

Contrastive Morphological and Syntactic Analysis on Lexemes between Indonesian and English as Instruction Language in Mobile Phones

Sri Rahayu Zees

Accounting Department, State Polytechnic of Semarang

Abstract: *Instructions of how to use a mobile phone are vary from one to another device depending on the services provided in it. The instructions are construed in instructions languages using many languages available in it so the device can be used by different language users. Whatever languages used, they must perform the same instructions so the mobile phone can be operated successfully. This article discusses the similarities and differences of Indonesian and English as instruction languages in mobile phones. Instruction languages in mobile phones are provided mostly in form of words and phrases. Therefore this article discusses morphological and syntactic analysis from the lexical-based on derivative and compound words. The words are also divided into three categories; original, borrowed and inventing words. From the analysis, it is found that borrowed and inventing words are translated equally in both two languages, while original words do not have equal translation because each language has its own characteristics. There are similarities and differences on the amount of words between Indonesian and English in each instruction language used original words. The differences in the amount of words are existed because of the rules of preposition, articles, auxiliaries and compound words. The differences are also occurred in the instruction languages which have the same amount of words, because of the use of affixes, word formations on compound nouns and phrases, changes in words functions and the singular plural rules. These show that Indonesian and English apply different rules on words formation in instruction languages in mobile phones and they can create problems for users in switching languages in one device or using one language in more than one device.*

Keywords: *contrastive analysis, language instructions, lexis, morphology, syntax, original words, borrowed words, inventing words*

INTRODUCTION

Mobile phone is one of the best invention products people have ever had in connecting them from different places easily and efficiently. This need makes people all over the world consider it urgent to use this gadget in their everyday activities. This chance has initiated mobile phone companies to sell the device internationally and this automatically become the main consideration of providing more than one language for language instructions in the device to make it easy to use and friendly. English and other languages including Indonesian language are available as language instruction in one mobile phone to make users able to choose and switch the instruction language according to what language they prefer to use instantly by only selecting the language which has been provided.

At the beginning, mobile phone only functioned to make a call using audio and send messages using simple and limited words. So, all mobile phones generally have similar

instructions because they provide similar services. Due to the technology advancement, mobile phones make calls using audio and video and also send messages using pictures and long texts. Moreover, it has more functions than just to communicate. It also roles as a camera, music player, a diary to record not only words but also pictures and it is used as a reminder, a calendar, etc. Due to the complicated functions of a mobile phone, more instructions are need to be provided in it. Thus, besides the similarities, one mobile can have more or less features and instructions based on the capabilities of the device than the others. Nowadays, one person also has more than one mobile phone. This phenomena makes the user must be able to understand the instruction languages in the language chosen not only in one device but also in different devices at the same time.

At glance, switching from one language to another in a mobile phone is easy because the software of an automatic translation or automatic dictionary is available and it will be much easier if the two languages in a mobile phone are familiar to the user or switching from one mobile phone to another using one language. However, the user who has competences in two languages available in one mobile phone or using the same language in two mobile phones still faces difficulties in following the instruction or using the device(s). In fact, each mobile phone provides definition of the instructions as simply as possible in order to convey information to the widest audience. This might be because according to Culler (1976) language may differ radically from those of another. Furthermore, he stated that languages do not simply name existing categories but they articulate or organize the world differently. So, every word has something individual which make it different from other words. One word in an instruction language in mobile phone can be translated differently because it has individual property in its world. One word can represent more than one world or one world can be represented by many words (Lycan, 2008).

Indonesian and English are languages that have their own characteristics which make them different one to another. They both use Latin symbols and codes but they also have their own rules in their compositions. The English and Indonesian languages differ to their morphological organization related to the string of the alphabets or syllables in creating root words, affixes, parts of speech, intonations and stresses. They also have differences in syntactic organization such as in compound noun which reflects relations of a head word with a noun, with an adjective, with an article, with a numeral, with a participle, or the noun phrase comprises terms or phrasal units or in a system of elements and patterns that organizes linguistic expression. The differences are found in the semantic meaning of a word or sentence of the same content in both languages that can be expressed by different word order. Moreover, different culture between these two languages also embedded in the way of how they are used differently in communication which makes them have implied context.

The languages in mobile phones are aimed to give instructions to users how to use the devise easily and correctly based on the language they are familiar with. If the mobile phone is one, all languages available such in it, such as Indonesian and English, must perform and reflect the same instructions and purposes. What similarities and differences do these two languages have for the same instructions languages in mobile phones? However, one language must be different from other languages. So how can their different translation perform the same instructions? What factors do create the difficulties in switching from one language to another? Do Indonesian and English language provided in a mobile have standard varieties (Finegan, 2009) of a text type of instruction languages in a mobile phone?

