SKALA IMPLIKASIONAL DAN BASANTARA BELANDA-INDONESIA

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ABSTRAK

Skala implikasional bagai jendela bagi perkembangan basantara (*interlanguage*) yang mencerminkan pergulatan minda pelajar bahasa kedua. Skala implikasional berisikan kolom-kolom. Kolom bawah mengimplikasikan kolom di atasnya. Yang bawah merupakan syarat untuk yang di atasnya. Jika kolom atas terisi tanda "+" (yang berarti konstruksi yang dimaksud dikuasai), kolom-kolom di bawahnya juga harus terisi "+". Skala implikasional dengan demikian dapat digunakan untuk memprakirakan penguasaan suatu konstruksi. Penelitian ini berancangan kualitatif. Informan merupakan pelajar bahasa Belanda sebagai bahasa kedua. Data dikumpulkan dari tes percakapan. Data berupa kalimat. Teori Keterprosesan, teori yang digunakan dalam penelitian ini misalnya, menggunakan skala implikasional dalam menyajikan hasil penelitiannya. Konstruksi basantara Belanda-Indonesia (V-akhir 'verba pada akhir kalimat), sebagai contoh, merupakan konstruksi yang paling sulit diproses dibandingkan konstruksi yang di bawahnya sehingga, jika konstruksi itu berisi tanda "+", dapat diprakirakan bahwa semua kolom di bawahnya juga akan terisi tanda "+". Hasil penelitian membuktikan bahwa skala implikasional dapat menjadi petunjuk tentang penguasan sintaksis basantara Belanda-Indonesia berkenaan dengan konstruksi Adv (bentuk awal dari konstruksi inversi), konstruksi Sep (inkorporasi), kontsruksi inversi, dan konstruksi verba di akhir.

Kata kunci: *Skala Implikasional*, *Basantara*, *Teori Keterprosesan*, *Bahasa Kedua*

ABSTRACT

The Implicational scale is a window for the development of interlanguage that reflects the struggle of second language learner. The implicational scale consists of columns. The column below implies a column above. The column below is a requirement for the above one. If the top column is filled with a "+" sign (which means the construction is acquired), the columns below must also be filled with "+". The implicational scale can thus be used to forecast the mastery of a construction. This research is a qualitative study. The informants are Dutch learners as a second language. The data are collected from conversation tests. The data contain sentences. Processory Theory, the theory used in this study for example, using implicational scale in presenting the results of the research. The construction of the Dutch-Indonesian interlanguage (V-end 'verbs at the end of the sentence'), for example, is the most difficult construction to process than the construction below, if the construction contains a "+" sign, it can be estimated that all the columns below will also be filled with a "+" sign. The results show that the implicational scale can be an indication of the acquisition of Dutch-Indonesian interlanguage syntax with respect to Adv construction (the initial form of inversion construction), Sep construction (incorporation), inversion construction, and verb-end construction.

Keywords: *implicational scale*, *interlanguae*, *Processability Theory*, *second language*

1. INTRODUCTION

This article focuses on the psycholinguistic study of the syntactic aspects of Dutch-Indonesian interlanguage. The study is based on the interlanguage syntax observed in oral tests of thirty Indonesian learners of Dutch as a second language, and has as its purpose to test the processability theory of Pienemann (2005a, 2005b, 2005c and 2007). This research, as supposed by the theory, uses implicational scale as instrument to explain the development of interlinguage (IL) syntax. The scale can predict the development of syntactic skill (skill in the word order of sentences) of the L2 learners. The results of the study provide evidence for the correctness of Pienemann's theory. Learners who have acquired sentences with the highest level of processing will also already have acquired sentences with a lower level of processing. The results from learners with a high level of proficiency in Dutch verify the processability theory with more certainty than the results of learners with a lower proficiency. Learners tend to rely on meaning if they are not confident of their grammatical proficiency. Interlanguage is the result of the immediate need to encode in the mind concepts and ideas into the form of linguistic items, within a fraction of a millisecond, whilst the supporting means are limited, and whilst learners already have acquired a first language and possibly another language as well.

