

Early Lexical and Grammatical Development of English in Indonesian Kindergarten Children

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Abstract

This paper is an investigation of how children in Indonesian kindergarten develop their English as a foreign language (EFL) through classroom interaction. It examines the acquisition of early English lexicon and grammatical development focusing on plural expressions. Processability Theory (Pienemann) and Interactionist Approaches (Long and Robinson; Doughty and Williams) were used as the theoretical frameworks. The data were collected at a kindergarten which offers a bilingual programme in Bandung, West Java, where Sundanese is the major language and Indonesian is the national language.

The participants comprised of Group A (ab initio, children aged 4 to 5 years) and Group B (2nd year, children aged 5 to 6 years) as well as their teacher. This study focused on the analysis of data gained from five children, each in Group A and Group B. In Group A, the Developmentally Moderated Focus on Form (DMFonF) instruction (Di Biase, "Focus-on-Form and Development in L2 Learning") was introduced as part of the syllabus in the classroom experimentally while in Group B, the teacher continued the same regular teaching instruction which was not DMFonF. The DMFonF instruction in this study focused on the acquisition of plural marking on noun.

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Data were collected before and after the DMFonF instruction (i.e., pre- and post-test) and distributed over one semester. Classroom interaction was audio and video-recorded. To elicit the lexical and grammatical structures from the children, they were audio recorded individually in pre- and post-test through communicative tasks.

The data were processed using ELAN annotation tool for video and audio resources and KWIC concordance software. Group A children's lexical and grammatical development were assessed based on their pre- and post-test results. Also, Group A children's data were compared against the results provided by Group B children, who were three semesters ahead of Group A but had not received DMFonF instruction in their kindergarten English programme. The results from this study contribute to understanding early English education in Indonesia and other Asian countries which promote learning English from an early age.

Keywords

English, lexical and grammatical development, Processability Theory, Developmentally Moderated Focus on Form, plural development, Indonesian kindergarten

Introduction

The aim of this study is to investigate the language development in English as a foreign language (EFL) among Indonesian kindergarten children. In Indonesia, English is taught as a compulsory subject from junior high school to university level (Sulistiyo 5). However, there are some kindergartens and primary schools, particularly in the metropolitan areas, that teach English as part of the curriculum. Parents who are aware of the importance of English for the future of their children are more likely to select kindergartens and primary schools with English programmes for several reasons (Djuharie 41). Firstly, parents are keen for their children to speak English as early as possible because they believe that an early start will make it easier for them to master the language (Djuharie 41; Muñoz 240). Secondly, there is an assumption that children can learn faster than adults (Djuharie 41). Therefore, it is interesting to examine the acquisition of English from the early start in Indonesian kindergarten children in their English programme at school.

Participants included 10 kindergarten children and their teacher. The school has a three-hour per day English as a foreign language programme for Kindergarten Group A (beginner) and B (upper) on school weekdays. The kindergarten is located in a middle-class residential area in Bandung, the capital city of West Java province, Indonesia.

In the delivery of the English programme, the teacher uses both English and Indonesian as instructional languages. The school establishes the themes for the English programme which align with the general kindergarten educational programme but there are no detailed linguistic modules in the

syllabus. Therefore, the teacher works out the details of the syllabus based on the themes given by the school.

Children in this kindergarten have acquired Indonesian and Sundanese before they begin school. Indonesian is the national and official language of Indonesia (Steinhauer 773) and Sundanese is the vernacular language used by the community in West Java regions for daily conversation (Indrayani 31). This study investigates how these kindergarten children learn the lexicon and grammatical forms of English purely from instruction. Tomasello believes that “learning words and learning grammatical constructions are both parts of the same overall process” (93). This means that in learning a second or foreign language, learners need to acquire competence in lexical and grammatical forms in order to produce and comprehend sentences. Studies on English as a second language (L2)⁵ focusing on teaching and learning processes in young children are very limited, particularly in Indonesian kindergarten. Thus, this project intends to bridge this research gap.

The current research uses Pienemann’s Processability Theory (PT, henceforth) as a metric for second language development and introduces a Developmentally Moderated Focus on Form (Di Biase, “Focus-on-Form and Development in L2 Learning”) basis to the curriculum. These two theoretical approaches allow for a specification of what language elements to focus on at what particular development point of the learner’s developmental path. At the analytical level, the interactionist approach (Long and Robinson 22) which assumes interaction as a driving force for language acquisition will be used to study child-teacher, child-researcher and child-child verbal exchanges.

