Dialect Identification on Kangean Island and Madurese Island: Dialectology Study

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Abstract - Madurese language is one of the regional languages in Indonesia which has various dialect variations, namely Bangkalan dialect, Pamekasan, Sumenep, and Kangean. However, the Kangean dialect is considered a separate language by the Madurese in general. This study aims to reveal and identify the isolect status of the language used on Kangean Island and Madurese Island. This study uses the dialectometric method. Data was collected using a list of 845 questions taken from 3 informants at each observation point (OP). Data analysis used the dialectometric method with the formula proposed by Guiter. The results of this study showed 4 categories, namely, no difference (<20%), different speech (21%-30%), different sub-dialect (31%-50%), and different dialect (51%-80%). This study shows there are 2 OP with no difference in status, 2 OP with speech differences, 7 OP in subdialect on Kangean Island. And if all OPs on Kangean Island were compared with OPs on Madurese Island, each has the status of a dialect.

Keywords: Dialectology, Dialectometry, Madurese Language, Kangean Island, Madurese Island

I. INTRODUCTION

In general, the Indonesian people have 2 languages, namely the regional language and the Indonesian language. Regional languages are used as the daily language of people who use language. Meanwhile, Indonesian is the second language after regional languages which is used as a language that bridges between tribes and ethnicities who use different languages.

Indonesia is a country with the most tribes and ethnicities in the world and has at least 750 local languages that have been identified (Sugono. et al, 2017), which includes 300 languages in Papua province, 95 languages in West Papua province, Maluku has 70 regional languages, Nusa East Southeast 69, Sulawesi 58, and Kalimantan 57, Sumatra has 26 regional languages, West Nusa Tenggara 11, and Java and Bali 10 (in Language and Language Map in Indonesia, 2017).

One of the regional languages in Indonesia is Madurese. Madurese Languange (ML) is one of a part of Proto-Austronesian. Hadiati (2014) said that Austronesian is devided into 2 parts; East-Austronesian and West-Austronesian. East-Austronesian belongs to Melayu, Sundanese, Javanese, Balinese, Madurese, and others.

The ML is used by ethnic Madurese scattered in several areas on the island of Java. Yani (2015) said there are fourteen districts that

use the Madurese language in East Java, namely eight districts on the island of Java such as Malang, Gresik, Banyuwangi, Probolinggo, Jember, Bondowoso, Lumajang, Pasuruan, and Mojokerto. Muta'allim, Sofyan & Haryono (2020) stated that ML is one of the regional languages whose speaker distribution includes Pasuruan, Probolinggo, Situbondo, Bondowoso, Jember, and Lumajang in the East Java region. The other four districts are located on the island of Madura, namely Bangkalan, Sampang, Pamekasan, and Sumenep.

Besides, the ML is also used on small islands around Madurese Island (Sofyan, 2010). These small islands include Mandangin Island, Gili Gua, Gili Bitah, Gili Duwa, Gili Iyang, Gili Genting, Gili Luwak, Poteran, and Pondi. Other Madura-speaking islands located to the east of Madura Island are Talango Island, Gayam, Sapudi, Raas, Masalembu, and Kangean Islands.

Madura is the name of the area that houses 4 districts, namely the districts of Sumenep, Pamekasan, Bangkalan, and Sampang. However, Madurese dialect is divided into 4 dialects, namely Sumenep, Pamekasan, Bangkalan, and Kangean dialects (Sofyan, 2010).

The ML used in these areas shows the uniqueness or linguistic variation. The uniqueness of Madurese linguistics on the meaning of sentence on each context. Whiele, these variations occur because of the acculturation that occurs in the area of each language user. As stated by Koentjaraningrat (2005) that racial or ethnic differences do not avoid the possibility of using language even though it may be different even though it comes from the same language.

Ayatrohaedi (2003) explains that language variations are divided into 3 types, Ideolect with regard to individual languages; dialect relating to the language used by a group of people in a place or area at a time; and variety which is a variation of the language used in certain situations. However, language variations that are often seen that can be directly identified are dialect variations.

Dialects are linguistic variations that differ at the level of vocabulary, grammar, and pronunciation (Holmes, 2013). Dialect language variations can be observed when the language used by a society will show differences in intonation, lexical and linguistic systems which include phonology, syntax, and semantics even

though they are the same language (Dewi, 2010).

Abdussalam & Mahmud (2014) said that he study of dialect is a study that is discussed through the discipline of dialectology, dialect of geography, geolinguistics or geographical linguistics. Kridalaksana (2009) defines dialectology as a branch of linguistics which studies language variation by treating them as a unified structure as Mahsun (1995) explains that dialectology is the science of dialects, or a branch of linguistics that studies isolect differences as a whole.

Patriantoro (2017) explains the study of dialect of geography aims to examine all linguistic symptoms from all data obtained from the research area which is presented in the form of language maps or it can be said that the purpose of dialect geography is an attempt to map dialects. The study area of dialectology cannot be separated from the geographical aspect and or the determination of the study area, because this aspect greatly influences the creation of a variety of dialects.

Interestingly, the difference in point of view results in an opinion that the Kangean dialect of Madurese language used on Kangean Island is considered not a dialect of Madurese and is a different language from Madurese. The debate over this difference is caused by the use of different point of view approaches in determining dialect, namely pure linguistic and sociolinguistic points of view (Sofyan, 2008).

