



EXPLORING INDONESIAN EFL WRITING ERRORS: INSIGHTS FROM THE STIFIN PERSPECTIVE

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abstract

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This study aims to investigate the writing errors made by EFL students based on their brain dominance machine: Sensing, Thinking, Intuiting, Feeling, and Instinct (STIFIn). A qualitative case study was adopted in finishing this study. The data collected in this study were processed by using two methods: statistical calculations for quantitative data about the errors the participants made in their text writing by using Gass & Selinker's (2008) writing errors approach which was then categorized based on the respondents' STIFIn brain dominance, and constructive analysis for qualitative data related to the results of comparing the errors. This study enrolled 41 students from a college of management studies, located in the city of Medan, Indonesia. The individuals with Sensing Extroverts made the most errors, with a ratio of 1:15 errors recorded in their texts, followed by Intuiting Introverts with 1:14,5 errors, Thinking Extroverts with 1:13,3 errors, and Thinking introverts with 1:13 errors. Sensing Introvert made 1:12,5 errors, Instincts 1:9,4, Intuiting Extrovert 1:9, Feeling Introvert 1:7,6, and Feeling Extrovert 1:7,5. Sensing Extrovert students committed the most errors, whereas Feelings (extrovert and introvert) produced the fewest. This research showed that brain dominance, intelligence machine, and personality affected one's ability to absorb and acquire a second language.

INTRODUCTION

Although the students have been learning English since they were in elementary school up to the university level, they still commit errors; syntactical errors on report text (Dinamika & Hanafiah, 2019a); morphological error in students' written report text (Dinamika & Siregar, 2020); grammatical errors in the thesis abstract (Dinamika, 2021b); error in students' written paragraphs (Sundari et al., 2021). Since writing is a crucial skill in EFL (Brown, 2000; Celce-Murcia & Olshstein, 2000), extensive studies on error analysis in EFL writings have been conducted both at the middle school level (Alsagoff, 2016; Lahuerta, 2020) and university levels (Vakili & Ebadi, 2022; Wilcox, Yagelski, & Yu, 2014). The analyses were carried out using various theoretical approaches to writing analysis such as the theory of (Wolfe-Quintero, Inagaki, & Kim, 1998), (Gass & Selinker, 2008), and (Oshima & Hogue, 1999), both on a global scale (Barrot, 2018; Lahuerta, 2020; Xu, 2021), and in the Indonesian context (Ananda, Gani, & Sahardin, 2014; Dinamika, 2021; Phonna, 2014). Other studies have followed up on these explorations of student writing errors by suggesting multiple solutions and techniques that students can use to lessen underlying issues, such as Academic English Writing Program (Lee & Lee, 2022), Content

and Language Integrated Learning (Lahuerta, 2020), and Wiki-Mediated Collaborative Writing (Rahimi & Fathi, 2021).

Otherwise, there have not been many studies that particularly examine how different types of students make different writing errors. There has been substantial literature on personality traits with skills in English, such as speaking (Hz, 2022; Nowbakht & Fazilatfar, 2019), reading (Abdolrezapour & Tavakoli, 2012; Foroozandehfar & Khalili, 2019), and listening (Askani & Askari, 2017; Travolta, 2018). However, precise research into the relationship between the personalities of students and their writing errors is still limited. Moreover, a mapping of students' writing abilities and errors based on the division of their brain intelligence has not been carried out, either globally or locally in Indonesia. It is essential to explore writing errors according to personality and division of brain dominance to provide the appropriate remedy for each individual according to the characteristics of their specific brain.

There are a few viewpoints that classify people's personalities according to which side of the brain is dominant. One of these is the STIFIn technique, which is being investigated as part of this study since it can divide the capabilities of the human brain. STIFIn, according to (Hz, 2022) following a study by (Dini, 2022) and (Poniman, 2009), is a tool for identifying a person's genetic personality potential. Since Carl Gustav Jung's psychological analytic approach and Ned Herrmann's Whole Brain Concept and Tiune Brain theory are more scientifically combined in (Poniman, 2009) STIFIn tests, the division of human brain capacities by STIFIn was formed in 1999. (Poniman, 2009) study, which (Alindra, 2018) cited, also underlined that the STIFIn technique is based on the STIFIn notion, which incorporates theories from the fields of human resource science, psychology, and neurology. Scannable fingerprints offer information about the nervous system, which is examined and linked to certain parts of the brain that serve as the machine's primary operating system and intellect (Rafianti & Pujiastuti, 2017).

In the meantime, STIFIn has been the subject of numerous research in the context of its relationship with other disciplines (Amri & Rahman, 2020; Rafianti & Pujiastuti, 2017; Yandri, Sujadi, & Juliawati, 2021), and it has also been the subject of investigation in EFL teaching in speaking skill (Hz, 2022). More specifically, research into the connection between STIFIn and the ability to write effectively in the English language has not yet been conducted on a large scale, particularly research examining the types of writing errors that students make.

To that midway point, an academic institution in Medan has implemented the complete division-based curriculum system, which is primarily brain-division-based: STIFIn-based. Students are divided into categories according to the type of intelligence they attain. Students with a dominant right brain are placed in classrooms with only right-brain persons. Students with left-brain dominance, on the other hand, are placed in classrooms with only left-brain personnel. This constructivist approach, in place for the past two years, is intended to ensure that students are provided training that is tailored to their unique knowledge and expertise, as theorized by STIFIn.

This academic institution is a vocational college that focuses mostly on the subject of business management. On the other hand, the curriculum includes four different English classes that start in the first, second, third, fourth, and fifth semesters, respectively. These classes are Basic English I and II, Conversation I and II, Business English, English for Specific Purpose, and TOEFL Class. These classes are available to students beginning in the first semester of their program and continuing through the fifth semester. These various English aspects are presented in levels, beginning with the basics and progressing to more

complex subjects by lecturers whose levels of brain dominance have also been tested. Instead, many problems come up during the teaching and learning of this course. There are a couple of errors in the writing of the students. Errors in the preposition, grammar errors, errors in part of speech, and omission errors are the instance of common errors in this context, which are caused by notable factors. Error issues in academic writing have been broadly proven by several pieces of research, in terms of translation errors (Barzegar, 2013), morphological errors (Dinamika & Hanafiah, 2019b; Kusumawardhani, 2018; Ramadan, 2015; Zawahreh, 2012), and grammatical errors (Burhanuddin, 2020; Dinamika, 2021a; Kusumawardhani, 2017; Merizawati, 2019). Yet, the error analysis based on the student's brain dominance remains less in number, therefore, based on the issues that occurred, it is necessary to investigate the factors that cause students making errors in their writing, on basis of their brain dominance distinction. Specifically, the students have been divided into classes based on their brain dominance. This study aims to investigate the writing errors made by students based on their brain dominance: Sensing, Thinking, Intuiting, Feeling, and Instinct.

