TYPES OF BALINESE SCRIPT BLOCK STRUCTURE USING SYMBOL BLOCK ANALYSIS

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ABSTRACT

The research aimed to examine the existence of Balinese script block structure types in the Balinese Latin script dictionary to make it easy and correct to read Balinese script. The Balinese language was encountering an urgent crisis in poor intergenerational speaker transmission, the emergence of the stigma of reading Balinese script was very difficult, and the actual use of Balinese script was increasingly narrow and limited. The research applied qualitative methods as a reference method in completing research. The research instrument used observation, documentation, and writing methods as data collection methods. The types of Balinese script block structures found in the Balinese Latin script dictionary of the 21 most used entries are (1) V-CV-CC, (2) V-CCV-CC, (3) CV-CV-CC, (4) CV-C, (5) V-CCV. The concept of the syllabogram block structure differs from the phonological syllables in the Balinese script writing system. The syllabogram shows block breaks, while the phonological syllables are based on loudness level. Understanding these differences makes it easier to read Balinese script, which is different from Latin script. The research proves the application of the concept of Balinese script block structure types to relevant Balinese script elements based on the concept of syllables as a reference for reading and writing Balinese script. The research provides a reference and guide in reading, writing, and transliterating Balinese script into Latin script with adequate concepts and theories.

Keywords: Balinese script, block structure, symbol block analysis

INTRODUCTION

The Balinese language is faced with an urgent crisis in reading Balinese script. As one of the languages whose writing system uses a script-based writing system, the Balinese script is still considered difficult by the Balinese. The script in Balinese is a symbol of spoken language, which is embodied in a visual form with a certain form arranged according to a certain system so that it becomes meaningful writing (Duija, 2017). Balinese script is also defined as one of the script-based writing systems, with the main unit being *aksara* as a representation of the Balinese language. Balinese script, as a world writing heritage that is still alive in Balinese society, faces several problems, such as poor intergenerational speaker transmission, the emergence of the stigma of reading Balinese script

is very difficult, and the actual use of Balinese script increasingly narrow and limited (Indrawan, Sariyasa, & Paramarta, 2019; Suweta, 2019). Many applications are made to make it easier for people to read Balinese script, but this is not yet relevant because Balinese people still have difficulty reading Balinese script (Kesiman & Dermawan, 2021; Crisnapati et al., 2019). The community's assumption of Balinese script is that "reading Balinese script is difficult", making the existence of this application pamper people to read Balinese script and understand how to read correctly (Pradnya & Ardiyasa, 2021; Wiguna & Asana, 2021).

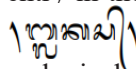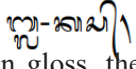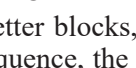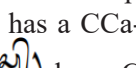This phenomenon of difficulty reading Balinese script is contrary to the development of Balinese script, which is fully supported by the government, especially the provincial government of Bali (Paramarta, 2022). According to the Bali Provincial Government Legal

Information Documentation Network, the Balinese language has been promoted with the enactment of Gubernatorial Regulation No. 80 of 2018 concerning the protection and use of Balinese language, script, and literature and the implementation of Balinese language month (Muliani & Muniksu, 2020). However, Balinese script is still tough to apply as a form of everyday script. In contrast to the Japanese script, Devanagari, the Thailand script is always used at all times, both in communication and in social life (Nishi, 2022). Balinese script is facilitated by applications such as *Keyman, Bali Simbar, Patik Bali,* and others, but the existence of these applications in terms of accuracy and learning content still needs to be improved because they are not supported by adequate writing system studies, especially regarding the concept of Balinese script block in the system (Rai, 2019). In addition, Balinese script dictionaries are also found as a source medium for Balinese Latin translations for ordinary Balinese readers.

