

PalArch's Journal of Archaeology of Egypt / Egyptology

ANALYSIS OF LOCAL LANGUAGE KINSHIP AND ITS BENEFITS TO CURRICULUM DESIGN FOR NON-NATIVE SPEAKERS

Asna Ntelu¹, Dakia. N. Djou², Ellyana Hint³

^{1,2,3}State University of Gorontalo, Jl. Jend. Sudirman No.6, Dulalowo Tim., Kota Tengah, Kota
Gorontalo, Gorontalo 96128, Indonesia

Co-author: asnantelu1@gmail.com

Asna Ntelu, Dakia. N. Djou, Ellyana Hint, Analysis Of Local Language Kinship And Its Benefits To Curriculum Design For Non-Native Speakers– Palarch's Journal of Archaeology of Egypt/Egyptology 17(9) (2020), ISSN 1567-214X.

Keywords: Analysis, Benefits, Bulango Language (BB), Curriculum, Language Kinship, Local Languages, Non-native Students, Suwawa Language (BS)

ABSTRACT

This study aims to describe kinship level, separation period of two local languages of Suwawa language and Bulango language, and their benefits to the curriculum design for non-native students. Developed on the Swadesh word list, comprising 200 vocabularies, there were 198 words provided as the reliable data. Out of the 198 words, this paper obtained 138 relative words (69.70%). The findings suggested that the two languages are classified as “languages of a family”. Based on the separation period, the two languages were a single language in 0.72 to 0.92 years ago. These imply that numerous potential vocabularies could provide a basis for curriculum design for non-native students.

INTRODUCTION

Local language diversity in Indonesia is an invaluable asset worth preserving as it serves as both a tribal identity and community identity. The richness of its local languages justifies the existence of the Indonesian people that need to be maintained by positively using them in daily interactions among relatives and surrounding environment.

By the number of native speakers, the actual conditions vary greatly. Despite the increasingly sophisticated technology and information, some tribes could maintain their native local languages, while others could not. Considering the large number of local languages in Indonesia and their various use, this paper assumes the significance to conduct a research on two local languages, namely Suwawa Language (BS) and Bulango Language (BB) existing in Gorontalo Province.

Both Sumawa and Bulango languages are used to communicate and interact among relatives and within the community. Recently, people use BB less, and in fact, it is widely used by the majority of people in Molibagu Subdistrict, South Bolaang Mongondow Regency, North Sulawesi Province because of ethnicity, occupation, and marriage factors. In addition, both languages are used in the traditional ceremonies. This could lead to a condition, as Krauss (1992) mentioned, of moribund language.

In terms of vocabulary and meaning, they have both similarity and difference. Until the present, there is no studies examining the kinship of the two languages associated with its benefits in designing a curriculum for non-native students, as the recent transformation and technology era provides opportunities for tourist to visit Gorontalo Province. This once more highlights the significance of this paper.

In addition to Japanese and American becoming Gorontalo permanent residents by marital ties and conducting research, there is currently an urban village the majority of which are Chinese, and they have long been residents of Gorontalo. Moreover, there is also a group of 15 people from China working in companies in North Gorontalo District, and the Gorontalo Province Language Office has provided them with BIPA (Indonesian Language for Foreigners) program. In this regard, it is beneficial to design a BS and BB curriculum based on their related basic vocabularies. This curriculum highly will be applicable for those who learning local languages, and providing local elementary students and teachers with a reference in learning local languages as one way to inherit, preserve, and protect the languages from extinction.

The two-languages kinship produces basic similar vocabularies as indicated in their identical pairs of vocabularies, phonemic relationships, phonetic similarities, and different phonemes (Keraf, 1991, p. 128). These four indicators are used as the basis for determining their kinship status, and, all together, as the basic vocabularies in designing the curriculum.

The author's considerations in making the results of the kinship analysis as the basis for the curriculum design are: (1) The language kinship is determined by basic vocabularies rather than complex words. This greatly facilitates learners to easily understand the form, pronunciation, and meaning of the basic vocabulary referred to; (2) It is easier for non-natives to develop basic vocabulary forms into affixed forms, phrases, clauses, or sentences; (c) Basic vocabularies in the analysis are classified as easy-to-understand vocabularies as they are contextual and quantitatively related to the needs, activities, and daily environment of the learners; (4) The vocabularies comprise several word classes nouns, verbs, pronouns, number words, and function words; (5) The vocabularies refer to intangible culture and its resilience is accurate and trustworthy; and (f) the basic need in communication is the mastery of basic vocabulary in various word classes and the suitability of their use in the sentence contexts.

One method to determine two-languages kinship is lexicostatistic. It is a quantitative approach to determine language kinship and groupings in comparative historical linguistic studies (Mahsun, 2010, p. 64). According to Keraf (1991, p. 121) lexicostatistics is a language classification technique with

a focus on searching for words to statistically determine the percentage of language kinship. It is extremely handy to calculate the percentage of kinship and the language separation period. In addition to its easiness to determine the relationships of related languages, this method is practical to classify related languages, proto of which is not old, and to initiate the determination of language groupings (Nothofer, 1987).

This research is primarily concerned with: (1) How is the kinship level and the separation period between BS and BB; (2) What are the benefits provided in designing a curriculum for non-native students. The objectives of this study are to describe kinship level, the separation period between BS and BB, and their benefits to design a curriculum for non-native speakers. This is beneficial since, apparently, their vocabularies and meanings show high frequency of similarity, thus it is believed that the two languages are related (Ntalu & Djou, 2017, p. 4). This similarity provides assistance for learners to easily understand the languages and open opportunities for non-native speakers to recognize and understand Indonesian as well as local languages in Gorontalo, especially BS and BB.

