# Syntax Error on Written Language in Bipa Program: A Study on Cambodian Students at Widyatama University Bandung, Indonesia

## <sup>1</sup>Heri Heryono,<sup>2</sup>Ulil Surtia Zulpratita, <sup>3</sup>Sy.Yuliani, <sup>4</sup>Ai Rosita

Abstract---Bahasa Indonesia becomes one of the most favored language for foreigner, especially in Asia. Though the language has the similar root as Malay, Singapore and several South-east Asian countries, Indonesia attracts more to the foreigners within some reasons. The study of Bahasa Indonesia for foreigners is called BIPA, Bahasa Indonesia untuk Penutur Asing. This program has continually developed since the beginning of its appearance. Foreigners who come to Indonesia in various purposes, as traveling, business or even study in some institutions. One of the institution which accepted foreigners as their student was Widyatama University Bandung. They collaborated with NPIC (National Polytechnic Institute of Cambodia) to have a join degree program in 2017 (batch I) and in 2018 (batch II). Students tended to make some mistakes in learning process. The errors were attributable to their native language (Khmer) which was basically different with Bahasa Indonesia. During the learning process in BIPA Program, syntax error occurred especially in written language when they sent information through social media (instant messaging), such as WhatsApp or Line. The research was conducted in Widyatama University during a fourmonth-program. The research focused only in Syntax level and This study was qualitative research in the form of case study.

Keywords---BIPA, Syntax Error, Written Language

#### I. INTRODUCTION

Bahasa Indonesia, taken from *Kongres Bahasa Indonesia X* in 2013, said that Bahasa Indonesia had the fourth largest number of speakers in the world. It is equal to the population number in Indonesia and also relates to the language empowerment in the country through academic level. The tourism objects in Indonesia has become the other magnet to the foreigners to visit Indonesia. It increases the opportunity of Bahasa Indonesia to be uttered or spoken rather than their native language (English, Japan, etc.), since they need to interact to the local people to get their requirements. Since then, the foreigners started to learn Bahasa Indonesia and more institutions were aware to this condition.

Foreigners who learn Bahasa Indonesian tend to deal with various difficulties. They are experienced by foreign learners both in the level of understanding (Semantics) and at the level of production (Phonetics). Difficulties at the

<sup>1</sup>University of Widyatama, Bandung, Indonesia

heri.heryono@widyatama.ac.id

<sup>2</sup>University of Widyatama, Bandung, Indonesia

ulil.zulpratita@widyatama.ac.id

<sup>3</sup>University of Widyatama, Bandung, Indonesia

ulil.zulpratita@widyatama.ac.id

<sup>4</sup>University of Widyatama, Bandung, Indonesia

ai.rosita@widyatama.ac.id

level of understanding, for example difficulty in understanding sound and word order in language sentences in Indonesia. Difficulties in words production, for example on aspects of pronunciation of Indonesian words and sentences. It happens to be problems when the two languages have different background, both in culture and form of the writing. Indonesian is increasingly being learnt by foreigners (WNA) for certain purposes. One of them is for academic purpose, professional, tourism and communication for daily life. In academic purposes, it can be seen from the rise of foreign students who learn Indonesia directly in Indonesia. They get multi disciplines degree in some institutions in Indonesia, and for that reason, they need to learn Bahasa Indonesia as daily language used for communication in classroom or in their society. They learn Bahasa Indonesia before they formally follow the education at the university they want. Indonesian language training for foreign students must be carried out since the instruction of formal teaching in Indonesian education system is Indonesia. This matter stated in regulation number 12 of 2012 (UU no. 12 tahun 2012) concerning to higher education in paragraph 3 "introductory language" (bahasa pengantar) article 37 paragraph 1. The articles and verses are as follows. "Indonesian as the official language of the country must be the language of instruction in college. "Therefore, foreign students who purpose to get study in Indonesia are collected at particular institutions to be given Indonesian language training. The training they are obtained in three stages, they are the basic, intermediate and proficient. The various purposes of learning Bahasa Indonesia for foreigners pointed to the communication purpose. BIPA program has several characteristics or even majors; daily communication proficiency, occupation area, tourism and for academic purpose.<sup>[1]</sup>

Learning Bahasa Indonesia is not only concerning to the language, it focuses also in the comprehension of the language within four basic skills of language; listening, speaking, reading and writing. Through those skills, the learners need comprehend about phonology, morphology, syntax and also semantics of the language they are learning. <sup>[2]</sup> These lead to the misspelling utterance when they learn Indonesia, misconception and misperception in understanding the morphemes and further the sentence they use in daily life. The level of linguistics that they need to be applied in learning Bahasa Indonesia for foreigners who intend to comprehend Bahasa Indonesia for various occasions as it is said before. Some institutions, through language center, conduct training both for the students/foreigners or even for the teacher who will later teach the foreigners. Some universities in Indonesia begin to conduct the BIPA program since they interested to join to study in those universities in term of getting degree in academic purpose.