Intelligence steering is made up of both introverts and extraverts (Poniman, 2009), and the acronym STIFIn stands for the five sorts of personalities that make up an intelligence machine: Sensing, Thinking, Intuiting, Feeling, and Instinct (Agung & Rustandi, 2017). Both the "intelligence machine" and the "intelligence steering" work together to create the unique genetic personality of each STIFIn individual (Dini, 2022). For that, there are nine different types of hereditary personality, they are: Sensing extrovert (Se), Sensing introvert (Si), Thinking extrovert (Te), Thinking introvert (Ti), Intuiting extrovert (Ie), Intuiting introvert (Ii), Feeling extrovert (Fe), Feeling introvert (Fi), and Instinct (In) [(Dini, 2022; Poniman, 2009). This idea gives rise to the STIFIn genetic personality identification paradigm, which identifies and develops just one dominant genetic personality (Poniman, 2009).

Based on (Poniman & Mangussara, 2012) study, (Hz, 2022) describes Sensing Extroverts (Se) individuals as daring, well-organized, playful, demonstrative, ritualistic, and enduring. It is because muscle is essentially their primary form of intelligence. Although they rely heavily on energy chargers, their power potential is enormous. Sensing Introverts (Si) on the other hand are persistent, passionate, knowledgeable, hard-working, punctual, and apathetic individuals. People who identify as Si are also intelligent, but their primary form of intelligence is analogous to muscle rather. On the other hand, Si people are ambitious since their goals are backed up by their strong physical abilities. Moreover, the second personality is Thinking Extrovert (Te). A personality type known as a Thinking Extrovert (Te) is built on logical intelligence (rational), and their thought processes are internally motivated. As a result, Te are intelligent, upbeat, opinionated, and fiercely competitive. A Thinking Introvert (Ti) is quite similar to a Thinking Extrovert (Te), who is a personality type focused on logical intellect (rational) and whose work process is driven from the outside in. Despite this, the Ti are known for their expertise, meticulousness, mechanization, independence, and prudence. They manage something with great ways but are afraid to get out of their zone.

Otherwise, the next personality type is the Intuitive Extrovert (Ie). The intuitive extrovert personality type is built on sixth sense intelligence (intuition), and their work process is driven from the outside in (Poniman, 2009). Ie are inspiring, assembler, problem-solver, and expressive individuals. Ie are capable of combining huge ideas from the environment with their own to make them more valuable, but they are dependent on their mastermind. In addition, Intuitive Introvert (Ii) is nearly identical to Ie in the intelligence

typology, which is based on sixth sense intelligence (intuition) and whose work process is driven from the outside in. Ii are confident, optimistic, perfectionist, and persistent individuals. They are extremely self-assured, but use their "engine" (creative brain) with no brakes. Additionally, the next personality is Feeling Extrovert (Fe). A person with a feeling extrovert personality is highly sensitive and outgoing (heart). They are persons who are understanding, persuadable, loving, talkative, sensitive, and compassionate. High levels of social competence are a characteristic of the Fe type personality. On the other hand, Feeling Introvert (Fi) is quite similar to the Feeling Extrovert (Fe), who have personality based on their emotional intelligence (heart). Influential, idealistic, a cheerleader, kind, thoughtful, and introspective are just a few words to describe Fi. While influential, they are also easily insulted.

Furthermore, the last personality is Instinct (In). The term "instinct" can refer to either a sort of intelligence or a hereditary personality that is based on the "seventh sense" or "instinct intelligence." They are those who are well-balanced, willing to make concessions, calm, resourceful, straightforward, and mediators. Individuals are brilliant spiritualists, but they are also fierce and temperamental individuals; they have quick intuition and are adept at predicting, but they doubt everything and have no principles.

The key point to mastering the English language skill is not only to achieve the speaking or grammar competencies but also the writing skill since it is one of the language production skills. Writing provides the learners the space to seize their vocabulary and sentence structure functions, moreover, it also allows them to develop their ideas and creative thinking into a real entity.

Writing is a primary convention for recording speech and for reinforcing grammatical and lexical features of language (Brown, 2000). Writing meets the writer with a lot of requirements, such as the legal background of rhetoric, cultural awareness, rewriting, revision, invention, and creativity (Sárosdy et al., 2006). The actualization of the writing activity is poured into a product called text, it is an authentic product of social interaction (Eggins, 2004). Text is any passage, spoken or written, in which the length forms a unified whole, it has the texture which distinguishes text from non-text and functions to hold the clauses of a text together to unify them (Halliday & Hasan, 1976). But, the text is not only as simple as having the collection of grammatical units but it also is built from the generic identity which can be attributed to the genre. Genre refers to any discipline that is derived from social activity in a particular culture. But, related to the literacy text, commonly, the genre has thirteen types that possess their own social function, generic structure, and lexicogrammatical features (Gerot & Wignell, 1994). In line with the purpose of writing and text, this research attempts to employ the recount text in the students' writings, it aims at retelling past events for the purpose of informing and amusing. Its generic structures are the orientation, events, and re-orientation.

The theory of error analysis is one of the branches in the second language acquisition field which was derived from contrastive analysis propounded by (Lado, 1957), which was then expanded by (Richards, 1972), and reinvigorated by (Corder, 1981). Since that, error analysis has kept developing in terms of definition, scope, stages, and procedures as well as their application in the context of second language acquisition. This branch of linguistics focuses on mistakes made by a certain language learner. Error analysis aims to reveal a psycholinguistic process in language learning (Corder, 1981). Although it has been an old branch of linguistic studies in terms of age, however, until now, error analysis is still becoming the main key to identifying errors that occur in language learning, both in the learning of English and other languages. Thus, it makes error analysis is commonly used in

the classroom context. Error is eventually assistance to the process of language learning. Some errors are global, they violate the overall structure of a sentence, meanwhile, the rests are local, they affect only a single unit in the sentence (Ellis, 2003).

