Abstract
One morphological process that is thought to be interesting in both Bahasa Melayu and Japanese is reduplication. Reduplication is a word-formation process whereby a lot of new words are produced through the repetition of the root or a stem or a part thereof. This process has its own lexical function in a way that it can perform word class-maintaining and class-changing as contended by Asmah (2001): “Reduplication has a lexical function; that is to say, it derives new words from the root-forms.” (p. 17-35) This discussion, which dwells on the contrastive analysis, attempts to explore and detail the form of the reduplication process available in Bahasa Melayu and Japanese.

Key terms: reduplication, Bahasa Melayu, Japanese, contrastive analysis, morphology

1.0 Introduction
A morphological study would involve all elements relevant in the word formation process; among them are the processes of prefixing, reduplicating, and pluralizing among others. The word formation process in any language serves as a productive creativity in the formation of new words, coming from a collection of words already existing in that particular language.

Reduplication is a morphological process which produces words by way of repeating part, or the whole element, that can be found in the root word. Reduplication is frequently defined as such, and words produced from this particular process are termed plurals. In Bahasa Melayu (BM), reduplication marks plurality and makes use of a hyphen in its spelling such as the BM words buku-buku ‘books’ and pintu-pintu ‘doors’. This type of reduplication is called full reduplication since the root is repeated twice to form the plural. In the Japanese language, reduplication is shown in examples such as yama-yama ‘hills’ and mura-mura ‘villages’. Just like BM, the Japanese language also exhibits full reduplication which marks plurality in nouns.

2.0 Purpose of Study
This study attempts to (1) explore the full reduplication process that exists in both Bahasa Melayu and Japanese; (2) detail the similarities and differences present in both these languages; and (3) explain how the new words produced are able to display their lexical functions, and whether they retain or change their word classes as a result of the reduplication process.

Discussion will be divided into three parts, namely, (1) the classification of reduplication in both Bahasa Melayu and Japanese, (2) the reduplicated word formation in both Bahasa Melayu and Japanese, and (3) the contrastive analysis of the reduplication process in both Bahasa Melayu and Japanese.

3.0 Reduplication Concept in Bahasa Melayu
The concept of reduplication in Bahasa Melayu can be very much associated with the reduplication concept in mathematics, an idea which can be formulated in the following equation:

\[ x \rightarrow x' \]

where \( x \) can be assumed to be a word, and when this word \( x \) is reduplicated, then a new concept which is \( x' \) will inevitably emerge from the process. We follow this statement by looking at an example:

\[ \text{buku} \rightarrow \text{buku}^2 \]
Based on this formula, we are able to see that \( \chi \) may represent a lexical category such as a noun and that reduplicating it produces the plural form of the noun. Additionally, the following formula shows how we are able to identify the root word:

\[ \chi \rightarrow \chi^2 \]

We also know that the process of reduplication has its own lexical function, which is whether it can retain a certain word class, or change it as it is reduplicated. Subsequently, from the above formula, we are able to expand the formula as

\[ \chi \rightarrow \chi^2 / \Theta \cdot \Theta \]

where \( \Theta \) indicates that the word will experience a change of word class, whereas \( \Theta \) means that the word will not experience any change. For instance:

- \( \text{hati} \rightarrow \text{hati}^2 / \Theta \)
- \( \text{buku} \rightarrow \text{buku}^2 / \Theta \)

### 4.0 Classification of Reduplication in Bahasa Melayu and Japanese

Asmah (1975) has categorised the reduplication process of Bahasa Melayu into ten groups following the morphological change that happens in every word as it undergoes reduplication. Similarly, Abdullah Hassan and Liaw (1994), have categorised the morphological structure of the reduplication of Bahasa Melayu into six categories such as follows:

i. Full reduplication, for example: \( \text{buku-buku} \) 'books', \( \text{orang-orang} \) 'people';

ii. Rhythmic reduplication, for example: \( \text{kuih-muih} \) 'cakes', \( \text{gunung-ganang} \) 'mountains';

iii. Partial reduplication, for example: \( \text{kekuda} \) 'trusses', \( \text{tetamu} \) 'visitor';

iv. Insertion reduplication, for example: \( \text{em} \)- in the words \( \text{turun-temurun} \) 'descendants', \( \text{gilang-gemilang} \) 'brilliant';

v. Reduplication shown by root words that cannot be independent, except when they are reduplicated, for example \( \text{kura-kura} \) 'turtle', \( \text{sia-sia} \) 'vain'; and

vi. Reduplication shown by the affixation process (prefix, affix and suffix); for example \( \text{berbual-bual} \) 'talking idly', \( \text{kehijau-hijauan} \) 'greenish' and \( \text{buah-buahan} \) 'fruits'.