The problems occur in the learning program are error in syntax and utterance when they try to communicate with the local, at this occasion, when they communicate with their instructor or teacher. The forms of mistakes or errors occurred during the training prove that the development process is necessary in order to get their awareness to the language. The errors are also defining the whole steps of the process of getting knowledge, which later prove that their understanding of Bahasa Indonesia reach the appropriate level.

#### II. FORMS OF COMMON ERRORS

Widyatama University became one of the higher institution in Indonesia that conducted the join degree program with foreign institutions, in this term of collaboration was between Widyatama University Bandung and NPIC (National Polytechnic Institute of Cambodia) in several occasions. There were carried out through two batches, both were from NPIC. The institution in Cambodia delegated ten students in the first batch and thirteen students on the second batch. They were native of Khmer and they did not have experience of staying abroad, especially in Indonesia. They joined the training of Bahasa Indonesia for about four months in Language Center of Widyatama University, Bandung.

The mistakes or errors in learning Bahasa Indonesia for the students from Cambodia were certainly on their speaking and writing. Since the native writing form of Khmer is Sanskrit, they should have recognized well about the form of Indonesia language (writing form) which is Latin form. Environment was also the factor which influenced their ability to comprehend Bahasa Indonesia. Since they stayed together at one place, the ability to communicate in Bahasa Indonesia was only applied in the classroom where they learnt Bahasa Indonesia. Common errors of writing language found in their textual language when they sent email, chat or something that related to the form of writing communication. They tend to ignore the structure of grammatical form in creating sentence, both in affirmative and interrogative form (sentences).

Common errors in Syntactic form shall be categorized as phrase and sentence structure errors. They might be found in utterance (verbal communication) and written language.<sup>[3]</sup> Those errors could be as follow:

- (a) Cultural influence
- (b) Inappropriate use of preposition

International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 02, 2020 ISSN: 1475-7192

- (c) Improper word formation
- (d) Excessive use of words
- (e) Excessive of superlative
- (f) Double plural forms
- (g) Inappropriate reciprocal use

The second common mistakes in Syntactic level are:

- (a) Subject-less sentence
- (b) Verb-less sentence (no predicate sentence)
- (c) Unfinished sentence
- (d) Double subjects
- (e) Illogical sentence meaning
- (f) Ambiguous sentence
- (g) Improper use of conjunction
- (h) Not parallel order of sentence
- (i) Inappropriate question words
- (j)

Based on the previous research, facts were found that BIPA learners did not comprehend syntactic of Bahasa Indonesia properly. Those findings were based on the amount of errors in syntactic level in the papers created by students during the training. <sup>[4]</sup> This could be an indicator of the ability of them to receive a new language to use in their daily life. During the training, students were allowed to mix their language (code-mixing) by using their own language at first, but further they should emphasize the use of Bahasa Indonesia as well more often.

In the training of BIPA program at Widyatama University, students from Cambodian averagely spoke in their native language (Khmer) for their daily communication, even in the classroom where they learnt Bahasa Indonesia. The students at the first stage of BIPA program would excessively produce mistakes or errors in various ways of forms, especially in the form of sentence they used. They were only in the first stage of program at that time, and they continuously produced errors before they really learnt about communicate to local students. Based on this situation, there were two factors which caused this thing happened. The first was characteristics of their language. The mother tongue would form the sentence automatically through their native experience of speaking, especially when they communicated with their relatives/colleagues. The second factor, the students themselves in receiving the material during the program. It came from their internal motivation in learning new language, in this occasion was Bahasa Indonesia. The affective condition was also the sub-factor that intrigued students in receiving new language. Age, nationality and educational background were not the problem, since they were at the same age, same institution and the same nationality, so, those did not matter.<sup>[5]</sup>