Few notable linguists had worked within the notion of error analysis, one of them was the collaboration between (Gass & Selinker, 2008), they emphasized that different from contrastive analysis, error analysis focuses on the learners' actual productions which compare the errors a learner makes in producing TL and the TL form itself. Error, itself, is not recognized by the learner so it is a systematic phenomenon. There are two main sources of error in the error analysis theory, interlingual and intralingual errors. The interlingual one deals with the NL influence, while the intralingual one is related to the TL itself, regardless of the NL. Since the error analysis framework plays important role in revealing and enhancing the student's TL learning achievement, (Gass & Selinker, 2008) then constructed several pedagogical phases to implement error analysis in the classroom context, they are collecting data (generally written, but possible to spoken data as well), identifying errors (find and mark the errors found), classifying errors (put the found errors to its common group), quantifying errors (numerate the occurrence of each group), analyzing the source of errors (whether interlingual or intralingual), and remediating (give the pedagogical feedback).

METHOD

In this study, the researchers adopt a qualitative case study in which to aim at a phenomenon in its natural setting. The researchers conducted this by using a variety of information sources to make sure the problem is not looked at through just one viewpoint, but rather through several frames to demonstrate and understand the phenomenon's many sides (Bakter & Jack, 2008). The data collected in this study were processed by using two methods: statistical calculations for quantitative data about the errors the participants made in their text writing by using Gass & Selinker's (2008) writing errors approach which was then categorized based on the respondents' STIFIn brain dominance, and constructive analysis for qualitative data related to the results of comparing the errors.

This study enrolled 41 students from a college of management studies namely, Sekolah Tinggi Ilmu Manajemen Sukma, located in the city of Medan. The participants were selected from two classes of second-semester students who took the Basic English II course as part of their semester credits. All the participants had been assessed for their personality and their types of STIFIn. The STIFIn test has been given on their first semester of study, as one of the facilities they got once being enrolled on this university. The STIFIn test was carried by scanning their fingerprints and their blood types, and then the machine will process the data to determine their kind of STIFIn personality. Moreover, all of the participants have previously completed a series of English subjects, beginning with Basic English I and Conversation II, thus at the time the data was gathered, the participants were undergoing Basic English II and Conversation II.

The researcher started by gathering the information that was accessible through the academic division of the college regarding the various characteristics of personality that were linked to which side of the brain was dominant among students. Then, to gather the data, the participants were assigned to write a topic-based recount text entitled "when I traveled to" with a minimum of seven sentences in amount. Moreover, the texts that they wrote were in the English language which is notably known as a foreign language to Indonesian speakers. After all, the researchers attempted to analyze the data by applying the

pedagogical phases of (Gass & Selinker, 2008). Besides, the errors are categorized and compared based on their types of STIFIn. Those collection of sources were categorized as data, as in qualitative, those sources have fulfilled the criteria and have been credible.

FINDINGS AND DISCUSSION

The results showed that all participants signified 5 types of brain dominance with the description of; 7 students with thinking introverts; 6 students with thinking extroverts; 1 student with sensing extroverts; 2 students with sensing introverts; 6 students with feeling introverts; 6 students with feeling extroverts; 6 students with intuiting extroverts; 2 students with intuiting introverts, and 5 students with instinct. Next, the texts written by the 41 students were entirely analyzed using the Error Analysis procedure designed by (Gass & Selinker, 2008). Hence, this section is presented to project the genuine results of the data analysis. To ease the process of analysis, the researchers contracted the terms of 5 types of brain dominance as followings; Thinking Introvert (TI), Thinking Extrovert (TE), Instinct (In), Feeling Introvert (FI), Feeling Extrovert (FE), Intuiting Introvert (II), Intuiting Extrovert (IE), Sensing Extrovert (SE), and Sensing Introvert (SI).

Therefore, Table 1 below presents the final results of the data analysis that is converted into numbers to show the number of error categories committed by the participants whose brain dominance varied.

Table 1. Distribution of error category in each intelligence machine

No.	Number of Error Category Occurrences	Intelligence Machine									Total	%
		TI	TE	In	FI	FE	II	IE	SE	SI		
1	Proper Noun	33	18	10	10	7	6	14	1	12	111	25.7
2	Word-formation	8	3	0	1	0	0	2	0	2	16	3.7
3	Punctuation	13	13	13	20	30	12	17	2	6	126	29.2
4	Conjunction	4	1	1	4	1	0	2	0	1	14	3.2
5	Misspelling	12	27	12	4	0	0	5	5	3	68	15.7
6	SVA	13	6	5	2	0	6	0	6	0	38	8.8
7	Preposition	4	2	3	4	2	2	3	0	0	20	4.6
8	Article	1	2	0	0	3	0	1	0	0	7	1.6
9	Mistranslation	2	1	0	0	1	0	7	0	0	11	2.5
10	Number Agreement	1	0	1	0	0	0	0	0	0	2	0.5
11	Passive Voice	0	2	1	0	0	0	0	0	0	3	0.7
12	Pronoun	0	4	1	1	1	3	3	1	0	14	3.2
13	Genitive Case	0	0	0	0	0	0	0	0	1	1	0.2
14	Past Participle	0	1	0	0	0	0	0	0	0	1	0.2
Total		91	80	47	46	45	29	54	15	25	432	

From the data analysis, it was found that the entire students committed making errors in a pretty broad area, 14 types of grammatical errors, consisting of errors in the use of part of speech including proper nouns, pronouns, punctuation, conjunction, preposition, and article, in addition to those types are word-formation, misspelling, subject-verb agreement (SVA), mistranslation, number agreement, passive voice, genitive case, and past participle. In terms of the category of grammatical error, punctuation ranks first as the most common error with an amount of 29.2 %, respectively followed by proper noun errors with 25.7%;

misspelling errors with 15.7%; subject-verb agreement errors with 8.8%; preposition errors with 4.6%; word-formation errors with 3.7%; each of conjunction errors and pronoun errors with 3.2%; mistranslation errors with 2.5%; article errors with 1.6%; passive voice errors with 0.7%; number agreement errors with 0.5%; and the least each of genitive case errors and past participle errors with 0.2%. But, in terms of the number of errors made by the students with certain brain dominance, this analysis found that the single participant with SE was the one who made errors the most, with a ratio of 1:15 errors written in his text, followed respectively by II with a ration of 1:14.5 errors; TE with a ratio of 1:13.3 errors; TI with a ratio of 1:13 errors; SI with a ratio of 1:12.5 errors; In with 1:9.4 errors; IE with 1:9 errors; FI with a ratio of 1:7.6 errors; and FE with a ratio of 1:7.5 errors. Therefore, the line can be drawn that Feelings (extrovert and introvert) are the brain dominance with the least errors proven by this research. Furthermore, Table 2 below presents several examples of punctuation containing errors committed in the students' writings.

