I. INTRODUCTION

Indonesia is a country known for a variety of linguistic characteristics in each region. This is known from various tribes, religions, cultures, and social groups. This diversity represents communication and national identity through groups of speakers, one of which is variation in a dialect which can be identified through a regional mapping. So the existence of cultural complexity in Indonesia makes communication and cultural interaction increasingly massive and complex, so it needs to be the basis for understanding basic insights between generations (Sohabudin & Darmawan, 2023). The results of linguistic research conducted by the Indonesian Ministry of Education, Culture, Research, and Technology in 2018, show that there are 718 regional languages in Indonesia. This illustrates how communication is established in each group of speakers of a particular language. The diversity of regional languages and dialects in Indonesia has given rise to many variations of the language. These language and dialect variations can then be identified through language mapping.

Language mapping represents a variety of languages that are unique to an area. Language mapping on the basic cultural vocabulary plays an important role in underpinning society to preserve the vitality of language (Zabadi, 2021). This variety of dialects is an object of study in the field of linguistics which can be an attraction for the development of linguistic insights, so that it becomes an indication related to the study of dialect geography in order to know that language plays an important role in running a social system in an area.

The study of dialectology addresses the variety of languages in the scope of society in a region or area, so that the study of dialectology covers every subsystem of the field of linguistics underlying...
linguistics, including phonology, semantics, syntax and morphology. Lauder reveals that “dialectology is a variety of language that is based on a unit of space in which variations in research is carried out to obtain conclusions that can be known factually” (Lauder, 2001: 1). Theoretically, previous research related to dialectological studies, traced the derived forms of vocabulary compared through phonological rules between dialects (Suryati, Mbete, Lauder, & Dhanawaty, 2012). Thus it can be said that dialectology can identify similarities and differences in the use of sign systems, namely through elements that coincide with certain languages.

Through mapping language in an area, dialectology studies can be linked to a unit of place in order to create a variety of language uses. The explanation related to dialectology is stated by Ayatrohaedi (1983: 29) that dialect geography is a comparison in language studies which has a relationship in the variety of languages. Based on a map to find out the dividing line on language mapping, the observation points that are known to have a variety of speeches are marked (Chambers and Trudgill, 2004:24). Through geographical location, unique isolects are often found, so the role of dialect geography is important in identifying a region (Saddhono & Hartanto, 2021).

This research examines the Minangkabau language, located in the region of West Sumatra. In this area, the Minangkabau language is used in conversations between children, parents, relatives and colleagues. Minangkabau language is a part of the Melayu language constituting a family of Austronesian languages. The Minangkabau language is used as the mother tongue in West Sumatra Province, while the Malay language family covers almost the entire island of Sumatra. Through previous research, the uniqueness of the Minangkabau language, known as migrants, has been explored, so that the language units brought by nomads affect differences or variations between regions through the surrounding isolects and it is the process of creating dialects that differentiates one region from another in Minangkabau (Reniwati, Noviatri, Aslinda, & Midawati, 2016).

It can be said that the Minangkabau language has many dialect variations. Previous research emphasized language mapping. Language mapping aims to verify the novelty of differences in the number of dialects in a region, one of which is through dialectological studies (Budiono, Novita, & Syarfina, 2023). Then, through verifying the geographical language mapping, the Minangkabau language also has various dialects such as the Agam Tanah Datar dialect, the Pasaman dialect, the Lima Puluh Kota dialect, the Koto Baru dialect, and the Pancung Soal dialect.

Traditionally, the Minangkabau region has its own characteristics, i.e. there is an autonomous regional structure that regulates the deliberation system according to customary traditions, the existence of Nagari based on the application of Minangkabau customary law and norms. Nagari is a concept that shows a thorough understanding of the indigenous law community units that have been stipulated in regional regulations (Hasanuddin, Azwar, Akmal, & Handoko, 2023). In addition, this is based on previous research finding that the Minangkabau people use nature as a way of life in giving birth and the norms in acting and thinking (Firdaus, Lubis, Susanto, & Soetarto, 2018). Through previous research providing the origins of the Minangkabau language, one of which were influenced Indian traders who came to Padang, it can known that there is an interaction between Minang people and Indians who mingle quickly, resulting in code mixing which is shown in the Minang people’s current communication style (Aditiawarman & Yuli, 2020).