Students from Cambodia tended to produce misspelling sentence, even when they spoke in English. Those factors as mentioned above appeared to be the standard source of error sentences when they uttered or wrote in order to communicate especially to their instructor. Characteristics of their native language and self-empowerment motivation became the most anticipated things when learning new language, in this term was Bahasa Indonesia.<sup>[6]</sup>

Syntax errors had also been involved in cultural phenomenon to the learners who conduct new language acquisition. As the learners came from Cambodia, cultural effect on their language behavior would affect the ability in receiving new language, especially Bahasa Indonesia. Language and culture is a subordinate-relationship, which leads to the acquisition of language below the scope of culture. <sup>[7]</sup> The whole term of Cambodian learners in Widyatama University granted these combination pack of language and culture as well. They believed that learning new language in one institution would help them to acquire new knowledge, but then the effort to get the acquisition of new language was constrained by some environmental condition, as they still lived together, less interact with the local people and didn't have opportunity to get into the local (regular) class. In order to correlate the teaching of BIPA with the errors of the learners in studying Bahasa Indonesia, there are at least seven components: <sup>[8]</sup>

1. Curriculum

The main component of teaching BIPA is curriculum which directly connects to the students in classroom. The curriculum of BIPA shall be well recognized for both elements (teacher/instructor and student), since the ability of foreigner students will be different for particular country, especially the students from different system alphabet as Indonesia, (Arab, India, Cambodia, etc). The curriculum level should be adjusted to avoid the mistakes in teaching.

#### 2. Teacher/instructor

In Indonesia, every instructor who teaches BIPA for foreigners should complete the requirement of training (ToT) and receive the certificate of BIPA Teacher from APBIPA. That is kind of license to be an instructor/teacher.

#### 3. Students

The students will create their own comfort zone when they use their native language in every occasion they speak. In BIPA class, they will be pushed to speak in Bahasa Indonesia, whether the sentence or the words are incorrect or inappropriate to be used.

#### 4. Material

The material will be adjusted based on their level of acquiring Bahasa Indonesia. There are three levels, at least, *pemula/*beginners, *madya/*intermediate and *mahir/*advance.

#### 5. Technique or method

Students will get faster route to acquire language by practice. Avoid to give written theories through a book; it makes the class boring and the receiving of the language decreases. The students will be more comfortable when they are invited to make conversation with local people, as in the museum, park or even in traditional market.

#### 6. Strategy

Learning by doing will be effective as a strategy to teach the students a new language, in this case is Bahasa Indonesia. The students will remember and keep the new words in Bahasa Indonesia to communicate with the others, especially in their daily life, since they have to be survived in their environment (campus, boarding house, etc.)

#### 7. Evaluation

The evaluation should be carried out to get more valuable information about how far the students receive and acquire the language.

In analyzing the error of syntax, there are three different methods/perspectives:<sup>[9]</sup>

a. Collecting massive samples.

In this perspective, the author did collect the samples from Cambodian students by using text messages (WhatsApp and Line). There are various errors taken from those messages during the training period.

#### b. Specific samples

Based on the samples, students learnt about Bahasa Indonesia from daily life when they bought some supplies (foods) around their flat. They also sent some texts to their lecturers in the university to get information about their schedule. From those samples, the author found some errors in syntax and even semantics.

#### c. Incidental sample

This kind of sample obtained from the daily activities of Cambodian students while they joined the program in university. They used to reflectively say some words in the strain of sentence but then the sentences didn't have enough appropriate structure, as verb-less or object-less, while the sentence was transitive sentence.

Syntax errors were also found in the process of BIPA training. Based on finding, there were three mistakes based on the source of errors.<sup>[10]</sup>

1. Interference

This kind of error comes from the effect in using elements from one language while processing another language. This happened to Cambodian students while they learnt Bahasa Indonesia. They tended to use mix-code language and created error in syntax, such as:

"Pak, I have not kelas Tuesday."

This should be: "Pak, I don't have class on Tuesday."

#### 2. Intra-lingual

This is caused by the generalization of rules that are not completely proper in sentence.

The Cambodian students believed that the sentence in Bahasa Indonesia was similar to the sentence structure of Khmer, and the fact that the structure is similar, S V O. But the problems appeared were the articles (a/an, the) that sometimes vanished over using sentence.

#### 3. Developmental

This occurs when the learners build a hypothesis about the target language based on their limited experience. This happened to the learners of Cambodia when they created a sentence based on their hypothesis. They analyzed the structure of Bahasa Indonesia, then built a sentence based on it.

