

# DEALING WITH APPLICATION-BASED MATERIALS FOR GRAMMAR

## (A CASE STUDY OF USING NST TOEFL EXPLORER AND GENIUS TOEFL APPLICATION AS THE LEARNING MEDIA)

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**Abstract**—The role of technology in education cannot be denied. Both lecturers and students believe that technology makes everything more effective and efficient. In the context of teaching and learning Grammar in Error Analysis Course at STKIP PGRI Pasuruan, the lecturer and the students agreed to use NST TOEFL Explorer and Genius TOEFL application as the learning Media. As the media, NST TOEFL Explorer provides Tutorial menu which contains parts of grammar materials with English explanatory. While Genius TOEFL discusses the grammar materials with Bahasa (Indonesian) in Kunci Structure (Keys on Structure) menu. It is not simply about the different language used in both applications. But, it is urgent to find out the students' attitude; how the students should operate the applications and activate their cognition to review the materials in both applications. Furthermore, discovering the students' difficulties in using both applications is also important since it could give instructional consideration for better learning achievement. The researchers also concerned on understanding how the students can deal with the difficulties so that both applications as the learning media could give cognitive effect and motivation to the students. This research was designed as descriptive research. This employed observation with field notes, open-questionnaire, interview, and documentation as the research instruments. The data were analyzed qualitatively by confirming the results with some relevant studies. This research concluded that application-based

materials for grammar still need extra effort to understand in terms of technical and non-technical aspects. Based on the findings of the students' attitude toward the use of NST TOEFL Explorer and Genius TOEFL Application, the researchers here could also review the claim of technology effectiveness and efficiency for teaching and learning grammar.

**Keywords**—Application-Based Materials; Attitude; NST TOEFL Explorer; Genius TOEFL

### I. BACKGROUND

Technology is embedded in **machines** to allow for operation to support the users' objective (Hordeski, 2003). In exact, **machines** for technology are now able to be found easily in terms of a personal computer (PC), laptop, and smartphones. These **machines** run various applications containing learning materials, information, tests, and other preferred contents. In education, lecturers and students must be aware of the use of technology to make the teaching and learning process effective and efficient. Contextually, the students in Error Analysis (Grammar TOEFL) course at STKIP PGRI Pasuruan were required to provide **machines** installed with NST TOEFL Explorer and Genius TOEFL application.

The decision for using both applications was based on the previous research by Mabaro<sup>1</sup> and Pusparini (2018). They reported that the

use of NST TOEFL Explorer was proven able to improve the students' grammar mastery. Yet, they listed some findings related to the research failure in using the application in cycle 1. It was about the learning material with complex English sentences used in the application which made the students more focused on translating the sentences than understanding the information. The previous researchers claimed that they changed the strategies in using the application at cycle 2. It was by requiring the students to make their grammar notes in book notes, called **Buku Saku**.

The use of **Buku Saku** in the previous research would not be obligated for the students in this research. It was because the researchers here were curious how the different research subjects had a certain attitude toward the use of NST TOEFL Explorer application which is fully English and which potentially gave them a similar burden. As designed as a descriptive research, so the researchers here would capture and elaborate the students' attitude toward the use of NST TOEFL Explorer naturally. In other words, obligating "Buku Saku" as what had been done by the previous researchers would mean unnatural for this research.

NST TOEFL Explorer application contains **Tutorial, Practice, Examination, Review, and Progression** menu. This application is available to operate in a personal computer (PC) or laptop only. It requires **Windows 7** operating system. Besides, NST TOEFL Explorer is designed *fully English* in all menu. As reported by Mabaroḥ and Pusparini (2018), the use of this *fully English* application made the students acquire the materials slowly. But, the researchers here believed the *fully English* application should not make the students low in understanding. It was because the subjects of this research had adequate comprehensible input reminding that they were English learners at higher education already. In other words, using NST TOEFL Explorer should not be a big struggle for them as Krashen postulates that the acquisition is actually determined by the amount of comprehensible input in the second or foreign language (Candlin and Mercer, 2003). Therefore, discovering the students' strategies in dealing with the *fully English* application became an

interesting discussion. It did not show only about how the students respond with a certain attitude but also reflect their interest and or preference in using the application as the learning media.