The existence of a Balinese Latin script dictionary, which is expected to be a source of facilitating readers, confuses the basic elements or words contained in the dictionary. *Lema* is a word called a basic form or basic word that is in the dictionary that has not received an affix. According to Kamus Besar Bahasa Indonesia, an entry is a word or phrase in the dictionary; apart from that, there are other meanings used in the basic entry. The difficulty of reading Balinese script entries is due to the absence of a Balinese script block mapping process with a definite reading concept, so it is difficult for readers to read the Balinese script fragments according to the vowel consonants (Genetti, 2019; Suweta, 2018). In the Abugida writing system, the Balinese script is a derivative of the Brahmi script, and modern developments of the Kawi script include the alpasylabic writing system, which contains meanings such as a combination of principles in the tribal and alphabetic writing system (Hidayat, 2021).

However, the script-based Abugida writing system is not directly related to syllables or phonological phonemes but to syllables whose main components are long or short vowels that can be preceded but not followed by consonants or double consonants, such as syllables in Balinese which consist of six categories. They are one vowel (V), vowel followed by a consonant (VK), consonant followed by a vowel (KV), consonant followed by a vowel then consonant (CVC), consonant followed by consonant then vowel (KKV), and consonant followed by consonant then vowel followed by a consonant (KKVK) (Putra & Sanjaya, 2020). This concept is known as the basic rules in a script-based writing system, with the concept of consonant-vocal block script as the dimension of an image of writing based on Balinese script. The existence of basic rules in a script-based writing system with the concept of consonant-vocal as a mapping dimension of script blocks is a solution to overcome difficulties in reading Balinese scripts (Sanjani, Indrawan, & Gunadi, 2021). In the Balinese Latin script dictionary, there is a point of difficulty in reading; namely, the Balinese scripted

entries are directly juxtaposed with Latin letters, while information on the existence of dimensions in the form of Balinese script fragments that are not known by the reader makes Balinese script seem difficult to read. This research provides a solution in the form of types of Balinese script block structures that are useful as a basis for reading Balinese script.

In the entry or word in the Balinese script, the reader is constrained in determining the faults and their structure in the entry in the Balinese script. The example is the word ᬩ᭄ᬮᬓᬲ᭄ *blakas* 'machete'. If described by gloss phonological syllable consists of two syllables or syllable ᬩ᭄ᬮ-ᬓᬲ᭄ *bla-kas*. Meanwhile, if described based on gloss, the syllabus consists of three fragments or letter blocks, namely ᬩ᭄ᬮᬓᬲ᭄ *bla-ka-s*. As a consequence, the phonological syllable structure with the syllable structure that composes the word is different. The phonological syllable ᬩ᭄ᬮ-ᬓᬲ᭄ *bla-kas* has a CCa-CaC structure, while the syllabus ᬩ᭄ᬮᬓᬲ᭄ has a CCa-Ca-C structure.

Phonological syllables are related to the loudness peak of an entry, while syllables are related to block breaks in describing characters, which are governed by the presence of a connecting grapheme (Swandana, 2018). The grapheme is the smallest unit as a differentiator in a language system (Suyanto et al., 2017). The existence of this script block is beneficial in Balinese script because there is a rule that the writing of Balinese script sentences must not have spaces or is known as pairs of parallel lines (*pasang jajar sambung*) (Windya, 2018). Therefore, in Balinese script blocks, there is a vertical space called *wangun gantungan* and a horizontal space called *wangun gempelan*.

Changes in the layout of the characters that are tied based on the form of the *pengange* sound and the form of *pengange tengenan* in the Balinese script writing system are adjusted to the Balinese script. The *Lagna* script or the basic script is located in the center, while the diacritics/character joins to the context of the closest script environment, such as the script hanger is located under the basic script, *gempelan* is located to the right of the basic character if the voice handler is above basic characters or under the basic characters (Gunada, Dyatmika, & Weda, 2021). There are also on the right of the basic script and the left side of the basic script, and there are on two sides, namely the left and right of the basic character. The existence of Balinese script writing can be found in one of the Balinese Latin script dictionaries (Anom, Antara, & Nala, 2016), which is the center of attention in this research published by the Bali Culture Service.