Based on those explanation and categorization above, it can be inferred that criteria to calculate or to predict the mistakes or errors in syntax are:

a. Intangibility

This refers to ability of comprehending the target language, in this occasion is Bahasa Indonesia. The learners will receive new language by the term of their necessity in their daily life. The Cambodian students learnt more words and sentences slowly, yet the result was unpredictable. They understood and comprehended some words and sentences that were used to speak in their daily communication.

b. Accessibility

The accessibility of one language to be acquired by the new learners will affect to the result of ability in mastering the language. Bahasa Indonesia could be categorized as the complicated language for the foreigners. Cambodian students adapted to the language more than one month during the program of BIPA. They required the tongue adaptation and adjustment before they really spoke properly in Bahasa Indonesia.

Based on those facts, from some experts in linguistics, BIPA teachers and the experience in teaching Cambodian students during a year (two semesters), there would be more explored research to question the errors in syntax for the foreigner learners in BIPA program.

#### III. ANALYSIS

Based on the field research during BIPA program, the author found some errors in syntax happened to Cambodian students. The data were taken from several sources, Line and video transcript (when the students did the assignment of making a video). During the program, the author conducted as the instructor for them, and used beginning level book as the material source. The book contained pictures as the media to be recognized instead of words. Based on the observation in the classroom, students were quite enthusiastic to the learning process. The program/class had 16 meetings during a period.

The data analysis focused on the errors of syntax happened to the students, especially in real conversation (when they asked information about the schedule, etc.).

#### Data 1:

In this section, the student (leader) asked about the schedule for BIPA training, they still texted the instructor using English, since it was the second meeting of the program.

As it could see on the screenshot taken from Line, the student asked about Bahasa Indonesia pre-test schedule, but in the form of sentence, he didn't use proper sentence structure, which was syntactically improper.

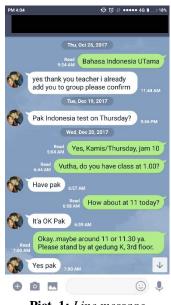
He texted, "Pak Indonesia test on Thursday?"

Based on syntax analysis, the sentence above has inappropriate structure, because the sentence doesn't have a question word as an indicator for question sentence. The sentence must be:

#### "Pak, is (Bahasa) Indonesia test on Thursday?"

In this sentence, He also didn't give comma, that makes the sentence ambiguous (semantically). The conversation was:

International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 02, 2020 ISSN: 1475-7192



Pict. 1: Line message

Another thing that the author could analyze is when the student answered the question. He answered, "*Have pak*" which syntactically improper and semantically inappropriate in meaning. The question was "...do you have class at 10?" the most appropriate answer should be, "Yes, I/we have, Pak." In this section of the answer, he didn't put the confirmation words (yes/no) to make sure about the answer. He cut the sentence and omitted the subject which led the meaning into ambiguity.

The kind of mistake is interference; it refers to an error coming from the effect in using elements from one language while processing another language. The students tried to implement Bahasa Indonesia while processing it within their native language and combining with English to result proper Bahasa Indonesia.

In the aspect of accessibility, by the example above, he took the vocabularies from (digital) dictionary, then combined as a string of words to create a sentence, in this occasion he created a question sentence. After he arranged the words, those were sent as a text to the instructor as a message. The accessibility point at this example was obviously low, yet he only at the second meeting of the program. By the end of the program, less syntax errors occurred to the text message and the communication through social media went well.

#### **Data 2:**

As it can be seen below, the student (leader) confirmed his activity after the class had finished. In this occasion, he still did a code-mixing (combining English and Bahasa Indonesia) in texting.

The sentence was," Pak, we already bought the book. We going home now.'

The sentence above could be analyzed by using syntax approach. It refers to the application of tenses in the sentence, that should be using present perfect when he mentioned the activity that had already finished at the moment. Then, the next sentence to express the activity that is in progress, he should use present continuous tense, which needs to be/auxiliary verb before the main verb going. The sentence was inappropriate and improper in the syntactic term, yet Semantically recognized. The sentences could be, "Pak, we have already bought the book. We are going home now."