METHODS

Nowadays, there are huge amount of brands of mobile phones distributed around the world and some of them are used in Indonesia. The mobile phones chosen under this study are Nokia, Samsung, Blackberry and Apple. The reasons of choosing these brands are both having English and Indonesian languages as instructions languages as this study is analyzing the contrastive morphological and syntactic aspect from the lexical-based between Indonesian and English language. Besides that, each of them has their own characteristics and features which automatically make the instructions between one to another different. The language instructions in mobile phones will be focused on lexical aspects on derivative and compounding of instructions languages using morphological and syntactic analysis (Aronoff, 1993) and the words position in compound nouns (beard, 1995). The analysis will also be done on where the words come from to find out whether they are original, borrowed, or invented to identify the translational equivalent (Finegan, 2008).

The reason of why the analysis in this study is on morphological and syntactic issues is because words are the centerpiece of language. When we think about languages in mobile phone, than typically we think about the meaningful parts of words their formation. Thus the analysis is done to find out the similarities and the differences on the amount of words between Indonesian and English because the number of words is important to find out how these two languages share the equivalent translation in number of words in simple and easy to catch instructions to fulfill the requirements of quantity without ignoring the quality and relevance of the purpose of the text in mobile phone context. Further analysis is done on the similarities and differences to find out what factors make them similar and differences. The analysis is also done to find out the equivalent translation by considering words that are original words of each language, borrowed from other languages or invented language due to the up to date trends of the mobile phone technology. In this study the samples of the instruction languages are only from the main menu and in setting features. The mobile phones used in this analysis are Nokia, Samsung, Blackberry and Apple. The analysis is done in five steps.

The first step is all language instructions in main menu and settings icon from four mobile phones are put in a table. This analysis is done to map general issues on all language instructions both in English and Indonesian in four mobile phones.

Nokia		Samsung		Blackberry		apple	
Eng	Ind	Eng	Ind	Eng	Ind	Eng	Ind
Messaging	Olah pesan	Messaging	Pesan	Messages	Pesan	Messages	Pesan

The second step is analyzing each language instruction according to the theory that will be used to find out the similarities and differences especially in the number of words as translation equivalent in a separate table.

No. of words	Instructions languages	
	English	Indonesian
1	Messages	Pesan

From this table, the differences can be clearly seen, such as the language instruction in English is different from Indonesian in applying singular plural rules. Thus the third step is grouping the language instructions according to morphological and syntactic issues to find out what factors create the similarities and differences in both the same number and

different numbers of words. The table below is the example of the analysis on affixes. All morphological and syntactic aspects are analyzed using the same table in this step.

Nokia		Samsung		Blackberry		Apple	
Eng	Ind	Eng	Ind	Eng	Ind	Eng	Ind
				Instant messaging	Pengiriman pesan instan		
						Notes	Catatan
						Reminders	Pengingat
Settings	Pengaturan	Settings	Pengaturan	Setup	Penyetelan	Settings	Pengaturan

The next step is grouping the language instructions into original, borrowed or inventing words.

original		borrowed		inventing	
Eng	Ind	Eng	Ind	Eng	Ind
notes	catatan	connection	koneksi	bluetooth	bluetooth

The last step is to find out the possibilities of the same words in one language in several devices but it is translated in different words in another language such as shown in the table below:

	<i>Mobile phones</i>	<i>English</i>	<i>Indonesian</i>
1	Nokia	Messaging	Olah pesan
	Samsung	Messaging	Pesan
2	Samsung	Sounds	Suara
	Apple	Sounds	Bunyi

RESULTS AND DISCUSSION

Each mobile has its own characteristics which make it different from the others. The differences are in the types of the devices, kinds of services, grouping of features and layouts. These automatically influence the instructions features and instruction languages. The example of types of the devices is whether the device uses keypads, scroll or touch screen. The instruction languages used will be 'select' for the devices which use keypad, 'scroll' for the devices which use scroll button, 'tap' and 'swipe' for the devices which use touch screen. Thus, the layout of the instruction features which is presented differently will create how many instruction languages and how simple or complicated the instruction languages in mobile phones depend on services and features grouping

From the analysis, it is found that there are similarities and differences in the number of words in instruction languages between Indonesian and English. In some instructions languages, Indonesian and English have the same number of words. These are the examples of the same amount of words in both languages.

<i>No. of words</i>	<i>Instruction language</i>	
	<i>English</i>	<i>Indonesian</i>
1	Messages	pesan
2	Text messages	Pesan text
3	Power saving mode	Mode hemat daya
4	Sound and alert profiles	Profil tanda dan suara
5	Set assistive input by keyboard	Setel input berbantu melalui keyboard

Although both Indonesian and English has the same number of words but they may have differences in the rules of plural and singular, additional affixes either prefix or suffix or both, position changes in compound nouns, functions changes of words, and the rules of plural and singular in countable nouns.