2. THEORY AND METHODOLOGY

2.1 Processability Theory

The Processability Theory (hence PT) is a theory about the development of second-language proficiency in second-language learners (L2-learners). According to the theory, L2-learners produce and understand linguistic elements that can be processed at one time by the language processor in the memory. Therefore it is important to know how the composition of the language processor looks and how the language processor processes the L2. In this way one introduces development of second-language skills of learners for peeling as regards the production and understanding of language (Pienemann 1998a, 1998b, 2005, 2006, 2007, Jordan 2004, VanPatten and Williams 2007, Alhawary 2009, Riyanto 2010).

The PT aims to form hypotheses about the universal hierarchy of different strategies in the processing of language, as regards the procedural skills necessary for the acquisition of the target language. The process is performed by a language processor at the head of the L2 learners (Pienemann 2005: 3). So one can predict and verify the stages of the T2 acquisition.

The composition of the language processor is responsible for language processing in real time and is determined by psychological factors, such as the retrieval of words from the mental lexicon and from working memory. Research into L2 acquisition now takes into account the language processor, so that attention should also indicate the corresponding psycholinguistic factors.

These affect the processing of a language, including a second language. The PT has a hierarchy in the processing of language in the minds of language learners (processing hierarchy). This is based on the idea that an exchange occurs in the grammatical information in and between phrases in the sentence (Pienemann 1998a, 2005). The grammatical information 'third person singular' is awarded to *de kleine Peter* (the little Peter) and *gaat* (goes) in sentence *De kleine Peter gaat naar de bakker* (the little Peter goes to the bakery). They are called the congruence relation between the subject and the verb.

According to the Lexical Functional Grammar (LFG) and the theory of Levelt (1989) on language production the language processor explores wheter *de kleine Peter* and *gaat* have the same grammatical information. The information 'third person singular' in the language processor preserved. The verb *gaat* has the information 'third person singular' corresponding to the grammatical information of *de kleine Peter*. The language processor compares the two with each other. If they match, the two phrases together form a grammatical sentence. The L2 learners should develop procedures for such grammatical information to store and compare. They learn to decide whether a sentence is grammatical or not. In the sentence *De kleine Peter ga naar huis* (The little Peter go home), *de kleine Peter* has the information 'third person singular' but the verb 'first person singular'. The two phares do not match. In Dutch, the subject and the verb agree in person and number. The sample sentence is a sentence in interlanguage. The L2-learner that produces the sentence has not acquiered 'the agreement between the subject and the verb'-rule. That the L2-learner chooses *ga* instead *gaan* (to go) is an achievement, but he shoots just too short.

The same principle applies to the information within a phrase, for example, *twee boeken* (two books). The information 'plural' is present in *twee* (two), and *boeken* (books). In Dutch, the grammatical information has to match to form a nominal phrase. Beginning Indonesian L2 learners of Dutch still produce *twee book* (two book). In LFG is this process called 'feature unification'.

The above examples show the processing hierarchy seen in the PT. The grammatical information within a sentence is compared with the information between phrases. Within the

phrase, the grammatical information of one word must match with the other word in the same phrase, and this is done prior to the formation of a sentence.

The process of the grammatical conformity takes place in a certain sequence. This is the principle of the processing hierarchy. The nominal phrase is assembled before the verbal phrase. Then, the sentence composed. A word is a category, eg 'noun', 'verb' and the categorical process is the gathering place for the grammatical information such as 'singular', 'past'. Therefore, the categorial procedure is processed before the procedure of the nominal phrase. The first version of the processing hierarchy is as follows (Pienemann 1998a, 2005):

1. No rocedure: e.g., producing a simple word *ja* (yes).

2. Categorial procedure: e.g., adding a past-tense morpheme to a verb *-te* for *werkte* (worked).

3. Nominal phrase: e.g., matching plurality as in *twee woorden* (two words).

4. Verbal phrase procedure: e.g., moving an adverd out of the verb phrase to the front of a sentence: e.g., *Morgen ga ik naar Leiden* (Tomorrow I go to Leiden).