International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 02, 2020 ISSN: 1475-7192



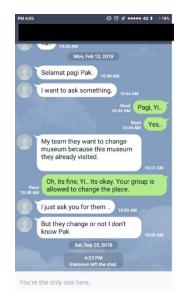
Pict. 2: Line message

It refers to *intra-lingual* aspect, which leads to the using of sentence structure: S P O (Subject – Predicate – Object) which actually similar within those two languages (Bahasa Indonesia and Khmer), but when they used English to communicate, they forgot to apply the general rules of English structure which has two kids of verbsas predicate. Based on the data sample above, there were some common errors in Syntactic form, and they might be found in utterance (verbal communication) and written language. Those errors could be as follow

- (a) Subject-less sentence
- (b) Verb-less sentence (no predicate sentence)
- (c) Unfinished sentence
- (d) Double subjects
- (e) Illogical sentence meaning
- (f) Ambiguous sentence
- (g) Not parallel order of sentence
- (h) Inappropriate question words

When they decided to create a sentence, they should think about tenses, structure of the sentence and the meaning of that. In the other hand, sentence structure that they used to interact through text message did still need to be improved, especially when they decided to use English (language) rather than Bahasa Indonesia. By this fact, the author believed that using Bahasa Indonesia wouldn't as hard as use English, since the sentence structure of those languages (Bahasa Indonesia and Khmer are basically similar).

Data 3:



#### Pict. 3: Line message

The screenshot above was taken during the last meeting of the BIPA program when they had a final task/assignment to visit museums in Bandung. This was purposed to be the real field practice of speaking, since they required to communicate using Bahasa Indonesia to the local people around the places they visited. Before the trip, they shared about their list of itinerary and the list of question to the local people.

Before the trip day, one of the student asked the instructor about the other option of the destination. She said, "*My team they want to change museum because this museum they already visited.*" Based on the syntax point of view, the sentence could be broken-down into some sections:

- 1. My team they want to change museum
- 2. Because this museum they already visit

In the first part, it can be seen that the sentence has double subjects, *my team (singular)* and *they (plural)* which will affect to the use of verb. This kind of sentence is not effective since it has two subjects. The verb refers to the closest subject, which is they, and this is syntactically correct, but when the subject *my team* that they mentioned as the primary subject, then the verb should be *wants*.

The second sentence is a form of adverbial clause by using *because* as the conjunction. The sentence has also double subjects, there are *this museum* and *they*. Furthermore, when she needed to express about the activity which had passed/done, she could use past tense. The appropriate sentence could be, *(because) they visited this museum*. By the end of this sentence, the instructor needed to process the message into the correct arrangement sentence and appropriate meaning.

This is kind of developmental factor leads the communication into vogue perception. This occurs when the learners build a hypothesis about the target language based on their limited experience. Based on the criteria, this could be categorized as intangibility where comprehending the target language, the learners received new language by the term of their necessity in their daily life.

Based on the data sample above, there were some common errors in Syntactic form, and they might be found in utterance (verbal communication) and written language. Those errors could be as follow:

- 1. Cultural influence
- 2. Improper word formation
- 3. Excessive use of words

The common errors still relate to culture that influence the students when they use language in utterance. Sometimes they still used excessive patterns or words in creating sentence which led to the ambiguous meaning.

#### Data 4:

The data was taken from the video scene where the students had a speaking practice to develop their skill and ability in conversation with the native students around Widyatama university. The theme of the conversation was *Ramadhan*. This theme was adjusted to the occasion near fasting month, to get them culturally adapt with this month. They had conversation with several local students about Ramadhan event, the situation, the definition, the food and the celebration.

Here are small scene part of the conversation:

International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 02, 2020 ISSN: 1475-7192



**Pict. 4:** Scene during speaking practice

BIPA Student (BS): Saya mau bertanya tentang ramadhan.Local student (LS) : Oh,Ramadhan, ya.BIPA Student (BS): Apa Ramadhan makanan?Local student (LS) : Makanan?BIPA Student (BS): Iya, makan apa? Makanannya.

Based on the transcription above, the sentence structure in Bahasa Indonesia was still inappropriate. Especially when the Cambodian student (he) asked about the specific or thematic food during Ramadhan. The local student seemed to be not understand about the question and she asked the Cambodian student in order to confirm the question he just asked. The sentence "*apa Ramadhan makanan*?" made some misperception to the local student, since the structure should be "*apa makanan (khas) Ramadhan*?" or in English could be "*what is the thematic/special food during Ramadhan*?"