The researchers here were also encouraged to know how the students' attitude would be if they had been approached by the use of an application which provides materials in Bahasa Indonesia. Therefore, the researchers here also observed the implementation of using Genius TOEFL application. This application can be operated both in a personal computer (PC) or laptop, and on smartphones. In contrast to NST TOEFL Explorer which is fully English, Genius TOEFL is designed in a mixture of different language use; Bahasa Indonesia and English. This application contains **Home, Kunci Listening, Kunci Structure, Kunci Reading, Pratik Tes, Statistic, Intermezzo, Appendix, and Info TOEFL** menu.

The researchers believed that there must be a different attitude toward the use of both applications. But, the students must have had reasons behind it. In specific, the researchers here tried to find out technical and non-technical difficulties which became their reasons. Technical difficulties related to simplicity or complexity in operating the applications. While non-technical difficulties covered the students' cognition and their personal states. The information about this was important because it could give instructional for better learning achievement.

## II. RESEARCH METHOD

### A. Research Design

This research was designed as descriptive research. According to Prastowo (2011), descriptive research is a method for finding facts, interpretations, problems, and habits carried out by a group of people which then reflect relationships, activities, attitudes, views, and influences. This research focused on finding facts of the students' attitude dealing with the grammar materials provided in NST TOEFL Explorer and Genius TOEFL application for Error Analysis (Grammar TOEFL) course in English Education Study Program at STKIP PGRI Pasuruan. The researchers here also tried to formulate

interpretation about the students' interest and preference in using both applications. Hence, the researchers would also discover technical and non-technical problems faced by the students which reasoned them to show a certain attitude toward the applications.

## **B. Subject and Setting of the Research**

The subject of the research was the students of English Education Study program at STKIP PGRI Pasuruan in semester IV who had taken Error Analysis (Grammar TOEFL) course, academic year 2018/2019. The students were divided into two classes, A and B. Class A consisted of 25 students and class B consisted of 15 students. From 25 students, there were only two male students in class A. In class B, there were five male students and ten female students.

As mentioned, the research setting was in STKIP PGRI Pasuruan which located in Ki Hajar Dewontoro Street 27-29 Pasuruan, East Java Indonesia. The research was conducted in room 302 and 106. It was done from 21 March until 15 May 2019.

## **C. Research Instruments**

In order to get purposive data, the researchers used some instruments. First, this research employed observation. As cited in <http://www.qualres.org>, observation is defined as a systematic data collection approach in which researchers use all of their senses to examine people in natural settings. According to Latief (2012), observation can be classified into participative and non participative observation. But, in line with the definition of observation mentioned, the researchers here used participative observation since the researchers attended to the class participatively and worked on using all senses to examine the students' attitude in understanding the grammar materials on NST TOEFL Explorer and Genius TOEFL application.

In doing observation, the researchers were helped by one co-observer in order to collect more various and valid data. To ease the observation, the researchers wrote down the findings in the books. The notes found in the class (the research

field) were limited only on how the students began the class, how they enjoyed operating the applications, how they participated in the class discussion, and how they ended the class. In other words, the results in the observation notes would contain description about the students' readiness in joining the class, the students' spirit in understanding grammar materials using both applications, and the students' feedback after learning using both applications.

The second instrument was questionnaire. Sugiyono (2008) differentiates questionnaire into closed-questionnaire and open-questionnaire. Closed-questionnaire refers to list of questions or statements which require limited responses provided by researchers. Data from closed-questionnaire are merely numbers and more relevant used for quantitative research. But, open questionnaire is a list of questions and statements purposively designed by researchers to be respond freely by the respondents. Data from open questionnaire are mostly description or verbal responses. Thus, in consistency with the design of this research, the researchers decided to employ open questionnaire. The open questionnaire consisted of four questions. The questions were purposed to gain the students' opinion toward the use of NST TOEFL Explorer and Genius TOEFL application for learning, and their preference between both applications. The questionnaire was distributed in 15 May 2019, when the students had completely done learning using the applications. (see appendix 1)

The other instrument was interview. The interview had functions; to dig information and to confirm the information. In order to dig information, the interview was done informally or without interview guide. It was conducted twice, both in the process of using NST TOEFL Explorer and also using Genius TOEFL application. Information targeted by this interview was about the students' ways, strategies, and or tricks to prepare themselves for the examination.

