Surface Strategy Taxonomy: Error Analysis in Academic Writing

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Abstract
This research aimed to describe the types of errors and their sources produced by 25 students of the Academic Writing Class of the Talent Scouting Program at IAIN Salatiga. This research used a qualitative method using students’ writing assignments as the data source. The Theory of Surface Strategy Taxonomy was used in the data analysis by describing the errors and their sources in students’ academic writing. In finding the source of error, the researcher used comparative analysis. This study found four types of errors, with a total of 29 errors, including the omission 17 times, misinformation 5 times, addition 5 times, and misordering 2 times. Meanwhile, four sources of errors were found: developmental or intralingual errors 14 times, ambiguous errors 6 times, unique errors 2 times, and interlingual errors 7 times. From the data, it can be concluded that the most error made by students is the omission, where they often reduce some parts needed in English sentences. While developmental or intralingual is the most common source that causes errors because students still do not understand the English grammatical rules.

Keywords: Academic writing, Surface strategy taxonomy, Error analysis

Introduction
Language is a means of communication used by people worldwide. It is not only used by native but also foreign speakers (Sundari, 2018). The objective of communication is delivering messages to others. According to William (1977), as cited in Rosyidha (2017), language is a definition of a human being that always explains something implicitly or explicitly. Language is needed in every aspect of human experience, and using language can imagine that experience, so it is impossible if humans to do social activities without language. Language, especially English, is an international and second language to be learned, having an essential role in communication because it integrates all people around the world with different needs such as politics, education, technology, and economy (Mompean, 2016). In communication, they are matters of understanding. They are grammar, vocabulary, and punctuation. Grammar, vocabulary, and punctuation mastery will make the language understandable.

In its learning, four specific skills need to be studied by students: listening, speaking, reading, and writing. Writing and speaking are called productive skills. Jaramillo and Medina (2011 in Hossain 2015) say that productive skills as means of speaking and writing skills are essential to persuade or convince others or share feelings. Listening and reading skills are receptive skills, because people get and understand the information when doing those skills. The researcher focuses on writing from the four English skills that should be learned. Writing skills
are an important part of communication when students cannot express their ideas and feelings with speech. Writing is the foremost difficult of the four skills above (Larsen-Freeman, 2000). This is because writing includes complex language systems such as sentence structure, punctuation, spelling, and vocabulary. Harmer (2011) said that writing differs from speaking in its features. Besides differences in vocabulary and grammar, some features should be considered, including the letter, word, and text formation. After that, its manifestation in handwriting, spelling, punctuation, and layout also matters. That means that the writing skill can improve students’ vocabulary grammar, and develop their understanding of how to express their ideas meaningfully, especially in sending the message to others. Writing is very important for a learner to communicate ideas to people outside their immediate surroundings. Talent Scouting is a particular program organized by IAIN Salatiga which recruits and prepares students for international scholarships. They will get several classes on academic writing and foreign language skills. The paper task becomes a significant assignment that should be done in writing subjects especially. The assignment is given from the lecturer to students to be wrapped up from class time and should be submitted in written form discussing a specific subject. To get good written structure, the students must produce understandable sentences. They should know rules that must be learned and followed, called grammar. Grammar becomes the most important feature in learning English, as it enables people to express their ideas or feelings in written and spoken ways. English learners need to learn and use grammar correctly. Learners experience 2 challenges in learning and using grammar correctly: understanding grammatical rules and internalizing its features (Ma’mun, 2016). Having good grammar will help express their ideas to the readers. Language and grammar are inseparable. A language without correct grammar will be disorganized, causing grammatical errors in writing and other communicative problems. Many teachers frequently lament that they are unable to focus on their class due to the pupils’ excessive activity. University students sometimes use their way of thinking to translate their mother language to the target language in expressing their ideas in English. They still need to learn the grammatical concept, especially in writing, translating oral language into the target language in the form of written language (Campion, 2016). Some students are difficult to apply grammatical concepts so error still happens. An error is a deviation that can be noticed, even made by native speakers in their grammar. Therefore, as a matter of fact, writing in English is not easy for some students. They may have difficulties using the English language and structure in writing. Because of this, the error can be found in their written product. Conversely, errors will build students’ knowledge to use the target language. Students will learn something new from making errors and improve their writing ability. Richard, as cited by Rahmawati (2012), error analysis is important because of three reasons: it provides information about how long and how much the students have learned the language, it describes how the language was learned, and it can be a device for learners to discover the rule of the Target language.