An earlier study on such lines was conducted in Australian schools by Di Biase (“Focusing Strategies in Second Language Development: A Classroom-Based Study of Italian L2 in Primary School” 99; “Focus-on-Form and Development in L2 Learning” 198-99). The current study, however, differs from Di Biase’s one in several ways: (i) the population: the participants of this research were much younger (4 to 6 years old kindergarten children) as against upper primary grades (grade 3-5); (ii) the learning environment and the languages involved: Indonesian-Sundanese bilingual children in Bandung, West Java learning English as a foreign language (L3) as against Australian-English speaking pupils in an Italian L2 programme in Sydney; (iii) the involvement of the school community: a single kindergarten with a detailed analysis of language development of individual children in the English programme as against three primary schools in Sydney with an Italian community-supported Italian programme.

⁵ In this paper, the term L2 is used to refer to any language learned after the first language (cf. Ellis *The Study of Second Language Acquisition*).

Given this background, the current paper addresses two research questions:

- a. What lexical items and grammatical forms can Indonesian children produce from instruction in English L2 in their kindergarten?
- b. Are there any differences in the lexical and grammatical development of the two groups under consideration, i.e., Group A children, who have received three months Developmentally Moderated Focus on Form (DMFonF) instruction, and Group B children, who are three semesters ahead of Group A but had not received DMFonF instruction during their first and a half year of English programme?

Expected outcomes are, firstly, obtaining new evidence on English lexical and grammatical development in the context of Indonesian kindergarten children; secondly, the applicability of DMFonF at kindergarten level and processability theory and interactionist approaches as analytical tools. Outcomes are also expected to inform issues of curriculum and strategies that are suitable to kindergarten children learning the L2 as the study broaches the issue of learning efficacy. Finally, this research may be in a position to offer some recommendations to help improve kindergarten English programmes, thus contributing to understanding early English education in Indonesia and other Asian countries which promote English learning from an early age.

Language Context: Indonesian, Sundanese and English

The language context of the participants in this study involves three languages: Indonesian, Sundanese and English. Indonesian and Sundanese belong to the same Western-Malayo Polynesian branch of the Austronesian family (Tadmor 791), while English belongs to the Germanic group of the Indo-European family (Hawkins 51; Baldi 23). Since the development of English lexicon, particularly plural marking (morphology) and the English noun phrase (syntax) are key objectives in the current study, the language sketches highlight features that may be problematic for the children.

1. Indonesian

Most languages in Southeast Asia, including Indonesian, are classified as optionally marking plural in nouns denoting human, non-human animate and inanimate nouns (Haspelmath). Indonesian plurals are expressed in various forms of reduplication: *rumah-rumah* “houses,” where the noun stem is repeated (Sneddon 16-17); *lauk-pauk* “side dishes,” where the initial word is reduplicated by changing the first letter (Sneddon et al., *Indonesian Reference Grammar* 25); and *buah-buahan* “fruits,” where the initial word is repeated by adding the suffix *-an* to indicate a collection of items (Dardjowidjojo and MacDonald 68). Plurality

in Indonesian may also involve phrasal constructions with numeral classifiers such as *lima (ekor) sapi* “five (classifier/CL ‘tail’) cows” and *lima (orang) guru* “five (CL ‘people’) teachers” (Dalrymple and Mofu 230) and adding the word *para* or *kaum* before noun (Alwi et al. 284; Dardjowidjojo and MacDonald 127). The word “*para*” refers to a group of people such as *para murid* “students” and *para supir* “drivers” (Dardjowidjojo and MacDonald 127; Kadaryanto 42). The word “*kaum*” refers to an ethnic or social groups such as *kaum buruh* “labors” and *kaum tani* “agricultural people, peasants” (Dardjowidjojo and MacDonald 127; Alwi et al. 284).

According to Sneddon et. al, a noun phrase in Indonesian is “a sequence of words which functions in the same way as a noun (for instance, as the subject or object of a clause) and which has a noun as its head word” (xxviii). The noun phrase, then, may consist of a noun as its head word combined with personal pronouns, demonstrative pronouns, noun, number and adjective (Mintz 34). Numerical or other quantitative specifiers are placed before the noun as in (1) but adjectival modifiers, unlike English, are placed after the noun as in (2).