Use affixes

There are affixes as minimal formal elements (Baker, 1992) either suffixes or prefixes used in English and Indonesian which have their own rules to construct the words. To show the doer of the activities, English adds suffix –er to the verb while Indonesian adds peng- to the verb. To change the word from verb to noun, English usually use –ing and Indonesian usually use –an or pe-an. There is no change of a verb in imperative and affirmative sentence in English, while in Indonesian, there is no change for the verb in affirmative but there is additional suffix –kan for the verb used in imperative. From the analysis, it can be concluded that the choice of affixes are different between these two languages which cannot be automatically translated equivalently. If English only has a suffix, it does not mean that the word should be translated using suffix only in Indonesian.

no	Instruction languages		Root words		Affixes	
	English	Indonesian	English	Indonesian	English	Indonesian
1	messaging	Olah pesan	message	Olah pesan	-ing	-
2	reminder	peringat	remind	ingat	-er	peng-
3	Notes	Catatan	notes	catatan	-	-an
4	settings	pengaturan	set	atur	-ing	pe-an
5	Add account	Tambahkan akun	add account	Tambah akun	-	-kan

According to Beard (1985) lexemes or words are open classes compare to morphemes which belong to closed classes. Words do not allow zero or empty forms because they have extra-grammatical referents and lexical derivation. From the figure above we can see the open classes on root words and closed classes on affixes. Indonesian use affixes more than English. English use suffixes only while Indonesian applies both prefixes and suffixes.

Position changes in compound nouns.

If there are two words used, the position of which one will be at the first position in Indonesian is different from English.

No.	Original instruction languages		Adjective	Noun	Noun
1	English	Home screen		Home	Screen
	Indonesian	Layar depan	depan		Layar
2	English	Power saving mode		Power Saving	Mode
	Indonesian	Mode hemat daya	hemat	Daya	Mode
3	English	Instant messaging	instant		Messaging
	Indonesian	pesan instan	instan		Pesan
4	English	Nearby device	nearby		Device
	Indonesian	Perangkat yang terdeteksi	yang terdeteksi		Perangkat
5	English	My device	my		Device
	Indonesian	Perangkat saya		Saya	Perangkat

Most compound nouns consist of two nouns, or an adjective and a noun and few are related to phrasal verb (Cobuild, 1999) such as set up (English) and *penyetelan* (Indonesian) or turn off (English) and *matikan* (Indonesian). English has the adjective in front of noun while Indonesian put the adjective after noun. In English the word functions as an adjective but when it is translated in Indonesian it becomes noun. Some words in English are noun becomes adjectives in Indonesian. Possessive pronouns which roles as adjectives become pronoun in the noun position in Indonesian.

Words functions changes

In English, there are some words that have the same forms but different functions such as *contact*, *call* and *type* which can be verbs or nouns depend on the position in a sentence. The changes occur if there is an additional suffix of s for plural or the additional suffixes -ed or -ing for tenses needs, but it is possible if the word is used originally without changes. In Indonesian, there must be suffix -an or combination of prefix and suffix me-an to change the verb to be noun. But there are some words which are in root word but they have different part of speech such as 'spell check' becomes *periksa ejaan* in Indonesian. In its context, check is used as noun but in Indonesian it becomes verb. Compare to the language use outside of mobile phone context, noun is used to describe something. However in instruction languages in mobile phones, both noun and verb can mean giving instructions.

Plural singular rules

The difference also found in the construction of singular or plural on nouns. English add -s to show the number of items explained in the word is more than one while Indonesian add nothing to the root word for singular. So, the differences of singular and plural in English is the use of suffix s, while in Indonesian noun both for plural and singular use the root word only.

<i>English</i>	<i>Indonesian</i>	<i>English</i>	<i>Indonesian</i>
Messages	Pesan	App store	App store
Photos	foto	Settings	Pengaturan
Maps	Peta	Voice memos	Memo suara

Different number of words

Besides similarities, both languages also have differences in stating the instructions. As each language has its own characteristics, than differences on the language construction rules are different. The differences are found in the number of words for each instruction either fewer or more one to another. Indonesian may have fewer or more words than English. The differences are presented in the tables below:

Indonesian has more words than English:

