To the editor "proficiency and the prevention of fossilization": a response. *The Modern Language Journal*, *76*(3), 371-378. http://doi.org/10.1111/j.1540-781.1992.tb07006.x

Brown, H. D. (2000). *Principle of language learning.* Pearson Education Inc.

Cardenas, A. M. (2018). Tackling intermediate students' fossilized grammatical errors in speech through self-evaluation and self-monitoring strategies. *Profile: Issues in Teachers' Professional Development*, *20*(2), 195-209. http://dx.doi.org/10.15446/profile.v20n2.67996

Chan, A. Y. W. (2004). Syntactic transfer: evidence from the interlanguage of Hong Kong Chinese ESL learners. *Modern Language Journal*, *44*(22), 295-316. http://doi.org:10.1111/j.0026-7902.2004.00218.x

Chen, H., & Zhao, B. (2013). A study of interlanguage fossilization in second language acquisition and its teaching implications. *International Conference on Educational Research and Sports Education (ERSE 2013)*, 39(4), 18-20. https://doi.org/10.2991/erse.2013.6

Chiullan, R. (2012). What is language fossilization and why does it matter. *CORE*, *10*(1), 1-16. http://hdl.handle.net/11274/110

Charney, D. (1984). The validity of using to evaluate writing: a critical overview. *Research on the Teaching of English*, *18*(1), 65-81. https://www.jstor.org/stable/40170979

Creswell, J. W. (2003). *Research design: qualitative, quantitative, and mixed-method approaches.* Sage Publication.

Crosthwaite, P., Storch, N., & Schweinberger, M. (2020). Less is more? the impact of written corrective feedback on corpus-assisted L2 error resolution. *Journal of Second Language Writing*, *4*(9), *100729.* http:///doi.org/10.1016/j.jslw.2020.100729

Corder, S. P. (1975). Error analysis, interlanguage and second language acquisition. *Language Teaching*, *8*(4), 201-218. https://doi.org/10.1017/S0261444800002822

Davies, A. (1989). Is international English an interlanguage? *TESOL Quarterly, 23*(3), 447-467. https://doi.org/10.2307/3586920

Demirezen, M., & Topal, I. H. (2015). Fossilized pronunciation errors from the perspectives of Turkish teachers of English and their implications. *Procedia*

Social and Behavioral Sciences, 199, 793-800. https://doi.org/10.1016/j.sbspro.2015.07.613

deWit, V. (2007). Fossilization: a case study of an adult learner. *International Journal of English Language Studies, 11*(1), 70-79. https://doi.org/10.1177/1028315306298335

Eltinge, E. M., & Roberts, C.W. (1993). Linguistics content analysis: a method to measure science as inquiry in textbooks. *Journal of Research in Science Teaching, 30*(1), 65-83. https://doi.org/10.1002/tea.3660300106

Fauziati, E. (2011). Interlanguage and errors fossilization: a study of Indonesian learning English as a foreign language. *CONAPLIN JOURNAL, Indonesian Journal of Applied Linguistics, 1*(1), 25-40. http://www.jurnal.upi.edu/file/03_Endang_Fauziati_Interlang_Fossil1.pdf

Gao, H. (2020). Analysis of fossilization process of the second language vocabulary from the perspective of memetics. *Theory and Practice in Language Studies, 10*(10), 1326-1331. http://dx.doi.org/10.17507/tpls.1010.21

Hafiz, M. S., Omar, D. A.-M., & Sher, K. U. (2018). Analysis of syntactic errors in English writing: a case study of Jazan University preparatory year students. *Journal of Education and Practice,* 9(11), 113-120. https://core.ac.uk/download/pdf/234641526.pdf

Han, F. (2013). The interlanguage of English article of two Chinese learners of English at upper-intermediate level. *The Internet Journal of Language Culture and Society, 38*, 45-56. http://aaref.co,au/en/publications/journal

Han, Z. H. (2009). Interlanguage and fossilization: toward an analytic model. *Language Teaching and Learning, 1,* 137-162 https://www.bloomsbury.com/us/contemporary-applied-linguistics-volume-1-9780826496805/

Han, Z. (2010). Fossilization: from simplicity to complexity. *International Journal of Bilingual Education and Billingualism, 6*(2), 95-28. https://doi.org/10.1080/13670050308667775

Hong-wu, Z., & Jing, X. (2014). Interlanguage fossilization in Chinese EFL writing — an empirical research of 20 English major students. *Sino-US English Teaching, 11*(4), 248-258. https://doi.org/10.18860/ling.v9i2.2736

