



Error analysis of arabic numeral usage by indonesian learners: contrastive studies

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Abstract

Arabic numeralia (or al-'adad) is a numerical construction that has an impact on the depth of understanding to Arabic numeral contexts adjacent to the Indonesian system. Therefore, the depth is used as the target of research in order to find and analyze the errors Indonesian learners make in forming the constructions. From the counter-analysis and error analysis, there are implications of numerals to Indonesian learners. Qualitative methods are used and focused on the use of data in the form of words, phrases, sentences, drawings, or charts and quantitative methods is focused on data expressed in terms of numbers, both nominal and interval data. From the operation of the theories and methods it is found that there are errors in the numerical control of Arabic by Indonesian learners. Quantitatively, the errors are closely related to the correlation of the linguistic domain of the learners and the depth of numerical knowledge of Indonesian and Arabic languages to numerical learning in Indonesia.

Keywords: numerals, contrastive analysis, error analysis, learning

1. Introduction

Indonesia is a productive language area. This productivity comes from cultural crosses that grow and develop along with the globalization of the universal culture. Traditionally, the arrival of foreign nations to Indonesia stemmed from the movement of fishermen boats that brought the other nations closer to the life of the Indonesian nation, whether for fishing, trading, traveling, and to religious and political affairs. Every nation came and brought the language and culture of his ancestors so that the gathering of nations brought the exchange of language and culture in Indonesia. A process of learning, even the substitution of language and culture, productively forms a language that grows and develops with the development of the language.

Language meetings from various countries in Indonesia brings up the bilingualness of Indonesian speakers. Historically, the bravery of the Indonesian nation was due to Indonesia's strategic position as the main country in the archipelago and the political agreement of Indonesian youth. Indonesia's position which lies between two continents (Asia and Australian Continents) and two oceans (Indian and Pacific Oceans) makes Indonesia the center of cross-country crossing. This condition resulted in a continuous process of language exchange until a language format was found by the native speakers spreading throughout the archipelago. This language-speaker agreement happened at the Indonesian Youth Meeting in Jakarta in October 28, 1928.

Alwi and Sugono argue that "Foreign languages in Indonesia are all languages, except for Indonesian, regional languages, and Malay-cognate languages ^[1] So the foreign languages are Arabic, Indian, Sanskrit, Chinese, Portuguese, Dutch, and English. The foreign languages' concept suggest that geographically speaking areas of foreign languages are not located in the archipelago. Nevertheless, the foreign languages

retain their legitimacy in national language politics. In fact, foreign languages function as (1) the means of communication between nations and (2) the means of utilizing modern science and technology for national development. In addition, certain foreign languages have other functions historically, for example, the Arabic language serves as the language of religious and Islamic culture in Indonesia.

Traditionally, the recognition of Arabic as an international language was started by Indonesians who traded with merchants from India and the Middle East. In fact, the depth of Islamic understanding of the community helped put the Arabic language as a religious language. Consequently, society led by scholars and learners try to learn Arabic. Learning is not easy because the two languages are different, especially the numerical construction known as al-'adad with an unknown gender background in the Indonesian language. For example, in the Indonesian language there are aku 'I', saya 'I', dia 'he/she', mereka 'they', or kami 'we' to differ both men and women. However, in Arabic there is a general rule that when the 'explained' side is masculine then the 'explaining' side is then feminine although not all numerical constructions are the same in Arabic. This condition is unknown in the language learners so that the numerical control of the Arabic language depends on the numeralialistic numeral correlation with the second language numerical learning system for Indonesian learners.

Language analysts consider the Arabic to have the supreme standard of linguistic excellence and beauty) since the language has been used as the language of the Qur'an. In fact, a special position possessed by Arabic among other languages of the world because Arabic serves as the language of Al-Quran and hadith and various Islamic literature ^[2] These conditions make the Arabic as a unifying language for Islamic depth understanding religiously, ideologically, or culturally.

2. Methods

This research was conducted in 2014-2016 at State Islamic University of North Sumatra (UINSU). The target was 100 respondents plus five persons as the reserve respondents; they are students of the Faculty of Sharia. The research method is qualitative and quantitative. Sources of data taken in this study is the variety of written language. The written Arabic language used in this research data is the fushah Arabic not the 'ammiyah' language, the official language understood by all Arab and non-Arab societies. The 'ammiyah' language or market language does not enter into this research, because the language is not recorded and is not included in the variety of written language.