By the rules of the Balinese script writing system above, the government hopes that there will be a habit of people using Balinese script in aspects of daily life through the Bali governor's regulation or *Pergub* that has been stipulated. The Balinese Latin dictionary, which is used as a reference in reading Balinese script, is still difficult for readers (Saputra & Yanti, 2019). This is proven by the Balinese Latin script dictionary,

which only shows each entry that uses Latin letters and Balinese characters. Transliteration of the basic elements of Balinese script in the dictionary is not shown and does not include the process of copying Balinese script to Latin letters (Jampel, Indrawan, & Widiana, 2018), in the dictionary is not shown how each of the basic forms that make up Balinese Latin scripted entries are. The concept of dimensional mapping of the Script Block, which focuses on how to read by segmenting script blocks and using the concept of broken Balinese script blocks, will make it easier for readers to understand the five elements of the Balinese script.

Based on the statement, in the research, Balinese script block structure analysis is studied in the Balinese Latin script dictionary. The symbolization of the block structure in the research is carried out by modifying five types of block structures from Sonali et al. (2018), which only consist of five types of block symbols, namely: (1) vowel Akshara (/V/), (2) consonant Akshara (/C/) which has a variant (/C/) as a separate block for consonants that experience inherent vocal canceling through the *pengangge* script *tengenan* adeg-adeg, and *bisah* and variant ᶜ (superscript) as part of the block structure, which experiences inherent vocal canceling through the *pengangge* of the *tengenan* script …. *surang* and … *cecek*, (3) Akshara for consonants with the inherent vowel 'a' (/Ca/), (4) Akshara for consonants with attached vowels (/CV/) and (5) Akshara for consonant clusters (/CCV/, /CCCV/).

Theoretical studies in the literature block structure also refer to several studies and theories based on references as stages in analyzing problems. Several reviews of similar research are published from research by Paramarta et al. (2021) that explain the conjunct/ligature grapheme. Subsequent research refers to the book Handbook of Literacy in Akshara Orthography published by Springer Nature Switzerland explains that the basic writing units found in the subsistence writing system represent the composition of several syllables, including CV, VV, CCV, CCVV, CCCV, CCCVV, V and VV (long vowels) (Wijaythilake & Parrila, 2019). A syllable has a vowel that can be preceded and/or followed by a consonant, but it may also be just a vowel. This statement relates to this research, which alludes to the function of connecting graphemes in writing Balinese script blocks where the scripts are tied together with one script to another, such as by script hangers, *gempelan*, and *pengangge* script. Thus, the researchers make this research a reference for the structure of the basic rules in a script-based writing system. This research's results explain the correct mapping structure of the Balinese script block structure when reading or writing Balinese words.

The next review, research from Prashanti et al. (2022), explains the segmentation of Balinese script on lontar images. It explains that the Balinese script is a segmental script based on consonants using vowels. The Balinese script block is formed with the dimensions of the representation of the script block based on the shape of the Balinese script. The results of this research indicate the accuracy of the Balinese script line segmentation process in the form of writing consonant vowels with a long time used to get the location of writing the script.

This research differs from Paramarta et al. (2021) and Prashanti et al. (2022) regarding the existence of the Balinese script block structure in the Balinese Latin script dictionary. These researches explain the errors in the writing of Balinese script, while this research explains the existence of the Balinese script block structure in the Balinese-Latin script dictionary.
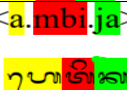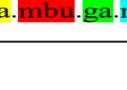
Based on these two studies, which are used as comparisons for this research, the concept of block script segmentation is used as a reference for determining the script block faults in the Balinese Latin script dictionary. The grapheme concept between free and bound graphemes is used to determine consonant vowels in the Balinese script entry in the Balinese Latin script structures. In addition, the research on the types of Balinese script block structures using symbol block analysis focuses on structuring script blocks to make it easier for readers to read Balinese scripted entries by comparing phonological syllables and syllable scripts/syllagrams.