Determination Technique of Language Kinship

Kinship basically refers to the comparison of relationships between two or more languages by exploring the similarity of form and meaning of words. The relationships occur due to human social contact one another. One essential aspect is the presence of language variations that serve to exchange ideas. Suwija (2018, p. 115) contended that language variations reflect the language users or the speaker's community.

In the language contact, high-authority languages will automatically dominate the use of languages with "low" language status. As a result, the latter languages will absorb more words from the high-social-status languages (Pateda, 2001, p. 161). Finally, speakers of different languages, in particular, will gradually change both in their vocabulary and its meaning. By the changes, the similarity of form and meaning are observed. This commonly happens to each local language in each region. BS has many similarities in vocabulary as BB, for example: the word /ash/ in BS [peyabu'o], in BB [peyabu'o], and the word /roots/ in BS [wa'ato], in BB [wa'ato]. Through a lexicostatistic method, it is evident that the similarity comes from the same proto language. Ruriana (2018, p. 17) argued that both languages originating from the same ancestral language have the form of similarity (correspondence/kinship) at both phonological and lexical levels. The similarity occurs since every language has a common characteristic. Related to this, Keraf (1991, p. 33) stated: (1) there is a similarity of words, (2) it has the smallest unit of language that are phonemes and morphemes, and (3) it has word classes.

To compare languages, one essential matter is to determine a list of vocabulary to examine. This study used 200 words of Morris Swadesh as the vocabulary instruments. Pertaining to the determination of related languages, Keraf (1991, pp. 127-130) suggested some procedures to adopt, including determination of excluded glossary, isolation of affixes, and determination of related words with their identical pair, their phonemic correlation, their phonetic similarity, and one different phoneme. This is in line with Rasyad (2019) arguing that phonetics is an aspect of language to study at the initial step since words and sentences are composed of these sounds. According to Gudschinsky in

Panggabean (2004), the procedures to determine the relation of a pair of words is by comparing phonemes with phoneme clusters.

The next step is the calculation of the percentage by dividing the total number of related words with the number of words taken into account. The percentage of the related words will be a benchmark in determining the status of language kinship levels. Table 1 below shows the classification of language kinship levels and the percentage of related words (Crowley, 1992).

Table 1. Level of Language Classification

Language Level	Cognate Percentage
<i>Dialects of language</i>	81- 100%
<i>Languages of a family</i>	36 - 81%
<i>Families of a stock</i>	12 - 36%
<i>Stocks of a microphyllum</i>	04 - 12%
<i>Microphyla of mesophyllum</i>	01 - 4%
<i>Mesophyla of acrophyllum</i>	00 - 1%

This study used this classification of language kinship levels as a basis for determining the kinship status between Suwawa Language (BS) and Bulango Language (BB) in Gorontalo Province.

Procedures of Language Age Determination with a Lexicostatistic
 Describing the relationship between a proto language and a kin language methodologically is to determine the age of the language elements. Language age is a relative order of time assumed to exist between two correspondences. To determine the age of a language, a lexicostatistics method is used by determining the age of one language with another by the following formula (Keraf, 1991, p. 130).

$$W = \frac{\log C}{2 \log r}$$

where,

- W = Separation Period in Thousands of Years Ago
- r = Retention, Index or A Constant Percentage in 1000 Years
- C = Percentage of Relation
- log. = Logarithm

To avoid calculation errors, this paper used the error term calculation with the following formula (Keraf, 1991, p. 132).

$$S = \sqrt{\frac{C(1 - c)}{n}}$$

where,

- S = Standard Error in the Percentage of Related Words

C = Percentage of Related Words

N = Number of Words Compared (Both Related and Non-Related).

Keraf (1991, (p. 124) put forward one of the basic lexicostatistic assumptions that changes in basic vocabulary in all languages are the same. It has been tested in 13 languages, and the results show that in every 1000 years, basic vocabulary of a language lasts between 86.4 - 74.4% or with an average rate of 80.5%. This implies that changes in the basic vocabulary of two languages can occur within a certain period of time as there undoubtedly will be changes in the form of vocabulary and nuances of meaning. These changes indicate the separation between the two languages. Surbakti (2014, p.10) argued that in that period, there was an accumulation of differences between the two languages, getting bigger and bigger every day, slowly marked the separation between the two languages.

Curriculum Design Concepts for Non-Native Students

Curriculum is a set of learning materials and lessons of education to achieve the implementation objectives of the education (Inderasari & Wahyu, 2019, p. 128). This design enables the learners to carry out various learning processes, thus changes in knowledge, skills, and development of behavior are in accordance with the expected goals. Clorawati, Rohiat, & Hermansyah (2017, p. 132) contended that curriculum is a guideline for the implementation of the educational process at all levels, serving as the key to the achievement of success and goals of education. A good curriculum needs to pay attention to the principles of curriculum development. According to Idi (2014), the principles are relevance, effectiveness, efficiency, sustainability, flexibility, goal orientation, and principles in development model. These seven principles determine the relevance of learning activities with the consistency between curriculum components appropriate to learners' needs and environment. Learners need to leave the classroom to learn and experience themselves (Sin, 2015, p. 2). This is highly effective for non-natives eager to learn Indonesian and local languages. Therefore, in designing the curriculum, it is necessary to pay attention to learners' contextual needs and environment.