Table 2. Punctuation errors

Error form	Category	Correct form
After that we went	punctuation	After that, we went
After that we continued	punctuation	After that, we continued
At night	punctuation	At night,
In the car	punctuation	In the car,
I was very happy, because	punctuation	I was very happy because
There we stay	punctuation	There, we stay
Legoland Malaysia and several culinary	punctuation	Legoland Malaysia, and several culinary
From the beginning	punctuation	From the beginning,
After that	punctuation	After that,
First	punctuation	First,
The next day	Punctuation	The next day,
After that we continued	punctuation	After that, we continued
mall in Palembang there	punctuation	mall in Palembang, there
After arriving at the mangrove forest	punctuation	After arriving at the mangrove forest,
But after 5 minutes later	punctuation	But after 5 minutes later,
After finishing the photo	punctuation	After finishing the photo,
Three years ago	punctuation	Three years ago,
On the way	punctuation	On the way,
After the afternoon	punctuation	After the afternoon,
trees	punctuation	trees.
we didn't swim	punctuation	we didn't swim.

Most of the punctuation errors found are in the omission of commas (,) and full stops (.). The errors vary from the omission of the comma after the adverb of time, manner, and places, yet, parallel words and sentence shifts. The full stop errors are not found in vast numbers, but the students, several times, seemed to not use the full stop to end a written sentence. Moreover, the students made massive errors in the use of part of speech, whereas it is the basic lesson taught for the English language learners so they could make perfect English phrases, clauses, and sentences. Table 2 below shows the type of proper noun errors found in their writings.

Table 3. Proper noun errors

Error form	Category	Correct form
samosir	proper noun	Samosir
sibea-bea	proper noun	Sibea-bea
gundaling	proper noun	Gundaling
lima pulu regency	proper noun	Lima Pulu Regency
batu bara	proper noun	Batubara
sipinsur	proper noun	Sipinsur
penang	proper noun	Penang
kuala lumpur	proper noun	Kuala Lumpur
to the tele view tower	proper noun	to The Tele View Tower
uleu lheu	proper noun	Uleu Lheu
The siantar zoo	proper noun	The Siantar Zoo
The bukit kubu	proper noun	The Bukit Kubu
micky holiday	proper noun	The Micky Holiday
pariban and siosar peak	proper noun	Pariban and Siosar Peak
aceh	proper noun	Aceh
from iboih island	proper noun	from Iboih Island
sumber padi, kecamatan limpul, kabupaten batubara.	proper noun	Sumber Padi, Kecamatan Limpul, Kabupaten Batubara.
pariban	proper noun	Pariban
salib kasih tarutung	proper noun	Salib Kasih Tarutung
lake toba	proper noun	Toba lake
tongging	proper noun	Tongging

Related to the data sample shown above, the majority of proper noun errors found are the proper nouns that were supposed to be initialized with capital letters but were not. It seemed that the students had missed the fundamental concept of the proper noun. Besides, being known as college students but they still made errors in spelling, which are then termed misspelling errors, it is shown as in Table 4 below.

Table 4. Misspelling errors

Error form	Category	Correct form
of the water makes the heart	SVA	of the water made the heart
we plan to	SVA	we planned to
take a walk	SVA	took a walk
I enjoy	SVA	I enjoyed
place is very far	SVA	place was very far
sit back and talking	SVA	sit back and talk
we here quite satisfied	SVA	we were here quite satisfied
langsa is a very beautiful to see	SVA	langsa was a very beautiful to see
take photos when	SVA	took photos when
when we go up	SVA	when we went up
the trip we take	SVA	the trip we took
we are singing	SVA	we were singing
that I use is the roll coster	SVA	that I used was the roll coster
which is a very extreme	SVA	which was a very extreme
it is very challenging for me.	SVA	it was very challenging for me.

We bake chicken	SVA	We baked chicken
I am happy, but there is a little anxiety	SVA	I was happy, but there was a little anxiety
The salad is very delicious	SVA	The salad was very delicious
the trip we take	SVA	the trip we took
we are singing	SVA	we were singing

Since the data was in written form, the misspelling error can be called miswritten errors as well. The errors found in this category are dominated by the unsuitable use of the letter to form a correct word, whether it is omitted, added, or misused. Hereafter, the errors of subject-verb agreement (SVA) are also found in the data in pretty frequent occurrences, as it is shown in table 5.

Table 5. Subject-verb agreement errors

Error form	Category	Correct form
very happy with that moment	preposition	very happy at that moment
on the new year	preposition	in the new year
vacation to Malaysia	preposition	vacation in Malaysia
gone a vacation	preposition	gone on a vacation
went straight into the zoo	Preposition	went straight to the zoo
After afternoon	preposition	in
because the countain toxins	preposition	because of the contain toxins
a lot a people	preposition	a lot of people
Finished eating we	preposition	after finished eating we
About 15 minutes	preposition	for about 15 minutes,
starts to noon	preposition	starts at noon
went around by riding a wagon.	preposition	went around riding a wagon.
satisfied spending time	preposition	satisfied spending time
After we were satisfied	preposition	We were satisfied
was to Pariban and Siosar	preposition	was Pariban and Siosar
a lot sharp	preposition	a lot of sharp
of vacationing to lake toba.	preposition	of vacationing in Lake Toba.
because, the calm natural	preposition	because of the calm natural
In the last day	preposition	On the last day

The students mostly used the past tense to write the text, though some in the present tense. But, the SVA errors commonly occurred for their inconsistency in writing by using certain tenses, for instance, in a clause preceded by a past verb, one proceeded with a present verb. Furthermore, related to the part of speech errors, prepositions did take place.