5. Sentence procedure: e.g., subject-verb agreement: *ik ga* (I go), *hij gaat* (he goes), *wij gaan* (we go).

6. Subordinate clause procedure: e.g., use of subjunctive in subordinate clauses triggeed by information in a main caluse: *Ik zeg dat hij morgen naar Leiden gaat* (I say that I go to Leiden tomorrow).

The basic hypothesis underlying PT is that learners develop their grammatical inventory following this hierarchy for two reasons: (a) the hierarchy is implicationally ordered, that is, every procedure is a necessary prerequisite for the next procedure; and (b) the hierarchy mirrors the time-course in language generation (Pienemann 2007:141). Therefore the learner has no choice other than to develop along this hierarchy. Phrases cannot be assembled without words being assigned to categories such as "noun" and "verb," and sentences cannot be assembled without the phrases they contain and so forth. The fact that learners have no choice in the path that they take in the development of processing procedures follows from the time-course of language generation adn the design of processing procedures. For example, if learners are in stage 3 of pocessing (they can only exchange information in a phrase), they find problems to produce a sentence, because they have to exchange grammatical information between phrases.

2.2 Methodology

The methodology used in this research is qualitative. The informants consist of students of Dutch Department of Universitas Indonesia. In May 2007, they have done the exam *het Certificaat Nederlands als Vreemde Taal* (CNaVT) (the Certificate Dutch as a Foreign Language). They were sitting on the second, fourth, sixth, and eighth semester. In the study, the group formation is not based on their semesters but on the profiles of the CNaVT exam, namely PTIT (tourist profile, A2), PMT (social profile, B1), and PTHO (higher education profile, B2). There came ten informants eligible for each profile. The choice was based on their test results, i.e. weak, average, strong informants.

The data consist of spoken material for the CNaVT exam, called C-section. The examiners of the exam in May 2007 were the lectures of Dutch Departement of Universitas Indonesia and teachers of *Erasmus Taalcentrum* (the Erasmus Dutch Language Centre) Jakarta. The recording is restarted manually recorded at the headquarters of the CNaVT at the Katholieke Universiteit Leuven in late September 2009.

The theory makes use of the so-called implicational scale for research to present (Pienemann 1998a and 2005b). The scale can predict the development of syntactic skill (skill in the word order of sentences) of the L2 learners. The V-end construction, for example is the hardest structure to process in the minds of language learners in comparison with other structures. If they have acquired the construction (in the column you see a "+"), they have also acquired the other simpler structures. The following columns must also stand the plus sign. The plus sign means that the structures are acquired (at least 70% good). The interlanguage is under development, so one does not strive for a higher percentage.

2.3 Literature Review

Interlanguage is a language system that has developed in the minds of language learners that learn a second language (Richards and Schmidt 2002: 267, O'Grady and Archibald 2005: 401, Wray and Bloomer 2006: 54, Tarone 2000: 182 , Tarone 2006: 747). Elis and Bark Houses (2005) speak of a language learner. In the mind of the L2 learner there is a grammatical system different from L1 (first language) or L2. The grammatical system is a natural language, so the interlanguage is also controlled by the same principle as all natural languages. The grammar is an approximative system (Nemser 1971) or interim grammar (temporal grammar). Corder (1971) uses the term *transitional idiosyncratic dialect* and Cook (2001) *learner language*.