The result of open questionnaire may need deep confirmation to the respondents. Therefore, the researchers also used interview as a research instrument. The interview was done by delivering the same questions in the questionnaire. The

interview was done with some selected purposive students only. This consideration was firstly because the researchers found unsatisfactory responses from the students. Secondly, the researchers targeted the low, medium, and high achievement students in interview. This had objective to gain data about their acceptance to the use of the applications. Data from the interview was in live verbal utterances which were paraphrased by researchers into main points.

The last instrument was documentation. Documentation has multiple definition, but in this research the researchers could claim that documentation as a set of documents provided as evidence for research. In this case, documents in this research were in the forms of course outline, photos of teaching and learning process, and the student attendance list.

#### **D. Analysis**

After collecting the data using instruments explained before, here the researchers could describe how to analyze the research data to understand how the students dealt with learning grammar material on NST TOEFL Explorer and Genius TOEFL application. The researchers filtered data based on type of instruments. After that, the researchers began to classify data based on the responses. Then, the researchers made highlights and confirmed qualitatively with some relevant studies.

### **III. FINDING AND DISCUSSION**

In this section, the researchers would like to elaborate the findings and directly discuss them with logical responses. The findings and discussion are segmented into two; 1) the students' attitude in dealing with grammar materials on NST TOEFL Explorer application, and 2)) the students' attitude in dealing with grammar materials on Genius TOEFL application.

#### **A. The Students' Attitude Dealing with NST TOEFL Explorer**

Based on the observation, the researchers could find that the students kept motivated and spiritfull in joining the class; from the beginning,

during the process of teaching and learning, and also at the end of class. This condition happened in both in using NST TOEFL Explorer and Genius TOEFL application.

In the first meeting of the implementation of using NST TOEFL Explorer, the lecturer began with discussing the contents in **Tutorial** menu on NST TOEFL Explorer application. Reminding that the students in Error Analysis (Grammar TOEFL) course had already passed three gradable grammar courses, the students thus looked easy following the section. Also, the lecturer led the students to access **Practice** menu so that they could be able to know types of TOEFL test items for grammar.

The lecturer then showed a certain test item on the application by using LCD. The students could access it easily only in one minute. Next, the lecturer gave them two minutes to think about the answer and the logical reason for the test item. After that, the lecturer invited the students to have a class discussion for every item in section 2 (Grammar/ structure and written expression test item) by asking their personal answers and logical reasons. The lecturer allowed the other students to state their answer and reason when they found their mates' answer was incorrect. The lecturer gave *point* for the active students. Thus, they looked very enthusiastic in joining the class. Because of the limited time (2 credits are estimated in 100 minutes), the lecturer could lead discussion only for 25 test items from 40 items in both class A and class B. The lecturer also stated parts of English grammar materials discussed through the test item. Before closing the class, the lecturer reminded the students to study the materials on the application in which they were incapable or low in understanding. The lecturer closed the class by saying *salam*.

In the second meeting of the implementation of using NST TOEFL Explorer, the lecturer opened the class by checking the student attendance. After that, the lecturer asked what the students had done at home for reviewing grammar materials. Most students had done nothing, but some students had studied and made notes at home. The lecturer began to display test items on the application using LCD again. But, the students



now must gather in groups. There were six groups in class A and three groups in class B. The lecturer allocated the same timing as in the first meeting. Fortunately, the students worked more effectively and they could discuss more than one package of the test or in approximate 55 test items in class A, and 48 test items in class B. The lecturer divided the students into groups by grouping the students who had studied and made notes before class and those who had done nothing. It was aimed that they would be able to work in good collaboration. Furthermore, they could inspire and motivate each other although the students who had studied and made notes before class were more active than the **unprepared** students.

The lecturer again stated parts of grammar materials discussed through the test items on this day. She also announced that the following meeting would be for testing. The students were recommended to fix problems in the application compatibility. They were also recommended to do practice **examination** menu on the application for achieving good scores. Last, the lecturer closed the class by *salam*.