English language learning is a process of interconnection between the four skills of English. The students of IAIN Salatiga, especially in the Talent Scouting program, are prepared to be scholarship awardees. They should be good speakers, listeners, writers, and readers (Mahmudah & Rosyid, 2022). Kharmilah (2019: 328) described an error analysis as identifying, classifying, and interpreting or conveying someone’s errors in speaking or writing by paying attention to common difficulties in speaking or writing English sentences. Therefore, this research analyzed the grammatical error in talent scouting program writing assignments.

The error analysis in this research was based on a surface strategy applied to the student’s writing skills on grammatical structure in academic writing class assignments. At this point, Corder (1981) described the surface strategy taxonomy as the classification of superficial error
as the starting point for further systematic analysis. Surface strategy taxonomy is high and low, and surface structures are altered. It includes omission, addition, misinformation, and misordering.

Regarding the above background, this research will find out the types of errors and further analyze why the students commit the errors in their academic writing based on the theory of Surface strategy taxonomy.

Method
This is a qualitative descriptive study, where the data are words. According to Taylor et al. (2016), in qualitative research, descriptive data is produced in the form of written or oral form from the behavior of the observed subject in its behavior. So, understanding the subject's background becomes the research goal of qualitative research.

In addition, Ungguh (2014) defined qualitative research methodologically as research on an abstract and imaginative object. According to Creswell (2014), the steps in collecting data are: (1) deciding and setting the study, (2) collecting the data through observations, interviews, documentation, and collecting visual material, (3) creating a procedure to record the information.

The data was collected by document analysis in the form of the grammatical error the Talent Scouting students made in their writing tests. The researcher collected, documented, and read the students' assignments carefully. After data collection, the researcher then classified and analyzed it using the surface strategy taxonomy theory.

Ellis and Barkhuizen (2005), as quoted by Meiliana (2013), the procedure of error analysis consists of five steps as follows: (1) Collecting the sample of learner language, (2) Identifying the errors, (3) Describing the errors, (4) Explaining other errors, and (5) Evaluating the errors.

The steps in analyzing data in this research were done using the following procedures: Firstly, the researcher collected the students' writing assignments to be interpreted according to Surface Strategy Taxonomy. Secondly, the researcher classified the into four sub-categories of surface strategy taxonomy, including omission, addition, misordering, and misinformation, and then identified the errors in the writing. Thirdly, the data were interpreted and described systematically regarding the error types. The fourth was explaining the error cause of the error from the students. The last is errors evaluation by tabulating the errors in getting the percentage of each sub-category.

According to Surface Strategy Taxonomy, the grammatical errors made in consist of 4 types that can be classified as follows:

1. Omission errors
   It means that an item that must appear to form a good utterance is absent. Even though a morpheme of the sentence is a potential to be omitted, the omission of the morphemes can be more than others

2. Additions Errors
   Opposite of omission errors are addition errors. They can be identified by the existence of a component that is required for an utterance to be well-formed. When the learner has already mastered a few rules in the target language and is in the later phases of L2 acquisition, addition errors typically occur

3. Misinformation errors
   The incorrect use of the morpheme or structure is a hallmark of misinformation errors. While the item is absent in omission mistakes, the learner supplies something in misinformation errors, even though it is false.

4. Misordering errors
   A misordering error is the erroneous placement of a morpheme or a collection of morphemes in an utterance.
The following theory of Dulay et al. (1982) is about the types of sources of error. They describe the sources of error as follows:

1. Developmental or intralingual errors
   Errors committed by children learning the target language as their first language are known as developmental errors. The interest in comparing L2 and L1 acquisition errors is driven by two factors. The first relates to encouraging L2 theoretical advancement. Theoretical conclusions made from the extensive body of L1 research data may also apply to L2 acquisition theory if traits common to both L1 and L2 acquisition could be found. The second point relates to how the first language functions when learning a second. Children learning a first language have never had to acquire a second language. Thus, any mistakes they make cannot possibly be brought on by interference from a different language. It would be logical to speculate that when second language learners make such errors, generic language development processes rather than the rules and structures of the learner's native language are at work.

2. Ambiguous errors
   Ambiguous errors are those that could be categorized as either interlingual or developmental. This is because these errors are both reflective of the learner's native language structure and typical of the speech patterns of young children learning a first language. In a comparative taxonomy, the ambiguous category is particularly significant. By categorizing these errors separately, researchers can derive clear theoretical conclusions from the remaining data and ensure that comparative error analysis results are transparent.