The term interlanguage was first proposed by Selinker (1969). The theory loaded article on interlanguage is Selinker (1972). Selinker's paper (1972) was considered seminal and referred by many interlanguage researchers since its inception to the present day. He humbly assumes that he has only rediscovered the interlanguage (Selinker 1997) because implicitly this topic has long been discussed for example by Fries (1945), Weinreich (1954), Lado (1957), followers of contrastive analysis and error analysis, Corder (1967, 1981), and Buren (1972).

With regard to the interlanguage Selinker (1972: 214) stated: ". . . the existence of a separate linguistic system based on the observable output which results from a learner's attempted producion of a TL norm. This linguistic system we will call 'interlanguage' (IL)". From Selinker's statement it can be concluded that interlanguage is an independent system, as a result of the learners' effort to produce speech according to the target language. The opinion that interlanguage is an independent linguistic system is also followed by Jakobovits (1970) and Nemser (1971). Corder (1967, 1981) initially assumed that basantara originated from B1, but then he argued that in the learners' mind there was a systematic built-in syllabus and an independent linguistic system. It is called transitional competence different from L1 and L2 or is a combination of teh both. The term interlanguage was made by Selinker after a long discussion with Corder.

Selinker (1972: 213) focuses his analysis on the data that can be observed and generalized to built a theory. The data is a speech uttered by the learner when he tries to express the meaning with a sentence in L2 that is different from the original speaker's utterance when expressing the same meaning. However, what is described is the psycholinguistic structure and process underlying the meaningful and meaningful expression of the learner and expressed in L2 (Selinker (1972: 210); he calls it *attempted meaningful performance*. These situations arise as adults attempt to express meaning in the language they are learning. It is here that Selinker is a follower of the mentalist school who considers the process of language to be in the mind and theories of the language knowledge that exists in the mind, but because the processes that occur in the mind can not be captured by the senses, utterances are made as objects, as a result of language activity. Selinker initially requires interlanguage research data in the form of speech data, but on the development written data is also allowed.

According to Tarone (1999: 507) the main purpose of the interlanguage study is to explain the difference in the learning process of L2 by children and adults, especially describing and explaining the development of interlanguage, and also explaining the failure

of learners to achieve the same level of target language and even the interlanguage is fossilized.

3. ANALYSIS AND DISCUSSION

3.1 PTIT (Tourist Profile, A2)

From Table 1 we see that four informants can manage the Inv-construction. Informant PTIT 1 has acquired Inv but not Sep because the informant produces less than four Sep-construction (hence sees "/") so there can not be determined whether he has controlled the construction. If he does not master the structure one sees "-" and when one sees under a plus mark a minus mark then is the Processability Theory false. The mark "/" has put the theory into safety.

Table 1. Implicational Scale PTIT

Stadium	1	2	3	4	5	6	7	8	9	10
6. V-end	−	−	−	/	/	/	−	−	−	−
5. Inv	+	−	−	−	−	−	+	+	−	+
4. Sep	/	/	+	+	+	+	+	+	/	+
3. Adv	+	+	+	+	+	+	+	+	+	+
2. Can	+	+	+	+	+	+	+	+	+	+
1. Word	+	+	+	+	+	+	+	+	+	+

Explanation:
1 = learner PTIT 1
2 = learner PTIT 2
and so on.

It can be concluded that the learners are no longer fixated on the sentence patterned S-VF. The uttered sentences have a varied patterns. They have acquired the basic sentence patterns and then they can produce more complex sentences in Dutch. The canonical sentence pattern is indeed a sentence that is, in line with Prosessability Theory, the most easily processed sentence.

Most of the learners were able to process the Sep-sentences even though it still looks FV with its verbal complement not yet far apart. The learner still takes the prepositional phrase out of the structure so that it is behind the verbal complement. It is grammatical in Dutch, but marked.

Four out of ten PTIT learners were able to process sentences with Inv-construction while six students did not master the constriction. Six of them were trying to escape from the

canonical construction by placing other constituents in front of a sentence other than the subject, but unfortunately he did not put S behind the FV.