Table 6. Preposition errors

Error form	Category	Correct form
very happy with that moment	preposition	very happy at that moment
on the new year	preposition	in the new year
vacation to Malaysia	preposition	vacation in Malaysia
gone a vacation	preposition	gone on a vacation
went straight into the zoo	Preposition	went straight to the zoo
After afternoon	preposition	in

because the countain toxins	preposition	because of the contain toxins
a lot a people	preposition	a lot of people
Finished eating we	preposition	after finished eating we
About 15 minutes	preposition	for about 15 minutes,
starts to noon	preposition	starts at noon
went around by riding a wagon.	preposition	went around riding a wagon.
satisfied spending time	preposition	satisfied spending time
After we were satisfied	preposition	We were satisfied
was to Pariban and Siosar	preposition	was Pariban and Siosar
a lot sharp	preposition	a lot of sharp
of vacationing to lake toba.	preposition	of vacationing in Lake Toba.
because, the calm natural	preposition	because of the calm natural
In the last day	preposition	On the last day

Preposition errors are probably caused by the different structures of students' L1 and L2, in which in the English language the preposition plays important role in the formation of the prepositional phrase, but in Bahasa Indonesia does not. Therefore, in this research, most of the preposition errors found are in the form of the prepositional phrase. Meanwhile, table 7 below aims to present the word-formation errors.

Table 7. Word-formation errors

Error form	Category	Correct form
lake toba	word-formation	Toba Lake
at Geosite Sipinsur	word-formation	at the Sipinsur Geosite,
the 11 day	word-formation	the 11th day
the 12 day	word-formation	the 12th day
had n't	word formation	hadn't
Rail road	word formation	railroad
half past	word-formation	half-past
after clean clean	word-formation	after cleaning
to sharing	word-formation	to share

Though word-formation errors occurred less than the five previous errors, it could depict that the students even made the words inappropriately. As seen through the data gathered, this category of errors is, in fact, the most basic type of word formation such as word abbreviation, ordinal numbers, hyphenated compound words, and so on.

Table 8. Conjunction errors

Error form	Category	Correct form
away, so did we	conjunction	away, and so did we
mother, two sister	conjunction	mother, and two sister
takes about	conjunction	and took about
the plane about 45 minutes	conjunction	the plane for about 45 minutes
Or waiting	conjunction	Of waiting
to be use three days	conjunction	to be used for three days
three children, and nantulang and her two children	conjunction	three children, nantulang, and her two children
because if was getting late	conjunction	because it was getting late
sauce, fried round eggs.	conjunction	sauce, and fried round eggs.

we rushed to go home we also tidied	conjunction	we rushed to go home and we also tidied
sausage and fish and all the work done by big Cousins	conjunction	sausage, and fish, all the work done by big Cousins
it was a holiday we queued the waves crashing, the breeze air.	conjunction	it was a holiday and we queued the waves crashing, and the breeze air.
dance tortor also learned	conjunction	dance Tortor and also learned

It seems that the students didn't aware of the use of the conjunction 'and' while writing their texts. The conjunction 'and' might have not always been pronounced in the spoken language, but once it is written into text, then it is supposed to be written. Therefore, the result shows that the majority of the conjunction errors are the omission of the conjunction 'and', which continuously donates the occurrence of punctuation errors. Remain related to the part of speech errors, the unsuitable use of pronoun did exist as well.

Table 9. Pronoun errors

Error form	Category	Correct form
when us arrive at your destination	pronoun	when we arrived at our destination
us mind will	pronoun	our mind will
to warm the body	pronoun	to warm our body
Me and my friend	pronoun	I and my friend
me and my friends	pronoun	I and my friends
about half an hour we traveled.	pronoun	about half an hour traveled.
friends of father	pronoun	friends of my father
i	pronoun	I
I rode with me,	pronoun	I rode with them,
arrived at my siosar	pronoun	arrived at the Siosar
and ate	pronoun	And I ate

The result shows that the students found it difficult to differentiate which type of pronoun needed to be used in a certain case. This category of error is most probably caused by the students' inadequate knowledge of using pronouns which eventually exist with different functions in the English language structure, moreover, their L1 does not have any type of pronoun. Though it is less in numbers, besides the pronoun errors, the students also made errors in translating the word as shown in table 10 below.

Table 10. Mistranslation errors

Error form	Category	Correct form
coal	mistranslation	Batubara
from fifty	mistranslation	from Lima Pulu
the brand	mistranslation	Merek
Fifty	mistranslation	Lima Puluh
cane city	mistranslation	Kuta Cane
om	mistranslation	uncle

As described in the previous section, the students were assigned to write a topic-based text entitled "*when I traveled to*", so the names of places such as the name of streets, tourist objects, lakes, mountains, cities, or villages are frequently found. But, several places

had Indonesian names that also had meaning in the English language, such as Kota Batubara which could be translated as Coal City, meanwhile, it didn't make sense in the translation process. Therefore, the category of mistranslation errors is mostly caused by the overgeneralization in the translation process.

Table 11. Article errors

Error form	Category	Correct form
at Geosite Sipinsur	article	at the Sipinsur Geosite,
In afternoon	article	In the afternoon
long day leeping in bed	article	a long day sleeping in bed
statue of the Gale gale.	article	statue of Gale gale.
for a memories.	article	for memories.

Related to the article errors, the students commonly made errors in the addition or the omission of the article units '*a/an, the*'. The errors might occur since, in their L1, the article isn't recognized as the unit of language structure, meanwhile, the use of the article does matter in the English grammar. Furthermore, table 12 below presents the errors of passive voice use.

Table 12. Passive voice errors

Error form	Category	Correct form
To be use	passive voice	To be used
commonly know as	passive voice	commonly known as
to be use three days	passive voice	to be used for three days

Being occurred only three times in the data analysis, the passive voice could reflect that the students faced ignorance in applying the correct formula of the passive voice which definitely uses the past participle form of the verb. Since the last three errors are the least occurrences, they are collectively presented in table 13, as followings.