Qualitative data used as the source of this research appear in the form of answers given to the questions. Questions are related to the numerical construction as words, phrases, or sentences. The population involves 100 people with random sample status.

3. Literary Studies

Numeral is a word used to calculate the concept of being (people, animals, or goods) and concepts.^[3] Numerals are two main parts, namely: (1) the cardinal number that gives the answer to the question how and (2) the numeral level (ordinal number) that gives the answer to the question how much? The word number is one of the themes discussed in grammar. The numeral is available in Arabic and Indonesian. In both languages, the numerals have similarities and differences. Among the equations is the numeral is qually used to denote the quantity, number, sequence, or set. One of the differences is that the numerals in Arabic get the influence from ma'dud in terms of mu'annaṣ and mužakkar, whereas in Indonesian the numeral does not get any effect from the word which is mentioned.

The numeral construction in Arabic has a gender pattern in its syntactic structure. In contrast, the Indonesian construction as well as the Indonesian grammar does not recognize gender in its syntactic structure. This condition is in contrast to the courtesy and loyalty tradition of palace officials, santri and religious leaders who use Malay language mixed with Arabic more pure than the general public who uses Malay. Logically, with the authority of palace officials, santri and religious leaders coupled with the majority of the Muslim population and numeral loan system loan from Arabic into Indonesian will more show the numeral structure of the Arabic language than the current Indonesian numeral structure. Therefore, the study is needed in understanding the Arabic structure and the factors that influence the determination of language loan system. This has implications for the comparison of Indonesian and Arabic using contrastive analysis.

Contrastive analysis as an approach in language learning compares between different elements with the same element. Nevertheless, the use of contrastive analysis is emphasized on different linguistic elements. This theory emerged in response to the demands of improving second-language or foreign language learning which dominated the world of second language and foreign language teaching since the end of World War II until the mid-1960s. Contrastive analysis was developed and practiced in the 1950s and 1996s, as a

structural linguistic application on language teaching^[4]. The main character who became the pioneer of contrastive analysis is Robert Lado. Lado^[5] assumes from Fries' thought for effective teaching material, and as observed, the bilingual studies and research testing are the basic assumption that individuals tend to transfer the form and meaning and distribution of the original forms and meanings of their language and culture or the language of origin into foreign languages and foreign cultures or target languages productively while trying to speak in a language and act in culture, as well as receptive while trying to understand and understand language and culture are practiced by indigenous peoples.

Contrastive analysis is an activity or activity that attempts to compare the first language structure with a second language structure to identify differences between the two languages. The differences between the two generated languages can be used as a basis for predicting and overcoming learners' difficulties in learning a second language^[6]. The grammatical system of the two languages must be compared in a planned manner so as to obtain valid and reabel results. Therefore, in this contrastive analysis, research is focused on one thing, namely numeralia construction in the Indonesian numerical sentence and the Arabic. The contrastive text raises two things, namely the existence of an element of change in numerical constructs that requires analyzing the mistakes of Arabic numerical construction learned by learners.

The issue of language transfer is interesting because there are several focus areas, such as contrastive analysis, error analysis, and translation. In the context of contrastive analysis there are two basic types of linguistics. Smith^[7] argued the application of linguistic theory involves very detailed and explicit descriptions of the language system. It must be tested strictly against the reality of language which aims to explain in several ways. This detail must also be complete so that theoretical facts that can not be calculated are not easy to set aside. The application of first-order theory in the framework of scientific references is included under the title of linguistics or 'linguistics'. This language comparison is usually used in terms of contrastive analysis to describe it.

Second, linguistic applications combine the interests of two disciplines. Psychology is interested in the behavior of language as part of human behavior and requires a systematic theory and description of a linguist called psycholinguistics. Sociologists are interested in language as a social phenomenon and require linguistics for his work in sociolinguistics. It is immediately apparent that psychology and sociology are not at all linguistic subordinates and even become independent as interdisciplines

Traditionally, contrastive analysis faces two languages compared for tracking the similarities and differences of language. Sajavaara^[8] argued there are five categories in two contrasting languages: (1) the same category of two languages is contrasted, (2) which is equivalent to a particular category of target language sought in the source language, (3) rules or hierarchy of rules in two compared languages, (4) star analysis of the semantic categories that the realization of the serface is sought in the controversial language, and (5) analysis begins with a variety of language uses.

In connection with contrastive analysis, Connor also suggests

that contrastive analysis, originally developed by Fries (1945), was then followed by Lado (1957) [5]. They both state that the mistakes made by learners who learn a second language are caused by the original language. Connor also reveals that structuralist linguists argue that contrastive analysis aims to improve language teaching.