3. Unique errors
   The errors must be specific to second language learners as they are unlike those children make when learning their first language, and since they are not cross-linguistic, some of them must be unique expressions of creative construction.

4. Interlingual errors
   Interlingual errors have a structure comparable to a phrase or sentence in the learner's native language with the same semantic meaning. Researchers typically translate a learner's phrase or sentence into their first language to compare the grammatical structures for interlingual errors. Check whether the learner's L1 structure can be made out in the L2 phrase by comparing the two. Regardless of the internal mechanisms or environmental factors that led to them, interlingual errors are simply L2 errors that reflect native language structure.

The researcher applied Sudijono's (2010) percentage formula to determine the pupils' errors:

\[ P = \frac{F}{N} \times 100\% \]

**Findings and Discussion**

**The Types of Students' Grammatical Errors**

After analysis, there are 4 types of errors stated by the surface strategy taxonomy: addition, omission, misordering, and misinformation. The researcher documented the students' writing to determine the errors. After that, they counted the percentage of each error category in their writing. And also, the source of error was counted. The data of the errors made by students in their writing are as presented below:
Table 1. Error on Surface Strategy Taxonomy

| No | Types of Error | Total | Percentage |
|----|----------------|-------|------------|
| 1  | Omission       | 17    | 58.62%     |
| 2  | Misinformation | 5     | 17.24%     |
| 3  | Addition       | 5     | 17.24%     |
| 4  | Misordering    | 2     | 6.90%      |
|    | Total          | 29    | 100%       |

Figure 1. Error on Surface Strategy taxonomy

Table and Figure 1 show that the errors made by students included: 58.62% error of omission, 17.24% error of misinformation, 17.24% errors of additions, and 6.90% errors of misordering. These errors showed the students’ problem in their writing. This data found that most errors in the percentage of students’ errors made in writing was omission, as shown below:

A. Omission

Students made 17 or 58.62% errors of omission in writing. Their errors in this area were as follows:

1) Incorrect: The people look forward to work
   Correct : The people look forward to working
2) Incorrect: Because the majority people worked as merchant
   Correct : Because the majority of people worked as merchant
3) Incorrect: Since the government was policy maker
   Correct : Since the government was the policy maker
4) Incorrect: The problem should overcome wisely
   Correct : The problem should be overcome wisely
5) Incorrect: It is awesome place with its facilities
   Correct : It is an awesome place with its facilities
6) Incorrect: This city completely surrounded by the mountain scenery
Correct: The city is completely surrounded by the mountain scenery
Incorrect: The government made various efforts to overcome problems
Correct: The government made various efforts to overcome the problems
Incorrect: it is correct way to take
Correct: it is a correct way to take
Incorrect: Human are affected by the virus
Correct: Humans are affected by the virus
Incorrect: Learning activities in school is closed for two weeks
Correct: The learning activities in school is closed for two weeks
Incorrect: all university abolished face to face learning
Correct: all universities abolished face to face learning
Incorrect: Not only executive, but legislative are important
Correct: Not only executive, but also legislative are important
Incorrect: There are many disease from the cat such as influenza, cough
Correct: There are many diseases from the cat such as influenza, cough
Incorrect: The water then overflows out the place
Correct: The water then overflows out of the place
Incorrect: It get many good responses
Correct: It gets many good responses
Incorrect: There also service for additional food
Correct: There is also service for additional food
Incorrect: The floods happened in area people live
Correct: The floods happened in the area where people live

B. Misinformation
There are 5 or 17.24% errors of misinformation that students make in writing. Their errors in this area were as follows:
1) Incorrect: The medical personnel has managed to find a vaccine
Correct: The medical personnel have managed to find a vaccine
2) Incorrect: It's aroma has been famous for a long time
Correct: Its aroma has been famous for a long time
3) Incorrect: They should doing their activity in home
Correct: They should do their activity in home
4) Incorrect: The government made various efforts such as lockdown
Correct: The government made various efforts such as lockdown
5) Incorrect: It must be completed at thet time
Correct: It must be completed at that time