The observation in this research was carried out on the use of the Minangkabau language, the Agam Tanah Datar dialect in Nagari Gunuang, Padang Panjang City. Nagari Gunuang is known for historical wealth preserved continuously and unique culture. This can be seen from the use of various languages between villages in Nagari Gunuang.

The dialect research in Nagari Gunuang was divided into four observation points consisting of four villages: Ekor Lubuk, Sigando, Ganting and Ngalau.

At these observation points, various dialects were found related to lexical variations, especially the field of lexicon which underlies the form of communication in each group of speakers. The lexical differences occur because the lexicons represent a meaning from a different etimons. Therefore, the difference in a lexicon identified through the fields of phonology and morphology can be determined (Nadra and Reniwati, 2009: 22).
The identification of lexical variation in this study refers to the opinion put forward by Zulaeha (2010: 46) that if the lexeme used in realizing a meaning coming from more than one etimons, this will be due to differences in perspectives between speakers in influencing the lexical variation spoken.

This research focuses on the lexical variations of the Agam Tanah Datar dialect in Nagari Gunuang. An example of vocabulary found in the Agam Tanah Datar dialect is the word brave having two etimones and two symbols of lexical variation: [baraŋ] spoken in Ekor Lubuk and Ganting villages, and [baga?] spoken in Sigando and Ngalau villages.

Previous research discussing lexical variations was carried out by Amri (2020) who explained the lexical variations of the Agam Tanah Datar Nagari Tuo Pariangan dialect in Tanah Datar District. The research conducted by Amri found that the lexical variation of the Agam Tanah Datar dialect found in Nagari Tuo Pariangan shows the realization of speech differences between observation points. This study is different from Amri’s as it provides a description of the lexical distribution at the observation points in the Nagari Gunuang area. Previous research also related to lexical variations in the Sasak language emphasizing the use of the dialectometric method and isogloss bundles. Another previous research concluded that geographical factors influence lexical differences (Zulkarnaen, Dhanawaty, & Putra, 2021). Still another previous study on dialectometry in the authentication of Weleri dialect in Kendal Regency concluded that through dialectometric calculation, Weleri cannot be verified to be dialect as it shows only 27% value, so that the existence of Weleri region has different speech (Lestari & Munawarah, 2022).

This study seeks to preserve and record the lexical variations of the Agam Tanah Datar dialect found in Nagari Gunuang, Padang Panjang City. Thus, this study aims to describe the forms of lexical variations existing in Nagari Gunuang to find out indications of the occurrence of lexical diversity.

II. METHODS

This dialectology study uses qualitative and quantitative research types to determine the lexical variations of the Agam Tanah Datar dialect found in Nagari Gunuang. This research is also descriptive in nature. Pribady (2018: 61) says that the quantitative method is an approach that produces descriptive data in the form of written or oral data on phenomena existing in society, while it is said to be descriptive because the data collected is in the form of words that are explained scientifically. In addition, quantitative research is used to calculate dialectometry constituting the formula in this study.

The data of study were oral utterances in the form of vocabulary delivered directly by nine informants from Nagari Gunuang. The research data is also based on the Swadesh vocabulary list from Nothofer, with a total of 851 glosses in the form of vocabulary, phrases and sentences.

To classify the data, it is necessary to number the observation points in order to map lexical variations in the vocabulary with information depending on the observation points through the map depicted (Nadra and Reniwati, 2009:74). In this study, researchers used a bottom-up numbering system. This is adjusted to the shape of the base map of Nagari Gunuang, namely: Ekor Lubuk Village (observation point 1), Sigando Village (observation point 2), Ganting Village (observation point 3), and Ngalau Village (observation point 4).

