THE DIFFERENCE OF GRAMMATICAL ERROR IN WRITING RECOUNT TEXT BETWEEN NATURAL SCIENCE AND SOCIAL SCIENCE STUDENTS

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ABSTRACT

This study concerned on the difference of grammatical error in writing recount text between natural science and social science students. The objective of this study was to find out the difference of grammatical error in writing recount text between natural science and social science students. This research was conducted by using causal-comparative research. The subject of the study was the students of XI-IPA1 and XI-IPS1 of SMA Swasta Methodist Berastagi. The number of the samples was twenty eight. The techniques for data analysis were quantitative data. The t-result was 2,60 (bigger than t table 1,706). The conclusion is that there is a significant difference of grammatical error in writing recount text between natural science and social science students.

Keywords: error, writing, causal-comparative

INTRODUCTION

The Background of the Study

Natural Science and Social Science are two different majors in Senior High School. The specific natural science subjects, Physics, Chemistry and Biology. The focus of natural science is nature. The specific social science subjects, Economics, Geography and Sociology. The focus of social science is society. Compared to the social sciences, the natural sciences rely more on mathematically based methods (Boutellier, 2011: 3)

There is a common opinion in society that the students of natural science are cleverer than the students of social science. People state that opinion by looking at the behavior of Natural Science and Social Science students. Unfortunately, we can't judge a book by its cover or judge someone's intelligence by his/her behavior instead we need to test them.

In this research, the researcher attempts to find out the writing ability, especially in grammar, of students of Natural and Social Science in writing recount. Therefore, we will get a conclusion whether Natural and Social Science students have the same ability in writing or one is better than the other.

Based on the background of the study, the problem of the study is formulated as follows:

Is there any difference of grammatical error in writing recount text of natural science and social science students?

REVIEW OF LITERATURE

Theoretical Framework

1. Grammatical Error

Grammatical error is the failure to use the grammar system of a language due to the lack of learners' competence or knowledge on grammar system.

Richards (1971) classifies grammatical errors into four categories:

1) Overgeneralization
   It occurs when the learner creates a deviant structure based on other structures in the target language. For example, one may write "I go to school yesterday" where English allows "I went to school yesterday".

2) Ignorance of the rule restrictions
   It involves the application of rules to contexts where they do not apply. For example, one may write "I asks her out for a date".

3) Incomplete application of rules
   It is typically related to analogy. It involves a failure to fully develop a structure. For example one may write "You like to sing?"

4) False concepts hypothesized
   False concepts hypothesized may derive from faulty comprehension of a distinction in the target language. For example, one may write "he is speaks French" ("is" may be understood to be the marker of present tense, as "was" is a marker of the past tense).

2. Writing

Writing is the representation of language in a textual medium through the use of a set of signs or symbols (http://en.wikipedia.org). Meanwhile, Brown (2001:335) says written language (writing) is simply the graphic presentation of spoken language, and that written language performance is much like oral performance.

3. Recount Text

Recount is a text reconstructing events happened in the past. It unfolds the sequence of events and has the purpose to tell what happened in the past. Recount starts with orientation, which introduces the participants, place and time, then goes to events, which describe series of event that happened in the past and ends in reorientation, which states personal comment of the writer to the story. Writing a recount text is much like writing a diary.

4. The differences between Natural and Social Science

Natural Science and Social Science are two different majors in Senior High School. Those two majors have specific subjects, which differ them from each other. Based on 2006 Curriculum, Natural Science has physics, chemistry and biology as its specific subjects. In the other hand, Social science has Economics, Geography and Sociology as its specific subjects. In the 2013 curriculum plan, the mathematics and science interest (Natural Science) has mathematics, physics, chemistry and biology as its specific subjects. Social interest (Social Science) has Economics, Sociology and Anthropology, Geography and History as its specific subjects.
Based on Intelligence Structure Test, the LPPB FIP UPI *(Laboratorium Psikologi Pendidikan dan Bimbingan Fakultas Ilmu Pendidikan Universitas Indonesia)*, formulates two different Intelligence Structure Test criterions for natural and social science. The criterions for the natural science students are GE**,** RA, ZR, FA, and WU. In the other hand, the social science has these criterions, SE, WA, AN, ME and RA (*Hasanah, 2011 : 32*). If students want to major in Natural Science, they must have high score of GE**,** RA, ZR, FA, and WU in Intelligence Structure Test. If students want to major in Social Science, they must have high score of SE, WA, AN, ME and RA in Intelligence Structure Test.

5. Natural Science Student

The natural sciences are those branches of science that seek to elucidate the rules that govern the natural world through scientific methods (WIKIPEDIA). Meanwhile, Ledoux (2002:34) in Boutellier (2011: 2) defines natural sciences as "disciplines that deal only with natural events (i.e. independent and dependent variables in nature) using scientific methods". The aim of the natural sciences is to discover the laws that rule the world (Büchel, 1992) in Boutellier (2011: 2).
Based on Concise Oxford English Dictionary, student is a person who takes a particular interest in a subject. Therefore, I conclude that natural science student is a person who takes a particular interest in subjects/disciplines that deal only with natural events using scientific methods.