From a pure linguistic point of view, if the speaker still has an understanding, then the language used is the same language. And when the language used only shows characteristics of differences in the linguistic system and intonation, it is considered a different dialect of the same language. From a sociolinguistic point of view, the determination of language is determined by historical, political and group identification factors (Sofyan, 2008).

The most important thing in determining a language or dialect is how the group of speakers responds to the language or dialect they use. Thus, the assessment of the speaker group becomes a benchmark for the sociolinguistic point of view. When the Madurese language used in the Kangean Islands is studied from a purely linguistic point of view, it is a dialect of the Madurese language. Because when tested the understanding in the speech of each Madurese speaker, it can still be understood. On the other hand, when viewed from a

sociolinguistic point of view, the language used in the Kangean Islands is not part of the Madurese language, but its own language, namely Kangean Language (Soegianto, 1999).

Soegianto (1995) stated that the language used by the Kangean community on Kangean Island is ML, but the people on the island call it "Bhasa Kangean" 'Kangean Language'. The meaning of this statement is that the ML used on Kangean Island is called the Kangean dialect of Madurese language (KDML).

This view cannot be separated from the opinion of the people of the Kangean Islands and the Madurese in general who consider it a separate language. Although it is based on a mutual understanding test and based on phonological, morphological, syntactic, and lexical characteristics, it is the same language as Madurese (Sofyan, 2008). Therefore, so that the status of the Madurese language used on Kangean Island can be clearly determined, it is necessary to have a study that discusses the differences and similarities shown by each speaker, both Madurese speakers in the Madurese community and the language used by the Madurese community. people in the Kangean Islands.

Geographically, the Kangean Islands are included in the administration of Sumenep Regency. However, because of its ± 100 mile distance from Sumenep Regency, the Kangean Islands are isolated. The Kangean Islands are inhabited by various ethnic groups spread over 3 sub-districts. In Arjasa District, the majority are inhabited by ethnic Madurese, Arabs, Chinese, and Bugis. Kangean Island is the largest island among the small islands in the Kangean archipelago, namely Saobi Island, Palihat, Sopangkor, Sapeken, Pagerungan, Saseel and others that are around the east of the island of Madura because it has a geographical location that is very far from its parent is Madures island (Muta'allim, 2019).

Soegianto (1993) stated that KDML is one of the geographical dialects of ML used by the community that owns it on Kangean Island, which administratively belongs to the Sumenep Regency area. Besides, Soegianto (1996) emphasized that regarding the linguistics of the Madurese Kangean language (KDML), which in the ML linguistic category is generally referred to as KDML which has its own characteristics so that it can distinguish it from its parent language, namely ML.

Soegianto (1996) stated that Kangean Island is the largest of the small islands in the Kangean archipelago, namely Saobi Island, Palihat, Sopangkor, Sapeken, Pagerungan, Saseel and others around the east of the island of Madura because it has a geographical location. which is very far from its parent, namely the island of Madura, so the language used as a medium of communication by the Kangean community on the island has several differences from ML in general.

Muta'allim et al (2020) stated that Kangean Island has a geographical location that is very far from its parent, Madura Island. In addition, Kangean Island is inhabited by several ethnic groups, namely Arab, Chinese, Mandar, Bugis, and Madurese, so that the language used on Kangean Island has several differences from ML in general, both phonologically, morphologically, lexically, and syntactically.

All ethnic groups are able to speak the Kangean dialect of Madura well. This is different from the residents in the Districts of Kangayan and Sapeken. In Kangayan, there are four languages spoken by the residents, namely Madurese, Javanese, Bajo, and Balinese. Likewise in Sapeken District, the population is a heterogeneous community, namely Bajo, Madurese, Balinese, and Javanese speakers (Yani, 2015).

This acculturation creates a harmonious and peaceful life between ethnic groups and forms a new style of culture and language. For example, the lexical differences of the Kangean dialect of Madurese compared to Madurese are generally seen in the words "ako", 'I' in Kangean dialect and engko' `saya' in other dialects and loghur `fall' in Kangean dialect and ghagghar for other dialects. other. The difference in pronunciation seen in the Kangean dialect is the pronunciation of words such as baramma 'how', barra' 'heavy' which in other dialects is pronounced bâ-râm-ma and ber-râ' (Efendi, 2011). These differences were formed because of the acculturation of other ethnic groups who settled in the Kangean Islands. The diversity of tribes and ethnicities that inhabit the Kangean Islands forms a new pattern in the local culture. So that the Madurese language used in the Kangean Islands is very unique and distinctive. The uniqueness and peculiarity of the Kangean dialect of Madura and its differences with other Madurese dialects such as Bangkalan dialect, Sampang dialect, Pamekasan

dialect and Sumenep dialect are very interesting to study.

So far, researchers have not found any congruent research. However, there are several studies that have similarities with this research, they are Ahmad Yani (2015) determination of the mother tongue in the Kangean Islands which incidentally has many languages due to the close cultural coexistence. Thus, the Sumenep Regency government determined that the Kangean dialect of Madura was the language of choice. Therefore, the languages in the Kangean Islands, such as the Bajo language, Balinese language, and Javanese language are threatened with extinction.

Yani (2017) described the segmental elements of consonants, vowels, and the series of consonant segments of the KDML. The results of his research indicate that the phonological elements found are thirteen vocal segments which can be 6 vowel phonemes. Yani & Hendra (2018) aims to reveal the vocalic segments of KDML. The results showed that there were 13 vocal segments, all of which could represent phonetics, but of the 13 phonetics only six could represent themselves as phonemic.