V-end construction is the most difficult to process. Nobody out of ten learners took over. There were learners who produce many complex sentences, but they did not embed the conjunction at the beginning of their dependent clause and some of the predicates are not placed at the end of the clause. Other students could not process the construction because they did not move the finite verb to the back of the sentence.

3.2 PMT (Social Profile, B1)

Table 2 indicates that all learners have mastered the Sep-construction. Indonesian language does not have the construction. It seems that students are quite easy to master it because the construction is quite different from the first language. What is needed in that construction is simply moving the verbal complement away from the finite verb and placing it in the back of the sentence. S and FV remain close together. So, the construction is actually still similar to the canonical construction so it is easily processed and therefore relatively quickly acquired by the learners.

Table 2. Implicational Scale PMT

Stadium	1	2	3	4	5	6	7	8	9	10
6. V-end	–	–	–	–	–	/	–	–	–	/
5. Inv	/	–	+	–	–	+	+	+	+	+
4. Sep	+	+	+	+	+	+	+	+	+	+
3. Adv	/	+	+	+	+	+	+	+	+	+
2. Can	+	+	+	+	+	+	+	+	+	+
1. Word	+	+	+	+	+	+	+	+	+	+

Explanation:
1 = learner PMT 1
2 = learner PMT 2
and so on.

Student PMT 1 is unable to process sentences with a V-end construction and is unable to produce four sentences with Inv or Adv construction. He did not dare to get out of the canonical pattern. Luckily, he mastered the Sep-pattern so that the shortcomings could be covered slightly. Students of PMT 2, 4, and 5 are only capable to acquire the level of Sep-construction. Student PMT 8 is actually trying to make six complex sentences, but they all fail because the FV is not moved behind the sentence away from S. Student PMT 9 produces

eight complex sentences, but only three actually have an embedded clause with FV behind the sentence.

Among the constructions of Sep, Inv, and V-end are obtained the mean percentage of 93,74%, 75,07% and 37,00% respectively. It can be concluded that the students of PMT are able to process Sep and Inv constructions, but they have not been able to process the V-end. With the other perspective, the learner considers the most easily processed is Sep-construction and the most difficult is V-endl construction. It is also in accordance with the prediction of PT. The results can be used in the presentation of teaching materials to students. The Sepa-construction is given earlier than the Inv and at last V-end construction.

3.3 PTHO (Higher Education Profile, B2)

From Table 3 people can see that the complete ability until the final V-construction is only a learner of PTHO 1 and he gets the lowest score for the PTHO exam. He also still sits in the 4th semester. The tests were held in May 2007, so he studied Dutch for approximately 3.5 semesters. The PTHO 8 learner who scores high enough for the PTHO conversation test is only able to construct the Inv. She sits in the 6th semester. The PTHO 10 learner sit in the 4th semester but he gets the best result, but he only acquires the level of Sep-construction; he has not been able to use the Inv construction. The PTHO 9 learner sit in the 4th semester and gets a high score and is only capable to costruct Inv. Two students of the 8th semester have not been able to use the V-end construction, even the PTHO 6 learner is still in the level of the Sep construction.

The implicational scale in Table 3 proves the correctnes of the prediction of PT. If in stage 6 is filled "+", the columns below must be all "+", which means that the constructions in question are acquired. If the student mastered the V-end construction, he also mastered the Inv, Sep, Adv, canonical, and one-word construction. This is proven in the PTHO learner 1. If the top column contains +, the columns below can not be filled by "-". That is proven. If the column Inv is filled by "-", the box above (V-end) must also be filled by "-". This was proven to the students of PTHO 3, 4, 5, 7, and 9. From the table can be concluded that the learners who took the PTHO test were mostly reach the stage of Sep. All the students mastered the construction. There are even students who are already in the 8th semester but their stage is still Sep. Inv construction is still difficult for them and the most difficult is the V-end construction. They studied Dutch every day for over 5 semesters and even over 7 semesters, listening and looking from audio-visual equipment, listening to lecturers'

explanations, reading Dutch texts, but their average ability only reached the level of construction of Sep.