METHODS

The research applies a qualitative research methods as a reference for the research design to complete the Balinese script block structure analysis study in the Balinese Latin script dictionary (Crowther & Lauesen, 2017). The reason for using a qualitative method is that the research focuses on studying the block structure of the Balinese script in the latest revised edition of the Bali Latin script dictionary compiled by I Gusti Ketut Anom as coordinator, Ida Bagus Made Suasta as chairman and published by the Bali Provincial Cultural Office in 2016 instead of calculating the number of characters in the dictionary. The research instrument uses observation, documentation, and writing methods as data collection methods. The observation method is used to find a collection of Balinese script entries for analysis in the Balinese Latin script dictionary.

The data of the research are in the form of basic entries in the Balinese-Latin script dictionary, which are divided into basic entries starting with vowels and basic entries starting with consonants. Because the number of pages in the dictionary is quite thick and large, the data analysis procedure is carried out in three stages. First, the data is collected into a single PDF file with the help of a cell phone using the Camscanner application. After all the Balinese script entry pages in the dictionary are collected, in the second stage, the researchers record the Balinese script entry structure by making a table of Balinese script entries starting with vowels and writing Balinese script starting with

consonants using Microsoft Word and Bali Simbar Dwijendra applications. The block arrangement for each Balinese script entry in the table is recorded one by one using the read-write method. In the third stage, the researchers read the entries or words in Balinese script and then group them based on the damaged block of characters.

For example, the stages of mapping the structure of Balinese script blocks in the Balinese Latin script dictionary can be observed:

a. ᬓᬾᬲᬾᬮ keséla 'cassava' is grouped according to the broken letter block.

b. ᬓᬾᬲᬾᬮ has three fault blocks namely
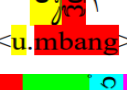
ᬓᬾᬲᬾᬮ

c. The three broken blocks are adapted to the concept of Balinese script structure to become ᬓᬾᬲᬾᬮ CV-CV-Ca.

d. Thus, the block structure of characters is found, the ᬓᬾᬲᬾᬮ exception for keséla 'cassava' is CV-CV-Ca.

After all the entries in the Balinese script in the Balinese Latin script dictionary are grouped, the data is then converted into a graph using the Microsoft Excel application to find the number of character block structures automatically.

RESULTS AND DISCUSSIONS

Based on the research method, the results are the number of entries in the Balinese Latin dictionary; there are 15955 basic entries from 21 alphabets. The findings of each alphabet in the dictionary have a different number of entries, and the following results have found a weakness in the vowels of the alphabet: A (930), I (275), U (39), E (516), O (523), and consonant *lema* from alphabet B (1384), C (825), D (711), G (1185), H (54), J (523), K (1765), L (934), M (616), N (452), P (1325), R (588), S (1730), T (1147), W (376), Y (57).

From the entire alphabet that composes the basic elements of the Balinese script in the Balinese-Latin script dictionary, it is found that the entries starting with vowels have 50 variants of the character block structure, while the entries starting with consonants have 34 variants of the Balinese script block structures. To more easily observe the data acquisition in the Balinese script block structure, the data is presented in Figure 1.

Figure 1 shows the structure of the Balinese script in the vocal entry. Vocal entries consist of A, I, U, E, and O, with a total of 2283 Balinese script entries with 50 Balinese script block structures. The Balinese script block structure in the most vocal entries is vowel A, with a total of 930 basic entries with 50-character block structures. The variation of the dominant character block structure patterns in Balinese script writing can be seen in Table 1.

In addition to entries starting with vowels, entries starting with consonants are also found in the research. In general, the vowels can be seen as shown in Figure 2.

Figure 2 shows the structure of Balinese script blocks in consonant entries consisting of B, C, D, G, H, J, K, L, M, N, P, R, S, T, W, and Y with a total of 13672 Balinese script entries with 34 Balinese script