Ulum, Hardiyanti & Irfan (2019) aim to describe the Preservation of the Lombe Tradition as an effort to conserve buffalo on Kangean Island and the impact of the Lombe Tradition on the social and economic aspects of the Kangean community. The result show that Lombe tradition can provide social impacts such as strengthening social ties and strengthening Kangean community ties, the economic impact of this tradition is increasing the selling price of buffalo and maintaining and increasing the buffalo population thereby affecting the number of buffalo shipments to various regions in Indonesia. people increase.

Muta'allim (2019) aim to explores types, forms, used and fuction of adjectives on in the context of KDML utterances. The results of the study showed that in KDML has several characteristics of adjectives, namely the forms, types, use and functions. The forms of KDML are grouped into two forms namely basic forms and derivative forms. Furthermore, the types of adjectives in KDML are divided into three groups, namely: (1) standard (2) comparative and (3) incompatible adjectives. Based on its usage, the adjectives in the Madurese Kangean dialect are divided into 6 types, namely; (a) construction (bedhen kaula-penjhenengngan) (b)

(kaula-sampean), (c) (keta-bula), (d) (nira-nae, die-dhika), (e) (ako-kao, eson-sedeh, eson-kakeh), while its function, consists of eight kinds, namely: functions to motivate, praise, reprimand, imperative, advise, insinuate, denounce and accuse.

Muta'allim, Sofyan & Haryono (2020) explored the functions of superlative adjectives in MDK. Theories used to determine the functions of superlative adjectives in this research are descriptive and pragmatic theory. The results of this study indicate that superlative adjectives of MKD have different functions, such as for giving motivation, praise, reprimand, satire, advice, orders, blemishes and accusations.

Salikin, H., Muta'allim, Alfani, F. R., Hosaini, & Sayfullah, H. (2021) aim to uncover and describe the causes of these changes. The results of this study indicate that non-educational shows on television such as soap opera films, promiscuty, blue film, tiktok, life style, speaking style and dress patterns are greatly affect the kangean community especially among teenagers. The negative affects for Kangean teenagers are on social life, lifestyle, speaking style, promiscuty, drug addicts, violating customs, traditions and culture.

Muta'allim, Alfani, Mahidin, Agustin, & Wicaksi (2021) explored the function of comparative adjectives in KDML and its impact for the Kangean community. The results showed that in KDML, there are several functions of comparative adjectives, namely to motivate, praise, admonish, command, insinuate, advise, criticize and accuse. Meanwhile, the impact of adjective utterances, people become more optimistic, comfortable, easy to appreciate, entertained, strong, cautious, deterred, and humble

Rusiandi (2015) discuss the Madurese language on Kangean Island based on lexical differences. Other research on the Madurese dialect, especially the Kangean dialect, has not received a place for language observers. So, we need a study that discusses the Kangean dialect of Madurese. Based on the researches, the research has different on the object namaly this research focus on Madurese and Kangean isolect status.

There are many reason the researcher choose the topic for the research, namely there are no researchers who have studied the identification of Madurese and Kangean dialects; Madurese and Kangean languages vary

widely; there are dialectal differences between the Madurese and Kangean languages; have different use of dialect in speech.

Based on the description above, it will be very interesting to examine whether the Madurese language on Kangean Island which is said to be not included in the Madurese language by the Kangean Island community and the Madurese community in general when compared to other Madurese dialects. So, the researcher determine the rsearch problems, namely wahat are the dialect on madurese and kangean island? To answer the research problems, the researcher need the dialect study.

II. LITERATURE REVIEW

Dialects are linguistic variations that differ at the level of vocabulary, grammar, and pronunciation (Holmes, 2013). Dialect language variations can be observed when the language used by a society will show differences in intonation, lexical and linguistic systems which include phonology, syntax, and semantics even though they are the same language (Dewi, 2010). The phenomenon of the occurrence of differences in dialect variations is motivated by certain places (regional dialects), certain groups (social dialects), and language groups that live at certain times (temporal dialects) (Yannuar, 2014). It is also stated by Muta'allim (2019) that dialects occur influenced by time, cultural, social status, and geographical location.

In determining dialects in Indonesia, especially in the Madurese language both among speakers and among Madurese language researchers, there are different points of view. Like other regional languages, the Madurese language is divided into various dialects as well. However, there are only four dialects that are justified, namely: Bangkalan dialect, Pamekasan, Sumenep dialect and Kangean dialect (Dewi, et al, 2017).

II. METHODS

This research is a type of descriptive research with a mixed approach, as stated by Yusuf (2014) this approach will give a wide views on how the problem is faced. Sugioyono (2017: 3) suggests that the descriptive method emphasizes the problem by describing the state of the object of research based on the facts that appear at the time the research takes place. This is qualitative approach combined with quantitative that aims to calculate and describe how far the differences shown by Madurese

language users on Kangean Island and on Madura Island.

1. Data and Data Source

The data is thir research are the Madurese and Kangean Island dilect, while the data sources are the word, sentence adn utterances of Madurese and Kangean island society.

2. Data Collection

Data collection in this study was assisted by research assistants. The method used in data collection is using the questionaire method which is carried out using a list of questions containing 845 vocabularies which are divided into 820 fields of meaning related to food; number and size; time, season, and direction; human body parts; personal pronouns and kinship terms; clothing and jewelry; office and jewelry; smell, taste and color; natural; animals and plants; the house and its parts and tools; and daily activities and 10 phrases of possession of objects, which are closed with 15 commonly used vocabularies.

