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# *The Effect of SABELS and GRPQ on The Students' Reading Comprehension at SMA Swasta RK Bintang Timur Pematangsiantar*

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*[12]SMA Swasta RK Bintang Timur – Peamtangsiantar*

**Abstract**

The aim of this research is to find out the effect of Scientific Approach-Based on English Learning Strategy (SABELS) and Guided Reading Peer Questioning Strategy (GRPQ) on students' reading comprehension at grade X of SMA Swasta RK Bintang Timur Pematang Siantar. The researchers used quantitative method. The mean of GRPQ strategy is 77.50, Standard Deviation is 7.75, and significance value is .002 and number of students is 36. The mean in SABELS strategy is 80.00 and standard deviation is 9.25, and significance value is 0.38 and number of students is 36. The class who got conventional strategy, it has mean 75.00, standard deviation is 7.50, and significance value is .000 and number of students is 37. Using t-test in analyzing data, is found that t-value (2,36) is higher that t-table (1,667) at level of significant 5 %. This means using SABELS is effective to develop students' ability in reading comprehension. According to the research findings, it is concluded that SABELS is more significant than GRPQ Strategy in teaching reading comprehension at tenth grade students at SMA Swasta RK Bintang Timur Pematangsiantar.

Keywords : error Analysis and Simple Past Tense

## 1. Introduction

In English subject, there are four skills that are learnt by students, they are listening, speaking, reading, and writing. Reading is one of the skills that should be mastered by students because it is an important skill of language development. As a matter of fact, reading activity is still a big problem for most Indonesian students as well as many other students who learn English as a foreign language. The students have to think not only translating the words, phrases, sentences or even paragraphs, but also comprehending the meaning, tenses, text structure, and etc.

Reading comprehension is a major problem found when teaching practice at tenth grade students of SMA Swasta RK Bintang Timur Pematangsiantar. It is a reality that they still have low motivation in reading. They still lack of knowledge in words meaning and sequence information. They cannot understand some of the grammatical clues (subject, verb, conjunction, etc.) and hardly understand the main idea and factual information explicitly stated within passages as well as hardly to understand the author's tone and infer story content. They are only aware if the teacher reminds and motivates them that reading can train their comprehension besides expanding their insight. Without reading skill, they cannot make a satisfactory progress in school. Moreover, the students often fail in studying any lessons because they do not like reading and do not use any strategy at all.

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Zaim (2017), in his article, argued that scientific approach can be applied as a strategy of teaching English as foreign language in Senior High School in Indonesia. Scientific Approach is effective to make the students actively involved in classroom activity so that their speaking and listening skills can be improved. Ratnaningsih (2017) comfirmed that while implementing scientific approach, teachers can demonstrate the students-centered learning strengthened by collaborative, cooperative, active and meaningful learning.

The researcher is interested in conducting a research entitled The Effect of Scientific Approach-Based English Learning Strategy (SABELS) and Guided Reading Peer Questioning Strategy(GRPQ) on the Students' Reading Comprehension Ability at Tenth Grade of SMA Swasta RK Bintang Timur Pematangsiantar. The research problem was formulated as follow: What is the effect of Scientific Approach-Based English Learning Strategy (SABELS) and Guided Reading Peer Questioning Strategy(GRPQ) on the students' reading comprehension ability at tenth grade students of SMA Swasta RK Bintang Timur Pematangsiantar? Based on the scope of the research above, the objective of this research is to find out the effect of SABELS and Guided Reading Peer Questioning Strategy (GRPQ) on the students' reading comprehension ability at tenth grade of SMA Swasta RK Bintang Timur Pematangsiantar. This research was focused on the reading comprehension ability of tenth grade students of SMA Swasta RK Bintang Timur Pematangsiantar. This research was focused on the literal and interpretative reading comprehension through recount text. The findings of this research are expected to be beneficial both practically and theoretically: **(1)** Theoretical Significance**.** The researcher hopes the findings of this research can be used to increase more knowledge and understanding relating to the research about reading comprehension ability. **(2)** Practical Significance**s** are that the researcher hopes the result of this research can be useful for additional information that can be applied by the English teachers in teaching and practicing the reading comprehension ability in their classrooms. The researcher hopes the result of this research can be used as a guidance and knowledge to open other analysis relating to reading skill especially reading comprehension.

As is mentioned earlier in the background section, SABELS is a strategy developed by Napitupulu, Siahaan and Manalu (2018) to answer a challenge from the establishment of newest Indonesian Curriculum (called as 2013 Curriculum). In line with the basic concept of scientific approach, SABELS is a scientific and inquiry strategy where students act directly either individually or in groups to explore the concept and principles during the learning activities and the teacher's task is to direct the learning process performed by students and provide any corrections to the concept and principles which the students have been obtained.

In line with the basic concept of scientific approach, Napitupulu, Siahaan&Manalu (2018) stated that there are some points to be considered and prepared by English teachers in applying this strategy, such as: (1) Audio-visual media is strongly needed to establish the context of material being learnt. This media is primarily used in the first step of learning process, i.e. observing. Teacher is required to be able to select

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appropriate and relevant videos to the learning goal and material. (2) A prohibition to use any gadgets should not be existed. The use of internet will be very helpful for students to collect any information related to the learning topic. In this case, teacher should be careful in monitoring students' works in their gadgets. Teacher may lead them to access certain sites which are relevant to their tasks. Nevertheless, it will be much wiser, if the school provides secured or trusted network so that the inappropriate contents cannot be accessed by the students. (3) The integration of knowledge, skills, and character is a must in order to encourage students to be productive, creative, innovative, and effective. Knowledge refers to linguistic competence, such as: phonology, morphology, syntax, semantics, pragmatics, and discourse. Skill involves receptive skills (listening and reading) and productive skills (speaking and writing). Character is all positive attitude in communication.