Figure 1 The Structure of the Balinese Script in the Vocal *Lema*

Table 1 Structure of Vocal Leaving Blocks and Examples

NO	STRUCTURE	EXAMPLE OF BALINESE AKSHARA AND SLOT GRAPHEME	LATIN AND TRANSLATION
1.	V-CVC	<a.deng>	*Adeng (bara)* 'Live coals'
2.	V-CV	<a.di>	*Adi (adik)* 'Sibling'
3.	V-CV-C	<a.bu.t>	*Abut (cabut)* 'Unplug'
4.	V-CCC	<u.mbang>	*Ember (ember)* 'Pail'
5.	V-Ca-CV-V-Ca	<a.la.bo.i.ka>	*Alaboika (katak)* 'Frog'
6.	V-CCV-Ca	<a.mbi.ja>	*Ambija (palu besar)* 'Hammer'
7.	V-CV-Ca	<e.ti.ka>	*Etika (perilaku)* 'Behavior'
8.	V-Ca-CV-CCa	<a.ra.wi.nda>	*Arawinda (teratai merah)* 'Lotus'
9.	V-CV-CCa	<a.le.ngka>	*Alengka (Kerajaan Sri Rama zaman Ramayana)* 'Kingdom of Sri Rama during the Ramayana era'
10.	V-CCV-Ca-C	<a.mbu.ga.n>	*Ambugan (pakaian bekas)* 'Second hand clothes'

block structures. The block structure of Balinese characters in the most consonant entries is found in the D alphabet with 34-character block structures. The variation of the dominant character block structure patterns in Balinese script writing can be seen in Table 2.

Based on the two implications of the basic rules in the Balinese script-based writing system above, it can be concluded that the research obtains 21 Balinese scripts that meet the criteria as scripts with the appropriate basic rules. These findings become a focus discussion related to research on types of script block structures in writing systems based on Balinese script. The first discussion is related to vowel and consonant entries with the concept of Silabogram and Syllables Fonologis; the second discusses the differences in the types of script block structure according to the research findings. The types of Balinese script block structures found in the Balinese Latin script dictionary of the 21 most used entries are (1) V-CV-CC, (2) V-CCV-CC, (3) CV-CV-CC, (4) CV-C, (5) V-CCV. The findings in the research are symbolically distinguished between types of block structure patterns with inherent vowels or non-inherent consonants so that the discussion and findings in the research answer problems related to difficulties in reading Balinese script. In the research, the structure of character blocks that have inherent vocal canceling through *pengangge tengenan* adeg-adeg, and *bisah* and variant [C] (superscript) as part of the block structure experiencing inherent vocal cancelling through the *pengangge* of the *tengenan* script surang and cecek symbolized by CV and Ca as symbols of the inherent vocal block structure. The findings of the types of block structures in this research are compared and modified based on the findings of the patterns block structure of characters contained in the Akshara-phonology mappings research, the common yet uncommon case of the consonant cluster by Sonali et al. (2018). It says that script as an orthographic unit in several languages in South and Southeast Asia is written with symbol blocks with five types symbol blocks, namely (1) Akshara vowels (/V/), (2) Akshara consonants (/C/), (3) Akshara for consonants with the inherent vowel 'a' (/Ca/), (4) Akshara for consonants

with other vowels (/CV/) and (5) Akshara for consonant clusters (/CCV/, /CCCV/). These findings are still inadequate because in Balinese script blocks, there is a structure where consonants are part of the main block, not as a stand-alone block, so it must be symbolized by [C] (superscript) as a symbol of the block structure in the attached vowel.

This block symbol analysis contributes in the form of finding the types of Balinese script block structure (consonant-vowel) in the Balinese Latin script dictionary published by the Bali Cultural Office. Contributively, the findings of the research complement the variants of script block structure in a script-based writing system, and the discussion in this research becomes a solution to the difficulty of reading Balinese script. In writing Balinese script, there are *uger-uger nyurat* Balinese script or Balinese script writing rules (Simpen, 1973). In the Balinese script writing rules, the script is written without spaces or pairs of connecting lines, which consist of the core script (body) and the script holder (organ) (Windya, 2018). The *Uger-uger* or Balinese script writing rules differ from script-based writing system rules. *Uger-uger* is a rule for writing Balinese script that is regulated in writing norms that regulate the right and wrong of writing the Balinese script, while the rules for writing a script-based system, in this case, is the script block structure is a way of reading Balinese script through broken blocks, for example ᬦᭂᬕᬓ᭄ *negak* is composed of three broken letter blocks with a CV-Ca-C structure.