Curriculum development covers the activity of designing and arranging curriculum for a training institution comprising basic competencies the students should prove. The design is expected to be a guideline and benchmark for the teaching materials to achieve the expected learning objectives. One of the objectives is that learners have the competencies needed to actualize their potentials in the community, without which, there is no clear reference in learning or training activities. This could make the objectives are not optimally achieved.

In the regulation of Minister of Education and Culture of Republic of Indonesia No. 27 of 2017 concerning Competency Standards for Graduates of Courses and Training in various skill fields, including BIPA program, the curriculum development needs to consider Competency Standards of Graduates (SKL), course and training objectives, and description of learning outcomes. The purpose of the arrangement of SKL is for a reference in determining learning materials, planning and implementing learning activities, and determining learners' graduation. The general objective of course and training program is to produce graduates with good and excellent Indonesian language skills for various purposes in various contexts. The learning outcomes include a

description of the basic competencies the learners need to master. These components are the basis for the author in arranging the curriculum of Suwawa Language (BS) and Bulango Language (BB).

The purpose of this curriculum is to formulate basic competencies in the use of BS and BB for non-natives. The basic competencies formulated are expected to be applied in social interaction as an ability to apply knowledge and skills in interacting and communicating with people in their environment.

The curriculum for foreign language learners generally comprises four language skills, namely listening, speaking, reading, and writing. Out of these skills, listening and speaking are the primary skills to learn. Their important linguistic aspects are pronunciation, mastery and use of vocabulary according to context. These two skills highly shape language skills for foreign learners, while reading and writing are at the second priority. An important linguistic aspect in these skills is the use of sentence structure and language rules. Through these four language skills, foreign language learners will easily master and communicate.

METHODS

This study used quantitative and qualitative descriptive as its methodology, the same methodology conducted by Ibrahim et al (1991) applying quantitative and qualitative methods simultaneously. Djajasudarma (1993, p. 9) suggested that quantitative research is a type of research based on percentages, averages, chi-squares, and other statistical calculations. The quantitative descriptive method in this study was used to calculate the percentage of kinship and the separation period between BS and BB. In addition, lexicostatistic technique was applied to obtain the percentage and the separation period. The qualitative descriptive method was to determine the status or category of kinship between the two languages, and to describe the curriculum design.

The data in this study comprises all basic vocabularies showing kinship between the two languages, the results of the calculation of the separation period between BS and BB, and a curriculum design for non-native speakers. The basic vocabularies were selected under the criteria of identical word pairs, words with one different phoneme, words with phonemic correspondence, and words with phonetic correspondence.

The primary data are the translations of 200 vocabularies (Swadesh basic vocabulary) from informants of BS and BB. The secondary data source is the results of interviews with informants of BS, BB and non-native speakers (see **Table 2**). The requirements for the informants are physically and mentally healthy, able to speak BS, BB and Indonesian, and at least 25 years old.

Table 2. Participants of the Study

	Name of Participants	Origin
	Azis Sidiki	Sub-district Suwawa
	Mewin Gaib	Sub-district Suwawa
	Lasmin Isa	Sub-district Suwawa
	Djafar Marada	Sub-district Bulango

	Hamdan Manyo	Sub-district Bulango
	Suraga Tontoli	Sub-district Bulango
	Naoko Sakinaga	Japan
	Russel Barlow	America
	Colleen Alena O'Brien	America

Participants from Suwawa and Bulango are informants for collecting BS and BB data, while participants from Japan and America are informants for data collection related to the types of basic vocabularies essential for non-natives to study and to which they generally encounter difficulties in learning Indonesian and the local languages.

The data were obtained by translations and interviews. The translation was carried out by asking the informants to translate 200 vocabularies of basic vocabulary into BS and BB. This technique, according to Samarin (1988, p. 122) is a practical way for individual solving. Interviews are to obtain clarity and clarification of data from translation.

The data were then analyzed using a lexicostatistic technique by: (1) identifying basic vocabulary that shows related words based informants' translation; (2) paralleling certain translated vocabulary with the interviews result to clarify the data, (3) classifying related basic vocabulary based on predetermined criteria, as according to La Ino (2015, p. 366), by classifying, the position and relationship of each language can be determined; (4) counting related basic vocabulary based on the criteria; (5) calculating the percentage of related words; (6) determining the status of kinship between the two languages; (7) determining the separation period between the two languages; (8) figuring out the error term, (9) arranging a curriculum design for non-native speakers; and (10) summarizing the results.

RESULT

Compiled from various data sources, this section summarizes the findings about level of kinship, separation period of BS – BB, and Curriculum design for non-native students.

Level of Kinship of BS and BB

From 200 Swadesh vocabularies, there are two vocabularies (no. 24 and no. 55) are excluded glossary since they do not match with any glossary both in BS and BB. Vocabularies no. 1 and no. 55 are included in the category of glossary with a different form yet the same meaning both in the vocabulary of BS and BB, so that only one of them is chosen, i.e., glossary no. 1.

From the 200-glossary analyzed, a total of 198 vocabularies can be taken into account. Another two vocabularies do not correspond with others. Out of the 198 words, there are 138 related words and 60 unrelated words. The details of the related words are as follows.

a) Identical words

Determining the status of related word pairs is conducted through identical word pairs. Characteristics of word pairs with identical statuses are those having the same form, sound, and meaning. Based on the results of data analysis, the number of identical pairs of words in BS - BB is 50 words

(25.25%). The pairs are those with the following numbers: 1, 3, 4, 6, 15, 21, 23, 26, 35, 36, 41, 44, 52, 54, 60, 63, 66, 70, 71, 72, 76, 79, 101, 102, 106, 107, 109, 119, 120, 123, 125, 134, 138, 141, 146, 148, 149, 151, 152, 157, 158, 164, 165, 176, 177, 179, 180, 183, 192, 200 (see **Table 3**).