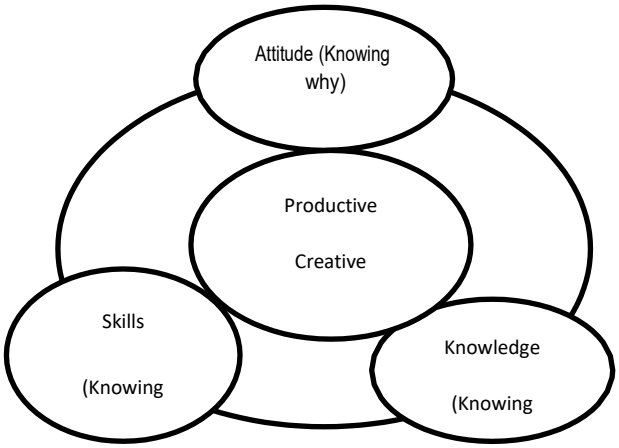



Figure 1: The Integration of Knowledge, Skills, and Attitude in SABELS

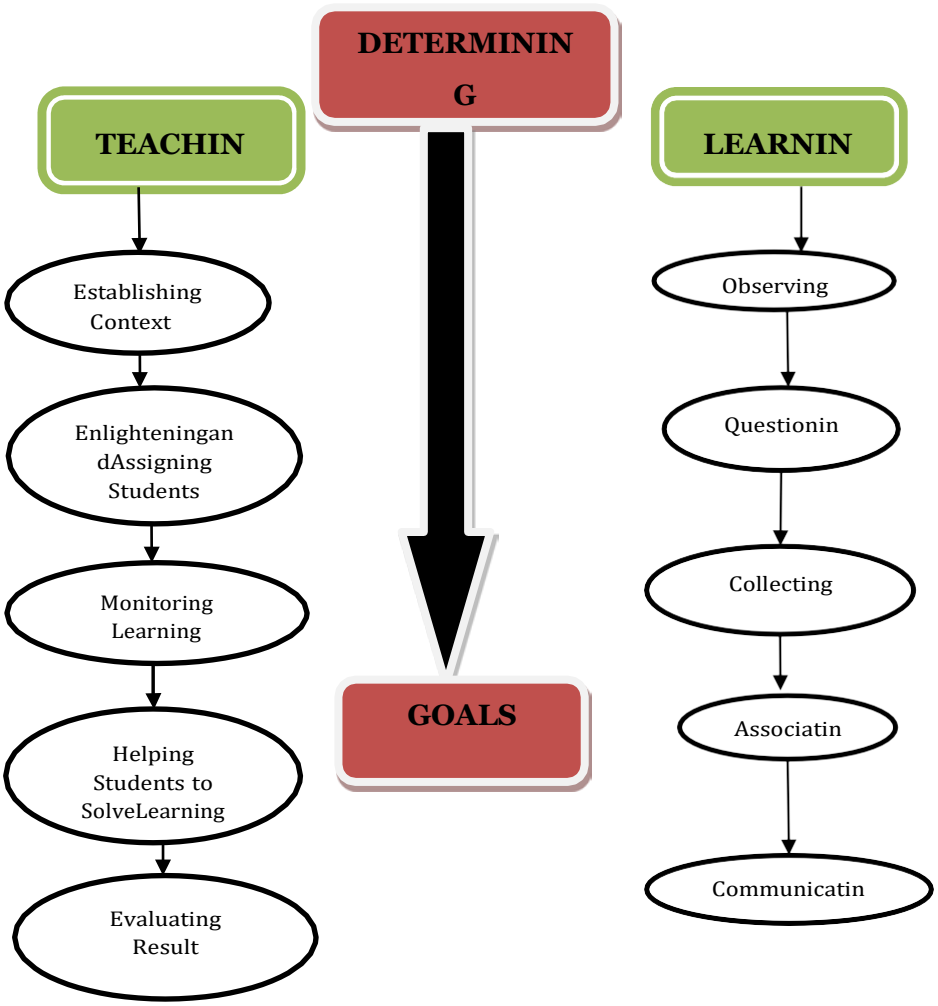
The distribution of each learning steps (observing, questioning, collecting, associating, and communicating) is not limited to one meeting. Teacher may continue the learning steps in the next meetings. It depends on the level of difficulties of the materials.

**Teaching and Learning Process**

To achieve successful learning by using SABELS, the roles of teacher and students in teaching and learning process should be determined clearly. In addition to that, Napitupulu, Siahaan & Manalu (2018) explained the sequence of acts for both teacher and students. At first, teacher should be able to establish learning context. This may refer to the use of audio-visual media. After that, teacher gives explanation related to learning material and also assign students to group work. While the students are in group work, teacher is supposed to monitor and assist students in solving problems in the learning process. The last role of teacher is evaluating the discussion results. Students, as the main actors of learning process, should be encouraged to do five steps of learning. The first step is observing where students will watch videos of learning material. In the next step, students will have chance to pose some questions related to what they have just watched from the media. After that, they work in group to collect information related to some tasks given. The use of internet is really needed in this step. Next is associating. This step refers to the process of understanding and analyzing information, and also

designing the report of discussion. The last step is students report their discussion results in form of presentation. This will encourage students to be more responsible to what they have just learnt.

In order to make it understood able easily, the activities using SABELS is displayed in table as follow (adapted from Napitupulu, Siahaan&Manalu, 2018).




*Picture 1: The SABELS Application Process*

## 2. Research Methodology

This research used quantitative research of control group, pretest-posttest design. According to Ary, Jacob & Sorensen (2010:420), a quantitative research strives for testable and confirmable theories that explain phenomena by showing how they are derived from theoretical assumptions. It seeks scientific explanation that includes the discovery of laws governing not only the behavior of the physical world but also human behavior.

Furthermore, the data will be taken by using the experimental design. According to Ary, Jacob & Sorensen (2010:26), experimental research involves a study of the effect of the systematic manipulation of one variable (s) on another variable.

The population of this research was defined as all members of any well-defined class of people. The population of this research is 111 students of tenth grade of SMA Swasta RK Bintang Timur Pematangsiantar school Year 2019/2020. Each group consists of 37 students. Test was conducted in order to get the data. The test was to design a quantitative research proposal which is conducted two times. The first was used as pre-test and after treatment the second test are given as post-test.

Pre-test is needed as a mean to know how far the students' comprehension about the subject and conducted to find out the result and the students' scores of the test. Both experimental and control classes are provided the pre-test. In the pre-test activity, the researcher tests the students using the multiple choices test given to them and collects it after the time is over.

The post-test is given to both experimental and control class. Post-test has the similar questions as in the pre-test. This is used to determine the effect of teaching presentation using SABEL and GRPQ strategy in the experimental classes. The test that will be used in this research is based on the National Examination *(Ujian Akhir Nasional)*. All items of the questions have been standardized by the Indonesian Government. This means the test is already valid and reliable.

### 3. Data Analysis

The data of this research was taken from the result of adjudication sheets which were used by the writer to get the students' score in reading comprehension of Recount Text. In pre-test, the students were asked to answer several questions related to the material. From the students' answer, the writer collected the answer sheets and then got the score of the students. The data were obtained from pre-test and post-test scores of the experimental and the control group. Here is the result of the reading comprehension was conducted in pre-test and post-test.