The formation of reduplicated words in Japanese is one of the morphological elements in the language and is often associated with the presence of reduplication on onomatopoeia (Martin, 1988). Nonetheless, not many linguists have tried to concentrate on the morphological structure of reduplication and the types of words involved in the process. As opposed to Bahasa Melayu, where reduplication is also evident in foreign words, reduplication in Japanese is only observable in the most primitive words of the Japanese language (Martin, 1988). For the purpose of this discussion, only full reduplication, which is the repetition of the root or the stem, will be of focus.

### 5.0 Contrastive Analysis of Full Reduplication in Bahasa Melayu and Japanese

To draw a comparison between the morphological system of Bahasa Melayu and Japanese, the discussion will particularly highlight the type of reduplication, the word class involved in the reduplication and also the function of the reduplication, in terms of either maintaining or changing the word class. All examples provided in this discussion are sourced from those published in Asmah (1975), Abdullah Hassan and Liaw (1994), Tsujimura (1999) as well as Tamamura (1997). Full reduplication is the process of repetition of the root word, which means that the entire root word experiences full repetition. Katamba (1993) depicts reduplication as the repetition of all, or part of the radical element. The produced words illustrate the form of root word and their reduplications.
whose morpheme representations are one hundred percent the same. Instances of the process that duplicate the entire root word, whether the word contains affixes or not would be bijak-bijak ‘becoming smart’, anai-anai ‘termites’, and pemburu-pemburu ‘hunter’.

5.1 Full Reduplication in Bahasa Melayu

Full reduplication takes place in concrete nouns and abstract nouns in Bahasa Melayu as in orang-orang ‘people, budak-budak ‘children’, fikiran-fikiran ‘thought’. Full reduplication also happens in borrowed words like bas-bas ‘buses’, tekxi-teksi ‘taxi cabs’, hospital-hospital ‘hospitals’ commonly used in daily situations. Such a phenomenon shows us that all nouns whether they are original Bahasa Melayu or borrowed ones, will equally experience the full reduplication process that maintains the word class. However, there is also the occurrence of noun reduplication which changes the word class, as found in examples like hati-hati ‘to take care’ and ribut-ribut ‘to raise the roof’ which are verbs formed from the nominal roots hati ‘liver’ and ribut ‘storm’, respectively.

The phenomenon of full reduplication also takes place in the verbs of Bahasa Melayu which maintains the word class, like the verb makan ‘eat’ which forms the verb makan-makan ‘to eat lightly’ and the verb minum ‘drink’ which forms the verb minum-minum ‘to drink leisurely’. It may also change the word class as in the verb kira ‘to count’ to form the noun kira-kira ‘an estimate’ and the verb tiba ‘arrive’ to form the adverb tiba-tiba ‘suddenly’. The same would apply to adjectives which retain the word class as they experience the reduplication process, like buruk ‘bad’ to form the adjective buruk-buruk ‘very bad’ and merah ‘red’ to form merah-merah ‘very red’. The reduplication of adjectives which change the word class to function as a statement is very productive as sampled by words like baik ‘good’ to become the adverb baik-baik ‘nicely’ and jelas ‘clear’ to for the adverb jelas-jelas ‘clearly’.

<table>
<thead>
<tr>
<th>Word Class</th>
<th>Maintenance of Word Class</th>
<th>Change of Word Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nouns</td>
<td>orang-orang ‘people’</td>
<td>hati-hati ‘to take care’</td>
</tr>
<tr>
<td></td>
<td>budak-budak ‘children’</td>
<td>ribut-ribut ‘to raise the roof’</td>
</tr>
<tr>
<td>Verbs</td>
<td>makan-makan ‘eat lightly’</td>
<td>masak-masak ‘mature’</td>
</tr>
<tr>
<td></td>
<td>minum-minum ‘drink leisurely’</td>
<td>kira-kira ‘an estimate’</td>
</tr>
<tr>
<td>Adjectives</td>
<td>merah-merah ‘very red’</td>
<td>cepat-cepat ‘to hasten’</td>
</tr>
<tr>
<td></td>
<td>putih-putih ‘very white’</td>
<td>lambat-lambat ‘to be slow’</td>
</tr>
</tbody>
</table>

Table 1 Full reduplication in Bahasa Melayu

5.2 Full Reduplication in The Japanese Language

In the full reduplication process of the Japanese, all categories of independent words are fully reduplicated, be they nouns, verbs or adjectives as shown here in Table 2.