The data analysis method used is the equivalent method obtained through conversation, with sorting technique to find out the lexical variations associated with the contrast-to-differentiation technique and the comparison-to-equal technique. The data analysis method used is the dialectometric method. This is intended to determine the percentage of speech differences between observation points.

This study refers to the dialectometric calculation formula proposed by Seguy (in Zulaeha 2010:37) as follows:

\[
\frac{(S \times 100)}{N} = d\% 
\]

Information:
- \( S \) = the number of differences in observation points
- \( N \) = amount of comparative data
- \( d \) = number of dialects in percentage
- \( >70\% \) : considered a language difference
- \( 51—70\% \) : considered to be dialect differences
- \( 31—50\% \) : considered to be subdialectal differences
- \( 21—30\% \) : considered to be a speech difference
- \( < 20\% \) : considered no difference
This formula is a guideline based on Nadra and Reniwi (2009: 92) stating that “the results obtained are in the form of the percentage distance of linguistic elements between observation points”. It is in line with previous research finding that the dialectometric method pioneered by Seguy calculates the aggregate distance in dialect application in an area (Wieling, Nerbonne & Baayen, 2011). The dialectometric method aims to analyze corpus-based statistics and computations at the point of observation (Eddington, 2022).

III. RESULT AND DISCUSSION

Specific lexical variations in the Agam Tanah Datar dialect can be found in two two-symbol etimons, two three-symbol etimons, two four-symbol etimons, and three three-symbol etimons.

This study found lexical variations of 142 glosses for two etimons with two symbols, 19 glosses for two etimons with three symbols, 1 gloss for two etimons with four symbols and 10 glosses for three etimons with three symbols. Lexical variations can be identified in the lexicon which represents a meaning from a different etimons. Then, it can be determined that the differences in a lexicon are identified through the fields of phonology and morphology, and grouped data can be explained in Indonesian. Because the grouping at each observation point requires a dialectometric method, this study also found that the overall average percentage was below 25% so that it could be classified as a speech difference.

Forms of Lexical Variation

To classify lexical variations, they can be classified into two: two etimons and three etimons. Each etimons can be divided based on symbols classified based on the data found in each OP (Observation Point).

1) The Two-Etimons Two-Symbols Group

Based on the data found, 142 out of 851 glosses belong to the group of two etimons two symbols. The group of two etimons and two symbols is known as a gloss with two phonological variations and two lexical variations. The following is the vocabulary belonging to the two etimons and two symbols group.

<table>
<thead>
<tr>
<th>No.</th>
<th>No. Maps</th>
<th>Glos</th>
<th>Symbol</th>
<th>Transcription</th>
<th>Observation Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31</td>
<td>eighty years ago</td>
<td><img src="image" alt="lapanpulahta" /></td>
<td>[lapanpulahta unnanbalalu]</td>
<td>1,3</td>
</tr>
<tr>
<td>2</td>
<td>592</td>
<td>drag</td>
<td><img src="image" alt="manaria?" /></td>
<td><img src="image" alt="manaria?" /></td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>698</td>
<td>brave</td>
<td><img src="image" alt="baga?" /></td>
<td><img src="image" alt="baga?" /></td>
<td>3,4</td>
</tr>
</tbody>
</table>

2) The Two-Etimons Three-Symbols Group

Based on the data found, 19 out of 851 glosses belong to the two etimons two symbol group. This group of two etimons and three symbols is a gloss with three phonological variations and two lexical variations. The following is the vocabulary of belongin to the two etimons and three symbols group.