Table 3. Identical Word Pairs

No.	Word Lists	Vocabularies	BS	BB
1		Ash	peyabu'o	peyabu'o
2		Root	wa'ato	wa'ato
3		I	wa'u	wa'u
4		child	wana'o	wana'o
5	15	good	mopia	mopia
6	21	New	bagu	bagu
7	23	stone	batu	batu
8	26	true	banari	banari
9	35	animal	binaatangi	binaatangi
10	36	star	poliyama	poliyama
11	41	labor	pateo	pateo
12	44	Bird	buurungi	buurungi
13	52	blood	dugu	dugu
14	54	leaf	dowu	dowu
15	60	in, at	o	O
16	63	stand	tige-ti ge	tige-tige
17	66	push	wuntudo	wuntudo
18	70	four	wopato	wopato
19	71	you	yi'o	yi'o
20	72	dig	kakudo	kakudo
21	76	tooth	ngipo	ngipo
22	79	mountain	bu'ido	bu'ido
23	101	fall	nabu	nabu
24	102	far	hayu	hayu
25	106	we	ami	ami
26	107	you	amu	Amu
27	109	because	karna	Karna
28	119	yellow	dahago	Dahago
29	120	flea	utu	Utu
30	123	sea	dagato	dagato
31	125	neck	tigogo	Tigogo
32	134	knee	bu'u	bu'u
33	138	eye	Mata	Mata
34	141	red	Puha	puha
35	146	name	daito	daito
36	148	sing	manyanyi	manyanyi
37	149	people	momata	momata
38	151	long	tahato	tahato
39	152	sand	bungayo	bungayo

40	157	stomach	tiya	tiya
41	158	think	pikirangi	pikirangi
42	164	hair	buwo'o	buwo'o
43	165	grass	hiuto	hiuto
44	176	know	otawuwa	otawuwa
45	177	year	tawunu	tawunu
46	179	rope	tali	tali
47	180	soil	buta	buta
48	183	thick	bunodo	bunodo
49	192	stab	ngamo	ngamo
50	200	intestine	tinai	tina'i

b) Words with One Different Phoneme

The characteristic of these words are the pairs with one different phoneme, yet with the same meaning. The results of data analysis show that in BS - BB, there are 29 vocabularies (14.65%). The pairs are those with the following numbers: 14, 19, 25, 27, 29, 31, 32, 49, 73, 78, 80, 81, 85, 86, 91, 92, 94, 100, 105, 114, 132, 137, 145, 150, 155, 156, 162, 190, 199 (see **Table 4**).

Table 4. Word Pairs with One Different Phoneme

No.	Word Lists	Vocabularies	BS	BB
1	14	how	adona	adonda
2	19	father	tiyama	siyama
3	25	cut	buta'o	bota'o
4	27	seed	bibit	bibito
5	29	swim	mononangi	moninangi
6	31	heavy	bugato	bogato
7	32	give	wengge	wongge
8	49	meat	tapu	sapu
9	73	salt	wati	wasi
10	78	rub	gigito	gigiso
11	80	hit	bubago	bobago
12	81	delete	luluto	luluso
13	85	green	moidu	omoido
14	86	suck	indopo	insopo
15	91	he/she	ota	wota
16	92	mother	tiina	siina
17	94	tie	tigoto	sigoto
18	100	heart	wandongo	wantongo
19	105	if	wagu	agu
20	114	dry	gango	gangu
21	132	saliva	diha	duha
22	137	night	gubi	gobi
23	145	vomit	tu'a	su'a
24	150	hot	patu	pasu
25	155	squeeze	pitodo	pisodo
26	156	girl	beba	boba

27	162	navel	putodo	pusodo
28	190	sleep	tiyugo	tiugo
29	199	snake	tawa	sawa

c) Words with A Phonemic Correspondence

In determining the status of word pairs with a phonemic correspondence, the pairs should be different pairs by the environment. Indicators of the possibility of a phonemic correspondence can be carried out with phonemic recurrence, co-occurrence, and analogy procedures. The data show that the number of word pairs with a phonemic correspondence in BS - BB is 37 words (18.69%). The word pairs are those with the following numbers: 2, 5, 28, 37, 40, 42, 51, 59, 62, 64, 68, 82, 84, 87, 89, 90, 95, 96, 97, 111, 111, 112, 113, 118, 124, 135, 136, 142, 143, 160, 163, 182, 186, 188, 193, 194, 195, 198 (see **Table 5**).

Table 5. Word Pairs with a Phonemic Correspondence

No.	Word Lists	Vocabularies	BS	BB
1	2	water	talugo	salrugo
2	5	flow	tologo	solro-solrogo
3	28	swollen	timiwupo	tinumiwupo
4	37	fruit	bungania	bunga
5	40	flower	bunga	buha' o
6	42	hunt	gandaho	ngandupo
7	51	lake	bulano	dano
8	59	in	odalamia	osuwangia
9	62	cold	daho	dahomo
10	64	here	oni	onini
11	68	sit	titu' o	tu' o
12	82	liver	gina:a	ginawa
13	84	alive	tumbolo	sumbolro
14	87	black	moyito	yitomo
15	89	rain	wuha	huwa
16	90	forest	ayuwa	dalramoayu
17	95	wife	dile	bulre
18	96	this	tiye	weye
19	97	that	tuwa	yitu
20	111	small	uditi	ditiko
21	112	fight	nohipate	mohiboboto
22	113	head	wulu	ulru
23	118	skin	alipo	tayipo
24	124	wide	tanggalo	tangkalro
25	135	play	higila	hogiya
26	136	eat	mongawa	monga
27	142	they	teya	saya
28	143	drink	monginu	nginumo
29	160	cut	lopoto	pontolro
30	163	white	putiho	puti
31	182	pull	bandango	biyantanga