Based on the data sample above, there were some common errors in Syntactic form, and they might be found in utterance (verbal communication) and written language. Those errors could be as follow

- (a) Unfinished sentence
- (b) Illogical sentence meaning
- (c) Ambiguous sentence
- (d) Not parallel order of sentence
- (e) Inappropriate question words

#### IV. CONCLUSION

BIPA is the training program intended to the foreigners who want to study and learn Bahasa Indonesia for various and several purposes. The subject for this program is foreigners, and they bring their culture and their mother tongue to the program since the beginning. They need to adapt with Bahasa Indonesia as their new language, and that makes errors or mistakes occur during the learning. Syntactic errors were found during the program, since this kind of errors affected directly to the daily activities, especially writing and speaking.

Based on the field research to the Cambodian students who followed BIPA program at Widyatama University, the researcher found some errors in syntax from some sources, but it was focused only on text message and video assignment they created. Common errors that happened to them were basically relate to the structure of sentences, there were some elements that appeared as follow:

- (a) Subject-less sentence
- (b) Verb-less sentence (no predicate sentence)
- (c) Unfinished sentence
- (d) Double subjects
- (e) Illogical sentence meaning
- (f) Ambiguous sentence
- (g) Not parallel order of sentence
- (h) Inappropriate question words

Furthermore, the three elements of mistakes that occurred from themselves: interference, intra-lingual and cultural (developmental) became the big concern to reveal the adversity of learning Bahasa Indonesia.

### REFERENCES

- 1. Kusmiatun, Ari. 2016. *Mengenal BIPA (Bahasa Indonesia bagi Penutur Asing) dan Pembelajarannya.* Yogyakarta: K-Media.
- Muliastuti, Liliana. 2010. "Pengembangan Materi Ajar Bahasa Indonesia Bagi Penutur Asing (BIPA)." Paper disampaikan dalam Konferensi Internasional Pengajaran Bahasa Indonesia Bagi Penutur Asing, 29-31 Juli 2010 di Universitas Indonesia.
- 3. Setyawati, Nanik. 2010. Analisis Kesalahan Berbahasa Indonesia: Teori dan Praktik. Surakarta: Yuma Pustaka.
- Yahya, Mokhamad; Andayani; Kundharu Saddhono. 2018. *Tendensi Kesalahan Sintaksis Bahasa Tulis Pembelajar Bahasa IndonesiaBagi Penutur Asing* (BIPA). *SUKMA: JURNAL PENDIDIKAN*. Volume 2 Issue 1, Jan-Jun 2018, hlm. 137-166. ISSN: 2548-5105 (p), 9590 (e)https://jurnalsukma.org/index.php/sukma/article/view/02103
- 5. Susanto, Gatut. Pengembangan Bahan Ajar Bipa Berdasarkan Kesalahan Bahasa Indonesia Pembelajar Asing (BIPA). BAHASA DAN SENI, Tahun 35, Nomor 2, Agustus 2007
- 6. Ellis, Rod. 1986. Understanding Second Language Acquisition. Oxford: Oxford UniversityPress.
- 7. Chaer, A. dan Agustina, L. 2004. Sosiolinguistik Perkenalan Awal. Jakarta: PT Rineka Cipta.
- 8. Susanto, Gatut. Pengembangan Bahan Ajar Bipa Berdasarkan Kesalahan Bahasa Indonesia Pembelajar Asing (BIPA). BAHASA DAN SENI, Tahun 35, Nomor 2, Agustus 2007
- 9. Ellis, Rod. 1995. The Study of Second Language Acquisition. Oxford: Oxford UniversityPress.
- 10. Krashen, Stephen D. 1981. Second Language Acquisition and Second Language Learning.Oxford: Pergamon Press.
- Volskaya, Y.A., Kurtasanova, E.S., Budarina, N.O., Oshchepkova, E.S., Ilchenko, M.V. Psychological features of stress in pregnant women(2018) International Journal of Pharmaceutical Research, 10 (4), pp. 247-249. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85057201726&doi=10.31838%2fijpr%2f2018.10.04.037&partnerID=40&md5=d1b477c5d1e86f7f545605dcf18 d258e
- Hewageegana h. G. S. P, arawwawala l. D. A. M., ariyawansa h. A. S, tissera m. H. A, dammaratana i. (2016) a review of skin diseases depicted in sanskrit original texts with special reference to ksudra kushtha. Journal of Critical Reviews, 3 (3), 68-73.
- 13. Baldi A. "Computational Approaches for Drug Design and Discovery: An Overview." Systematic Reviews in Pharmacy 1.1 (2010), 99-105. Print. doi:10.4103/0975-8453.59519