6. Social Science Student

The disciplines of social sciences are viewed as those that deal with "human society, societal groups, individuals in their relationships with others or institutions of societies and material goods as expression of human cohabitation" (Bayer, 1992 in Boutellier 2011: 3) Subject of study are the phenomena of social interaction and coexistence. Social Sciences can rather be classified by their common perspective then through a specific subject of study. This perspective consists of the understanding and studying of a social aspect of society, a group of people or a single individual. (Bayer, 1992, p. 302 in Boutellier 2011: 4).
From definition above, I conclude that social science student is a person who takes a particular interest in subjects/disciplines that deal with human society, societal groups, individuals in their relationships with others or institutions of societies and material goods as expression of human cohabitation.

METHODOLOGY

Research Design

This study applied causal-comparative research. In causal-comparative research, investigators attempt to determine the cause or consequences of differences that already exist between or among groups of individuals. (Fraenkel and Wallen, 2009:363)
The basic causal-comparative design involves selecting two or more groups that differ on a particular variable of interest and comparing them on another variable or variables. The groups differ in one of two ways: One group either possesses a characteristic (often called a criterion) that the other does not, or the groups differ on known characteristics. (Fraenkel and Wallen, 2009:367)

The Instrument for Collecting Data

In this study, the researcher used the writing test as a tool for collecting data. The students were asked to write a recount text about their experiences during last holiday season.

The Technique of Data Collection

The study applied quantitative data. The quantitative data was used to analyze the score of the students. In finding the difference of the students' score, the researcher used the following Independent samples t-test formula (*taken from Hinton 2004:91*):

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left(\frac{\sum X_1^2 - \frac{(\sum X_1)^2}{n_1} + \sum X_2^2 - \frac{(\sum X_2)^2}{n_2}}{(n_1 - 1) + (n_2 - 1)}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where: $\sum X_1^2$ = ***The total of*** X_1^2
$\sum X_2^2$ = ***The total of*** X_2^2
$(\sum X_1)^2$ = **The total of** $(X_1)^2$
$(\sum X_2)^2$ = **The total of** $(X_2)^2$
n_1 = ***Participants of group 1***
n_2 = ***Participants of group 2***
$\bar{X}_1$ = ***Mean of group 1***
$\bar{X}_2$ = ***Mean of group 2***

RESULT AND DISCUSSION

Natural science and social science are two different majors in most of school in Indonesia. There are some specific subjects that differ these two major from each other. Based on 2006 Curriculum, Natural Science has physics, chemistry and biology as its

specific subjects. In the other hand, Social science has Economics, Geography and Sociology as its specific subjects. In the 2013 curriculum plan, the mathematics and science interest (Natural Science) has mathematics, physics, chemistry and biology as its specific subjects. Social interest (Social Science) has Economics, Sociology and Anthropology, Geography and History as its specific subjects.

Studying and analyzing the written works of natural and social science students, I realized the difference between natural science and social science student. Based on my research, there is a significant difference of grammatical error in writing recount text between natural science and social science students. The independent sample test showed the $t\text{-}_{result}$ (2,60) is higher than $t\text{-}_{table}$ (1,706).

Based on my research about grammatical error in writing recount text, the natural science students of Senior High School of Methodist Berastagi is better than the social science students. In their written works, the total grammatical error of the natural science students is 219. Social science students made 292 grammatical errors in their written works. Moreover, the mean score of natural science is 28,55. Meanwhile, the mean of social science is 16,57.

CONCLUSION AND SUGGESTIONS

Conclusion

Having analyzed the data, I found that there is a significant difference of grammatical error in writing recount text between natural science and social science students. There is a significant difference of mean score of natural science and social science. The mean score of natural science is 28,55. The mean score of social science is 16,57. The result of the t-test shows $t\text{-}_{result}$ is higher than $t\text{-}_{table}$ (2,60>1,706).at the level of significance 0,05 and df 26.It means that Ha is accepted.

Suggestions

Based on my research, it is suggested that:

1) English teacher gives more explanation about verb. It seems like the students get trouble in using verb in their writing.

2) The students must study and practice English more, especially in grammatical aspect

REFERENCES

Brown, J. D. 1980. *Principles in Language Learning and Teaching*. New Jersey: Prentice Hall.

Brown, Doughlas.2001 *Teaching By Principles on Interactive approach to Language Pedagogy*. Sanfransisco: Longman.

Boutellier, et al. 2011. *What is the difference between social and natural sciences?*. Saint Galen University

Caroll, J. A. And E. E. Wilson., et. al. 2001 *Writing and Grammar; Communication in Action-Diamond Level (12)*. New Jersey: Prentice Hall.