(1) *dua* *anjing*
 number (two) -noun (dogs)
 “two dogs”

(2) *mobil* *merah*
 noun (car) adjective (red)
 “red car”

2. Sundanese

Morphologically, Sundanese is classified as an agglutinative language (Robins 337) like Indonesian (Phillips 7). This means that the form of words includes prefixes, infixes and suffixes to roots as a constant structure (Robins 338). For example, the noun *minggonan* in Sundanese which means *weekly*, is derived from the base form *minggo* “week” and suffix *-an*. However, there is no inflectional morphology such as English plural ending *-s* in Sundanese.

The grammatical expressions of plurality in Sundanese is not obligatory. Plurality in Sundanese may be marked in a variety of ways. According to Robins, the infix *-ar-* is attached to nominal bases to indicate referent plurality (343). It is not obligatory to indicate plurality by using this infix (Shiohara and Furihata 89). For example, the plural form of *budak* “child” is *barudak* “children.” Another way of expressing plurality is by the combination of reduplication and attachment of the suffix *-an* “plural” e.g., the plural form of *tangkal* “tree” is *tatangkalan* “trees”; *batur* “friend” expresses plural number as *babaturan* “friends” (Robins 360). Unlike English, Indonesian and Sundanese do not distinguish between countable and uncountable nouns (Dalrymple and Mofu 235).

The noun phrase in Sundanese consists of a head of noun which may be combined with adjective, demonstrative and numerical or quantifiers (Hardjadibrata 35-39) much like Indonesian as in (3-5). Notice that, contrary to English, the noun form does not mark plural number in the presence of a quantifier.

- | | | |
|-----|----------------------|-----------------|
| (3) | <i>buku</i> | <i>anyar</i> |
| | book (noun) | new (adjective) |
| | “new book” | |
| (4) | <i>éta</i> | <i>buku</i> |
| | this (demonstrative) | book (noun) |
| | “this book” | |
| (5) | <i>tilu</i> | <i>buku</i> |
| | three (number) | book (noun) |
| | “three books” | |

3. English

English is categorised, morphologically, as an inflectional language (Carstairs-McCarthy 28). For example, a verb *sing* (present/V₁) can be formed to be *sang* (past tense/V₂), *sung* (past participle/V₃) and *singer* (noun). Grammatical expression of plurality in English is marked on nouns like Indonesian and Sundanese. However, plural in English is obligatory on most countable nouns by the suffix *-s* pronounced as [s], [z] or [əz] according to whether the suffix follows voiceless consonants (e.g., *cat* [singular], *cats* [plural]), voiced segments (e.g., *dog* [singular], *dogs* [plural]), and stridents (e.g., *watch* [singular], *watches* [plural]) respectively (Ettlinger and Zapf 295). For Indonesian kindergarten children, learning the English plural marking is a morphological challenge as well as a lexical-grammatical challenge because of its association with countability.

According to Kroeger, a noun phrase (NP) is “a phrasal constituent whose head is a noun” (87). Noun phrases in English usually begin with types of determiner such as an article (*a* or *the*), a demonstrative (*this* or *that*) and a quantifier (*some*, *all*, *many*, *few*, *a lot of*, etc.) followed by an (optional) adjective and a noun (Kroeger 89-90). According to Huddleston and Pullum, “the position of determiner can be filled by a determinative (or a phrase headed by a determinative, i.e. a DP) or else by an NP, almost always in genitive case” (330) as in (6) and (7).

- (6) *He broke (the glass).*
determinative
- (7) *He broke (the teacher's glass).*
genitive NP

The head of the phrase depends on the phrasal category, such as a noun phrase will be headed by a noun as in (8) or an adjective phrase by an adjective as in (9) (Kroeger 90-91). However, in noun phrases, the position of the adjective is before the noun, unlike Indonesian and Sundanese as in (8).

(8) *a red apple*
det adj noun (head)

(9) *very beautiful*
adv adj (head)

In conclusion, there are a number of similarities and differences between Indonesian, Sundanese and English. Apart from the lexicon itself of each language, there are many other morphological and syntactic differences between those languages as shown in this section, such as plural marking and position of the adjective in the noun phrase. Therefore, learning English as a foreign language or L2 for Indonesian kindergarten children might be quite challenging and it is also intriguing to follow their developmental path.

Children Learning English as an L2

Scholars have long debated the best time in life to learn a second or foreign language (L2) and enquired if it is better to begin learning L2 in early childhood or rather in adulthood. According to DeKeyser, adults learn L2 explicitly (consciously), while children learn L2 implicitly (unconsciously) (520). Lightbown claims that L2 acquisition which starts from early childhood and continues until adolescence is more successful rather than learning L2 in a quick process, i.e., intensive but a shorter period of learning L2 (6). Furthermore, receiving L2 instruction is important for the learner to be successful (Lightbown 25-26).