The script block structure contained in the Balinese Latin script is found in as many as 34 types of block structures in consonant lemmas and 50 vocal block structures, according to the data in the research results, which are block structures that are recorded based on the concept of a syllabus different from the rules of writing structure based on phonological syllables. The Balinese language generally has six tribal patterns (Anom, Antara, & Nala, 2016; Hayes & Jo, 2019). The six structural patterns are V, VC, CV, CVC, CCV, and CCV, with the example in the sequence being *E!* 'call', *aba* 'bring', *bawak* 'short', *sampat* 'broom', *klungah* 'young coconut', *jangkrik* 'cricket insects'.

The clear difference between Syllabograms as signs used to write syllables (or *mora*) of a word (Kenanidis & Papakitsos, 2018) will form the structure of Balinese script blocks, with phonological syllables as syllables measured according to the peak of loudness or sonority that falls on a vowel point (Adityarini, Pastika, & Sedeng, 2020). The two concepts differ in the rules of the script-based writing system because, in Balinese script writing, it is known that there are syllable fractures called script blocks. The fault is what makes the procedure for reading Balinese script different from Latin script. For example, the phonological syllable ᬫᬂᬓᬶᬦ᭄ *mangkin* 'now' is divided into two syllables, *maŋ-kin* with a CVC-CVC structure, while in Balinese script ᬫᬂᬓᬶᬦ᭄ *mangkin* 'now' is mapped according to the character block *ma-ŋki-n* with Ca-CCV-C structure. These letter block fractures can occur due to the presence of a connecting grapheme.

There is the dominance of the Balinese script block structure (consonant-vocal). The writing of Balinese script block structures has the dominant patterns used in writing Balinese script. Some dominant character block structure patterns are V-CV-C in vowel entries and CV-CV-C in consonant entries, and the least is V-CCV-CV-C in vowel entries and CV-CCV-
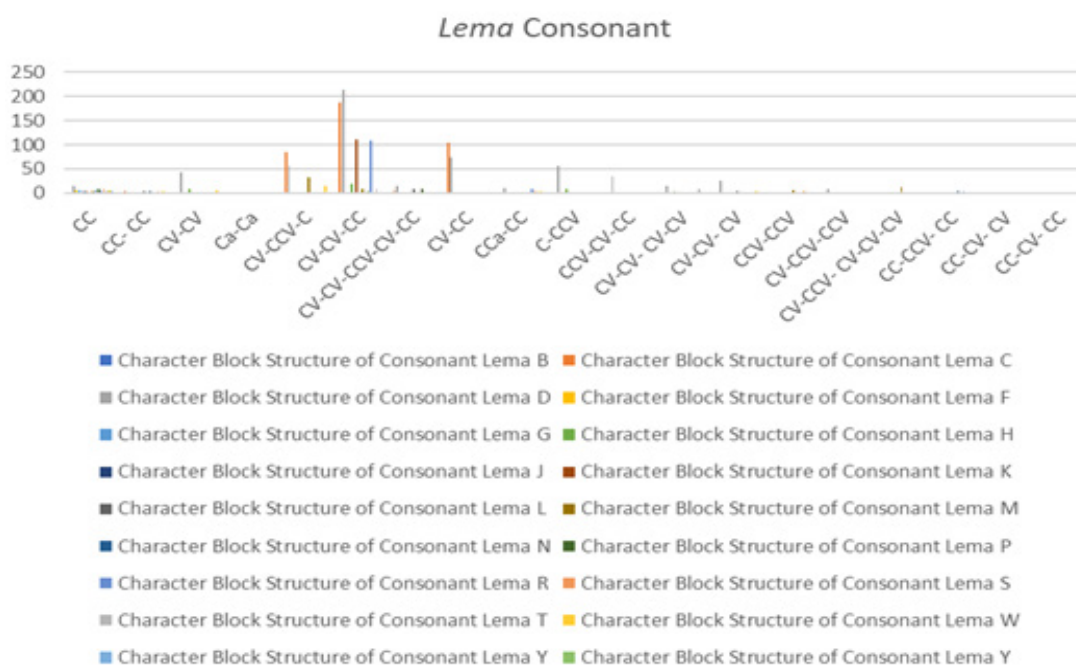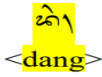