Table 13. Number agreement errors, genitive case errors, and past participle errors

Error form	Category	Correct form
mother, two sister	number agreement	mother, and two sister
2 pair of clothes,	number agreement	2 pairs of clothes
my grand parents group	genitive case	my grand parent's group
the appoint time	past participle	the appointed time

A number of agreement errors occurred since the students could not pair the plural number with the plural form of the nouns. Whilst, the genitive case sentences were hardly ever used in the students' writing, therefore the number of errors became the least. The only error-containing sentence shows that the student didn't recognize the pattern of the noun phrase that needed to be separated by the genitive case which was marked by the use of an apostrophe ('s). Similar to the genitive case error, the past participle error also becomes the least error found in the data analysis. The found error form shows that the student had missed changing the word 'appoint' into adjective form through the use of past participle (V3) that could work as an adjective in a sentence.

Researchers analyzed the quantity of errors made by respondents based on their brain dominance. Because the number of respondents is not balanced across each type of

intelligence machine, researchers use the value of the ratio between the number of respondents and the number of errors made to obtain a proportional and unbiased number. The single person with Se made the most errors, with a ratio of 1:15 errors recorded in their texts, followed by Ii with 1:14,5 errors, Te with 1:13,3 errors, and Ti with 1:13 errors. Si made 1:12,5 errors, In 1:9,4, Ie 1:9, Fi 1:7,6, and Fe 1:7,5. Se (Sensing Extrovert) students committed the most errors, whereas Feelings (extrovert and introvert) produced the fewest.

The SE responders' high rate of errors is linked to the preeminence of their brains, which in turn determines their personalities. (Poniman & Mangussara, 2012) describes Sensing Extroverts as those who are primarily motivated by stimuli external to themselves in their line of employment. The ability to master one's physical movements, also known as PQ (Physical Quotient), is the primary benefit of SE (Poniman & Mangussara, 2012). This individual is the type who believes that practice makes perfect and puts an emphasis on mastery. Memorizing the material is important to the Se learning style. For those of the Se personality type, the best way to learn is through hands-on practice and personal experience (Poniman & Mangussara, 2012). Repetitive forms of exercise are an excellent way to get the myelin working. The more often they train, the more myelin develops, so the proficiency of this type will increase. Trained with myelin-based physical abilities, providing specific experience exposure will make Se type have a high price. Therefore, by paying attention to the aspect of the respondents' low writing intensity, it can be understood that the number of errors made by the respondents was due to their little experience in writing. If the intensity of their writing is increased, it is assumed that the level of errors made by SE will be reduced and less, because they are proficient in doing something because the process is repeated. Thus, writing is not the main strength of the Se individual. The learning process and other learning skills that prioritize physical strength should be the main aspects that their instructors pay attention to, in order to create more effective learning outputs. Also, parents and their teachers should direct them more to positive things in the form of physical activity and repetition, so that brain function can work optimally.

Respondent Ii exhibited the second-highest mistake rate, with a ratio of 1:14.5. The intuitive introvert is a personality type based on sixth sense intelligence (intuition) whose work process is driven from inside to outside (Poniman & Mangussara, 2012)). This is distinctive because its creativity and intuition talents are above those of other personalities, resulting in advantages that are matched with creative intelligence or CQ (Creativity Quotient), specifically the ability to create something original (original) and distinctive (different). Ii is actually a very perfectionist individual with high work standards, but has the opposite side in his personality, namely very high self-confidence but spurs his brain too fast as if without brakes (Poniman & Mangussara, 2012). Because of this, they have a propensity to write down whatever comes to mind rapidly and creatively, without giving any thought to the particulars of making even little errors. Ii individuals are internally motivated; therefore, it is natural for them to want to continually produce something innovative. Ii regularly makes minor errors, which unfortunately tend to be disregarded due to their stubbornness and the fact that their creativities tend to get out of control when they do not have any sort of control over it. Because of this, Ii is more likely to commit errors in their writing than other individual groups in this context.

Meanwhile, respondent Fe committed the fewest errors with a ratio of 1.75. Feeling extrovert is a personality type focused on emotional intelligence or feelings (heart) whose work process is externally directed (Poniman & Mangussara, 2012). Fe possesses the qualities of empathy, persuasiveness, communication, and consideration. Their greatest asset is social intelligence, often known as SC (Social Quotient). Fe individuals have the

potential for greater mental strength, as they can perceive the heart language of others for longer. This kind may even maintain feelings and empathize more effectively than others. In addition, type Fe appears to have a greater capacity for both loving and being loved. Having this ability makes Fe individuals more careful when writing, resulting in fewer inaccuracies. When individuals make a mistake, they worry that it will be the subject of gossip. They worry that others would judge them negatively based on what they write. As a result, they incline to master the proper language so that the readers of their work can interpret its' meaning as they like. Because they prefer to learn through conversation and active listening, they often have a wider range of vocabulary than the average person. They are primarily motivated by the pleasure they derive from the approval of others; so, they exercise great care when writing in the attempt that their work will be well received.

In addition, responders from Fi made fewer mistakes than average (1:1.76). These deviations are relatively negligible, with a ratio nearly equal to Fe (1:1.75). A Feeling Introvert is a personality type based on emotions or feelings (the heart), whose motivation for undertaking things comes from inside (Poniman & Mangussara, 2012). Fi is a person who is persuasive, friendly, idealistic, persuading, and a promoter (Poniman & Mangussara, 2012). One aspect of intrapersonal intelligence that they excel at is the emotional quotient. Intrapersonal intelligence is defined as the ability to comprehend oneself, the preference for solitude, the enjoyment of thoughtful reflection, the taking of significant notes, and the enjoyment of writing things down. As a result of this factor, Fi in this circumstance produces significantly fewer errors in their writing. Writing is something they are comfortable with because it is in their nature to enjoy writing things like notes and diaries. Not only that, but Fi is a great listener despite their strong desire to speak. However, this kind will learn more if they pay attention. Therefore, when individuals come to class, they simply listen to their teacher's explanation. Therefore, when requested to write, they will convey effectively what has been stored in their minds. Compared to previous studies on students' errors, this research comes up showing that brain dominance, intelligence machine, and personality have impact to the students' ability in acquiring a second language, particularly English in this case.