Huang, Y. (2018). The study of syntactic errors in English writing on fossilization theory. *English Linguistics Research,* 7(3), 26-33. http:/doi.org.10.5430/elr.v7n3p26

Jensen, I. N., & Westergaard, M. (2022). Syntax matter: exploring the effect of linguistics similarity in third language acquisition. *Journal of Research in Language Studies, 0*(0), 1-29. https://doi.org/10.1111/lang.12525

Kayapinar, U. (2014). Measuring essay assessment: intra-rater and inter-rater reliability. *Eurasian Journal of Educational Research*, *57*, 113-136. https://dergipark.org.tr/en/pub/ejer/article/70223

Kim, T. B. (1985). Difficulties in the pronunciation of English sounds by Asian speakers. *Australian Journal of Human Communication Disorders, 13*(1), 95-106. https://doi.org/10.3109/asl2.1985.13.issue-1.07

Keshavarz, M. H. (2015). *Contrastive analysis, error analysis, and interlanguage.* Rahnama Press.

Krashen, S. D. (1982). *Principle and practice in second language acquisition.* Pergamon Press Inch.

Limengka, P. E., & Kuntjara, E. (2013). Types of grammatical errors in the essay written by fourth semester student of English Department, Petra Christian University. *Journal of Literature, Language, and Teaching*, *1*(1), 230-238. https://katakita.petra.ac.id/index.php/sastra-inggris/article/view/430

Lott, D. (1983). Analyzing and counteracting interference errors. *ELT Journal*, *37*(3), 256-261. https://doi.org/10.1093/elt/37.3.256

Long, M. H. (2003). Stabilization and fossilization in interlanguage development. In C. J. Doughty, & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 487-535). Wiley Online Library. https://doi.org/10.1002/9780470756492.ch16

Moskovsky, C., & Ratcheva, S. (2014). L2 fossilization: a competence or a performance phenomenon. *The Open Communication Journal*, *8*(1), 9-17. http://doi.org/10.2174/1874916X01408010009

Mossop, J. W. (1996). Markedness and fossilization in the interlanguage phonology of Brunei English. *World Englishes*, *15*(2), 173-182. https://doi.org/10.1111/j.1467-971X.1996.tb00103.x

Mufid, M. K. (2017). An analysis of interlanguage fossilization phenomenon in student writing performance. *IJOLTL*, *5*(1), 15-28. https://doi.org/10.30957/ijoltl.v5i1.612

Muliati, S., Syarif, H., & Jufrizal. (2017). Fossilized errors of English morphosyntactic committed by English graduate students. *Eltar,* 1(1), 304-322. https://ejournal.unp.ac.id/index.php/eltar/article/view/8746

Nemser, W. (1971). Approximate system of foreign language learners. *IRAL*, *9*(2), 115-124. http://dx.doi.org/10.1515/iral.1971.9.2.115

Nozadze, A. (2012). Dealing with fossilized errors while teaching grammar. *Journal of Education*, *1*(1), 41-46. https://jebs.ibsu.edu.ge/jms/index.php/je/article/view/54

Nurhayati, I. (2015). Interlanguage: grammatical errors on students' recount texts (a case study of first year of MAN 2 Banjarnegara in the academic year

2014/2015). *ELT FORUM: Journal of English Language Teaching*, *4*(1), 1-6. https://journal.unnes.ac.id/sju/index.php/elt/article/view/7918

Onwuta & Ndimele. (2015). Errors in students' use of English: a study of syntactic transfer in written production. *IJSAR*, *2*(1), 40-46. http://www.mdcjournals.org/pdf/145230420020160901020050.pdf

Ricard, E. (1986). Beyond fossilization: a course on strategies and techniques in pronunciation for advanced adult learners. *TESL Canada Journal Review, 3*(1), 243-253. https://doi.org/10.18806/tesl.v3i0.1009

Rodriguez, S. (2016). *Teaching implications and fossilization in the field of second language acquisition.* Universidad da Salamanica Salamanica, Brazil. http://hdl.handle.net/10366/132705

Romrome, A. Y., & Mbato, C. L. (2023). Exploring EFL students' motivation in essay writing through writing beliefs, self-efficacy, and attitudes: a case from Papua, Indonesia. *Journal on English as a Foreign Language*, *13*(1), 1-24. http://doi.org/10.23971/jefl.v13i1.4561

Selinker, L. (1972). Interlanguage. *Product Information International Review of Applied Linguistics in Language Teaching*, *10*(1-4), 209-232. http://dx.doi.org/10.1515/iral.1972.10.1-4.209