Figure 2 Block Structure of the Balinese Consonant *Lema* Script
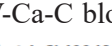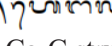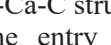
Table 2 Consonant *Lema* Block Structure and Examples

NO	STRUCTURE	EXAMPLE OF BALI AKSARA AND GRAPHEME SLOT SYSTEM	LATIN AND TRANSLATION
1.	Ca^c	<dang>	*Dang (sang)* 'Nobility'
2.	Ca-Ca	<ta.ta>	*Tata (susunan)* 'Composition'
3.	CV-CV	<bu.cu>	*Bucu (sudut)* 'Corner'
4.	Ca-CCa-C	<ba.dba.d>	*Badbad (urai)* 'Asunder'
5.	Ca-V-C	<da.a.k>	*Daak (bumi)* 'Earth'
6.	CV-CV-CCV-CV-C^{c}C	<hi.yo.nhi-yo.n>	*Hion-hion (Ramai, rebut)* 'Noisy'
7.	Ca-C^{c}C	<da.g>	Dag (Penari laki-laki yang duduk di tengah-tengah dalam tarian yang menyuarakan "dag" sebagai tanda setiap tahap tarian selesai.) 'The male dancer sitting in the middle of the dance sounds "dag" as a sign that each stage of the dance is over.'
8.	Ca-CCa	<da.dua>	*Dadua (dua)* 'Two'
9.	CCa-CCV-C	<dia.stu.n>	*Diastun (biarpun)* 'Even though'
10.	Ca-Ca- Ca	<da.na.wa>	*Danawa (raksasa)* 'Giant'
11.	Ca-CCa-CCa	<da.dia.nnya>	*Dadiannya (akibatnya)* 'As a result'

CV-CV- CV-C in five consonants. The structure of the block pattern of the V-CV-C vowel script is found the most because this pattern is the pattern in the word that appears the most in the Balinese-Latin script dictionary with a total of 616 basic entries from the alphabet A, I, and E, while the consonant block pattern CV-CV-CC is the most widely used in Balinese script, which is the root word with a total of 401 in the alphabet C, D, G, K, P, S, T.

The structure of the basic rule patterns is studied based on the number of entries in the dictionary. Some discussion is obtained on the Balinese script block structure in the vocal *lema*. The dominant form of the Balinese script block structure pattern in the Latin Balinese script dictionary is V-CV-C, consisting of three script blocks in the syllabus and two phonological syllables. The V-CV-C pattern, as a comparison between the syllable and phonological syllable block structures, has a different structure consisting of word fragments. For example, in a vowel sentence, words such as *Ebek* 'full', *Ebat* 'terrific', *Abut* 'pulling', *Aben* 'burning the corpse', *Engal* 'fast', and others have contradictory structures when viewed from a phonological syllable point of view and syllabus.

The most dominant syllables in Balinese are syllables that have three syllable block characters and two phonologically syllable syllables. This is because the comparison is obvious between how to read the five Balinese scripts from the point of view of the broken letter block and also the peak of loudness (phonological). By the broken character block, *engal* is written ꦲꦾꦭ mapped to |ꦲ|ꦔ|ꦭ| with an *eŋal* fracture with a V-Ca-C block structure, while phonologically syllable ꦲꦾꦭ *engal* becomes ꦲꦾ–ꦭ with a V-Ca-C structure.