Soedibyo mentions that Carl James (1980) defines contrastive analysis as follows: "Contrastive analysis is a linguistic study aimed at contrasting (contrastive rather than comparative) two languages and based on the assumption that language is comparable." Meanwhile, Kridalaksana^[9] argued contrastive analysis is a synchronic method in language analysis to show the similarities and differences between languages or dialects to achieve principles that can be applied in practical problems, such as language teaching and translation.

Carl James argues that contrastive analysis is the third dimension of two scleres of language diachronic vs. synchronic the field of interlanguage studies. Pike and Pike state that contrast serves to recognize component units, when the component units have been separated/analyzed. Based on the above definition, contrastive analysis is an activity or activity that attempts to compare languages to identify similarities and differences between two or more languages. The similarities and differences obtained and produced through contrastive analysis can be used as a basis for predicting or predicting learning difficulties that students will encounter.

The importance of contrastive analysis in understanding two languages makes this research use contrastive analysis as the basic framework for comparing numerical constructs of Indonesian and Arabic. The comparison is based on the opinion of Byram^[10] which states that "Contrastive analysis (CA) is a comparative linguistic domain related to the comparison of two or more languages or linguistic subsystems to determine the difference or similarity between the languages, both for theoretical purposes and for external purpose)." That is, after all the apparent similarities and differences between target language (TL) and source language (SL) may be in line with the above opinion of Subyakto-Nababan^[11] stating that in contrastive analysis there is an assumption that we can predict and describe the structures target language (hereinafter TL) that will cause difficulties in the lesson, and structures that will not cause difficulties, by systematically comparing TL and culture with the language and culture of the target language. Furthermore, Lado asserted that in comparison between TL and SL is the key location that will determine the ease of BT lessons. In this case, "The same elements similar to TL and SL will be easy for the learner, while different elements will be difficult for him." Subyakto-Nababan predicted the difficulties experienced by BT students as it relates to the difference between TL and SL. Conversely, one would not expect a problem if there were equations between TL and SL. This kind of view facilitates the learning of Arabic languages, for example- for Indonesian learners.

Based on the language situation that is based on the peculiarities of Arabic numerical construction and due to this peculiarity also makes the Arabic language learners in Indonesia difficult to master the Arabic language, the authors are interested to examine and examine the differences of

Indonesian and Arabic numerals when used in the sentence. It will be determined by the error rate of numerical control of Arabic by Indonesian learners. Based on the construction and analysis of these problems, it is found the implications of learning, how the process and the appropriate method in learning Arabic numerals in Indonesia. Therefore, this study focused on numerical construction in quantitative and qualitative written recognition in the context of the use of Arabic numerals by Indonesian learners in Medan City, North Sumatra.

4. Results and Discussion

Based on the results of questionnaires answered by 105 respondents, the following are the findings. First, the questions that many respondents correctly answered them questions number 2 and 7, that there were 61 respondents who correctly answered them. The two questions are:

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|-------------------------------|--|
| (2) Ini satu buah jam | هذه ساعة واحدة
hazihisa'atunwahidatun
'This is a watch' |
| (7) Saya mengambil lima gelas | أخنت خمس كؤوس
akhaztu khmsata ku'uusin
'I took five glasses' |

Second, the question that the fewest respondents correctly answered was the question 19 (see example (19)), and unluckily, no respondents from the Siyasa Department answered it perfectly.

- | | |
|---|--|
| (19) Dua puluh empat anak perempuan bermain | ضاعت اربع وعشرون شطة
dho'atarba'unwa'isyrunasyantotan
'24 girls were playing'' |
|---|--|

Thirdly, there are only three questions that more than 50% of respondents could answer, while the rest are noted less than 50%. The questions exceeding 50% are shown in (1), (2), and (7).

- | | |
|-------------------------------|--|
| (1) Ini satu buah buku | هذا كتاب واحد
Hazakitabunwahidun
'This is a book' |
| (2) Ini satu buah jam | هذه ساعة واحدة
hazihisa'atunwahidatun
'This is a watch' |
| (7) Saya mengambil lima gelas | أخنت خمس كؤوس
akhaztu khmsata ku'uusin
'I took five glasses' |

The number of correct answers were only 29.7% to 40.8% meaning that students distributed answers to each other. A total of 390 respondents (or 59.2%) failed to give their correct answers. About the B as the correct answer there is a drastic decline. About 70.3% of learners chose the correct answers and this indicates inconsistent method with the cultural and psychological condition of learners. The learning method in this research used the total physical response developed by James Asher (in Richards and Rodgers). With its emphasis on language, this method was combined with communicative approach.