Remediation

As the last phase of the error analysis procedure designed by (Gass & Selinker, 2008), the remediation attempts to give pedagogical feedback that might be useful for the involved sides. It also roles as the problem solver in certain problematic areas. Since this study takes place in an academic situation, the remediation is addressed not only to students but also to the lecturer, syllabus developer, and college stakeholders. The students who are gifted with certain brain dominance and intelligence machine must be appreciated as unique yet valuable entities. They should be seen as the complex features of humans without judging which one is the best or worst, and their diverse characteristics create a meaningful academic atmosphere. This brain classification eventually might put them into unbalanced course achievement, the left might think that they couldn't achieve what the rights and the middle achieve, therefore it would probably raise laziness and despair in their learning process. Thus, they must be convinced that every brain dominance and intelligence machine has the same opportunities and possibilities to reach the common goals of the course as long as they effectively optimize their brain ability. The students should be encouraged to dig into their invisible competencies, particularly those whose brain dominance is not Feeling. Peer group discussions can be carried out to motivate the non-feeling students to share thoughts and experiences in learning the English language, as the students commonly get

more comfortable studying in a group with their mates. Using the STIFIn test to define the student's classroom, this college has ever since classified the students based on their brain dominance, the introverts with the introverts, and so do the extroverts. This is very beneficial for lecturers to determine what learning strategies and methods will be applied in each class. The STIFIn theory claims that introverts work maximally under pressure and punishment, while extroverts work maximally if they are lured with rewards. Basically, the lecturer does not need to change the entire content of the course design and learning materials that have been made, he only needs to emphasize the concept of punishment and reward for the two different classes. Whilst, the lecturer also needs to adjust the language skills with certain brain dominance, in which introverts are most likely dealing with the receptive skills (reading and listening), while the extroverts seemed pleased with the productive skills (speaking and writing). Accordingly, it would be better for the syllabus to be revised particularly in the application of language skills that are pivotal to be achieved in English language learning. Seeing these findings which appeared to be problematic in the English subjects, the board of stakeholders at the vocational college might need to review the number of hours of compulsory English course, whether it is enough or even less and to evaluate their policies related to the interrelated English courses. They are also suggested to add extracurricular activities such as English club or focus group discussions supervised by experienced lecturers, those pedagogical suggestions are expected to be useful for the college academists to reach the goal of the English courses.

CONCLUSION

The error analysis procedures arranged by Gass & Selinker have revealed that the students are still committed to making errors in their writing compositions, consisting of errors in the use of part of speech including proper nouns, pronouns, punctuation, conjunction, preposition, and article, in addition to those types are word-formation, misspelling, subject-verb agreement (SVA), mistranslation, number agreement, passive voice, genitive case, and past participle, and the pedagogical remediation has been taken out. This research may have only investigated about the errors in writing, meanwhile English is broad, research on any other English language skill and structure are open for exploration.

Going far beyond the analysis of error, STIFIn test has assisted the researchers in finding out the non-language factors that cause students to write with errors. It leads researchers to see that the tendency of the brain side and the dominance of one's intelligence can greatly affect the way a person acquires a second or foreign language, it turns out that their genetics plays a major role in their interests and learning styles. Not only for the language error test but the STIFIn could also be used to test any academic achievement, professional career, psychological test, attitude, and personality check, excellence in worshipping, and so on. It is suggested for the further researcher take out STIFIn test for a broader purpose.

REFERENCES

- Abdolrezapour, P., & Tavakoli, M. (2012). The relationship between emotional intelligence and EFL learners' achievement in reading comprehension. *Innovation in Language Learning and Teaching*, 6(1), 1–13.
- Agung, B., & Rustandi, D. (2017). *Ini Gue Banget: Temukan Kekuatan Rahasiamu, Jadilah Apapun yang Kamu Mau*. PT. Elex Media Komputindo.

- Alindra, A. L. (2018). Kajian Aksiologi Metode STIFIn dalam Pemetaan Mesin Kecerdasan Manusia. *Jurnal Filsafat Indonesia*, 1(1), 23–29.
- Alsagoff, L. (2016). Interpreting error patterns in a longitudinal primary school corpus of writing. *The Asian Journal of Applied Linguistics*, 3(1), 114–124.
- Amri, M., & Rahman, U. (2020). Description of Structural Officers STIFIN Test Results of UIN Alauddin Makassar. *Lentera Pendidikan: Jurnal Ilmu Tarbiyah Dan Keguruan*, 23(1), 1–8.
- Ananda, R., Gani, S. A., & Sahardin, R. (2014). A study of error analysis from students' sentences in writing. *Studies in English Language and Education*, 1(2), 81–95.
- Askani, S., & Askari, A. (2017). Personality Traits and Performance in Listening for Minimal Pairs. *International Journal of English Language & Translation Studies*, 5(4), 57–63.
- Barrot, J. S. (2018). Using the sociocognitive-transformative approach in writing classrooms: Effects on L2 learners' writing performance. *Reading & Writing Quarterly*, 34(2), 187–201.
- Barzegar, M. (2013). Persian EFL students' error analysis. *Asian Journal of Social Sciences & Humanities*, 2(4), 322–334.
- Brown, H. D. (2000). *Principles of language learning and teaching* (Vol. 4). Longman New York.
- Burhanuddin, A. (2020). Error analysis of English sentences written by Indonesian college students. *Jurnal Lingua Idea*, 11(1), 30–43.
- Celce-Murcia, M., & Olshtain, E. (2000). *Discourse and context in language teaching: A guide for language teachers*. Cambridge University Press.
- Corder, S. P. (1981). *Error analysis and interlanguage*. Oxford University Press, USA.
- Dinamika, S. G. (2021a). Grammatical Errors in Thesis Abstracts Written by the Undergraduate Students of Management Study Program. *JOALL (Journal of Applied Linguistics and Literature)*, 6(1), 72–86.
- Dinamika, S. G. (2021b). GRAMMATICAL ERRORS IN THESIS ABSTRACTS WRITTEN BY THE UNDERGRADUATE STUDENTS OF MANAGEMENT STUDY PROGRAM. *JOALL (Journal of Applied Linguistics and Literature)*, 6(1). <https://doi.org/10.33369/joall.v6i1.12443>
- Dinamika, S. G., & Hanafiah, R. (2019a). SYNTACTICAL ERROR ANALYSIS ON REPORT TEXT. *JOALL (Journal of Applied Linguistics & Literature)*, 4(2). <https://doi.org/10.33369/joall.v4i2.7681>
- Dinamika, S. G., & Hanafiah, R. (2019b). Syntactical error analysis on report text. *JOALL (Journal of Applied Linguistics and Literature)*, 4(2), 120–129.