Much of the current literature on child L2 development pays particular attention to bilingual child/children. Some of the scholars (Davison and Hammer; Medojevic) investigated the bilingual children on lexical and grammatical development during the pre-school years. Davison and Hammer investigated English grammatical development of 81 preschool-aged bilingual children (Spanish-English) from two Head Start programmes in the USA (731). Davison and Hammer's study involved two comparison groups between Spanish-speaking children who were exposed to English at home from birth (home English Communication/HEC) and Spanish-speaking children who were exposed to English only at school (school English communication/SEC). Data were collected over a two-year period in Head Start through in-depth analyses of spontaneous language samples. Davison and Hammer found that children in the HEC group mastered more morphemes than the children in the SEC group during the first year in Head Start (737). However, both groups had

mastered a similar number of morphemes by the end of the second year in Head Start.

In another study, Medojevic investigated English lexical and grammatical acquisition in two bilingual children (Serbian-English) and one English monolingual child (45). Spoken data were collected over the first year of schooling in Australia. Bilingual children's language development was compared with the Australian monolingual peer based on PT. Analysis found that the bilingual children produced some inaccuracy in morphological markings such as past tense *-ed* and 3rd person singular *-s* on the verbs before commencing school. However, English grammatical inaccuracies of the bilingual children disappeared after the first few months of school attendance and these two bilinguals became indistinguishable from the English monolingual peer. This means schooling has an important effect on language learning.

There are some studies investigating the development of plural marking in English L2 and Bilingual First Language Acquisition (BFLA). Yamaguchi investigated morphological plural marking *-s* on nouns and NP plural agreement, in child learning English L2 based on PT (83). Her research was a two-year longitudinal case study of a Japanese L1 primary school aged 5;8 to 7;8 child acquiring English L2 in Australia. Yamaguchi found that the child acquired plural marker *-s* on nouns (e.g., *books*) after 2 months of exposure to English L2. Then, the child acquired NP plural agreement with numerals (e.g., *two books*) after seven months of English L2 exposure. Finally, the child acquired NP plural agreement with non-numeric quantifiers (e.g., *a lot of books*) after 11 months of English L2 exposure as predicted in PT.

Salleh et al. investigated early bilingual development of Malay and English focusing on the development of plural marking in a child raised in these two languages simultaneously in Australia (112). The study was a longitudinal case study over a period of 6 months (3;4 to 3;10). The concept of plural in Malay is expressed through various forms of reduplication. English plural concepts, by contrast, are expressed by morphological marking *-s* on nouns (Ettlinger and Zapf 294). Salleh et al. found that there was a cross-linguistic influence in the two systems of plurality in Malay and English. Some plural categories appeared in one language was also used occasionally in the other language (Salleh et al. 125). For instance, the child strongly used reduplication in the English contexts (e.g., *cat cat cat*). Likewise, the plural suffix *-s* also appeared occasionally in the Malay contexts (e.g. *mainans* "toys"). Therefore, this current study has an opportunity to examine the lexical and grammatical development of English L2 in Indonesian kindergarten children within PT.

Instructed L2 Learning

The issue of natural or instructed acquisition in L2 classroom context has been a subject of debate in SLA. Some experts believe that natural acquisition is an

effective way of learning the language (e.g., Krashen; Dulay and Burt). Others argue that instructed acquisition has a positive effect on second language learning (Long “Instructed Interlanguage Development” 39; Ellis “Instructed Second Language Acquisition: A Literature Review” 43-44). This section reviews these issues.

Natural language acquisition happens not only outside, but also in the classroom context where teachers and their peers are native speakers. According to Krashen et al., children will acquire the language when they receive comprehensible input (262). Krashen states that comprehensible input is a necessary condition for learners to acquire L2 through understanding the message. Thus, comprehensible input assists learners in acquiring L2 naturally.

However, learning another language in a foreign-language-setting involves a more limited input (Gass, Behney and Plonsky 398) than in natural environments. The learners receive the input from the teacher, other learners and learning materials (Gass, Behney and Plonsky 399). In Indonesia, the opportunities to interact with native speakers of English are highly restricted. In order to maximise learning conditions, instructed second language learning becomes important (Ellis “Instructed Second Language Acquisition: A Literature Review” 38-39; Long “Instructed Interlanguage Development” 39-40).