3. Transcription

The determination of the type of data transcript is based on the linguistic aspect under study. In this study, the aspects studied were lexical using orthographic and phonemic transcription which were considered adequate (Sariono, 2016).

4. Classification

The classification of data carried out in this study is the classification of lexical similarities and differences with the consideration that dialectological research is generally in the form of words (monomorphemic and polymorphemic), phrases, and sentences. The data are in the same serial number between one observation point and another. Classification of this data is done by compiling a lexicon list of all observation points. Each data number must contain the same meaning because lexical differences are differences in word forms that are not included in phonological differences (Sariono, 2016).

5. Informants

Three informants were selected based on the criteria proposed by Mahsun (1995), namely; 1, male or female; 2, age 25-65 years (not senile); 3, rarely or never leave the village; 4, a maximum education of elementary-junior

high school graduates; 5, physically and mentally healthy. The observation point (OP) were carried out in 15 OPs covering 2 Madurese islands, namely Batu Wall Village, Sumenep Regency, and Kajuanak Village, Bangkalan Regency. The rest, 13 OPs on Kangean Island are detailed as follows, Tembayangan, Pabitta, Kajuaro, Sambakati, Sumber Nangka, Kali frog, Angon-angon, Kalinganyar, Laok Jang-Jang, Bungin, Kolo-Kolo, Force, and South Arjasa.

6. Data Analysis

The method used in analyzing the data is dialectometry permutation method. There are several types of matching methods, depending on the determination tool. In this study, the referential equivalent method was used. In the analysis of differences in linguistic elements, it is necessary to calculate the results of data analysis with the aim of showing in full the results of data analysis. Thus, an effective and efficient technique for calculating the results of data analysis is needed. Data recapitulation is done by writing the rules for the differences in linguistic elements in a special column. The area of use for each element of linguistic differences is marked with a certain sign.

Table 1.Madurese Vocabularies

No	Meaning and realization	Batu Dinding-Sumenep	Kajuanak-Bangakalan	Tembayangan	Pabitta
1.	**Shoulders**				
	bhâuh	x	X		
	bʰâwan			X	x
2.	Wajan	Bhâuh	Bhâuh	bʰâwan	bʰâwan
	bâjhâñ	x	x		
	kɛncɛŋ			x	x
3.	**Coconut**	Bhâuh	Bhâuh	bʰâwan	bʰâwan
	Ñiɔr	x			
	bâgghân		x		
	ñẽɔŋ			x	x

This method shows which observation points have similarities and which observation points have linguistic differences. The differences and similarities can be known by paying attention to the cross in the observation point column (Sariono, 2016).

Data analysis uses the dialectometry permutation method, which compares 1 point with another point. In comparing each TP, Sariono (2016) suggests using the facilities on a computer by paying attention to several things in maintaining the accuracy of the data calculation as follows.

1. Determine the difference in vocabulary that is shown by each TP by using the (+) sign for data that shows differences, (-) data that shows similarities, and (0) for no vocabulary or not filled in.
2. To determine the number of differences, similarities, and absence of vocabulary, the find and replace.

This calculation technique using the find and replace facility has been successfully used by Sariono (1996, 1997, and 2007) and is considered very effective. The data that has been collected was analyzed using the dialectometric method. This method is used to determine the isolect status of the Madurese language on Kangean Island and Madura Island. This method uses the following formula proposed by Guiter (1973):

$$\frac{S x 100}{n} = d\%$$

S = number of differences with other observation points
n = number of maps compared
d = percentage of distance between linguistic elements between observation points

The results of the calculation of the data are further classified into four categories, namely:
80% and above : language difference
51% - 80% : different dialect
31% - 50% : different subdialect
21% - 30% : speech difference
0 – 20% : no difference (Guiter, 1973)

III. RESULTS AND DISCUSSION

The following table shows the lexicon mapping of each TP taken in 2 districts on Madura Island and 13 villages on Kangean Island. Because there is enough data so that it is not enough if it is displayed on this page, it will only show some data as a representative of the data.

Table 2. Distribution of Lexicon Variations

No	Vocabularies	Batu Dinding-Sumenep	Kajuanak-Bangakalan	Tembayangan-Kangayan	Pabitta-kangayan	Kajuaro-kangayan	Sambakati-arjasa	Sumber nangka-arjasa
1.	Bahu (Shoulders)	Bhâuh	Bhâuh	bʰâwan	bʰâwan	bʰâwan	bʰâwan	bʰâwan
2.	Bulu ketiak (Armpit)	Bulu kalɛmɔŋan	Bulu klɛncap	Buluna kalɛmɔŋan/ buluna kalẽncapan	Buluna kalɛmɔŋan/ buluna kalẽncapan	Buluna kalɛmɔŋan	Buluna kalẽncapan	Buluna kalɛmɔŋan
3.	Bulu kuduk (nape hair)	Buku kajhâ?	Bulu gâdâl	Bulu kadu?	Bulu kadu?	Bulu kadu?	Bulu kodu?	Bulu kadu?
4.	Bulu roma (roman fur)	Buku kɔlɛ?	Buku kɔlɛ?	Buluna ɔrɔk-ɔrɔkan	Buluna ɔrɔk-ɔrɔkan	Buluna kɔlẽ?	Buluna kɔlẽ?	Buluna kɔlẽ?
5.	Dahi (Forehead)	Dâi	Dâi	Mɔa	Mɔa	Mɔa	Mɔa	Dâi
6.	Gigi seri (incisors)	gʰigʰi adâ?	gʰigʰi adâ?	gʰigʰi adâ?	gʰigʰi adâ?	gʰigʰi adâ?	Jhâlɔ	Jhâlɔ
7.	Gigi yang bertumpuk tumbuhny (Teeth that are piled in growth)	Carɛŋkɛ?	Ghighi sɔlɛh	Carɛŋkɛ?	Carɛŋkɛ?	Ghighi ñaropo?	Ghighi ñaropo?	Ñârghi?
8.	Gigi yang menonjol keluar (The teeth protruding out)	ñalbhi?	Ñɔrŋat	ñoŋgâr	ñoŋgâr	ñoŋgâr	Ñâlbhi?	Ñâldhu?
9.	Hidung (Nose)	ɛloŋ	ɛlɔŋ	ɛlɔŋ	ɛlɔŋ	ɛlɔŋ	ɛlɔŋ	ɛlɔŋ
10.	Jantung (Heart)	jʰântɔŋ	jʰântɔŋ	Jantuŋ	Jantuŋ	Jantuŋ	Jantuŋ	Bhâra-Bhâra