Selinker, L., & Lamendella, J. T. (1976). The role of extrinsic feedback in interlanguage fossilization a discussion of 'rule fossilization: a tentative model. *Language Learning*, *3*(2), 363-375. https://doi.org/10.1111/j.1467-1770.1979.tb01075.x

Shabani-Jadidi, P. (2018). Heritage learners' versus second language learners' source of errors in advanced-level writing: case of a Persian media course. *Iranian Studies*, *51*(5), 747-778. https://doi.org/10.1080/00210862.2018.1496323

Smaoui, D. C., & Rahal, A. (2015). The fossilized pronunciation of the /3:/ sound in the speech of intermediate Tunisian English students: problem, reasons and suggested solution. *International Journal of English Language & Translation Studies*, *3*(1), 70-79. http://http://www.eltsjournal.org/archive/value3%20issue1/7-3-1-15.pdf

Talosa, A. D., & Maguddayao, R. N. (2018). ESL writing. *TESOL International Journal*, *13*(4), 172-181. https://eric.ed.gov/?id=EJ1244109

Tarone, E. (2018). Interlanguage. *The Encyclopedia of Applied Linguistics*. Wiley Online Library. https://doi.org/10.1002/9781405198431.wbeal0561.pub2

Terzioğlu, Y., & Bensen Bostanci, H. (2020). A comparative study of 10th grade Turkish Cypriot students' writing errors. *SAGE Open*, *10*(1), 2158244020914541. https://doi.org/10.1177/2158244020914541

Tollefson, J. W., & Firn, J. T. (1983). Fossilization in second language acquisition: an inter-model view. *RELC Journal*, *14*(2), 19-34. https://doi.org/10.1177/003368828301400202

Toyota, J. (2009). Fossilisation of passive in English: analysis of passive verbs. *English Studies, 90,* 476-497. http://doi.org/10.1080/00138380902990283

Valette, R. M. (1991). Proficiency and the prevention of fossilization - an editorial. *The Modern Language Journal*, 75(3), 325-328. https://doi.org/10.1111/j.1540-4781.1991.tb05363.x

Vigil, N. A., & Oller, J. W. (1976). Rule fossilization: a tentative model. *Language learning, 26,* 281-295. https://doi.org/10.1111/j.1467-1770.1976.tb00278.x

Vyatkina, N. (2010). The effectiveness of written corrective feedback in teaching beginning German. *Foreign Language Annals*, *43*(4), 671-689. https://doi.org/10.1111/j.1944-9720.2010.01108.x

Wang, J. (2011). Impacts of second language classroom instruction on IL fossilization. *Journal of Cambridge Studies*, *6*(1), 57-75. https://doi.org/10.17863/CAM.1379

Wang, P. (2009) Inter-rater reliability in scoring composition. *English Language Teaching, 6*(1), 1-15. http://doi.org/10.5539/elt.v2n3p39

Wang, X., & Fan, L. (2020). An analysis of interlanguage features and English learning. *Journal of Higher Education Research*, *1*(1), 31-37. http://doi.org/10.32629/jher.v1i1.126

Wei, X. (2008). Implication of IL fossilization in second language acquisition. *English Language Teaching, 1*(1), 127-131. http://doi.org/10.5539/elt.v1n1p127

Xin-guang, S. (2015). A study of fossilization in Chinese college students' English learning. *Advances in Social Sciences Research Journal, 2*(1), 54-60. https://doi.org/10.14738/assrj.21.678

Yang, S. (2015). Inter-language fossilization and teaching strategies. In *Proceedings of the 2nd International Conference on Education, Management and Information Technology* (ICEMIT 2015) (pp. 507-510). Atlantis Press. http://doi.org/10.2991/icemit-15.2015.107

Ying, H. G. (1999). Access to UG and language transfer: a study of L2 interpretation of reconstruction in Chinese. *Second Language Research, 15*(1), 41-72. https://doi.org/10.1191/026765899672835412

Zhang, H. W., & Xie, J. (2014) Interlanguage fossilization in Chinese EFL writing: empirical research of 20 English major students. *Sino-US English Teaching, 11*(4), 248-258. https://pdfs.semanticscholar.org/4d62/b4d5504a1aec9e8cbee61f4fa76ceea97b8a.pdf

Zimmerman, L. W., & Valva, L. (2016). Exploring of the role of teacher's input in fossilization: an examination of some spoken errors by Albanian speaker of English. *Anglica Wratislaviensia*, *17*(8), 163-177. https://doi.org/10.19195/0301-7966.54.11