32	186	fly	tomboto	sompoto
33	188	breast	nutu	susu
34	193	thin	monipito	nipiso
35	194	blow	hiyupo	gihupo
36	195	stick	tuunggudu	sungkudo
37	198	blunt	molonge	lronge

d) Words with A Phonetic Correspondence

Pairs of words with a phonetic correspondence are those with phonetic similarities, for example: [p]: [b], [t]: [d], yet with the same meaning. The results of data analysis show that there are 22 words or 11.11% of word pairs that have a phonetic correspondence in BS - BB. The word pairs are those with the following numbers: 8, 10, 11, 30, 38, 46, 58, 99, 104, 115, 122, 126, 129, 131, 133, 167, 175, 181, 184, 191, 196, 197 (see **Table 6**).

Table 6. Word Pairs with a Phonetic Correspondence

No.	Word Lists	Vocabularies	BS	BB
1	8	dog	wunggu	wungku
2	10	fire	Luto	lruto
3	11	float	lantungo	lrantu-lrantungo
4	30	walk	la'o-la'o	lra'o- lra'o
5	38	month	bula	bulra
6	46	worm	uwandi	lruwanti
7	58	hear	donogo	dongogo
8	99	walk	dala	dalra
9	104	foot	tile	tilre
10	115	Left	oloigi	olroigi
11	122	sky	golungo	golrungo
12	126	man	lolai	lrolrai
13	129	tongue	dila	dilra
14	131	five	lima	lrima
15	133	straight	tulido	tulrido
16	167	wing	polipi'o	polripi'o
17	175	sharp	lanito	lranito
18	181	hand	lima	lrima
19	184	ear	bungola	bongolra
20	191	three	tolu	tolru
21	196	old	lobuga	lrobuga
22	197	bone	tula	tulra

Separation Period of BS - BB

The formula used in calculating the separation period between BS and BB produced:

$$W = \frac{\log C}{2 \log r}$$

given: $C = 69.70\% = 0.70\%$

$$r = 80.5\% = 0,805$$

$$W = \frac{\log C}{2 \log r}$$

$$W = \frac{\log C}{2 \log r} = \frac{\log 0.70}{2 \times \log 0.805} = \frac{-0,357}{2 \times -0,217} = \frac{-0,357}{0,434} = 0.823$$

The calculation of error term must be held to avoid mistakes. It produced:

$$S = \sqrt{\frac{C(1-c)}{n}}$$

$$\text{given: } \begin{array}{l} C = 69.70\% = 0.70\% \\ n = 198 \end{array}$$

$$S = \sqrt{\frac{0.70(1-0.70)}{198}} = \sqrt{\frac{0.70 \times 0.30}{198}} = \sqrt{\frac{0.21}{198}} = \sqrt{0.00106} = 0.033$$

(rounded to 0.03).

The formula of new C calculation is: $0.70 + 0.03 = 0.73$. Based on this new C calculation, the determination of the separation period between BS and BB uses the following formula.

$$W = \frac{\log C}{2 \log r} = \frac{\log 0.73}{2 \times \log 0.805} = \frac{0,315}{2 \times -0,217} = \frac{0,315}{0,434} = 0.826 \text{ years}$$

The determination of the error term is $0.823 - 0,726 = 0.097$. Based on the result of subtracting the old period with the new one, the separation period between BS and BB can be stated as follows:

- (1) BS and BB were a single language $0.823 + 0.097$ years ago,
- (2) BS and BB were categorized as a single language $0.726 - 0.920$ years ago,
- (3) BS and BB started to separate from the proto language between $0.7 - 0.9$ year ago or 7 - 9 centuries ago.

Considering the percentage and category of the related words and the separation period, it appears that BS has similar vocabularies to BB. With the similarity of vocabulary, the lexicostatistic technique implies that both languages come from the same proto language. The similarity in form and meaning found in the two languages shows that the basic vocabulary in a language can last as long as the speakers maintain to speak using the language. In addition, the similarity of BS and BB vocabulary has the potential to contribute in the development of curriculum design for non-native students.

Local Language Curriculum (BS and BB) Design for Non-Native Students

The language kinship analysis out of 200 vocabularies produced 138-word pairs (69.70%). Under the four predetermined indicators, this indicated that the status of kinship between the two local languages can be categorized as "languages of a family".

By their basic vocabulary types, apparently these words are highly potential in arranging curriculum for non-native speakers since these selected vocabularies are daily-life vocabularies comprising greeting and self-introduction, human body parts, food and drinks, directions, word classes (nouns, verbs, adjectives, pronouns, function words, number words), direction, adverbs of time, colors, gender, ingredients (spices), size, parts of a plant, animals, distances, weather, natural objects, and cause and effect conjunctions.

All of the words were used as the basis for the curriculum design. The non-natives as the targets were non-native speakers visiting Gorontalo Province, local people married with Japanese, Chinese and Arabian, two Americans doing research on Gorontalo and Suwawa languages, and 15 expatriates joining BIPA Program.