Fraenkel and Wallen. 2009. *How to Design and Evaluate Research in Education*. New York: McGraw-Hill

Hasanah, Nurul. 2011. *Validitas Prediktif Skor Minat Dan Bakat Terhadap prestasi Belajar Siswa Sekolah Menengah Atas(Studi Deskriptif Terhadap Skor Tes Skala Minat Pekerjaan, Intelligents Structuretest (IST), dan Prestasi Belajar Siswa Kelas XI IPA Dan IPS SMA Negeri 1 dan SMA Negeri 2 Bandung Tahun Ajaran 2009/2010)*. Bandung : Universitas Pendidikan Indonesia (UPI)

Hinton, et al. 2004. *SPSS Explained*. New York : Routledge

Hinton, Perry. 2004. *Statistics Explained 2nd edition.* New York : Routledge

Richard, J. C. 1971. *Error Analysis*. England: Longman Group Ltd.

"Writing." Wikipedia.28 August 2012. < http://en.wikipedia.org/wiki/Writing>

Appendix

Grammatical errors of social science students

No	Name	Noun	Verb	Pron	Adj	Adv	Prep	Conj
1	Elovani	0	10	2	0	0	1	0
2	Retniwati	1	12	0	0	0	3	1
3	Memori Oktaviana	0	16	2	3	0	4	1
4	Sri Agina	2	39	1	4	1	2	0
5	Indah Syahfitri	5	4	2	0	0	0	0
6	Ririn Karisna	0	9	0	0	1	1	0
7	Emi Agustina Br ginting	0	19	1	2	0	1	2
8	Clara Theresia	1	39	10	2	0	4	1
9	Krisna Waty	0	7	4	0	0	0	1
10	Juju M	0	5	0	0	0	1	1
11	Sukesi br Ginting	0	10	2	1	1	1	3
12	Lespevi	0	9	3	0	0	0	0
13	Debye Chyintia Sitepu	1	13	1	0	0	1	0
14	Fransiska Br Bangun	1	13	1	1	0	1	1
	TOTAL	11	205	29	13	3	20	11
	Total Error	292						

Grammatical errors of natural science students

No	Name	Noun	Verb	Pron	Adj	Adv	Prep	Conj
1	Okky Yanasari	0	12	0	4	0	0	0
2	Lilis Yanti	0	15	5	2	0	1	2
3	Lisa Monica	2	11	0	0	1	0	0
4	Ricky Pranata	1	10	1	1	0	0	0
5	Felix	0	7	0	1	0	0	0
6	Rosalina Br Keliat	0	9	0	0	1	0	0
7	Folinsa Br Milala	0	10	1	0	1	0	0
8	Feralynia Chindawati	0	15	0	0	1	0	0
9	Jesica Regina	0	9	1	0	0	0	0
10	Emia Septiani	0	18	0	0	0	0	0
11	Fhandy	0	8	1	1	0	1	0
12	Esmi	0	21	0	0	0	1	0

No	Name	Noun	Verb	Pron	Adj	Adv	Prep	Conj
13	Rahmawati	0	19	0	0	2	0	1
14	Juwita Elisda Br Ginting	0	17	0	4	1	0	0
	TOTAL	3	181	9	13	7	3	3
	Total error	219						

Social science students' score

No	Name	Score
1	Elovani	25
2	Retniwati	41.66667
3	Memori Oktaviana	7.692308
4	Sri Agina	7.692308
5	Indah Syahfitri	12.5
6	Ririn Karisna	16.66667
7	Emi Agustina Br ginting	8.333333
8	Clara Theresia	5.882353
9	Krisna Waty	33.33333
10	Juju M	11.11111
11	Sukesi br Ginting	18.18182
12	Lespevi	14.28571
13	Debye Chyintia Sitepu	13.04348
14	Fransiska Br Bangun	16.66667

Natural science students' score

No	Name	Score
1	Okky Yanasari	19.09091
2	Lilis Yanti	17.69231
3	Lisa Monica	22.5
4	Ricky Pranata	24.28571
5	Felix	55.45455
6	Rosalina Br Keliat	25.38462
7	Folinsa Br Milala	30
8	Feralynia Chindawati	58.14815
9	Jesica Regina	40
10	Emia Septiani	17.69231
11	Fhandy	33.07692
12	Esmi	16.25
13	Rahmawati	17.69231
14	Juwita Elisda Br Ginting	22.5

Group Statistic

	Class	N	Mean	Std. Deviation	Std. Error Mean
Score	Natural Science	14	28,5548	13.72657	3.66858
	Social Science	14	16,5754	10.33384	2.76183

Result of Calculation

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Score	Equal variances assumed	1.17	.287	2.60	26	.015	11.97	4.59	2.54	21.41
	Equal variances not assumed			2.60	24,15	.015	11.97	4.59	2.50	21.45