C. Addition
There are 5 or 17.24% errors of addition that students made in writing. Their errors in this area were as follows:
1) Incorrect: The fund that have have been collected
Correct: The fund that have been collected
2) Incorrect: Such as a lockdown and social distancing
Correct: Such as lockdown and social distancing
3) Incorrect: This pandemic is also has an impact on school learning
Correct: This pandemic also has an impact on school learning
4) Incorrect: When people are go to their workplaces
Correct: When people go to their workplaces
5) Incorrect: People can live because of the water
Correct: People can live because of water
D. Misordering

There are 2 or 6,90% errors of misordering that students made in writing. Their errors in this area were as follows:

1) Incorrect: Students get half and an hour workshop per-month
   Correct: Students get an hour and half hour workshop per-month
2) Incorrect: It is believed strongly in society that religion can give a solution to people’s problems
   Correct: It is strongly believed in society that religion can give a solution to people’s problems

The Sources of Students' Grammatical Error

From the data, it was seen that the students' errors source caused by the developmental or intralingual factor, interlingual error, ambiguous error, and unique error. English learners attempt to build up hypotheses about the English language from their limited experience and misleading explanation from the teacher and need to memorize pattern that is not contextualized. On the other hand, English learners have some conditions for making errors, such as faulty generalizations, incompetence application of rules, and failure to learn the condition under which rules apply.

The second stage of interlingual error is a cause of error for the students. The researcher discovered sentences with interlingual errors using the data. Unusual and confusing errors make up the lower source of error. The researcher failed to recognize the mistake clause of individual and undefinable error.

Ambiguous mistakes can be categorized as either developmental or interlingual. This is because these errors reflect the learner's native language structure and are typical of the speech patterns of young children learning a first language.

Unique mistakes differ from those children make when learning a language for the first time. Since they are not interlingual, they must be specific to second language learners, and some of them must be personalized creative construction reflections. After analyzing the students' writing errors and their sources, the data was found as presented below:

| No | Surface strategy taxonomy       | Frequency | Percentage |
|----|---------------------------------|-----------|------------|
| 1  | Developmental or intralingual error | 14        | 48.27%     |
| 2  | Ambiguous error                 | 6         | 20.70%     |
| 3  | Unique error                    | 2         | 6.90%      |
| 4  | Interlingual error              | 7         | 24.13%     |
|    | Total                           | 29        | 100%       |
In this discussion, the researcher shows the students' error source. According to the theory constructed by Dulay et al. (1982), the sources are divided into four, namely, developmental or intralingual error 48.27%, ambiguous error 20.70%, unique error 6.90%, and interlingual error 24.23%, with the analysis as follow:

1. Developmental or intralingual error
   The source of error is not only from the mother language but also from how the students learn the target language. Intralingual error is made by students who do not understand the structure of a second language. There are 14 or 48.27% sources of developmental or intralingual mistakes that students make in writing. It is the highest source of error.

2. Ambiguous error
   Students made these errors 6 times or 20.70%. These errors are reflective of the learners’ native language structure and typical of the speech patterns of young children learning a first language.

3. Unique error
   A unique error was the least common type of student error identified in the data. This mistake was made by the students 2 times or 6.90%. Since second language learners make different mistakes than first language learners, and because these mistakes are not cross-linguistic, some of them must be original examples of creative fabrication.

4. Interlingual error
   Interference, language transfer, and cross-linguistic interference are also known as interlingual errors. The interlingual transfer is an error made by students who learn a second language from their mother tongue. Usually, students still use grammatical structure or dialect from the mother language and then transfer it into the target language, although both have different grammatical structures. This kind of error happened 7 times or 24.23%. The researcher concludes that students lack the vocabulary/knowledge and are accustomed to using the mother language and transferring it into the target language. They still use Indonesian grammar.
Conclusion

Based on the results and discussion above, errors made by the students in their Academic Writing in the Talent Scouting program consist of 58.62% errors of omission, 17.24% errors of misinformation, 17.24% errors of addition, and 6.90% errors of misordering. In addition, the sources of errors are divided into four: developmental or intralingual error 48.27%, ambiguous error 20.70%, unique error 6.90%, and interlingual error 24.23%.

Thus, it can be concluded that the most error made by students is the omission, where they often reduce some parts needed in English. While developmental or intralingual is the most common source, which causes errors because students still do not understand the grammar rules in the English language.

This research is expected to be the direction for English teachers, especially in writing to consider the most errors made by the student, so the teachers can decide which area still needs improvement. Moreover, this research can be a base for further research about grammatical errors and writing.

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