The conditions mentioned above apparently give an impact on the need for mastery not only of Indonesian but also local languages, especially BS and BB since the area they live is not in one region but spread in one city area and five districts, namely Gorontalo, North Gorontalo, Bone Bolango, and Pohuwato. Additionally, the community used not only Indonesian but also local languages, especially BS and BB, for their social life, including commercial activities. Based on this condition, a local language curriculum is certainly needed, especially BS and BB, because both languages also have a high level of kinship.

Referring to the related vocabulary mentioned above, the curriculum design of BS and BB is proposed. The results of this kinship language can provide benefits in the form of glossary which is oriented to human activities in daily life including various aspects of life and various classes of words. Based on this consideration, those related words can be used for the curriculum design. In addition, this related basic vocabulary can facilitate non-native speakers to develop it in the form of affixed words, phrases, clauses, and simple sentences according to the contexts.

The objectives to be achieved in local language learning for non-native students in this curriculum as **Table 7** below presents.

Table 7. Learning Objectives

Core Competency 1 (Religious Attitudes)	Obtaining an attitude and a character of being noble, knowledgeable, and devoted to God Almighty
Core Competency 2 (Social Attitudes)	Having confident behavior and attitudes in interacting with the social environment
Core Competency 3 (Knowledge)	Having factual and conceptual knowledge related to technology, art and culture that can be used to interact with the environment
Core Competency 4 (Skills)	Having effective and creative skills and behavior to communicate according to the environment

Core Competencies 1 and 2 are not described in the basic competencies below since the two competencies are integrated in the implementation of basic competencies of knowledge and skills (see **Table 8**).

Table 8. Core Competence 3 and 4 Description

Core Competence 3 and 4	
Knowledge	Skills
3.1 Understanding the use of basic vocabulary related to greeting and self-introduction	4.1 Expressing thoughts and feelings using basic vocabulary related to greeting activities and introducing oneself with correct pronunciation and language elements
3.2 Understanding the use of basic vocabulary related to parts of human body	4.2 Expressing thoughts using basic vocabulary related to parts of human body in various contexts with correct pronunciation and linguistic elements
3.3 Understanding the use of basic vocabulary related to activities including: a. Food and drinks b. Spice ingredients	4.3 Expressing thoughts using basic vocabulary with correct pronunciation and linguistic elements in various contexts, which include: a. Food and drinks b. Spice ingredients
3.4 Understanding the use of basic vocabulary related to a. Signpost b. Direction	4.4 Expressing thoughts using basic vocabulary with correct pronunciation and linguistic elements in various contexts, which include: a. Signposts b. Direction
3.5 Understanding the use of basic vocabulary related to colors	4.5 Expressing thoughts using basic vocabulary related to colors in various contexts with correct pronunciation and linguistic elements
3.6 Understanding the use of basic vocabulary related to gender	4.6 Expressing thoughts using basic vocabulary related to gender in various contexts with correct pronunciation and linguistic elements
3.7 Understanding the use of basic vocabulary related to: a. parts of a plant b. parts of an animal	4.7 Expressing thoughts using basic vocabulary with correct pronunciation and linguistic elements in various contexts related to: a. parts of a plant b. parts of an animal
3.8 Understanding the use of basic vocabulary related to size and distance	4.8 Expressing thoughts using basic vocabulary related to size and distance in various contexts with correct pronunciation and linguistic elements
3.9 Understanding the use of basic vocabulary related to natural objects	4.9 Expressing thoughts using basic vocabulary related to natural objects in various contexts with correct pronunciation and linguistic

	elements
3.10 Understanding the use of basic vocabulary related to adverb of time	4.10 Expressing thoughts using basic vocabulary related to adverb of time in various contexts with correct pronunciation and linguistic elements
3.11 Understanding the use of basic vocabulary related to adverb of cause	4.11 Expressing thoughts using basic vocabulary related to adverb of causes in various contexts with correct pronunciation and linguistic elements
3.12 Understanding the use of basic vocabulary related to word classes: a. nouns b. verbs c. pronouns d. adjectives e. function words	4.12 Expressing thoughts using basic vocabulary related to word classes: a. nouns b. verbs c. pronouns d. adjectives e. function words, in various contexts with correct pronunciation and linguistic elements

The curriculum design above shows that related basic vocabulary could provide benefits for non-natives' mastery of Indonesian and local languages since the vocabularies are related to daily activities, technology, art, culture which is beneficial to interact and communicate with the people.

The results of the determination of pairs show that the total pairs in BS and BB are 138 paired words (69.70%), and 60 unrelated words (30.30%). The details are:

- a. There are 50 identical words or 25.25% (i.e., pairs of words with the same form, sound, and meaning),
- b. There are 29 words or 14.65% with one different phoneme (i.e., pairs of words one phoneme of which is in a different form, but the meaning is the same,
- c. There are 37 words or 18.69% with a phonemic correspondence (i.e., pairs of words that are different when compared due to the environment), and
- d. There are 22 words or 11.11% with phonetic correspondence (i.e., pairs of words with phonetical similarity),

The data above leads to a conclusion that the kinship between the two languages can be classified as "languages of a family". This is in line with Crowley (1987) stated that the percentage of relative words between 36 - 81% is classified at the level of "languages of a family".

In addition, the analysis above implies the separation time of BS and BB is 0.823 years ago indicating that they were a single language around 0.823 years ago or 8.2 hundreds of years ago. The subtraction of the old time and the new one figured the age of the two languages as follows.

- (a) The two languages were a single language in 0.823 + 097 years ago,
- (b) BS and BB were a single language in 0.726 - 0.920 years ago, and
- (c) BS and BB began to separate from a proto language between 0.7 - 0.9 hundred of years ago or 7 - 9 centuries ago.