<table>
<thead>
<tr>
<th>No.</th>
<th>No. Maps</th>
<th>Glos</th>
<th>Symbol</th>
<th>Transcription</th>
<th>Observation Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30</td>
<td>last</td>
<td><img src="image" alt="tarakis" /></td>
<td>[tarakis]</td>
<td>1,3</td>
</tr>
<tr>
<td>2</td>
<td>708</td>
<td>not good, ugly</td>
<td><img src="image" alt="inDa?ele?" /></td>
<td><img src="image" alt="inDa?ele?" /></td>
<td>1,3</td>
</tr>
<tr>
<td>3</td>
<td>727</td>
<td>red</td>
<td><img src="image" alt="sireh" /></td>
<td><img src="image" alt="sireh" /></td>
<td>1,3</td>
</tr>
</tbody>
</table>

3) The Two-Etimons Four-Symbols Group

Based on the data found, 1 out of 851 glosses belongs to the group of two etimons four symbols. This group of two etimons and four symbols is a gloss with four phonological variations and two lexical variations. The following is the vocabulary belongs to the two-etimons and four-symbols group.

<table>
<thead>
<tr>
<th>No.</th>
<th>No. Maps</th>
<th>Glos</th>
<th>Symbol</th>
<th>Transcription</th>
<th>Observation Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>174</td>
<td>you all</td>
<td><img src="image" alt="saDo?o" /></td>
<td>[saDo?o]</td>
<td>1,3</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td><img src="image" alt="kasaDo?o" /></td>
<td><img src="image" alt="kasaDo?o" /></td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td><img src="image" alt="kamisa?aDelah?eh" /></td>
<td><img src="image" alt="kamisa?aDelah?eh" /></td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td><img src="image" alt="kamisa?aDel?ah" /></td>
<td><img src="image" alt="kamisa?aDel?ah" /></td>
<td>3</td>
</tr>
</tbody>
</table>

4) The Three-Etimons Three-Symbols Group

Based on the data found, 10 out of 851 glosses belong to the three-etimons and three-symbol group. This group of three etimons three symbols...
is a gloss with three phonological variations and three lexical variations. The following is the vocabulary belonging to the three etimonss and three symbols group.

<table>
<thead>
<tr>
<th>No.</th>
<th>No. Maps</th>
<th>Gloss</th>
<th>Symbol</th>
<th>Transcription</th>
<th>Observation Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>66</td>
<td>a cubit</td>
<td>■</td>
<td>[saheto]</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>●</td>
<td>[sabahu]</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>●</td>
<td>[mairu?]</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>●</td>
<td>[maniu]</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>607</td>
<td>blow</td>
<td>■</td>
<td>[mambubu]</td>
<td>1,3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>●</td>
<td>[inDa?elo?]</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>●</td>
<td>[burua?laku]</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>●</td>
<td>[hurray?]</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>688</td>
<td>loose</td>
<td>■</td>
<td>[kanDua]</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>●</td>
<td>[lunga]</td>
<td>2,4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>●</td>
<td>[layu]</td>
<td>3</td>
</tr>
</tbody>
</table>

### Dialectometric Calculations

To determine the status of differences at each observation point, a dialectometric calculation is required which is defined in the form of a percentage. This dialectometric determination is obtained through the formula proposed by Seguy. The followings are the results of the overall dialectometric calculations carried out at each observation point in the Nagari Gunuang area.

<table>
<thead>
<tr>
<th>OP</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP I - OP II</td>
<td>22.3 %</td>
</tr>
<tr>
<td>OP I - OP III</td>
<td>8.6 %</td>
</tr>
<tr>
<td>OP I - OP IV</td>
<td>24.6 %</td>
</tr>
<tr>
<td>OP II - OP III</td>
<td>24 %</td>
</tr>
<tr>
<td>OP II - OP IV</td>
<td>4.8 %</td>
</tr>
<tr>
<td>OP III - OP IV</td>
<td>26.5 %</td>
</tr>
</tbody>
</table>

**OP** : Observation Point

- >70% : considered a language difference
- 51—70% : considered to be dialect differences
- 31—50% : considered to be subdialectal differences
- 21—30% : considered to be a speech difference
- < 20% : considered no difference

### IV. DISCUSSION

Based on the results of the lexical variation found in this study, it can be said that the form of lexical variation can describe the different forms of etimonss phonologically and lexically shown in the form of symbols. In addition, a total of 172 lexical variations can be found from 851 glosses, and there are indications that these lexical variations are influenced by these variations, i.e. geographical factors and social factors. This is proven through the percentage of dialectometric calculations at each observation point.