1. Distribution of Lexicon Variations

The following will show the distribution of lexicon data variations. There were 420 different lexicon data found and then classified based on the number of differences or variations. There are 9 variations or differences in the lexicon spread over the OP. The lexical difference data is divided into, 144 gloss with 2 variations, 107 gloss with 3 variations, 62 gloss with 4 variations, 51 gloss with 5 variations, 23 gloss with 6 variations, 11 gloss with 7 variations, 3 gloss with 8 variations, 1 gloss with 9 variations.

In displaying the geographic distribution of lexicon variations, the number of each OP sequence is used in determining the isolect status. The data displayed is a representation of the entire data.

2. Two-variety lexicon

There are 144 glosses with two variations after analyzing the 420 lexical difference findings. This number is the largest number of variations in each classification of lexical variations due to different lexical uses due to the geographical location between Madura Island which is represented in 2 OP and Kangean Island.

The most giving for the two lexical variations is in the meaning fields of Time,

Season, State of Nature, Natural Objects, and Direction as much as 27 gloss. Table (4.18) is a representation of lexical differences in the form of 2 lexical variations. The user areas of the lexical variation are represented by numbers in the order shown.

Table 3. Differences in the Lexicon of Two Variations

No.	Gloss	Berian	OP
1	Bahu (Shoulders)	bhâuh	1,2
		bhâwan	3,4,5,6,7,8,9,10,11,12,13,14,15
2	Ketiak (Armpit)	kalɛmɔŋan	1,3,4,5,7,8,9,10,11,12,13,15
		kalẽncapan	2,6,14
3	Dahi (Forehead)	mɔa	3,4,5,6,13,14
		dâi	1,2,7,8,9,10,11,12,15
4	Gigi seri (incisors)	gʰigʰi adâʔ	1,2,3,4,5,14,15
		jhâlɔ	6,7,8,9,10,11,12,13,14
5	Kepala (Head)	cɛtak	1,2
		ɔlɔ	3,4,5,6,7,8,9,10,11,12,13,14,15

3. Lexical Three Variations

Classification of lexical differences of three variations shows 107 data. The biggest difference is shown in the meaning field of Motion and Work as much as 21 gloss, followed by the meaning field of time, season, state of nature, natural objects, and direction as much as 13 gloss. Some data will be displayed as a representation of three lexical variations.

Table 4. Lexical Three Variations

No	Gloss	Berian	OP
1	Kelelawar (Bat)	bʰâbbʰuru	1,2
		codhut	2
		kalɔaŋ	3,4,5,6,7,8,9,10,11,12,13,14,15
2	Monyet (Monkey)	mutak	1
		kəttaŋ	2
		bhukal	3,4,5,6,7,8,9,10,11,12,13,14,15
3	Rusa (Deer)	manjʰəŋan	1,3,4,5,6,7,8,9,10,11
		kɛddhâŋ	2
		rusa	2,12,13
4	Bekerja (Work)	alakɔ	1,2
		alalakɔn	3,4,5,6,8,9,10,11,12,15
		akarjâ	7,13,14
5	Berak (Poop)	ataɛ	1,2,3,4,5,6,7,8,13,14,15
		akapadeŋ	3,4
		bɛraʔ	9,10,12,15

4. Lexical Four Variations

The classification of differences in the four lexical variations shows 62 gloss. The lexical variations of the four variations are shown from the lexical differences which are also shown on Kangean Island. The following table as a representation shows the lexical four variations.

Table 5. Lexical Four Variations

No	Gloss	Berian	OP
1	Punggung (Back)	buggʰik	1,9
		bâlâkaŋ	2
		təŋŋa	3,4,5,7,8,10,11,12,13,14,15
		orok-orokan	6
2	Pergelangan tangan (Wrist)	rẽsɔan	1
		ɛŋkâl	2,9,10

		paghəllaŋanna tanaŋ	3,4,5,6,7,8,9,11,12,13,14
		lâŋân	12
3	Kita (We)	abâʔ dʰibiʔ	1
		tianah	2
		kɛta	3,4,5,6,8,9,10,11,12,13,14,15
		Nini	7
4	Istri adik laki-laki ayah (Father's younger brother's wife)	bhibbhiʔ	1,2,6,7,13,14,15
		əntẽn	3,4,
		majhâdiʔ	5,12
		əmmaŋ	8,9,10,11
5	Ibu (Mother)	ɛbhu	1
		əmbuʔ	2, 4,5,6,7
		əmmaʔ	5,8,9,10,11
		əmmẽʔ	3,4,5,6,7,12,13,14,15

5. Lexical Five Variations

The classification of the five different lexical variations resulted in 51 gloss. The biggest difference occurred in the field of meaning of motion and work as much as 14 gloss. The following table is a representation of the differences in the five lexical variations.