The data analysis above apparently shows that these related words are very potential in developing a curriculum for non-natives. The author takes the words in this kinship pair since they are daily-activity-related vocabularies. Predominantly, this curriculum is to develop language competences and skills for practical purposes. Warsono, Budiyanto, & Riduwan (2019) argued that competence is a set of knowledge to be competent, while training makes someone skillful.

Non-native speakers' purpose in learning Indonesian and local languages is not to become a linguist but to use their language skills as a practical goal, implying that they could verbally communicate and in writing. Therefore, the basic competencies arranged in the curriculum should be well designed according to the needs. Ibrahim, et al (2019, p. 25) argued that inadequate attention to the needs, habits, and abilities of the recipients could lead to miscommunication.

In addition, basic competencies in the curriculum must be carefully examined since it will affect the preparation of the syllabus, teaching materials, determination of training strategies, etc. According to Wen et al (2019, p. 51), a clear and unambiguous syllabus must be developed in learning material. Obviously, the first determining factor is the curriculum. A curriculum design satisfying non-native speakers' needs will greatly assist teachers and learners in providing stimulation and organizing the learning process well.

In designing the curriculum, we have conducted interviews with Japanese and American informants to obtain the information about their basic abilities, their motive to learn Indonesian and local languages, and essential vocabularies to learn. In addition to their basic language mastery, and necessity to learn the languages, the interview results suggested that they had need for essential vocabularies for greeting, food and drink, travelling, cooking utensils, household items, body parts, and bargaining. These essential vocabularies were provided in the related word list of BS and BB.

Greeting vocabularies are prominent to build close interactions and effective communication, so food and drink vocabularies are. Jun et al (2019, p. 32) stated that food and season are seen everywhere and give people a refreshing experience in their mind, body, and soul.

Richards and Rodgers (2019) added that in language learning, there are three principles of communication design to consider, namely: (1) language learning taking place in a real communication, (2) the use of real language, and (3) the use of real language that will be meaningful and functional for the learners.

By the above principles, the related words presented in the analysis are included in the category of real, meaningful and functional language for communication. Some of the words are: word / name / = [daito], / father / = [tiyama], / hair / = [buwo'o], / give / = [wengge], / night / = [gubi], / heat / = [patu], / rub / = [gigito], / heat / = [patu], / water / = [talugo], / here / = [oni], / cold / = [dah], / sit / = [titu'o], / you / = [amu], / you / = [yi'o] / eat / = [mongawa], / drink / = [monginu]. These words have a high frequency of use in real life.

The example of words was used as the basis for the arrangement of the curriculum to achieve the basic goals and competencies. Its basic competencies are directed at mastering communication ability and skills both for practical purposes and other needs such as work, local culture studies, and local language research.

To achieve the goal, consistency in applying the quality curriculum effectively, efficiently is beneficial as our Japanese and Chinese informants shared their difficulties in learning local languages including:

1. Distinctive phoneme pronunciation with that of local language phonemes,
2. Inappropriate use of vocabulary context due to multiple synonyms and homonym meanings,
3. Complex morphological systems,
4. Complex forms of layers,
5. Improper use of sentence structures, and
6. Alienated feeling.

Chen et al (2019, p. 938) also mentioned so-called social isolation experienced by Muslim international students in China higher education institutions. These challenges stimulate buoyant demands for the existing curriculum design with teaching materials well-developed on non-native's learning needs, and thoughtful planning of cooperative and contextual learning methods and strategies. In addition, professional teaching instructors with excellent language skills are of importance.

DISCUSSION AND CONCLUSION

The results from this study and published data support the conclusion that the kinship between Suwawa Language (BS) and Bulango Language is "languages of a family" with their separation time from the prototype language is between 0.7 - 0.9 hundreds of years or 7 - 9 centuries ago. Their related vocabularies could potentially give meaningful contribution to the curriculum design for non-native students of Indonesian and the two local languages with various supporting factors, including their high frequency of use in daily life, and their real usage. In addition, various types of basic vocabulary in the kinship of BS and BB are beneficial for the basic vocabulary classification in the curriculum design. The vocabularies is one of the basic needs of the foreign students to interact and communicate, and express their daily life activities.

The high level of language kinship of BS and BB (138-word pairs or 69.70%) brings the implication that plentiful basic vocabularies could be utilized as a basis/guideline in the curriculum design for non-native students. Additionally, it emphasizes the value of word classes (i.e., nouns, verbs, adjectives, pronouns, function words, and number words) for the development of basic vocabulary both at the level of knowledge and at the psychomotor level in the curriculum design. Some decisive factors potentially supporting the curriculum design (i.e., contextual basic vocabularies, various types of basic vocabulary, daily activity's vocabularies, and a variety of word classes) could benefit related parties to develop teaching materials and effective teaching methods and strategies. Given the well-designed curriculum, non-native students could highly gain knowledge and skills in the two languages concurrently. Further, the findings of the local language kinship give another implication for BIPA

students in mastering Indonesian as the related vocabulary classification in this curriculum design will coexist in the development of teaching materials.