Learners who took C as their answers were still stuck with the wrong orientation to the correct answer. This is evidenced by the emergence of 64.8% of respondents choosing wrong answers. This fact signals that the learning model needs to be changed or at least combined with other types of learning. Overall, the fact is that the use of Arabic is still inadequate. The total physical response model that is practiced is less pleasant to the cultural and psychological background of the learners. This is evidenced by the achievement of truth level answers only 34.7% and compare the error rate of 65.3% of the correct A, B, and C answers.

In this study, as comparison, three native Arabic respondents were invited from the Royal Embassy of Saudi Arabia in Jakarta. They were between 35 and 45 years old and were tutors who taught Arabic for Arabic teachers in Indonesia. The results showed that first respondent answered 22 questions correctly, the second one only gave answer to question 12, while the third respondent took four wrong answers for questions 8, 9, 11, and 19. One interesting phenomenon was that, for question 19, the Arabic respondents misrepresented.

5. Implications

In the study of Arabic numerals, the existing equation between Arabic and Indonesian languages could hopefully facilitate students in the process of language learning. However, students often faced problems when there were different choices, for example, students were reversed in matching the numerals with its ma'dud in terms of mu'zakkar and mu'anna's, and singular and plural. This difficulty is the result of language interference; Indonesian language determines masculine and feminine or all objects to be the same. Departing from these conditions, this carried implications for Arabic learning and teachers or lecturers are expected to overcome them.

Based on the facts of Arabic numerals, it needs necessary combination of learning methods, such as, the eclectic method (al-thariqah al-intiqaiyyah) (see Fachrurrozi and Mahyudin ^[12]). This method was introduced by Sweet and Palmer who emphasized the middle way to overcome the diversity of linguistic and psychological flow. In fact, they called this method a multiple line of approach or in Arabic it is called ta'addudiyah al-mudkhal (multiple-path approach).

The Arabic learning procedure could be done by utilizing the advantages of each method. Fachrurrozi and Mahyudin argued that teaching begins with the teaching of listening and speaking skills in the form of short dialogues (hiwarat qashirah), and for beginners there are usually two types of dialogue and the teaching steps might be seen in the followings:

1. Lecturer describes all materials more than once and learners listen carefully.
2. He/she pronounces each sentence and learners either in groups or in individuals follow entirely and correctly.
3. He/she explains the meaning of the material using contextual technique and methods.
4. He/she once again reads the materials and makes sure that learners understands.
5. He/she asks learners to play/demonstrate hiwar in the class.
6. He/she also asks learners to read the teaching materials in

groups or in individuals.

7. Lecture is ended with some exercises either in oral or in written forms.

The next activity can be done in numerical construction and sentence structure. Teaching materials can be delivered inductively or deductively depending on the learner's habits. If learners come from different background then inductive method can be applied. Preferably, deductive methods are taught for learners who have natural science background. Thus, learning can be adapted to the learners' daily habits. Fachrurrozi and Mahyudin argued that an eclectic method with deductive development patterns can be carried out in the following steps:

1. Introduction; learners are reminded about the cultural and psychological background of the two languages, especially about their gender system.
2. Examples are read to understand their meanings.
3. The numerical materials are discussed with instances.
4. Learners and teachers draw conclusions from what is being discussed.
5. To compare the Arabic and Indonesian numeral systems.
6. Learners should do classroom exercises or do home works.

Reading, writing, and speaking can be performed by combining the advantages of other methods. Language learning with eclectic method is essential for learning a foreign language and is incorporated with several methods.

6. Conclusions

Several conclusions can be drawn. In Arabic to change singular into plural, simply add the alif and nun morphemes or yaa and nun to the singles, for example, the word masjid 'mosque' (singular) to become masjidani 'two mosques'. Add morphemes waw and nun or yaa and nun at the end of nouns to make the masculine plural, for example, the word muwazzaf (single) 'employee' becoming muwazzafuun 'some employees'. Meanwhile, to form plural feminine just add morpheme alif and taa at the end, for example, tolibah 'a female student' to become tolibaat 'some female students'. The irregular plural is sometimes done by reducing the morpheme. Certain plural is sometimes created by adding letters and sometimes by reducing letters, for instance, the word qalam 'one pen' and aqlaam 'some pens'. Arabic does not recognize repetition.

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