**Table 4.1.**
**Distribution of data os students' reading comprehension by applying conventional strategy**

| | N | Min | Max | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Conventional Strategy | 37 | 60 | 90 | 75 | 7.50 |
| Valid N (listwise) | 37 | | | | |

According to the table 4.1, the scores of students' achivement in reading comprehension on 37 students at SMA Swasta RK Bintang Timur Pematangsiantar by applying conventional method can be explained that the high score is 90, the lowest score is 60 and standard deviation is 7.50. The calculation of scores indicated that mean is 75.67. The scores are shown in the table 4.2.

**Table 4.2**
**Frequency Distribution of The Score of Students by Applying Conventional Strategy**

| No | Interval | Absolute Frequency | Relative Frequency (%) |
|---|---|---|---|
| 1 | 60-62.5 | 5 | 13.51 |
| 2 | 65-67.5 | 8 | 21.62 |
| 3 | 70-72.5 | 8 | 21.62 |
| 4 | 75-77.5 | 6 | 16.22 |
| 5 | 80-82.5 | 5 | 13.52 |
| 6 | 85-87.5 | 4 | 10.81 |
| 7 | 90-92.5 | 1 | 2.70 |
| | **TOTAL** | **37** | **100** |

According to table 4.2, it indicates that the average scores of students' achievement in reading comprehension with conventional method are interval 70-72.5 with students or 21.62% from 37 students, 13 students or 35.13% got score below the average and 16 students or 43.25% got scores above the average scores.

**Students' Reading Comprehension Achievement by Applying GRPQ Strategy**

The data of students' reading comprehension by applying GRPQ Strategy can be shown in the descriptive statistic below.

**Table 4.3**

**Data Distribution of Students' Reading Comprehension by Applying GRPQ Strategy**

| | N | Min | Max | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Conventional Strategy | 37 | 60 | 90 | 77.5 | 7.75 |
| Valid N (listwise) | 37 | | | | |

According to the table 4.3, the scores of students' achievement in reading comprehension on 37 students at SMA Swasta RK Bintang Timur Pematangsiantar by applying GRPQ Strategy can be explained that the high score is 90, the lowest score is 60 and standard deviation is 7.75. The calculation of scores indicated that mean is 77.50. The scores are shown in the table 4.4.

**Table 4.4**
**Frequency Distribution of The Score of Students by Applying GRPQ Strategy**

| No | Interval | Absolute Frequency | Relative Frequency (%) |
|---|---|---|---|
| 1 | 60-62.5 | 3 | 8.33 |
| 2 | 65-67.5 | 6 | 16.67 |
| 3 | 70-72.5 | 9 | 25.00 |
| 4 | 75-77.5 | 8 | 22.22 |
| 5 | 80-82.5 | 5 | 13.89 |
| 6 | 85-87.5 | 4 | 11.11 |
| 7 | 90-92.5 | 1 | 2.78 |
| | **TOTAL** | **36** | **100** |

According to table 4.4, it indicates that the average scores of students' achievement in reading comprehension with conventional strategy are interval 70-72.5 with students or 25.00% from 36 students, 9 students or 25.00% got score below the average and 18 students or 50 % got scores above the average scores.

**Students' Reading ComprehensionAchievement by Applying SABELS**

The data of students' reading comprehension by applying SABELS can be shown in the descriptive statistic below.

**Table 4.5**

**Data Distribution of Students' Reading Comprehension by Applying SABELS**

| | N | Min | Max | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Conventional Strategy | 37 | 62.5 | 92.50 | 80.00 | 9.25 |
| Valid N (listwise) | 37 | | | | |

According to the table 4.5, the scores of students' achievement in reading comprehension on 37 students at SMA Swasta RK Bintang Timur Pematangsiantar by applying SABELS can be explained that the high score is 92.50, the lowest score is 62.50 and standard deviation is 9.25. The calculation of scores indicated that mean is 80.00. The scores are shown in the table 4.6.

**Table 4.6**
**Frequency Distribution of The Score of Students by Applying SABELS**

| No | Interval | Absolute Frequency | Relative Frequency (%) |
|---|---|---|---|
| 1 | 60-62.5 | 4 | 11.11 |
| 2 | 65-67.5 | 4 | 11.11 |
| 3 | 70-72.5 | 7 | 19.44 |
| 4 | 75-77.5 | 2 | 5.56 |
| 5 | 80-82.5 | 5 | 13.89 |
| 6 | 85-87.5 | 10 | 27.78 |
| 7 | 90-92.5 | 4 | 11.11 |
| | **TOTAL** | **36** | **100** |

According to table 4.6, it indicates that the average scores of students' achievement in reading comprehension with SABELS method are interval 70-72.5 with 4 students or 19.44% from 36 students, 8 students or 22.22% got score below the average and 21 students or 58.34% got scores above the average scores.

**Analysis Requirement Testing**

Before the research data were analyzed by using Two-Way Analysis of Varience (Annova), normality and homogeneity of data were tested.

**Normality of the Test**

Normality testing aims to examine that the sample data of the research are normally distributed. The normality testing in this research was computed by using Koimogorov-Smimov through application SPSS 10.0 program. SPSS is the abbreviation of Statistical Package for the Social Science. The summary of the result of normality testing can be seen in the Table 4.7.

**Table 4.7**
**Summary of the Result of Normality Testing**

| | GRPQ Strategy | SABELS Strategy | Conventional |
|---|---|---|---|
| N | 37 | 37 | 37 |
| Mean | 77.50 | 80.00 | 75.00 |
| Paramenter a.b Std. Deviation | 7.75 | 9.25 | 7.50 |
| Most extreme Absolute | 163 | 125 | 162 |
| Difference Positive | 154 | 125 | 162 |
| Negative | -163 | -098 | -111 |
| Kolmogorov-Smirnov Z | 1,034 | 791 | 1,028 |
| Asymp. Sig (Z-tailed) | .236 | .560 | .241 |

According to the table 4.7, the data are called to have normal distribution if the value of Asymp. Sig (2 tailed) of each group is > 0.05. In the table 4.7, it indicates that the score of the students' achievement in reading comprehension for each group is normally distributed. After the normality of the data had been calculated, the further stage in the requirements of analysis of variances is homogenity testing.