REFERENCES

- Chen, B., Tabassum, H., Saeed, & Aamir, M. (2019). International Muslim students: Challenges and practical suggestion accommodating their needs on campus. *Journal of International Students*, 9(4), 933-953.
- Clorawati, A. R., Rohiat, S., & Hermansyah, A. (2017). Implementasi kurikulum 2013 bagi guru kimia di SMA Negeri Sekota Bengkulu (Implementation of the 2013 curriculum for chemistry teachers at Bengkulu Public High School). *Jurnal Pendidikan dan Ilmu Kimia*, 1(2), 132-135.
- Crowley, T. (1992). *An introduction to historical linguistics*. Auckland: OUP.
- Djajasudarma, F. T. 1993. Metode linguistik ancangan metode penelitian dan kajian. (Linguistic methodology approach research and study. Bandung: PT.Eresco.
- Ibrahim, M. F., Kee, D. M., Hisham, D. I., Azahar, M. A., Abdullah, W. M., & Alfares, O. A. (2019). Efficiency issue and its relation to labour/worker. *Jurnal Asia Pacific Journal of Management and Education*, 2(3), 19-28.
- Idi, A. (2014). *Pengembangan kurikulum teori & praktek (Development of theoretical & practical curriculum)*. Jakarta: Raja Grafindo Persada.
- Inderasari, E., & Wahyu, O. (2019). Implementasi kurikulum BIPA (Bahasa Indonesia bagi Penutur Asing) berbasis cultural Islamic studies (integrated curriculum) di perguruan tinggi Islam (Implementation of BIPA (Indonesian Language for Foreigners) curriculum based on cultural Islamic studies (integrated curriculum) in Islamic universities). *Jurnal Bahasa: Lingua Scientia*, 11(1), 127-144.
- Jun, O. E, Hung, D. K. M., Wen, T. X., Chen, K. X., Qi, M. J., & Al-Deehani, F. (2019) Issues of Entering New Market and Ways to Overcome the Issues Company: F&N Holdings Berhad. *Asia Pacific Journal of Management and Education*, 2(3), 29-36.
- Keraf, G. (1991). *Linguistik bandingan historis (Historical comparative linguistics)*. Jakarta: Gramedia Utama.
- Krauss, M. (1992). The worlds language in crisis. *Journal Language*, 68(1), 4-10.
- La Ino. (2015). Pemanfaatan Linguistik Historis Komparataif dalam Pemetaan Bahasa-Bahasa Nusantara (The Use of Comparative Historical Linguistics in Mapping The Archipelago Languages). *Jurnal Retorika: Jurnal Ilmu Bahasa*, 1(2), 365-351.
- Mahsun, M. (2010). *Genolinguistik: Kolaborasi linguistik dengan genetika dalam pengelompokan bahasa dan populasinya penuturnya (Genolinguistics: Linguistic collaboration with genetics in grouping language and its speaker's population)*. Yogyakarta: Pustaka.
- Nothofer, B. (1987). *Cita-cita penelitian dialek (The ideal of dialect research)*. Jakarta: Dewan Bahasa.
- Ntelu, A., & DjoU, D. N. (2017). *Kekerabatan bahasa Gorontalo, bahasa Suwawa, bahasa Atinggola, dan bahasa Bulango di Provinsi Gorontalo (The Kinship of Gorontalo language, Suwawa language, Atinggola language, and Bulango language in Gorontalo Province)*. (Research Report). Gorontalo: Universitas Negeri Gorontalo. Unpublished.
- Panggabean, H. (2004). *Telaah bahasa-bahasa batak dari segi leksikostatistik (Batak languages study from a lexicostatistical perspective)*. Bandung: Program Pascasarjana Universitas Padjajaran.
- Pateda, M. (2001). *Sosiolinguistik (Sociolinguistic)*. Gorontalo: Viladan .
- Rasyad, N., Bijaksana, M. A., Lhaksmana K. M. (2019). Pencarian potongan ayat Al-Quran dengan perbedaan bunyi pada tanda berhenti berdasarkan kemiripan fonetis (Search for fragments of Al-Quran verses with different sounds in the stop signs based on phonetic similarities). *Jurnal Linguistik Komputasional*, 2(2), 317-322.

- Richards, J., & Rodgers., T. (1986). *Approaches and methods in language teaching*. Cambridge: Cambridge University Press.
- Ruriana, P. (2018). Hubungan kekerabatan bahasa Jawa dan Madura (Kinship between of Javanese and Maduranese language). *Jurnal Kandai*, 14(1), 15-30.
- Samarin, W. J. (1988). *Ilmu bahasa lapangan (Field linguistics)*. Yogyakarta: Kanisius.
- Sin, G. L. (2015). *Suggestion for developing an internship programme in Indonesia*. London: Palgrave Macmillan.
- Surbakti, E. B. (2014). Kekerabatan Bahasa Karo, Minang, dan Melayu: Kajian linguistik historis komparatif (The Kinship of Karo, Minang, and Malay Languages: Comparative historical linguistic study). *Jurnal Metamorfosa*, 2(1), 1-21.
- Suwija, I. N. (2018). Sistem sapaan bahasa Bali menurut hubungan kekerabatan (Balinese greeting system according to its kinship). *Jurnal Sosiohumaniora - Jurnal Ilmu-ilmu Sosial dan Humaniora*, 20(2), 115-121.
- Warsono, H. Y., Budiyanto, & Riduwan, A. (2019). Analysis of educators work motivation in supporting main tasks of development and education command of Indonesian navy (Causal study in educators' group Kobangdikal, Surabaya). *Jurnal Asia Pacific Journal of Management and Education*. 2(3), 1-6.
- Wen, N. Y., Kee, D. M., Ling, K. W., Kai, N. S., & Alfertaj, E. (2019). Analyze one issue faced by the company and then provide relevant solution. *Jurnal Asia Pacific Journal of Management and Education*, 2(3), 45-54.