The group of two-etimonss two-symbols, as exemplified in the brave glosses in table 1, shows that there are differences in phonological and lexical variations: [baran?] is spoken in the Ekor Lubuk Village and Sigando Village, while [baga?] is spoken in Ganting Village and Ngalu village.

In the group of two-etimonss three-symbols, it can be exemplified that the glosses are not good, ugly in the data above meaning that there are differences in phonological variations, namely, [inDa?elo?] spoken in Kampung Ekor Lubuk and Kampung Ganting, [burua?laku] spoken in Kampung Sigando, and [hurray?] spoken in Kampung Ngalu.

In the two-etimonss group, the four symbols can be exemplified in the glosses you all in the data above showing differences in phonological variations, namely, [saDoño] spoken in the areas of Ekor Lubuk Village and Ganting Village, [kasaDoño] spoken in Sigando Village, [kamisa?aDela?ah] is spoken in Kampung Ngalau, and [kamisa?aDela?ah] is spoken in Kampung Ganting.

In the group of three ethimones, three symbols can be exemplified by the gloss a cubit in the data above showing differences in phonological variations: [saheto] spoken in Ekor Lubuk Village, [sabahu] spoken in Sigando Village, and [satampo?] spoken in Kampung Ekor Ganting and Ngalau Village.

Based on dialectometric calculations, each observation point has an average percentage below 25%. The calculation results of OP I and OP II finds a percentage of 22.3%. This explains that there are differences in speech. The results of calculating OP I and OP III show a small percentage of 8.6%. This indicates no difference. The results of calculating OP I and OP IV show a percentage of 24.6% explaining the difference in speech. The results of calculating OP II and OP III show a percentage of 24% indicating a difference in speech. The calculation results for OP II and OP IV show small percentage, 4.8%. Thus, they do not explain the difference. The results of calculating OP III and OP IV show the largest percentage of 26.5%. This finding indicates that there are differences in speech in that area. This
is because the phenomena with a high probability of occurrence of these variations are geographical factors and social factors, as evidenced by the background of the research location which provides supporting explanations that the mobility and the conditions of observation area influence the occurrence of variations. This result is different compared to previous research conducted by Amri (2020) finding that dialectometric calculations in Nagari Tuo Pariangan have no difference through the results of 219 lexical variations in a total of 991 basic vocabularies. This is different from the results of this study, due to geographical factors and also differences in the number of vocabulary that is the result of the analysis.

V. CONCLUSION

Based on the result and the discussion, it can be concluded that there are 172 lexical variations of 851 glosses in the form of lexical variation in the Agam Tanah Datar dialect. This form of variation can be classified into two-etimons two-symbols, two-etimons three-symbols, two-etimons four-symbols and three-etimons three-symbols groups. The grouping performed at each observation point utilizes dialectometric calculations. From dialectometric calculations in this study, it is also possible to find the overall percentage, that is, on average below 25%. Thus, it can be said that the differences occurring are considered as differences in speech.

REFERENCES


**BIOGRAPHY**

**Hijrianda Niko Larizky** was born in Boyolali, April 5, 2000. He is an active student of Indonesian Literature, Faculty of Cultural Studies, Universitas Sebelas Maret. Some of the achievements that have been achieved include: *Pioneer of Tourism Village MBKM* Ministry of Education and Culture (2021), Chairman of *Forum Genre Jawa Tengah BKKBN Jawa Tengah* (2022) *Harapan 2 Mahasiswa Berprestasi Universitas Sebelas Maret* (2021). With this research it is important to record the glosses of the Tanah Datar Agam dialect in Nagari Gunuang, Padang Panjang City.