**Homogenity Testing**

The homogenity testing aims to investigate whether the variance of the data is homogeneus. The homogenity testing of variance was calculated by using Levene's Test of Equality of Error which as the requrement test of homogeneity available in SPSS. The test criterion is Sig > 0.05 then the variance is homogeneous.

**Hypothesis Testing**

After the requirements of the data analysis of Two-Way Annova had been fullfilled, it can be continued to the Hypothesis Testing by using Two-Way Annova. From the result summary of research data, then calculating the total score and mean score for each strategy which can be used as helping table for Two-Way Annova. The result summary of research data is shown in Table 4.8.

**Table 4.8**

**Result Summary of Research Data**

| Descriptive Statistic | | | | |
|---|---|---|---|---|
| Dependent Variable : Score | | | | |
| Strategy | Mean | Std. Deviation | N | Sig |

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| | | | | |
|---|---|---|---|---|
| GRPQ | 77.50 | 7.75 | 37 | .002 |
| SABELS | 80.00 | 9.25 | 37 | .038 |
| Conventional Strategy | 75.00 | 7.50 | 37 | .000 |

Based on the table 4.8 above, the statistical Hypothesis can be stated as the following:

1. Students' achievement on reading comprehension by applying GRPQ Strategy is more significant than those taught by applying conventional strategy.
   Hypothesis 1 : Ho : $\mu$ A1 = $\mu$ A2
   Ha : $\mu$ A1 = $\mu$ A2

   According to the table 4.8, Annova testing result above, the Sig. Value is 0.038. Since the Sig. Value 0.038 < 0.05 and it means that the null hypothesis (Ho) had been successfylly rejected at level of significance a = 5%. Therefore, first hypothesis which stated that the students' achievement on reading comprehension taught by applying GRPQ Strategy is significant is really true in this research.

2. Students' achievement on reading comprehension taught by applying GRPQ Strategy is less significant than those taught by applying GRPQ Strategy.
   Hypothesis 2 : Ho : $\mu$ B1 = $\mu$ B2
   Ha : $\mu$ B1 > $\mu$ B2

   Based on the Table 4.8, Annova testing resulght above, teh Sig. Value is 0.000. Thus. Sig. Value 0.000 < 0.05. It means that the null hypothesis (Ho) had been successfully rejected at level of significance a=5%. Therefore, second hypothesis which stated that students' achievement on reading comprehension taught by applying GRPQ is less significant.

3. Students' achievement on reading comprehension taught by applying SABELS is the most significant.
   Hypothesis 3 : Ho: A >< B = 0
   Ha: A >< B $\neq$ 0

   Based on the table 4.8, Annova testing result above, the sig. Value is 0.002. Thus, Sig. Value 0.002 < 0.05, and it means that the null hypothesis (Ho) had been successfully rejected at level of significance a = 5 %. Therefore, third hypothesis which stated that the student's achievement on reading comprehension taught by applyig GRPQ is really true in this research.Based on the hypothesis testing above that obtained from the research, it can be stated that Students' achievement on reading comprehension taught by applying SABELS is more significant than those taught by applying conventional strategy.

The total mean shows that the students taught by applying SABELS have higher of more significant achievement in reading comprehension than the students taught by applying GRPQ. It is caused by the steps of teahing learning profess in SABELS is more attractive than in GRPQ Strategy. The students are able to improve the students'

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capability in reading in a term. So they can get more information and knowledge from another students.

A team members succes in creating multimedia presentation on saving the environment, for example: depend on both individual effforts and the efforts of other groups members who contribute needed knowledge, skills, or resourcess necessary for the highes possible for qualified presentation.

By using SABELS, it helps students to activate the background of knowledge that the students have. It is also used to make the students more active and participative in comprehending reading texts and can be used to improve students' achievement on reading comprehension.

**Students' achievement on reading comprehension taught by applying GRPQ strategy is less significant than those by using the SABELS.**

Applying GRPQ strategy, the teacher provokes the students thinking with a question, prompt, or observation. The students should ta a few moements (probably not minutes) just to think aboout the questions using designated partners, nearly neighbors, or a desk mate, students pair up to talk about the answer each has developed. The students can compare the students' mental or written notes and identify the answers they think are best, most convincing or most unique.

After the students discuss the students' reasoning in pairs fro a few moments (again, usually no minutes), the teacher calls for pair to share the students' thinking with the rest of the class. This can be done in round-ronin fashion, calling on each pair randomly, or taking the answers as they are called out (or as hands are raised). It is often that the teachers or a desginated elper will record these responses on the board or on an overhead projector.

**Students' achievement on reading comprehension taught by applying SABELS is the most significant.**

According on the table 4.8, the result summary of research data where the score of SABELS Mean is 80.00, Std. Deviation is 9.25. N is 36 students. Sig. is 0.038 while as the score of GRPQ Mean is 77.50, Std. Deviation is 7.75, N is 36 students, Sig. is 0.002 and the score of conventional strategy mean is 75.00, Std. Deviation is 7.50, N is 37 students, Sig. is 0.000. It can be stated that the students' achievement on reading comprehension taught by applying SABELS strategy is the most significant.

In this research, SABELS is very significant in improving the students' score on reading comprehension than GRPQ. GRPQ strategy is more significant in improving the students' score on reading comprehension than conventional strategy.

## 4. Conclusions

Based on the data analysis and hypothesis, it can be concluded thatStudents' achievement on reading comprehension taught by applying SABELS is SMA Swasta RK Bintang Timur Pematangsiantar. The process of learning leads the students to be

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productive, creative, innovative, and effective since knowledge, skills, and character are integrated.

Related to the finding of this research, some suggestions are addresses to: (1) English Teachers. The English teachers can apply SABELS on teaching reading comprehension as this strategy is effective in teaching reading comprehension. (2) Other relevant researchers. It is suggested to apply this strategy as solution to teaching problem in learning process. (3) Principal. The success of SABELS application depends on learning facilities. The demand of using new and online technologies in this 4.0 revolution drives innovation in education. It is essential to provide these technologies in classrooms.