<table>
<thead>
<tr>
<th>Word Class</th>
<th>Maintenance of Word Class</th>
<th>Change of Word Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun</td>
<td>yama-yama ‘hills’</td>
<td>takai-takai (suru) ‘very high’</td>
</tr>
<tr>
<td></td>
<td>mura-mura ‘villages’</td>
<td>betsu-betsu (ni suru) ‘in separation’</td>
</tr>
<tr>
<td>Verb</td>
<td>naku-naku ‘unwilling’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>miru-miru ‘urgently’</td>
<td></td>
</tr>
<tr>
<td>Adjective</td>
<td></td>
<td></td>
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</tbody>
</table>

Table 2 Full reduplication in Japanese
In the full reduplication of Japanese, normally the i-ending is dropped, yet there is an exception in examples like takai-takai and itai-itai, which are often accompanied by the verb –suru, like takai-takai (suru) carrying the meaning of bouncing very high. The same goes with the adjective betsu meaning beza, which when reduplicated becomes betsu-betsu, the meaning of which changes to ‘being in separation’. The same would happen to the reduplication of the adjective suki ‘interest’ to become suki-zuki ‘priority’.

5.3 Full Reduplication In Bahasa Melayu and Japanese

The above discussion would illustrate that all word classes in Bahasa Melayu experience the reduplication process, and particularly reduplication of all nouns has been very productive. This morphological process can also be observed in Japanese whereby some of the nouns, the free form of some of the verbs, and adjectives, will also go through the reduplication process. The number of nouns and adjectives in Japanese that have been reduplicated, however, is not as productive as the Bahasa Melayu counterparts.

<table>
<thead>
<tr>
<th>Word Class</th>
<th>Bahasa Melayu</th>
<th>Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun</td>
<td>rumah-rumah ‘houses’</td>
<td>ie-ie</td>
</tr>
<tr>
<td>Verb</td>
<td>makan-makan ‘to eat lightly’</td>
<td>naku-naku</td>
</tr>
<tr>
<td>Adjective</td>
<td>tinggi-tinggi ‘very tall’</td>
<td>takai-takai</td>
</tr>
</tbody>
</table>

Table 3 Full Reduplication in Bahasa Melayu and Japanese

However, this comparison has shown that both Bahasa Melayu and Japanese carry the same meaning born from the class reduplication process, whereby:

i. They carry the pluralisation concept with the noun reduplication like rumah-rumah ‘houses’ and ie-ie;
ii. They carry the concept of continuous actions with the verb reduplication like (me)nangis-nangis ‘to cry incessantly’ and naki-naki (as one cries);
iii. They carry the concept of making something greater through the reduplication of adjectives, as in dalam-dalam ‘very deep’ and fuka-buka (deeply / profoundly).

6.0 Conclusion

The phenomenon of full reduplication for both Bahasa Melayu and Japanese has been elaborated earlier, which brings to light the form of full reduplication that exists in both these languages. From observation, it shows that there are some significant similarities and differences that are present in both Bahasa Melayu and Japanese. In other words, the above analysis has demonstrated that the reduplication processes in Bahasa Melayu and Japanese share a morphological pattern when they are drawn together in comparison systematically.

<table>
<thead>
<tr>
<th>Word Class</th>
<th>Bahasa Melayu</th>
<th>Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun</td>
<td>rumah-rumah ‘houses’</td>
<td>yama-yama</td>
</tr>
</tbody>
</table>
Table 4 The similarities of the full reduplication in Bahasa Melayu and Japanese

Table 4 above shows that full reduplication that exists in the word class in Japanese has illustrated one morphological similarity with the full reduplication of word class in Bahasa Melayu. In other words, all nouns in Bahasa Melayu get to be reduplicated and are very productive if compared with nouns in Japanese. What is more interesting is that they share the same concept of meaning when being reduplicated, in the form of the plural concept, continuous actions, and also intensifying meaning.

References