In the third meeting of the implementation of using NST TOEFL Explorer, the researchers decided to test the students using **Examination** menu on the application. At that time, the students seemed more hurried to prepare their laptop. Some of their laptops were incompatible with NST TOEFL Explorer. So, they needed to borrow the other laptops to join the exam. It spent 20 minutes waiting for the students' preparation, but finally the exam was done successfully.



Picture 1. Situation in testing students through NST TOEFL Explorer application

After the exam, the researchers interviewed the students informally; asking them about their ways, strategies, and or tricks to prepare themselves for the examination. The students had various ways, strategies, and or tricks to prepare the exam. To prepare the exam, some students came to the service center to install **Windows 7**. They stated that they were okay to re- install the operating system (OS) because they had already agreed from the beginning of the course (offered in the course outline). So, they were ready about it. The other students felt hard to install **Windows 7** because their laptops were set by the company with **Windows 10**. So, if they install **Windows 7** they have to erase the installation of original **Windows 10**. These students had an alternative to borrow other laptops from their mates in different classes. The reluctant students admitted that they did not prepare anything even they did not try to check the application compatibility by installing it at home. They felt guilty because they had just been able to check and install the application on the exam day and in the class.

Concerning the students' explanation in the interview, the researchers then tried to communicate with the lecturer. The lecturer clarified that the use of NST TOEFL Explorer did not aim to make the students burdened. But, NST TOEFL Explorer application was the proven effective introductory application for the students. It was since the menu display of the application was so simple. It also provided systematic list of materials. It provided explanation of correct answers, so the lecturer hoped the students able to, in coins, review the materials and also practice testing themselves.

The researchers here could evaluate these different points of view with its advantages and disadvantages. As stated in the questionnaire, most students claimed that NST TOEFL Explorer exceeded Genius TOEFL application in the systematics. Furthermore, the students also stuck on the lecturer's opinion that NST TOEFL Explorer could make them more understand about grammar because they were led to check their misunderstanding of test items by showing the key problem. If the students were still hard to decide their best answer, they could click on key words. Last, the students could ensure their

answers by clicking the explanation box. It then would provide the logical reason of the test item intension and answers.

The disadvantages of using NST TOEFL Explorer was about its technical operation. The researchers realized that technology is developed so fast, so the lecturer should be able to search the other application which is compatible with the most students' updated OS for laptop. In addition, some students felt heavy to bring their laptop to the campus. They claimed that application on android system or smartphones were better used for learning. So, the researchers could conclude that the students need application which contain comprehensive and systematic material but it should be updated and easier to operate.

The meet of the lecturer's prospect and the students' preference could build a good rapport between them. According to Milal as cited in Cahyani and Cahyono (2011), good rapport between the lecturer and the students can make the students feel secured, confident, autonomous, and more responsible. These such kinds of feelings, furthermore, can arise the students' achievement in learning. It is also believed that good rapport would establish classroom harmony so the lecturer and the students become into similar understanding and objectives. Based on this theory, the researchers wish both the lecturer and the students could communicate better in making the course agreements. So, both the lecturer and the students would be in one track.

The other finding was about the strategies done by students to prepare the **examination** on the application. Several students stated that they practiced three up to four times before the exam. These students felt encouraged to achieve high score because they realized the importance of taking TOEFL experience for their future. These students were categorized as medium achiever students in the course, therefore they needed more practices to improve their achievement.

Most of the students practiced once or twice. They claimed that it was enough to take practice once or twice before the exam because they also had to study the concepts of grammar material. By having good understanding of the grammar concepts, they believed that they would

be able to answer the test items easily. The rest students did not do practicing the **examination** on the application. The researchers also asked the students' reasons of why they should do so. These students were the students who also got difficulty in the installation. Thus they did not prepare anything.

## B. The Students' Attitude Dealing with Genius TOEFL

In the first day of using Genius TOEFL application, the lecturer opened the class and then explained menu on the application. After explaining the menu, the lecturer started discussing materials in **Kunci Structure**. The highlight of the materials was mentioned using English, but it contained Indonesian short explanation. There were 18 highlights for grammar materials on the application. The highlight A provided key materials about *sentences with one clause*. It was then segmented into five sub-highlights. The highlight B gave key materials about *sentences with multiple clauses* and had three sub-highlights. In total, the eighteen highlights were containing sixty sub-highlights.