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# *Superlative Forms of Adjectives by Article Na + Prefix Um- in Toba Batak*

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**ABSTRACT**

The objectives of this study are to investigate superlative forms of adjectives by article na + prefix um- in Toba Batak. The results show that superlative forms of adjectives by article na + prefix um- in Toba Batak result in various morphological and phonological processes as follows: (1) if prefix [um-] is attached to adjectives preceded by vowels, the last phoneme of the prefix is doubled ([um-]→[umm-]). (2) if the initial phoneme is a bilabial plosive voiced consonant [b], prefix [um-] is pronounced [ub-] as its allomorph. (3) if the initial phoneme is a velar plosive voiced consonant [g], prefix [um-] → [uŋ-]. (4) if the initial phoneme is a palato alveolar affricate voiced consonant [j] prefix [um-] → [un-] in spelling but [uj-] in pronunciation. (5) if the initial phoneme is a bilabial nasal voiced consonant [m] prefix [um-] does not change. (6) if the initial phoneme is an alveolar nasal voiced consonant [n] prefix [um-] → [un-] both in spelling and in pronunciation. (7) if the initial phoneme is a bilabial plosive voiceless consonant [p], prefix [um-] → [um-] in spelling but pronounced as [up-]. (8) if the initial phoneme is an alveolar rolled voiced consonant [r], prefix [um-] → [ur-] both in spelling and in pronunciation. (9) if the initial phoneme is an alveolar fricative voiceless consonant [s], prefix [um-] → [un-] in spelling but [us-] in pronunciation. (10) if the initial phoneme is an alveolar plosive voiceless consonant [t], prefix [um-] → [un-] in spelling but it is pronounced [ut-].

**Keywords**: *superlative forms, morphological and phonological processes, adjectives, inflectional*

## 1.Introduction

Nowadays there are thousands of languages in the world. According to *Ethnologue: Language of the World* (2005) there are around 6.912 languages in the world. From the huge number, there are around 742 regional languages spread in Indonesian acrchipelago, which place Indonesia as the second country that possess the most languages after Papua New Guinean. All of the regional languages in Indonesia are protected by constitutions because they are considered as the richness of Indonesian culture.

The regional languages have functions not only as identities of regional cultures but also as communication tools among the etchnic members. Besides, they have a role as introductory language in elementary schools in particular areas in the archipelago. Furthermore, regional languages function as stimulus towards the development of Indonesian language as a national language in Indonesia because there are a lot of borrowing words in Indonesian language adopted from vernaculars. Vice versa, Indonesian language also has contributions to regional languages because there are abundant of words derive from Indonesian language adopted by regional language. In other words the interrelationship between these languages complete one and other.

One of the regional languages in Indonesia is Toba Batak. It belongs to Austronesian. The original homeland of the speakers of Toba Batak is located around Lake Toba. In the heart of the Batak territory lies Samosir island and on the northwest

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bank of Lake Toba, stands Mount Pusuk Buhit which the Toba Batak believe marks the point of origin of all the Batak people. The speakers of Toba Batak are mosltly settle in North Sumatra exactly in *Tano Batak* 'Batak Land', they are, Samosir Regency, Toba Samosir Regency, Humbang Hasundutan Regency, and North Tapanuli Regency. Nowadays, Toba Batak speakers have spread to various places in Indonesia even to other countries. According to *Summer Institute of Linguistics* (2001) there are 5.150.000 Toba Batak speakers.

Toba Batak as a regional language becomes the topic under discussion in this study. The central issue in this study is comparative forms by prefix [*um*-]. In Toba Batak, comparative forms is formed by modifying adjectives. Adjective is distinguished from nouns and verbs by differeny types. Nouns have plural markers, verbs have tenses while adjectives do not have such certain markers even if they function as attributive or predicative (Nababan, 1981: 35). In other words, adjective is a word that modifies a pronoun or noun following it (Houghton, 1984: 18). To modify means to change; an adjective modifies a pronoun or noun by describing or limiting or making it more spesific.

In Toba Batak, adjectives can be preceded by the words *mansai* [massaI] 'very' *tung* [tuŋ] 'very', and *lam* [lΛm] 'get like as indicated by the adjectives' (Sitorus, 1986: 94). According to Ambarita (2018: 81) there are seven affixes that can be attached to adjectives in Toba Batak, *i.e*. prefix [*um*-], infix [-*um*-], suffix [-*an*], four affix combinations, they are, [*marsi-i*], [*ha-assa*], [*ma-hu*], and [*sa*-full adjective reduplication-*na*]. The results of attaching affixes to adjectives in Toba Batak are inflectional because the presence of the affixes do not change the word class of the base (Ambarita, 2016: 18). The attachments of affixes to adjectives in Toba Batak result in morphological and phonological processes. According to Nida (1949: 102) the analysis of any language, phonological and distributional data are relevant in establishing the limits of morphological unit.

**Review of Literature**

Adjectives provide the means for creating a mood or a lasting impression of a person, a place, or a thing such as *white*, *black*, *frigid*, etc. Adjectives, however, can also refer to emotional states and abstract qualities. *Innocent*, *angry*, *confusing* are some examples of such adjectives in English. Ambarita (2017: 132) found that adjectives in Toba Batak can be reduplicated in various forms, they are, full reduplication, partial reduplication using prefix, partial reduplication using infix, partial reduplication using suffix, and partial reduplication using affix combinations. According to Quirk *et al* (1985: 402) there are four criteria for adjectives to be considered, they are:

1. They can freely occur in attributive function, that is, they can premodify a noun, ecpecially between the determiner and the heas of a noun phrase. For instance, a *pretty* lady, a *round* table, etc.
2. They can freely occur in predicative function, that is, they can function as a subject complement and object complement.
   For example, *The painting is very <u>expensive</u>.*

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3. They can be premodified by the intensifier adverbs like *extremely*, *very*, and *so*. For example, *The fruit is very sour*.
4. They can take comparative and superlative forms. The comparison can be formulated by means of the inflections (*-er* and *–est*) or by the addition of the premodifier *more* and *most*.
   For axample: (a) The children are *happier* now.
   (b) It is the *most* expensive car I know.

Houghton (1984: 134) states to make comparison in English correctly, there some rules to be considered as in the followings:

*1.* Add the suffix *–est* to form the superlative of modifiers with one or two syllables. In some cases, to form the superlative form correctly, you must change a final *y* to *i.*
   Example: - big → bigger → biggest
   - funny → funnier → funniest
2. Use *most* to show the superlative forms with three-syllable words.
   Example: - beautiful → more beautiful → most beautiful
   - atractive → more atractive → most atractive
3. Use *least* to form the superlative forms of comparison showing less.
   Example: - humorous → less humorous → least humorous
   - hopeful → less hopeful → least hopeful
4. Avoid double comparisons. Use either the word *most* or else the appropriate suffix. Do not combine the two.
   Incorrect comparison: Sarah is *the most cleverest* of all.
   Correct comparison : Sarah is *the cleverest* of all.
5. Avoid incomplete comparisons by clearly indicating the things being compared.
   Example: Incomplete : Joice is *the dilligent* students in her class.
   Complete : Joice is *the most dilligent* students in her class.