<i>Instruction languages</i>		<i>Number of words</i>	
<i>English</i>	<i>Indonesian</i>	<i>English</i>	<i>Indonesian</i>
1. messaging	Olah pesan	1	2
2. Trackpad sensitivity	Sensitivitas kotak jejak	2	3
3. My shortcut	Cara pintas saya	2	3
4. Restore factory outlet	Kembali ke pengaturan pabrik	3	4
5. Allow data exchange when touches another device	bolehkan pertukaran data saat perangkat menyentuh perangkat lainnya	7	8

Indonesian has fewer words than English:

<i>Instruction languages</i>		<i>Number of words</i>	
<i>English</i>	<i>Indonesian</i>	<i>English</i>	<i>Indonesian</i>
1. Power off	Matikan	2	1
2. do not disturb	Jangan ganggu	3	2
3. Turn off notifications for selected features	blokir notifikasi fitur yang dipilih	6	5
4. improves accessibility for users who have impaired vision, hearing or reduced dexterity	meningkatkan aksesibilitas utk pengguna dgn keterbatasan penglihatan, pendengaran atau fisik	12	10
5. set language for display and input	ubah bahasa dan metode input	6	5

The need for nouns, adjectives, and verbs arises frequently, and additions to these categories occur freely which are called open classes while prepositions, pronouns, and determiners are closed classes (Finegan, 2008). The differences in these instruction languages are existed because of the different rules of preposition, articles, compound words and auxiliary in verbs constructions. There are some prepositions in English which do not need to be translated in Indonesian. Indonesian also does not have rules of putting the article 'the' in front of a noun. Similar to auxiliary in which Indonesian does not have rules of having verb explaining the time when the activity is executed, instead of giving adverb of time. It is also occurred in passive sentence where the English uses two words 'be + pp' while Indonesian only uses one word with prefix di- attached to the main verb. There are also some a word which contain two words in English, while in Indonesian it is translated into two different words.

Examples	English	Indonesian
Prepositions	set language <i>for</i> display and input	ubah bahasa dan metode input
Articles	<ul style="list-style-type: none"> add word to <i>the</i> dictionary power off 	<ul style="list-style-type: none"> tambahkan kata ke kamus matikan
Compound words	nearby	Yang terdeteksi
auxiliaries	<ul style="list-style-type: none"> incoming calls and new notification will <i>be read out</i> automatically <i>do not disturb</i> 	<ul style="list-style-type: none"> telepon masuk dan notifikasi baru akan <i>dibaca</i> secara otomatis jangan ganggu

There are also same words in one language which have different instruction language constructions in other languages in different devices.

	<i>Mobile phones</i>	<i>English</i>	<i>Indonesian</i>
1	Nokia	Messaging	Olah pesan
	Samsung	Messaging	Pesan
2	Samsung	Sounds	Suara
	Apple	Sounds	Bunyi
3	Samsung	Network <i>connection</i>	<i>Kondisi</i> jaringan
	Blackberry	Network and <i>connections</i>	Jaringan dan <i>koneksi</i>
4	Samsung	<i>Blocking mode</i>	Mode <i>pemblokiran</i>
	Samsung	<i>Turn off</i> notifications	<i>Blokir</i> notifikasi
5	Samsung	Security	Pengaman
	Blackberry	Security	Keamanan

Due to the computer technology advancement, there are many new words that have been added by inventing, adopting from many languages or borrowing from other languages and constructing others from elements already available. The new meanings did not replace earlier ones but extended the range of application for the respective words. Both languages have their own original languages which show the clear differences how the alphabets are strung together to form a word. For example 'write' (English) and 'tulisi' (Indonesian). The borrowed words are words use in a language which are borrowed from another language. These words are adopted from other languages. Borrowed words usually undergo adaption such as 'calendar' becomes *kalender* or 'connection' becomes *koneksi*. On the other hand the invented words are words refer to references that are used as original words of something without translating them and they are presented the way they are. These words are invented because of they are used specifically in technology context because of technology invention, for example mobile phone. Mostly the invented words are words which are used the same for all languages such as bluetooth, T-Sel Menu, XL-fitur, I-tune stores, face time, browser, internet.

CONCLUSION

The instructions languages in mobile phones are presented in form of words and phrases and small numbers of imperatives which make them simple in their uses. In its context, the instructions languages are translated in the same and different numbers of words between English and Indonesian which are influenced by types of words whether they are original from both languages, borrowed from one of them or invented by the culture of a certain mobile phone. Equivalent translation can be found only in borrowed words and inventing words, while the original words cannot be translated equivalently because these words are originally owned by each language which has its own characteristic in its morphological and syntactic aspects. The different languages between English and Indonesian in their morphological and syntactic features are from affixes, position changes, functions changes, the rules of singular-plural, prepositions, pronouns, articles, auxiliaries and many parallel translation words. These are all aspects may create problems in understanding the instruction languages in one device or one language in different mobile phones.

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