Phonologically, the entry is described with the peak of loudness without paying attention to the

connecting graphemes contained in the Balinese script entry. As in the entry ᬇᬗᬮ᭄ *engal* is broken down into ᬇᬗ+ᬗᬮ᭄, while the reader needs to know that ᬗᬮ᭄ *ngal* which is made into one syllable phonologically is not broken down based on the building blocks of the characters. In addition, symbolically, the types of character block structures in this research still hold a mystery and succeeded in finding a new finding, namely the existence of block structures that experience vocal attenuation inherent in the character block characterization. The block structure that has experienced vocal canceling inherent through the characterization of the *tengenan* ᭄ *adeg-adeg* script, which is symbolized by ^{C} (superscript). In urgency, the writing of the Balinese script, the *tengenan* ᭄ *adeg-adeg* script, is in charge of turning off vocal sounds carrying information ($^{-V}$) in Balinese script writing. For example, ᬯᬲᬸᬄ *wasuh* 'wash' has a Ca-CV^C structure and the presence of the ^{C} element (superscript) in the Ca-CV^C carries information minus the vowel or vowel of a mute or ($^{-V}$) character, it is even possible that the symbol can change to Ca-CV$^{C(-V)}$. These findings require more detailed research by other researchers as a limitation in examining the types of Balinese script block structures using block symbol analysis research.

Block structure in consonant lema. In the block structure of Balinese script, specifically in the data, the consonant entries have the same case as the vowel entries, namely the point of difference between mapping in reading Balinese script entries by syllabus and phonological syllables. The most common pattern found is Ca-CV-C, for example, *dacin* 'scales', *dakep* 'catch', *saluk* 'wear', *jagut* 'chin', and others. One example of a mapping is the word ᬤᬘᬶᬦ᭄ *dacin* is parsed into |ᬤ|ᬘᬶ|ᬦ᭄| the syllabus which is described based on the broken letter blocks and is different from the description based on the phonological syllable to be ᬤ–ᬘᬶᬦ᭄ *da-cin* with loudness peaks ᬤ+ᬘᬶᬦ᭄ *da+cin*.

It is necessary to understand that to make it easier for readers to read Balinese script, specifically when taught in education, readers are facilitated by the existence of a way to read Balinese script entries in the Balinese Latin script dictionary with the concept of a syllabus that is outlined with broken blocks of Balinese script.

CONCLUSIONS

Based on the results of the discussion, the findings of the research on Balinese script block structure types using block symbol analysis are entries divided into two types of entries: entries beginning with a vowel and entries beginning with a consonant. Each entry consists of a different pattern of Balinese script block structure. Found vowel entries start with the alphabets A, I, U, E, and O, totaling 2283 entries with 50 Balinese script block structures. The most Balinese vocal block entry structure is the A vowel, with a total of 930 basic entries with 50-character block structures. Consonant entries starting with the letters B, C, D, G, H, J, K, L, M, N, P, R, S, T, W, and Y total 13672 entries with a block structure of 34 Balinese characters. The Balinese script block structure for the most consonant entries is in the D alphabet with 34-character block structures.

When seen as a symbol of the Balinese script block, in general, the Balinese script is the same as the script-based writing system consisting of five script block structures, namely (1) Akshara vowels (/V/), (2) Akshara consonants (/C/), (3) scripts for consonants with the default vowel 'a' (/Ca/), (4) scripts for consonants with other vowels (/CV/), and (5) scripts for consonant clusters (/CCV/, /CCCV/) such as published in writing systems research. In the research of Balinese script block structure types using block symbol analysis, character patterns are divided into six types, namely V, C, Ca, CV, CCV, and CCCV, but phonologically, the block structure is divided into five, namely V, C, CV, CCV, and CCCV. These findings complement the findings on the types of Balinese script block structures and make it easier for Balinese people to read Balinese script. It is proven that the structure of the Balinese script blocks has fragments that make up the script blocks.

A unique finding in the research is the block structure of letter symbols, which is a modification of Sonali's finding where Sonali only displays vowel consonants attached with (/C/), whereas in the research, (/C/) is symbolized as a separate block. For consonants that have a canceled vowel attached through the *pengangge tengenan adeg-adeg* script, and *bisah* and variant C (superscript) as part of the block structure, which undergoes inherent fusion of vowels through the *pengangge tengenan surang* and *cecek* characters. This finding has implications for readers that the Balinese script has a uniqueness that deserves to be studied more deeply. The limitations of the findings in the research become an opportunity for other researchers to study Balinese script research in more depth, especially regarding the behavior of the *tengenan adeg-adeg* characters.

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