- Dinamika, S. G., & Siregar, E. B. A. (2020). A Morphological Error Analysis of Students' Written Reports on Indonesia's 2014 Presidential Election. *IJEE (Indonesian Journal of English Education)*, 7(1). <https://doi.org/10.15408/ijee.v7i1.16978>
- Dini, J. P. A. U. (2022). Strategi Pendidikan Karakter Anak Usia Dini Menggunakan Perangkat Kepribadian Genetik STIFIn. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(3), 1859–1872.
- Egins, S. (2004). *An Introduction to Systemic Functional Linguistics*. Continuum.
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford university press.
- Foroozandehfar, L., & Khalili, G. F. (2019). On the relationship between Iranian EFL learners' reading fluency, their personality types and learning styles. *Cogent Arts & Humanities*, 6(1), 1681347.
- Gass, S. M., & Selinker, L. (2008). *Second Language Acquisition: An Introductory Course*. Routledge Taylor and Francis Group.
- Gerot, L., & Wignell, P. (1994). *Making Sense of Functional Grammar*. Southwood Press.
- Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. Longman.
- Hz, B. I. R. (2022). AN EXPLORATION ON STUDENTS' PUBLIC SPEAKING ANXIETY: STIFIn PERSPECTIVE. *LLT Journal: A Journal on Language and Language Teaching*, 25(1), 149–159.
- Kusumawardhani, P. (2017). The analysis of errors of omission in english narrative composition made by EFL students. *JELE (Journal of English Language and Education)*, 3(2), 84–96.
- Kusumawardhani, P. (2018). The Error Analysis of Derivational Morphology in EFL's English Narrative Composition. *International Journal of Language Education*, 2(1), 22–30.
- Lado, R. (1957). *Linguistics across cultures: Applied linguistics for language teachers*. University of Michigan press.
- Lahuerta, A. (2020). Analysis of accuracy in the writing of EFL students enrolled on CLIL and non-CLIL programmes: the impact of grade and gender. *The Language Learning Journal*, 48(2), 121–132.
- Lee, H., & Lee, J. H. (2022). Interpreting the effectiveness of academic English writing programmes in higher education: A meta-analysis. *Oxford Review of Education*, 1–20.
- Merizawati, H. (2019). An Error Analysis in Paper Presentations: A Case Study of Indonesian EFL Learners. *Linguists: Journal Of Linguistics and Language Teaching*, 4(2), 71–103.
- Nowbakht, M., & Fazilatfar, A. M. (2019). The Effects of Working Memory, Intelligence and Personality on English Learners' Speaking Ability. *Journal of Asia TEFL*, 16(3), 817.

- Oshima, A., & Hogue, A. (1999). *Writing: Academic English (3rd ed)*. Longman.
- Pasaribu, A. N. (2021). A Common Error Analysis in Students' English Narrative Writing. *Linguistic, English Education and Art (LEEA) Journal*, 4(2). <https://doi.org/10.31539/leea.v4i2.2338>
- Phonna, R. (2014). AN ANALYSIS OF STUDENTS' FREE WRITING. *Englisia: Journal of Language, Education, and Humanities*, 1(2).
- Poniman, F. (2009). *STIFIn personality mengenali mesin kecerdasan anda*. Bekasi. PT. STIFIn Fingerprint.
- Poniman, F., & Mangussara, R. A. (2012). Penjelasan Hasil Tes STIFIn. *Bekasi: PT. STIFIn Fingerprint*.
- Rafianti, I., & Pujiastuti, H. (2017). ANALYSIS OF STUDENTS' MATHEMATICAL POWER IN TERMS OF STIFIN TEST. *Infinity Journal*, 6(1), 29–36.
- Rahimi, M., & Fathi, J. (2021). Exploring the impact of wiki-mediated collaborative writing on EFL students' writing performance, writing self-regulation, and writing self-efficacy: a mixed methods study. *Computer Assisted Language Learning*, 1–48.
- Ramadan, S. (2015). Morphological errors made By Jordanian university students. *Romanian Journal of English Studies*, 12(1), 40–49.
- Richards, J. C. (1972). *Error Analysis: Perspective on Second Language Acquisition*. Longman.
- Sárosdy, J., Bencze, T. F., Poór, Z., & Vadnay, M. (2006). Applied Linguistic I: for BA Students in English. *Bölcsész Konzorcium*, 60–63.
- Sundari, D., Hidayah, J., Edy, S., & Esmianti, F. (2021). Error Analysis of English Sentence Structure in Students' Written Paragraphs. *ENGLISH FRANCA : Academic Journal of English Language and Education*, 5(1). <https://doi.org/10.29240/ef.v5i1.2173>
- Travolta, Y. (2018). A comparative study on introvert and extrovert students personality in English listening scores. *Journal of English Education and Teaching*, 2(2), 9–19.
- Vakili, S., & Ebadi, S. (2022). Exploring EFL learners developmental errors in academic writing through face-to-Face and Computer-Mediated dynamic assessment. *Computer Assisted Language Learning*, 35(3), 345–380.
- Wilcox, K. C., Yagelski, R., & Yu, F. (2014). The nature of error in adolescent student writing. *Reading and Writing*, 27(6), 1073–1094.
- Wolfe-Quintero, K., Inagaki, S., & Kim, H. Y. (1998). *Second language development in writing: Measures of fluency, accuracy, & complexity (No. 17)*. University of Hawaii Press.
- Xu, Y. (2021). Investigating the effects of digital multimodal composing on Chinese EFL learners' writing performance: A quasi-experimental study. *Computer Assisted Language Learning*, 1–21.

- Yandri, H., Sujadi, E., & Juliawati, D. (2021). Perencanaan Karir Siswa Sekolah Menengah Atas dengan Pendekatan Konsep STIFIn untuk Menghadapi Perilaku Kapitalisme di Era Revolusi Industri 4.0. *Educational Guidance and Counseling Development Journal*, 4(2), 58–65.
- Zawahreh, F. A. S. (2012). Applied error analysis of written production of English essays of tenth grade students in Ajloun Schools, Jordan. *International Journal of Learning and Development*, 2(2), 280–299.