

DIALECTOMETRIC REVIEW: THE LANGUAGE RELATIONSHIP OF *UT DANUM, NGAJU, DUSUN, AND MAANYAN*

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Abstract

The purpose of this research is to reveal the relationship of languages between *Ngaju*, *Uut Danum*, *Dusun*, and *Maanyan* whether they are closely related, remotely different, or indicated to have the mutual pre-language in the past. There are four observation points where the data is extracted from native speakers of each language: Murutuwu village, Palangka Raya, Marawan Lama village and Sungai Lunuk village. The data was retrieved by Swadesh 200 lexical test list and quantitatively calculated and compared by dialectometry analysis in lexical level. The result discovered that *Ngaju* to *Maanyan*, *Ngaju* to *Dusun*, *Maanyan* to *Uut Danum*, *Ngaju* to *Uut Danum* and *Dusun* to *Uut Danum* are categorized as different languages. They have less lexical similarity. On the other hand, *Maanyan* to *Dusun* is classified as different dialect or closely related to each other. There is indication about the existence of *Dusun-Maanyan* pre-language.

Key words: Dayak, dialectometry, languages, quantitative, relationship

INTRODUCTION

Central Kalimantan is a province of Kalimantan (Borneo) island with Palangka Raya as the capital city. Its entire area covers up to 157.983 km² and it is home for 2.702.170 people in 2021 (Badan Pusat Statistik Kalimantan Tengah, 2021). Dayak people compose 20,42% out of total population in Central Kalimantan and divided into sub-ethnic groups. It is difficult to determine the exact number of Dayak's sub-ethnic groups in particular provincial area, however it counts up to 405 sub-ethnic groups of Dayak people in entire Kalimantan Island (Lontaan, 1975). The term Dayak itself is generally used to refer to indigenous people of Kalimantan, but many conventionally denote to non-Muslim indigenous only (Gudai, 1985; Hudson, 1967).

The diverse Dayak groups brings diverse languages as well. Enriched by transmigration of people from Bali, Java and also Banjar influence, Ministry of Education in Indonesia (2019) documented there are 23 different languages spoken beside Indonesian language in Central Kalimantan, 21 of them are the languages of Dayak people. However, 21 is not necessarily the absolute number. There are several studies reported different results. Summer Institutes of Linguistics (2001) reported that 15 languages spread in the province. Poerwadi (2003) on the other hand, reported there are 13 languages and 20 dialects spoken in Central Kalimantan.

Furthermore, Yuliadi (2006) identified and classified data from 69 observation points in Central Kalimantan and found 22 languages

that consisted of 9 language groups and 13 independent languages. Some of them are presumed to correspond each other in phonological and lexical level.

Highlighting the dominance Dayak languages in Central Kalimantan, *Dayak Ngaju* is widely spoken along *Kahayan* and *Kapuas* river. *Dusun* and *Maanyan* are the language of society in the Barito riverbank and its surrounding area. *Uut Danum*, on the other hand, is used by Dayak people in upper course of *Kahayan* and *Kapuas* river (Kementrian Pendidikan dan Kebudayaan, 2019; Sigiuro, 2015).

Previous research conducted by Sigiuro (2015) investigated the relationship of *Tamuan*, *Waringin*, *Ngaju*, *Kadorih*, *Maanyan* and *Dusun Lawangan* language. Using the lexicostatistic methods, the result indicated that there was kinship relationship between these languages in stock and family level with the percentage falls between 28-64%.

So, it is obvious that the at least these languages are one stock. Aside of the origin. These languages are also related by relatively similar culture, ideology, and closely located each other. From the map released by Ministry of Education, it is visible that *Uut Danum* and *Ngaju* spoken societies are closely connected in the northern area, whereas *Maanyan* is connected to *Dusun* near the East border with South and East Kalimantan province. The geographical advantage and demographic similarity enabled language, physical and cultural contact hence acculturation happened deep down to linguistic aspect. Mahsun (2006) stated that as linguistic adaptation.

As the speakers are developing over time, the languages are also keep changing and developing (Baybee, 2015). Investigation is required to determine the direction of the

change since the advancement of transportation and communication in modern era facilitate and accelerate the social contact. This research aimed to discover the relationship between *Ngaju* to *Uut Danum*, *Dusun* to *Maanyan*, *Ngaju* to *Dusun*, *Ngaju* to *Maanyan*, *Uut Danum* to *Dusun* and *Uut Danum* to *Maanyan*.

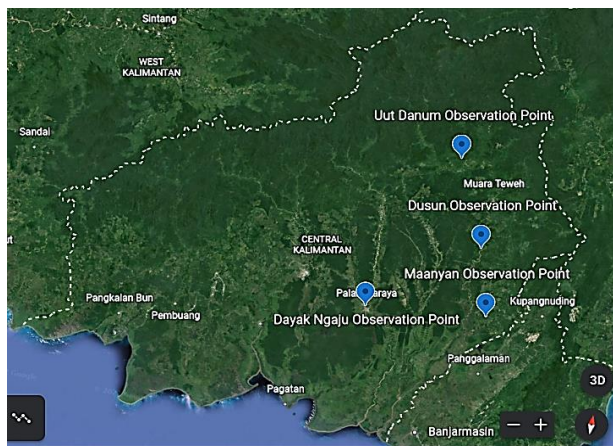
Derived from the description above, the research problem of this research is as follow: What is the language relationship between *Ngaju*, *Uut Danum*, *Dusun* and *Maanyan*?