Table 6. Lexical Five Variations

No	Gloss	Berian	OP
1	Pelipis (Temple)	pɛpɛ	13,14
		palɛpɛs	1,7,8,15
		pɛlɛŋ-pɛlɛŋan	2,5,6,9,10,12
		lɛŋɛrna alɛs	3,4
		palɛŋpɛŋan	11
2	Gigi yang bertumpuk tumbuhnya (Teeth that are piled in growth)	carɛŋkɛʔ	1,3,4,
		ghighi sɔlɛh	2
		ghighi ñaropoʔ	5,6
		ñârghiʔ	7,8,11,13,15
		ñɔldhuʔ	9,10,12,14
3	Kami (We)	abâʔ dʰibiʔ	1
		Tianah	2
		kɛta	3,4,5,6,9,10,12,15
		akɔ	8,9,11,13,14
		ɛsɔn	7
4	Datang memberi bantuan ke tempat hajatan (Come to give help to the celebration)	ñɔmbhâŋ	1
		aghubu	2
		arɛpɔt	3,4
		ŋɛbâ-ŋɛbâ	5,6,7,8,9,10,12,13,14
		arâbbâ	11,14
5	Pusaka (Heirloom)	pɔsakah	1,15
		ghâman	2
		pakakas	3,4,5,6
		talɛbâŋ	7,8,9,10,11
		kɛrrɛs	13,14

6. Lexical Six Variations

The classification of differences in the six lexical variations shows that there are 23 glosses. The most significant fields of meaning are shown in the kinship and motion and work systems of 6 glosses each. The following table is a representation that shows the differences in the six lexical variations.

Table 7. Lexical Six Variations

No	Gloss	Berian	oP

1	Galah (Galah)	Ghâlâ	1,2
		Bʰâbʰâtaŋ	3
		Dhâmar	4
		tumba	5
		Ghâɛ?- Ghâɛ?	6,8,9,10,11,12,13,14,15
		Jɔlɔk	7
2	Mandalika (Mandalika)	Madʰâlika	1,3
		Binuah	2
		Jhulɔkan	4
		Naŋkaɛlan	6,7
		Malaka	8,9,10,12
		Dhâlâka	11,14,15
3	membawa dengan punggung (carry by a back)	Ñuŋghuy	1
		Ghândhuŋ	2,3,
		Gɛndɔŋ	4
		nɔntɔŋ-nɔntɔŋ	5,8,9,10,11
		ɛ pɛkɔl	6,12,13,14,15
		Aghindhuŋ	7
4	raba (touch)	Ghâghâ	1,2
		araghâ	2
		Aŋgʰâgʰâp	3,12,13,14,
		Ŋɔsap	4,5,6,7,8,9,11,15
		Râgghi?	5,6
		natak	4,5,6,9
5	sedikit (little)	Sakɔni?	1
		Diddhi?	2
		sadʰâllik	3,4
		Salɔŋ	5
		Sâllik	6,7,8,9,10, 11,12,13,14
		hâlliŋ	15

7. Lexical Seven Variations

The classification of differences in the seven variations of the lexicon shows 11 data. The following table is a representation of the data on the differences in the seven variations of the lexicon.

Table 8. Lexical Seven Variations

No	Gloss	Berian	OP
1	Telungkup (Face down)	napaŋ	1,4,8,9,10,11,12
		nɛŋŋəp	2
		nɔpɔɛ	3
		adhuŋŋâp	5
		ñɔrkâp	6,7
		tɔkɔp- tɔkɔp	13,14,15
		akɔrɔŋ	4
2	Tulang rahang (Jaw Bone)	ubâŋ	1
		gârâmmân	2
		raŋas	3,4,5,
		raaŋ	7,8,9,10,12
		lâŋghâm	13,14
		ghârraŋ	6
		tɛrɛs	15
3	Alat dari lontar untuk menyimpan hasil tangkapan ikan (Tool from palm for storing fish catch)	kâmbuh	2
		ramba?	3,4
		bɔndrẽ	5
		trẽpɔŋ	5
		taan	7
		tɛrɛŋ	8

		lɔlɔmbu	6,9,10,15
		jhârɛŋ	11,12,13,14
4	Tempayan (Crock)	jubâŋ	1
		ghântɔŋ	2
		pakɔra-kɔraʔan	3
		paddhâsan	4
		taraan	5,6
		bâddhâ	7,8,9,11
		kɔbɔk	10,12,13,14,15
5	Laba–laba (Spider)	bâlabâ	1,2,
		kalabəyan	3,5
		kalajhâŋkaŋ	4
		əŋghik-əŋghikan	6,7
		kaligâŋgâŋ	8,9,10,11,12
		kalɛlɛbuŋ	13,14
		kalɔbuŋ	15

8. Lexicon of Eight Variations

The classification of differences in eight lexical variations shows 2 data. The difference occurs in the list of "cut wood" and "embrace" questions. The following table shows the eight lexical variations.