**2.** Methodology :

**3.Results and Discussions**

Superlative forms of adjectives by article *na-* + prefix [*um*-] can be formulated in Toba Batak to all adjectives. Prefix [*um*-] will undergo morphological and phonological processes if it is attached to the base forms of adjectives as explained below.

**1. The initial phoneme of the base forms of the adjectives are vowels, such as, [a], [e], [i], [o], and vowel [u]**

Some adjectives in Toba Batak are preceded by vowels like vowels [a], [e], [i], [o], and [u]. Such adjectives can be combined with article *na-* + prefix [*um*-] to form superlative forms of adjective on condition that morphological process occurs in the combination. The word *arga* [arga] `expensive', for example, if combined with prefix [*um*-] will be article *na* + [*um*-] + *arga* [arga] `expensive' → *na ummarga* [naummarga] `the most expensive'. Other example is *na* + [*um*-] + *oto* [oto] `stupid' → *na ummoto* [naummoto] 'the most stupid'. Some other adjectives, of which the initial phonemes are vowels, can be seen in the followings together with their superlative forms of adjectives, pronunciations, and meanings.

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**Table 1: Superlative forms of adjectives with initial phenemes are vowels**

| No | Positive Forms | Gloss | Superlative Forms | Pronunciation | Gloss |
|---|---|---|---|---|---|
| 1 | asi | pity | na ummasi | [naummasi] | the pitiest |
| 2 | asom | sour | na ummasom | [naummasom] | the sourest |
| 3 | uli | beautiful | na ummuli | [naummuli] | the most beautiful |

Speaking of morpheme, the word *na ummuli* [naummuli] `the most beautiful' consists of two morphemes, namely, [*um*-] as a bound morpheme and *uli* [uli] `beautiful' as a free morpheme. Prefix [*um*-] functions as inflectional morpheme because it does not change the word class to which it is attached. If article *na* + prefix [*um*-] is attached to adjectives preceded by vowels, the last phoneme of the prefix is doubled. In the sentence above, *na* [*um*-] + *uli* → *na ummuli* not **na umuli*. The word *ummuli* as the integration of article *na* + prefix [*um*-] and base form *uli* is acceptable in Toba Batak. On the contrary **umuli* is unacceptable. Other example is:

Alai na ummarga sian sude ima hahipason dang hamoraon.
[alai na ummarga sian ima hahipason dang hamoraon]
`The most valuable thing of all is health not wealth'.

According to the sentence above, there are many things compared, however, *hahipason* [hahipason] `health' is the most valuable of all not `wealth'. Implicitly, the sentence above indicatess everything is valuable, however above all *hahipason* 'wealth' comes first. Speaking of morpheme within the word *na ummarga* [naummarga] `the most valuable', the word *na ummarga* derives from article *na* + morpheme [*um*-] as a bound morpheme and *arga* [arga] `valuable' as a free morpheme. Prefix [*um*-] gets an addition of bilabial nasal voiced consonant [*m*] because the base form of *arga* [arga] is preceded by a vowel, in this case vowel [a].

As the result of affixation, that is, by attaching prefix to the base form of adjective *arga* above, morphological process occurs to the base adjective. In other words, the base form change according to the neighboring phoneme. The attachment of the prefix to the base forms brings about combination or addition to the two elements. In example above, phoneme [*m*] which is added after prefix [*um*-] and before the base form of adjective *arga* is called nasalization, that is, a process by adding or placing a nasal to the base form. In the example above, prefix [*um*-] is ended with phoneme [*m*], and the additional phoneme after the last phoneme of the prefix is also phoneme [*m*]. In short, it can be said that if prefix [*um*-] is attached to adjectives preceded by vowels, the last phoneme of the prefix is doubled. Thus, prefix [*um*-] → [*umm*-] instead of [*um*-].

**3. The initial phoneme of the base forms of the adjectives is a bilabial plosive voiced consonant [*b*]**

Adjectives of this group can be constructed to form superlative forms by attaching article *na* + prefix [*um*-] to the base adjectives without neglecting morphological change occured as shown in the following examples. The word *bagas* [bagas] `deep', for instance, can be constructed to superlative form by adding article *na* + prefix [*um*-]. Thus, article *na* + prefix [*um*-] + *bagas* [bagas] 'deep' → *na umbagas* [naubbagas] 'the deepest'. Some words in Toba Batak are pronounced differently from

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their spellings. The word *na umbagas* belongs to this criteria. In *na* [*um*-] + *bagas* [bagas] `deep' → *na umbagas* [naubbagas] `the deepest', the word *na umbagas* is not pronounced as it is spelled. It is pronounced [ubbagas] with double /b/ instead.

Phoneme [*m*] of prefix [*um*-] is assimilated and substituted by a bilabial plosive voiced consonant [*b*]. Phoneme [*m*] of prefix [*um*-] is pronounced as [*b*] because of the influence of the consonant following it, that is, a bilabial plosive voiced consonant [*b*] in *bagas* [bagas] `deep'. Therefore, if prefix [*um*-] is attached to base adjectives of which the initial sound is a bilabial plosive voiced consonant [*b*], it is no longer pronounced [*um*-], but it is pronounced [*ub*-]. The same morphological process also occurs to other adjectives of this kind as in the following data.

**Table 2: Superlative forms of adjectives with initial phenemes is bilabial plosive voiced consonant [*b*]**

| No | Positive Forms | Gloss | Superlative Forms | Pronunciation | Gloss |
|---|---|---|---|---|---|
| 1 | balga | Big | na umbalga | [naubbalga] | the biggest |
| 2 | bidang | Wide | na umbidang | [naubbidaŋ] | the widest |
| 3 | birong | Black | na umbirong | [naubbiroŋ] | the blackest |
| 4 | bongak | Roud | na umbongak | [naubboŋak] | the proudest |

From the data above, it can be seen that the attachment of article *na* + prefix [*um*-] to base adjectives results in change to the two combination. Prefix [*um*-] is no longer pronounced [*um*-], but it is pronounced as [*ub*-]. As the result of affixation process, the morphological process results in morphophonemic forms in which phoneme [*m*] of prefix [*um*-] change due to the phonemes following it.