The uniqueness of Genius TOEFL application was on the display of the key materials followed by the test exercise. Here, the students were required to state their answers and click on **correction** in the right bottom. Once the students clicked the **correction**, the application would show the reason of the answer in terms of "Pembahasan". It used Bahasa Indonesia. But, in the informal interview, the students preferred the explanation in NST TOEFL Explorer to the explanation in Genius TOEFL because they felt NST TOEFL Explorer can explain simply using the terminology used in the test items. For example, for the following test item

John Butterfield \_\_\_\_\_ the Southern Overland Mail Company with two stagecoaches in 1858.

- a. He set up
- b. Setting up
- c. Set up
- d. The set up

Genius TOEFL would provide

**Pembahasan:**

Kalimat ini berisi subjek John Butterfield, tapi belum ditemukan verb. Jawaban (A) berisi tambahan subjek. Sedangkan (B), berisi present participle. Dan, jawaban (D) berisi noun. Maka ketiganya bukan jawaban yang benar. Karenanya jawaban yang tepat ialah (C) sebab berisi verb set up.

Whereas, NST TOEFL Explorer would clarify as follows

**Key Problem :** subject and verb agreement

**Key word :** past events, verb

The sentence consists of subject, John Butterfield. 'John Butterfield he set up' means having double subject, John Butterfield or He instead. The sentence is missing the appropriate verb, but 'setting up' needs progressive (be) auxiliary. 'The set up' also makes double subject, yet it does not post the needed/ missing verb. So, 'John Butterfield set up the Southern Overland Mail Company with two stagecoaches in 1858' is acceptable.

For certain students, the explanation in Genius TOEFL as mentioned did not give clear reason. In specific, the reason for B and C made the students confused as stated that "*Sedangkan, berisi present participle.....Karenanya jawaban yang tepat ialah (C) sebab berisi verb set up.*" In this case, the students thought that *present participle* was a kind of verb forms. It just needed additional to be auxiliary for appropriateness.

After discussing the key materials and the exercise in the highlight A, the lecturer then divided parts to access individually by the students. Each student was asked to open the key material and the exercise for every sub-highlight. The students paid attention seriously on their parts as seen in the picture 2.

The situation in picture 2 seemed rare for the conventional classes, because the students looked like busy with their own smartphones or gadgets. But, indeed, the lecturer claimed that this situation could illustrate the development of class setting in technological era. The researchers also noted this transformation class setting, and could promote it as appropriate class model nowadays.



Picture 2. Learning Situation using Genius TOEFL application

Knowing the students' doubt in 'Pembahasan' in Genius TOEFL application, the lecturer designed *an analysis form*. The form was aimed developing the students' critical thinking in stating reason behind their answers. The form consisted of three columns. The first column was for stating the number in which they had given wrong answer. The second column was for stating the students' assumption for their answers. The third column was for reflecting the answers through logical reason. In this third column, the students should provide their logical reasons based on grammatical standards.

The lecturer then started the second meeting by asking the students to access 'Praktik Tes'. The students were given 25 minutes to finish 'Practice One' on the application. After that, the lecturer inputted the students' score one by one. Next, the the students were led to fulfill in the *analysis form* based on their work result in dealing with 'Practice One'. The lecturer also gave example of how to fulfill the form. One of the student fulfillment was as in Picture 3.



NAME : Namira Fadilla  
 CLASS/STUDENT ID : 2017 A / 17188203030  
 COURSE : ERROR ANALYSIS (GRAMMAR TOEFL)