Table 9. Lexicon of Eight Variations

No	Gloss	Berian	OP
1	memotong (kayu) (cut)	Ŋəttɔk	1
		Mâddhâŋ	2
		Nɔghâl	3
		ñɛgghii kaju	4
		Ŋɔttɔŋɛ kaju	5
		Nattaʔ kaju	6,7,8
		Ŋârraʔ kaju	9,10,12,13,14
		Mɔtɔŋ Kaju	11,14
2	rangkul (embrace)	Raŋkɔl	1,2
		ŋadʰâmpâl	3
		nəmbaʔ	4
		Akantɛʔ-kantɛk	5,6,7
		Aghâlluʔ	8,9,11
		Ŋampɛl	10,12
		ɛ kâp-kâp	13,14
		Ñaŋghâllɔʔ	15

9. Lexicon of Nine Variations

The classification of nine differences in lexical variations is only found in 1 data, namely the gloss of "ancestors" which is included in the field of meaning of the kinship system.

Table 10. Lexicon of Nine Variations

No	Gloss	Berian	OP
1	Nenek moyang (Ancestors)	bhujuʔ	1
		ghârubhuk	2
		Buŋa tɔwa	3
		Jujuʔ	4,5
		iyut	6,7
		ñaɛ	8,9,10,11
		əmbây	12
		atɔʔ	13,14
		ənjhuʔ	15

11. Permutation Calculation

The data found is calculated using the permutation method by marking (+) which means different, (-) which means the same, and (0) which means there is no data. The work on calculating data or coding data is done on a Microsoft Excel sheet because all data can be loaded. Permutation calculations are shown as follows.

Table 11. Permutation Calculation

No	Sumenep													
	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	-	+	+	+	+	+	+	+	+	+	+	+	+	+
2	+	-	-	-	+	-	-	-	-	-	-	-	+	-
3	+	+	+	+	+	+	+	+	+	+	+	+	+	+
4	-	+	+	-	-	-	-	-	-	+	+	-	-	-
5	-	+	+	+	+	+	-	-	-	-	-	+	+	-
6	-	-	-	-	+	+	+	+	+	+	+	+	-	-
7	+	-	-	+	+	+	+	+	+	+	+	+	+	+
8	+	+	+	+	-	+	+	+	+	-	+	+	+	+
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	+	+	+	+	+	+	+	-	-	+
11	+	+	+	+	+	+	+	+	+	+	+	+	+	+
12	+	+	+	+	+	+	+	+	+	+	+	+	+	+
13	-	+	+	-	-	-	-	-	-	-	-	-	-	-
14	+	-	-	-	-	-	-	-	-	-	-	-	-	-
15	+	+	+	+	+	+	+	+	+	+	+	+	+	+

No	Bangkalan												
	3	4	5	6	7	8	9	10	11	12	13	14	15
1	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	+	-	+	+	+	+	+	+	+	-	+
3	+	+	+	+	+	+	+	+	+	+	+	+	+
4	+	+	-	-	-	-	-	-	+	+	-	-	-
5	+	+	+	+	+	-	-	-	-	-	+	+	-
6	-	-	-	+	+	+	+	+	+	+	+	-	-
7	+	+	+	+	+	+	+	+	+	+	+	+	+
8	+	+	+	+	+	+	-	+	+	-	+	+	+
9	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	+	+	+	+	+	+	-	-	+
11	+	+	+	+	+	+	+	+	+	+	+	+	+
12	+	+	+	+	+	+	+	+	+	+	+	+	+
13	-	+	+	+	+	+	+	+	+	+	+	+	+
14	+	+	+	+	+	+	+	+	+	+	+	+	+
15	+	+	+	+	+	+	+	+	+	+	+	+	+

This table is only an example of a permutation calculation technique. The number under Sumenep refers to the serial number of the TP. Column number (2) means the result column of the comparison between TP Sumenep and TP (2) Bangkalan. Column number (3) means the result of the comparison between TP Sumenep and TP (3) ...., and so on.

Calculations using the find and replace facility produce numbers for the number of lexical differences (+), lexical equations (-), and empty data (0). The calculation is done by permutation. In column (2), for example, the number (+) is 189, the number (-) is 223, and the number (0) is 8. The final result of the calculation is transferred to a permutation diagram to make it easier to see the dialectical relationship between the observation points. The results of the calculation that are transferred are only the results of calculating the difference (+) in diagram 1 and the sum of the results of calculating the difference (+) with the equation (-) in diagram 2 which is shown as follows.

Diagram 1. Number of Lexicon Differences

```
Sumenep
189   Bangakalan
234   274   Tembayang
235   275   112   Pabitta
252   293   163   134   Kajuaro
244   286   182   177   137   Sambakati
245   280   203   187   158   134   Sumber Nangka
240   276   190   181   156   163   109   Kalikatak
244   273   192   190   163   169   122   30    Angon-Angon
250   279   199   196   166   174   137   53    38    Kalingayar
251   284   190   191   170   197   172   87    96    106   Laok Jang-Jang
256   288   193   197   194   202   181   132   124   102   125   Bungin
262   291   199   206   181   197   189   155   154   142   141   116   Kolo-Kolo
263   292   198   203   178   195   192   159   158   144   142   120   7     Angkatan
251   282   180   189   170   183   178   147   152   147   99    136   116   109   Arjasa
```