The addition of article *na* + prefix [*um*-] to the base forms, based on the data above, creates combination that changes the form of the prefix [*um*-] phonologically. In the data above, phoneme [*m*] of prefix [*um*-] is changed to phoneme [*b*]. Thus, the prefix [*um*-] undergoes morphological process called allomorph, that is, a variant of a morpheme according to its environment. Phoneme [*m*] as a nasal is changed to phoneme [*b*] as a plosive because they belong to the same consonant, that is, bilabial voiced consonants. In short, if article na + prefix [*um*-] is attached to adjectives preceded by a bilabial plosive voiced consonant [*b*], prefix [*um*-] is pronounced [*ub*-] as its allomorph.

**4. The initial phoneme of the base forms of the adjectives is a velar plosive voiced consonant [*g*]**

The base form of the adjective *gogo* [gogo] of which the initial sound is a velar plosive voiced consonant [g] can be combined with prefix [*um*-] to form superlative forms. The process will be article *na* + [*um*-] + *gogo* [gogo] `strong' → *na unggogo* [nauggogo] `the strongest'. Word formation of base form of adjective *gogo* [gogo] `strong' becomes superlative form *na unggogo* [nauggogo] `the strongest' brings about phonological change. The [*m*] is pronounced [*g*], therefore, [*um*-] → [*ug*-].

The following is a sentence which includes adjective with prefix [*um*-].

Na unggogo di hasiangan on ima hamatean.
[Na unggogo di hasiangan on ima hamatean].
`Death is the strongest in this universe'.

Implicitly, there are many things compared in the sentence above, howener, above all *hamatean* [hamatean] `death' is the strongest. In other words, it is easy to die but it is difficult to survive to live.

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**4. The initial phoneme of the base forms of the adjectives is a palato alveolar affricate voiced consonant [*j*]**

The base form of adjective *jebu* [jebu] `passionate', for instance, if added with artocle *na* + prefix [*um-*] will be: *na um- + jebu* [jebu] `passionate' → *na unjebu* [naujjebu] `the most passionate'. Other example is article *na* + prefix [*um-*] + *jempek* [jeppek) `small' → *na unjempek* [naujjeppek] `the smallest'. In *na um- + jebu* [jebu] `passionate' → *na unjebu* [naujjebu] `the most passionate' and in *na um- + jempek* [jeppek] `small' → na unjempek [naujjeppek] `the smallest', the bilabial nasal voiced consonant [*m*] of the prefix [*um-*] has been changed to alveolar nasal voiced consonant [*n*] in spelling; it is no longer [*m*].

The first change occurs in this construction is morphological change, that is, the change of phoneme [*m*] from a bilabial nasal voiced consonant [*m*] into an alveolar nasal voiced consonant [*n*]. The second change is that the modified [*n*] is not pronounced [*n*], but it is pronounced as a palato alveolar affficate voiced consonant [*j*]. This latter change can be considered as phonological change.

**5. The initial phoneme of the base forms of the adjectives is a bilabial nasal voiced consonant [*m*]**

Article *na* + prefix [*um-*] + *manat* [manat] `careful' → *na ummanat* [naummanat] `the most careful' is one form of superlative. The word *mura* [mura] `cheap' which is combined with article *na* + prefix [*um-*], as another example, will be: *na um- + mura* [mura] → *na ummura* [ummura] `the cheapest'. There is not any change in the construction of the word to be comparative forms. Prefix [*um-*] remains [*um*] both in spelling and in pronunciation and so do the word *manat* [manat] `careful' and the word *mura* [mura] `cheap'.

Other example is *na ummahal*. Speaking of morpheme within the word *na ummahal* [naummahal] `the most expensive', the word *ummahal* derives from morpheme [*um-*] as a bound morpheme and *mahal* [mahal] `expensive' as a free morpheme. Prefix [*um-*] does not undergo any changes either morphologically nor phonologically. It is because the initial phoneme of the base form of the adjective is homogenous nasal with that of the final phoneme of prefix [*um-*], that is, the bilabial nasal voiced consonant [*m*].

The same construction also occurs to other adjectives of which initiated by the same initial phoneme [m]. Other adjectives of the same kind are listed below.

**Table 3: Superlative form of adjectives with initial phenemes is bilabial nasal voiced consonant [*m*].**

| No | Positive Forms | Gloss | Superlative Forms | Pronunciation | Gloss |
|---|---|---|---|---|---|
| 1 | mahal | Expensive | na ummahal | [naummahal] | the most expensive |
| 2 | metmet | Small | na ummetmet | [naummeʌmet] | the smallest |
| 3 | momos | Strict | na ummomos | [naummomos] | the strictest |
| 4 | male | Hungry | na ummale | [naummale] | the hungriest |

**6. The initial phoneme of the base forms of the adjectives is an alveolar nasal voiced consonant [*n*]**

One example of adjective preceded by an alveolar nasal voiced consonant [*n*] in Toba Batak is *nipis* [nipis] `thin'. The construction of this word to form superlative form by attaching article *na* + prefix [*um-*] will be: *na um- + nipis* [nipis] `thin' → *na unnipis*

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[naunnipis] `the thinnest'. The other example is *na um-* + *nunut* [nunut] `dilligent' → *na unnunut* [naunnunut] `the most dilligent'.

The only change occurs in forming either the word *na unnipis* [naunnipis] `the thinnest' or the word *na unnunut* [naunnunut] `the most dilligent' is morphological change, in which prefix [*um-*] becomes [*un-*]. The bilabial nasal voiced consonant [*m*] of prefix [*um-*] is no longer [*m*], but it changes to an alveolar nasal voiced consonant [*n*] as the cause of the integration between prefix [*um-*] and the base forms *nipis* [nipis] `light' and *nunut* [nunut] `dilligent'.

**7. The initial phoneme of the base forms of the adjectives is a bilabial plosive voiceless consonant [*p*]**

The word *padot* [padot] `dilligent', as an example, if modified to be superlative form by attaching article *na* + prefix [*um-*] will be: *na um-* + *padot* [padot] `dilligent' → *na umpadot* [nauppadot] `most dilligent'. Other example is *na um-* + *pistar* [pistar] `clever' → *na umpistar* [nauppistar] `the cleverest', *na um-* + *poso* [poso] → *na umposo* [naupposo] `the youngest'.