MATERIALS AND METHOD

This research uses quantitative approach and means for testing objective theories by examining the relationship among variables. These variables. in turn, can be measured typically on instruments, so that numbered data can be analyzed using statistical procedures. (Cresswell, 2018). This study is an attempt to elaborate on and clarify the kinship on these four languages by analyzing the dialect and words differences between them. Because it focused on dialectology and used computational and quantitative techniques, the method used is also recognized as dialectometry (Nerbonne & Kretzschmar, 2013).

There are four observation points in data collection: *Uut Danum* language was observed in Sungai Lunuk village, near Puruk Cahu, *Maanyan* was surveyed in Murutuwu village close to Tamiang Layang, *Dusun* was observed in Marawan Lama village in the north of Buntok, and *Ngaju* was recorded in Palangka Raya city. The instrument was given to the native speakers, which is prioritized to be the elders, to be filled. The figure below pinpoints the exact location of the observation sites.

Figure 1 Google Earth view of observation points



The instrument used to retrieve the data was the specified 200 lexical test list adopted from Swadesh (1952). The list consisted of ten words about human and relationship, seven words about personal and possessive pronoun, twenty-one words about parts of the body, fourteen words about animals, nine words about plants, seven words about food and drink, two words about home and part of the home, twenty-six nouns, forty one verbs, thirty-two adjective, two words about sickness and diseases, five words about the numbers, five words about colors, four words about time, seven words about direction, and eight functional words. The 200 words list from observation points that had been translated by the natives into four languages: *Maanyan* (furthermore mentioned as M), *Uut Danum* (U), *Ngaju* (Ng), and *Dusun* (D) would be merged in one MS. Excel table for analysis. In dialectometry, the vocabularies of four languages were analyzed and compared for differences. Furthermore, the finding was calculated using the Seguy formula (Novita et al., 2022):

$$\frac{s \times 100}{n} = d$$

Information:

s: the different vocabularies

n: the total number of the vocabularies (200)

d: vocabulary distance in percent (%)

The results of this dialectometry calculation then translated into five categories: different languages, different dialects, different subdialects, different speeches, and no difference. The following is a list of the percentages obtained from dialectometry calculations and their categories according to Guitter formula (Novita et al., 2022).

Table 1 Dialectometry calculation result

No	Percentage	Category
1	81-100%	Different Language
2	51-80%	Different Dialect
3	31-50%	Different Subdialect
4	21-30%	Different Speech
5	Under 20%	No Difference

RESULT AND DISCUSSION

Throughout the quantitative approach, evidence had been found that confirmed the language relationship of M, D, U, and Ng. Based on the dialectometry calculation on 200 Swadesh word list, the result of the four languages comparison is as follow:

Table 2 Dialectometry calculation

No	Languages comparison	Gloss (n)	Difference (s)	Percentage $s \times 100 \div n = d$	Category
1.	D – M	200	103	51,5%	Different Dialect
2.	U – Ng	200	169	84,5%	Different Language
3.	D – Ng	200	179	89,5%	Different Language
4.	D – U	200	185	92,5%	Different Language
5.	M – U	200	174	87%	Different Language
6.	M – Ng	200	173	86,5%	Different Language

Based on the dialectometry calculations in the table above, the result could be drawn into the figure below:

Figure 2 Relationship tabulation

M	-			
D	51,5%	-		
Ng	86,5%	89,5%	-	
U	87%	92,5%	84,5%	-
	M	D	Ng	U

Notes:

M = Maanyan D = Dusun
 U = Uut Danum Ng = Ngaju

Table 2 above described the differences of the compared languages. The higher the percentage, the greater the difference. The highest percentage recorded is D to U with percentage reaching 92,5%. It indicates that D and U are different language. D and Ng are categorized as different language too because the percentage is the second highest, reaching 89,5%. Next, M to U is 87%, and they are categorized as different languages. Furthermore, M to Ng is also different language since the percentage is 86,5%. Moreover, U to Ng is categorized as different language too with percentage reaching 84,5%. They had less lexical similarity. On the other hand, M to D recorded the lowest percentage that reached merely 51,5%, hence they are graded as different dialects.

CONCLUSION

Derived from the result of the research, it is proved M to D are considered closely related with many similarities. They are different dialect. Even Some vocabularies differences between them are only one alphabet apart. Otherwise, aside from M to D

comparison, the differences are significant and classified as different languages. There is indication that D and M have mutual DM pre-language. This study is limited to lexical differences of each language, because of it, the depth and the scope are compromised. Another comparative research is required to further investigate the relationship of these languages in terms of phonology and grammatical rules, or even advanced lexicostatistic dating research in order to provide the better picture and greater comprehension of languages classification in Central Kalimantan.

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APPENDICES

Language Map in Central Kalimantan

<https://petabahasa.kemdikbud.go.id/provinsi.php?idp=Kalimantan%20Tengah>