Diagram 2. Total Differences and Lexicon Similarities

```
Sumenep
 412    Bangakalan
 412    403     Tembayang
 412    403     414     Pabitta
 412    403     414     417     Kajuaro
 412    403     414     417     402     Sambakati
 412    403     414     417     402     417     Sumber Nangka
 412    403     414     417     402     417     419     Kalikatak
 412    403     414     417     402     417     419     419     Angon-Angon
 412    403     414     417     402     417     419     419     418     Kalingayar
 412    403     414     417     402     417     419     419     418     417     Laok Jang-Jang
 412    403     414     417     402     417     419     419     418     417     415     Bungin
 412    403     414     417     402     417     419     419     418     417     415     415     Kolo-Kolo
 412    403     414     417     402     417     419     419     418     417     415     415     415     Angkatan
 412    403     414     417     402     417     419     419     418     417     415     415     415     415     Arjasa
```

The numbers in diagrams (1) and (2) are entered into the dialectometry formula to determine the dialect distance in percent. The results of the calculation of the dialect distance are shown in the permutation diagram as follows:

Diagram 3. Dialect Distance between OP by Permutation

```
Sumenep
 45,87   Bangakalan
 56,7    67,9    Tembayang
 57      68,2    27      Pabitta
 56,3    72,7    39,3    32,1    Kajuaro
 59,2    70,9    43,9    42,4    34      Sambakati
 59,4    69,4    49      44,8    39,3    32,1    Sumber Nangka
 58,2    68,4    45,8    43,4    38,8    39      26      Kalikatak
 59,2    67,7    46,3    45,5    40,5    40,5    29,1    7,1     Angon-Angon
 60,6    69,2    48      47      41,2    41,7    32,6    12,6    9       Kalingayar
 60,9    70,4    45,8    45,8    42,2    47,2    41      20,7    22,9    25,4    Laok Jang-Jang
 62,1    71      46,6    47,2    48,2    48,4    43,1    31,5    29,6    24,4    30,1    Bungin
 63,59   72,2    48      49,4    45,7    47,2    45,1    36,9    36,8    34      33,9    27,9    Kolo-Kolo
 63,8    72,4    47,8    48,6    44,2    46,7    45,8    37,9    37,7    34,5    34,2    28,9    1,6     Angkatan
 60,9    69.9    43.4    45.3    42.2    43.8    42.4    35      36.3    35.2    34.22   32.7    27.9    26.2    Ariasa
```

The dialect distance in diagram (3) is entered into the dialect metric scale to determine the dialectal status between OP. The results of the lexical dialectometry calculation are further classified and determined in the category of determining isolect dialectical status as follows.

80% and above : language difference
51% - 80%   : dialect difference
31% - 50%   : different subdialect
21% - 30%   : speech difference
0 – 20%   : no difference (Guiter, 1973)

Thus, each OP in Kangean Island, which is also compared to Madura Island, shows that there are 7 subdialects, which are detailed as follows:

1. Tembbayang Village and Pabitta Village show speech differences that form a subdialect with a calculation result of 27%.
2. Kajuaro Village, Sambakati Village, and Sumber Nangka Village each show a sub-dialect difference with the result of counting > 30%.
3. Kalikatak Village, Angon-Angon Village, and Kalinganyar Village show a percentage of <20% which means there is no difference. Thus, the three villages form a sub-dialect.
4. Kolo-Kolo Village and Army Village showed no difference with the calculation result of 1.6%. And when juxtaposed with Bungin Village and Arjasa Village, it produces a percentage of < 30% which means it forms a speech difference. Thus, the four villages form a separate sub-dialect.
5. Laok Jang-Jang village produces a percentage of 23.8% which means it forms a separate sub-dialect.
6. If each TP area is compared with the Madurese language spoken on Madura Island, which is represented by Bangkalan and Sumenep districts, the percentage is 50% - 80%, which means forming a Kangean dialect.

IV. CONCLUSION

Based on the discussion of the isolect calculation results above, it can be concluded that each observation point analyzed using the formula proposed by Guiter (1970) belongs to 4 categories, namely below 20% (no difference), 21% -30% (different speech).), 31%-50% (different sub-dialects), 51%-80% (different dialects).

The observation points that showed no difference (<20%) were in Kalikatak Village, Angon-Angon Village, and Kalanganyar Village, as well as Kolo-Kolo Village and Force Village. Observation points that show speech differences (21% -30%) are Tembayang Village and Pabitta Village with a percentage result of 27%. Laok Jang-Jang Village with a percentage of 23.8%. The observation points that show different subdialects (31%-50%) are Kajuaro Village, Sambakati Village, and Sumber Nangka Village, each of which shows a sub-dialect difference with the calculation result >30%.

The point of observation that shows a different dialect (51% -80%) is If each TP area on Kangean Island is compared with the Madurese language used on Madura Island represented by Bangkalan and Sumenep Regencies, it produces a percentage of 51% - 80%, which means forming a a Kangean dialect.

It is realized that this research is still less than perfect, because there are still many shortcomings in the discussion. The discussion in question is other systemic differences as explained by Mahsun that systemic differences have 5 types, namely, phonological, morphological, syntactic, semantic, and lexical (1995).

This study can only discuss and describe 2 systemic differences, namely lexical differences and phonological differences. So, the results of this research can be developed and refined again. This deficiency is based on the limited time of researchers in conducting data analysis. Therefore, it is recommended for further researchers, who want to explore Dialectology, and are also interested in dialectological research, especially Madurese dialectology research, to be able to develop this research to a perfect level.

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