Table 3. Implicational Scale PTHO

Stadium	1	2	3	4	5	6	7	8	9	10
6. V-end	+	–	–	–	–	–	–	–	–	–
5. Inv	+	+	–	–	–	+	–	+	+	–
4. Sep	+	+	+	+	+	+	+	+	+	+
3. Adv	+	+	+	+	+	+	+	+	+	+
2. Can	+	+	+	+	+	+	+	+	+	+
1. Word	+	+	+	+	+	+	+	+	+	+

Explanation:
1 = learner PTHO 1
2 = learner PTHO 2
and so on.

Four PTHO leaarners get percentages above 70%, so that on average they acquire the three constructions. The PTHO 1 student reaches the highest percentage, although when he gets the lowest score for his conversation test. The PTHO 10 student gets lowest percentage, even though he scored the highest score for the test among nine other students. Students who are already sitting in the eighth semester also do not reach the percentage of 70%.

The mean percentage of constructions of Sep, Inv, and V-end is respectively 96.03; 57.19, and 37.06 in PTHO. Most used are Sep-constructions and least V-end constructions. The Sep construction produces the most interlanguage in the performance analysis, the V-end construction produces at least interlanguage, while the Inv construction is in between. Indeed, the most students produce the Sep construction.

4. CONCLUSION

The implicational scale is suitable instrument to explain the development of IL-syntax. Learners who master the hardest processable sentences, also mastered the easier processable sentences. The result of this study has proven the sustainability of Processability Theory. The result of learners with good syntactic skill supports the theory with more certainty than the result of learners with low syntactic skill. The result is consistent with the study of such Kawaguchi (2005) to between language Japanese-English, Mansouri (2005) to between language Arabic-English, Zhang (2005) to between language Chinese-English, and Håkanson (2005) to between language Swedish Syrian, Swedish-Karamanji, Swedish, Turkish, Swedish, Arabic by children.

The informants control one word construction, canonical construction, and Adv-construction. They have taught Dutch minimum 1.5 semesters (intensive) and maximum 7,5 semesters. Indonesian also has the three constructions. In a one word construction they do not take into account the exchange of grammatical information. There is a direct relationship between the form and meaning so that the informants process the word easy. In other words, there is a mapping between the form and meaning.

The informants PMT perform better than PTIT. Six informants can manage Inv and Sep. The implicationele scale is nicely filled in with plus marks. Informant PMT 1 does something strange because he/she produces less than four sentences with Adv-construction so that one can not determine his mastery of the structure. The informant has also put the theory into safety. In implicational scale of PMT, there are four "/" marks.

The implicationele scale of PTHO is best filled. One sees no "/" anymore. The PTHO informants produce more sentences than the other groups of informants. Their performance is still almost the same as PMT. They can process the Sep-construction well. Five informants can manage Inv-construction. One informant can control V-end.

The adjustment of the grammatical information between the words and between the phrases remains with the informants a stumbling block. At the interlanguage sentences grammatical information is not always shared. To be good Dutch sentences they must take into account the proper exchange of grammatical information. At the initial stage of the interlanguage, the language learners further pay attention on the meaning than in the grammar. The meaning must be expressed by means of linguistic elements and grammar makes the organization of meaning efficient and effective. Riyanto (1990) examined that Indonesians speakers of the Dutch look meaning more than the grammar while the first language speakers of Dutch have done the opposite.

The Processability Theory plays too safe. The theory determines the rate of 70% as minimum control in Sep, Inv, and V-end. With such a percentage is difficult to put the theory to challenge. The theory should open up a higher percentage, eg 80%. With a higher percentage, the result of the study may look different. The theory fits with earlier beginning language learners. For the advanced or near-native one has a much higher percentage, for example 90%. This is a challenge for further research.

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