FALSE NUMBER	ASSUMPTION	LOGICAL REASON
5 C	I choose B because I think this sentence need a verb	Because don't need a verb, so the answer is growing from the end of the sentence.
7 D	I choose A because I think this sentence without prepos	Because followed by a noun and through preposition, need a verb.
12 D	I choose B because I think before this sentence there was another word, because there were especially	Because the answer is "what choose" is suitable with the words: sentences.
18 C	I choose B, because I think "forming" without "ing"	That statement use noun (correct) that is play, gift and run of.
25 C	I choose D, because I think there is "were" so "moved" must be "moving"	Because the answer form must be "moving", so that "they were moved" is wrong.
26 B	I choose C, because I think "irritant" is a mistake	Because I think the word after "another" need letter "s".
27 D	I am confused to determine the answer because I don't know and I think "prize" is wrong.	Because the word "the copano" is wrong, so the form must be "a".
29 B	I choose A, because I think the "humanity" must be "human" so this is a right.	Because "History of humanity" we can change that "it", so "you" is correct.
30 C	I choose A, because I think the "mobility" is wrong	Because the combination of "they" is wrong, so must be "there" because need a prepos object.
32 B	I actually choose B, but pressed the wrong button because turning out of time.	Because it must use "one", so it focused on the word after "of" which the subject "wild horses" on a sentence and a plural.
34 C	I choose A, because I think "like" must be "likes" because "the browser" as the subject is singular	It must damages appendage change verb to noun
35 A	I choose C, because I think "or" is not needed	Because it must use "develop" because it's passive voice.
37 B	I am confused to determine the answer because I don't know and I think "less" is wrong.	Because the answer should must using noun "revolutionary".
39 D	I choose C, because I think "such as" word is for giving the same examples more than one.	Because the "electronic" must be changed to "electrical".
40 C	I actually choose B, but pressed the wrong button because turning	Because the answer is the sentence, using first sentence verbal must be

Picture 3.

Example of The Student fulfillment on the analysis form



Based on the researchers' analysis of the students' fulfillment, it could be shown that some students were able to state their assumption and their logical reasons correctly. But, some others fulfilled the form carelessly. The representative students were interviewed informally by the researchers. They claimed that they were unable to understand well why they got wrong answers. Several students stated that they did not know reasons of why they chose the correct answers even. The students confirmed that they gave choices based on their feeling. And this point could also become a prominent point in this research.

The researchers here formulated that there was a phenomenon of using *feeling-based grammar*. Numbers on this discussion were so limited, because this phenomenon would happen only in the ESL or EFL learners. The researchers could respond this phenomenon as a natural in acquisition. According to Chomsky (2006), people are bestowed with *Language Acquisition Devices* (LAD). The LAD process the linguistic phenomena and connect into the concept of Universal Grammar (UG). This UG plays in certain mental structures formed by a system of rules and principles that produce and connect mental representations of various types. In short, the researchers could understand *feeling-based grammar* phenomenon in this research as as evidence of the existence of Universal Grammar (UG) in linguistic mentality.

#### IV. CONCLUSION

In this part, the researchers could conclude that the students showed positive attitude toward the use of NST TOEFL Explorer as the learning media. NST TOEFL Explorer exceeded Genius TOEFL application in the systematics. NST TOEFL Explorer could make the students more understand about grammar because they were led to check their misunderstanding of test items by showing the key problem and key words. NST TOEFL Explorer was also featured by the explanation box which would provide the logical reason of the test item intension and answers. But, the lecturer should consider the students' difficulty in operating the application. It was because

the application was compatible in **Windows 7**. Indeed, the students need more adaptive application which contain socomprehensive and systematic material but it should be updated and easier to operate.

The researcher could also conclude that the students expressed positive attitude toward the use of Genius TOEFL application. This application was more easier to operate because it could be run in smartphones. But, the students found many inconsistency in 'Pembahasan' of every exercise item. This condition inspired the lecturer to design *an analysis form*, and from the students' work on this form the researchers could realize *feeling-based grammar* phenomenon. This *feeling-based grammar* phenomenon was understood as evidence of the existence of Universal Grammar (UG) in human linguistic mentality.

Overall, based on this research result, the researchers could prove that the use of technology requires both the lecturer's and the students' readiness since they would handle such technical and non-technical aspects. Then, the claim of technology effectiveness and efficiency for teaching and learning grammar should be also reviewed hence the instructional considerations should be made.

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#### VI. REFERENCES

- Prastowo, Memahami Metode-Metode Penelitian, Jogjakarta: Ar-ruzz Media, 2011. <http://www.qualres.org/HomeObse-3594.html>
- Mabaroh, DA. Pusparini, Panduan Teknis Pembelajaran Grammar Berbasis ICT: Studi Pembelajaran Menggunakan Aplikasi NST TOEFL Explorer di STKIP PGRI Pasuruan, Sidoarjo: Delta Pijar Khatulistiwa, 2018.