There is morphological change in forming the word *padot* [padot] 'dilligent' and *poso* [poso] `young' becomes superlative. The bilabial nasal voiced consonant [*m*] of prefix [*um-*] is phonologically pronounced as a bilabial plosive voiceless consonant [*p*]. Thus, the modified word *na umpadot* [nauppadot] `the most dilligent' is pronounced [nauppadot] with double /p/ not [naumpadot] and *na umposo* is pronounced [naupposo] with double /p/ not [naumposo]. If *na umpadot* is pronounced [naumpadot] and *na umposo* is pronounced [naumposo) it is phonologically unacceptable in standard Toba Batak.

From the data above, it can be stated that, if prefix [*um-*] is combined with adjectives preceded by a bilabial plosive voiceless consonant [*p*], it does not change in spelling. It remains [*um-*]; it, however, changes in pronunciation. The bilabial nasal voiced consonant [*m*] of prefix [*um-*] is pronounced as a bilabial plosive voiceless consonant [*p*]. It is exactly the same with consonant following it. Therefore, [*um-*] → [*up-*]. This change is regarded as a phonological change.

**8. The initial phoneme of the base forms of the adjectives is an alveolar rolled voiced consonant [*r*]**

The word *roa* [roa] `ugly', for instance, if attached by article *na* + prefix [*um-*] will become: *na um-* + *roa* [roa] 'ugly' → *na urroa* [urroa] `the ugliest' . Other example is article *na* + prefix *um-* + *ringgas* → [riŋgas] `dilligent' → *na urringgas* [naurringgas] `the most dilligent'. The bilabial nasal voiced consonant [*m*] of prefix [*um-*], both in *na um-* + *roa* [roa] and in *na um-* + *ringgas* [riŋgas] is changed to an alveolar rolled voiced consonant [*r*]. The change that occurs in this construction is a morphological change. Hence, from the data above it can be stated that if article *na* + prefix [*um-*] is attached to adjectives of which preceded by an alveolar rolled voiced consonant [*r*], prefix [*um-*] changes to [*ur-*] both in spelling and in pronunciation.

**9. The initial phoneme of the base forms of the adjectives is an alveolar fricative voiceless consonant [*s*]**

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One example of the base form of adjective preceded by an alveolar fricative voiceless consonant [s] is *sompit* [soppit] `narrow'. Article *na* + prefix [*um*-] + *sompit* [soppit] `narrow' → *na unsompit* [naussoppit] 'the narrowest'. The other example is article *na* + prefix [*um*-] + *sangap* [saŋap] `respectful' → *na unsangap* [naussaŋap] `the most respectful'.

Both morphological and phonological change occur in the construction of the two modified words. The morphological change occurs is that the bilabial nasal voiced consonant [*m*] of prefix [*um*-] is changed to a nasal alveolar voiced consonant [*n*] in spelling. Phoneme [*n*] is pronounced [*s*] both in the words *na unsompit* [naussoppit] and *na unsangap* [naussaŋap]. Based on the data above, it can be concluded that if article *na* + prefix [*um*-] is attached to adjectives initiated by an alveolar fricative voiceless consonant [*s*], phoneme [*m*] of prefix [*um*-] will be changed to phoneme [*n*] in spelling and [*s*] in pronunciation.

**10. The initial phoneme of the base forms of the adjectives is an alveolar plosive voiceless consonant [*t*]**

The base form *tibu* [tibu] `early', for instance, if attached with article *na* + prefix [*um*-] will be: *na um-* + *tibu* [tibu] `early' → *na untibu* [nauttibu] `the earliest'. Other example is *na um-* + *timbo* [tibbo] `tall' → *na untimbo* [nauttibbo] `the tallest'. There are two changes occurred in the construction of both *na untibu* [nauttibu] `the earliest' and *na untimbo* [nauttibbo] `the tallest'. The first change is morphological change in which bilabial nasal voiced consonant [*m*] of prefix [*um*-] becomes an alveolar nasal voiced consonant [*n*]. Next, the phonological change occured is that phoneme [*n*] in the modified words either in *na untibu* or in *na untimbo* is pronounced as an alveolar plosive voiceless consonant [*t*]. Thus, *na untibu* is pronounced [nauttibu] with double /t/ and *na untimbo* is pronounced [nauttibbo] with double /t/ as well.

From the data above, it can be stated that if article *na* + prefix [*um*-] is attached to adjectives preceded by an alveolar plosive voiceless consonant [*t*], prefix [*um*-] will be changed to [*un*-] in spelling. Finally, the modified [*un*-] is no longer pronounced as it is spelled but it is pronounced [*ut*-] instead. From the discussion about prefix [*um*-] above, it can be concluded that the meaning of article *na* + prefix [*um*-] denotes superlative form. It signifies the most meaning of all indicated in the base forms of the adjectives to which article *na* and the prefix is attached. The stress of adjective combined with prefix [*um*-] is put in the second syllable from the end of adjectives.

## 5. Conclusions

Based on the results and discussions above, it can be concluded that superlative forms of adjectives by article *na* + prefix [*um*-] in Toba Batak is constructed without considering the number of syllables of the base forms of adjectives as those in English. In Toba Batak, the attachments of article *na* + prefix [*um*-] to adjectives require the following rules:

(1) if the initial phoneme of the base adjectives are vowels, the last phoneme of prefix [*um*-] is doubled, therefore [*um*-] → [*umm*-].
(2) if the initial phoneme is a bilabial plosive voiced consonant [*b*], prefix [*um*-] is pronounced as [*ub*-] as its allomorph.
(3) if the initial phoneme is a velar plosive voiced consonant [g], prefix [*um*-] is pronounced [uŋ];

(4) if the initial phoneme is a palato alveolar affricate voiced consonant [*j*], prefix [*um-*] → [*un-*] in spelling and [*uj-*] in pronunciation.
(5) if the initial phoneme is a bilabial nasal voiced consonat [*m*] prefix [*um-*] does not change.
(6) if the initial phoneme is an alveolar nasal voiced consonant [*n*], prefix [*um-*] becomes [*un-*] both in spelling and in pronunciation.
(7) if the initial phoneme is a bilabial plosive voiceless consonant [*p*], prefix [*um-*] does not change in spelling, but it is pronounced [*up-*].
(8) if the initial phoneme is an alveolar rolled voiced consonant [*r*], prefix [*um-*] → [*ur-*] both in spelling and in pronunciation.
(9) if the initial phoneme is an alveolar fricative voiceless consonant [*s*], prefix [*um-*] → [*un-*] in spelling and [*us-*] in pronunciation.
(10) if the initial phoneme is an alveolar plosive voiceless consonant [*t*], prefix [*um-*] → [*un-*] in spelling and pronounced [*ut-*].

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