Concerning instructional settings, Ellis states that “a task-based approach to language teaching makes no attempt to stipulate the language forms (and associated meanings) to be taught” (95) and suggests that a task-based approach is necessary in order to develop implicit learning. Similarly, Long and Robinson suggest that task-based teaching gives a chance for learners to “focus on form” on a particular grammatical item/structure in the context of communication, which gives the learners the best opportunity for acquiring L2 (22).

According to Long, focus on form (FonF) is an instructional approach which “overtly draws attention to the linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning or communication” (“Focus on Form: A Design Feature in Language Teaching Methodology” 45-46). FonF is different from focus on forms (FonFs). FonF involves a focus on linguistic features and focus on meaning, whereas FonFs is based on the cognitive process and restricted to such a focus (Long and Robinson 16-17). Thus, the L2 learning is focused on the meaning while attracting incidental attention to the form i.e., lexical items or grammatical structures (Ellis, “Instructed Second Language Acquisition: A Literature Review 21”). Long also explains that the teachers can select or offer the linguistic forms that will be focused in a lesson using a focused task or an unfocused task (“Focus on Form: A Design Feature in Language Teaching Methodology” 43). Thus, it is crucial to see whether the FonF instruction is effective in the English programme in Indonesian kindergarten classrooms.

Processability Theory (PT) and Developmentally Moderated Focus on Form (DMFonF)

Processability Theory (PT) is a theory of second language acquisition that can predict the developmental trajectories of any second language (Pienemann 6-7; Di Biase, Kawaguchi and Yamaguchi 88-89). It incorporates Levelt's (13) psycholinguistic model of the speaker to account for online speech production from "intention to articulation" through the processing steps of conceptualisation, lexical retrieval and grammatical formulation, phonological retrieval and finally articulation (Pienemann 8-9). Thus, PT is a typologically and psychologically plausible model of SLA.

In terms of morphological development, there are five procedural stages in English L2 (Di Biase, Kawaguchi and Yamaguchi 89) as in Table 1. The first stage is the lemma access procedure, a necessary starting point for all learners allowing the processing of single words or formulas in the L2. At this stage, the learner produces single, invariant form of words such as names of animals, fruits, colours, numbers, greetings and formulaic expressions i.e., the learner builds up various lexical items and fixed expressions. The second stage is the category procedure including lexical category and features. This procedure is language-specific, e.g., the learner of English becomes able to add *-s* on nouns to indicate plural without agreement with any other element in the noun phrase.

The third stage is the phrasal procedure including plural agreement in the noun phrase whereby the learner is now able to produce phrases with the correct word order and plural agreement as in *two apples* as opposed to *one apple* and *these apples* as opposed to *this apple*. The fourth stage is the sentence procedure (S-Procedure), i.e., interphrasal agreement between Subject and Verb. At this stage, the learner of English can produce the 3rd person singular *-s* as in *Peter loves rice*. The fifth stage is S-BAR procedure, i.e., the interclausal stage with subordination. At this stage, the English learner can produce subjunctive marking in subordination as in *I suggest he eat less* and *It's time you left*. The following table presents the developmental stages hypothesis for L2 English morphology.

Table 1 Developmental stages hypothesis for L2 English morphology (Di Biase, Kawaguchi and Yamaguchi; after Pienemann)

Processing Procedure	Structure	Example
S-BAR Procedure	e.g., subjunctive marking in subordination	<i>I suggest he eat less. It's time you left.</i>
Sentence Procedure	SV agreement: 3 rd person sg -s	<i>Peter loves rice.</i>
Phrasal Procedure	NP Procedure	phrasal plural marking <i>these girls many dogs three black cats</i>
	VP Procedure	AUX + V: have + V- <i>ed</i> MOD + V be + V- <i>ing</i> <i>they have jumped you can go I am going</i>
Category Procedure	past - <i>ed</i> plural - <i>s</i> possessive ' <i>s</i> verb - <i>ing</i>	<i>Mary jumped my brothers working Mary's car he eating</i>
Lemma access	single words formula	<i>station here my name is Pim</i>

According to Di Biase, “regardless of programme type or methodology adopted by the teacher, students learning a second language will, fundamentally, follow the same developmental path. However, where the teacher adopts instructional strategies with a consistent focus on form, students’ progression along the developmental path will be faster” (“Focusing Strategies in Second Language Development: A Classroom-Based Study of Italian L2 in Primary School” 100). Based on the above claim, we hypothesise that the learners will possibly develop the first three PT stages. Our focus is on lexical and phrasal stages, i.e., Stage 1: lemma access (single words with no marking); Stage 2: category procedure with plural marking on nouns; Stage 3: phrasal procedure involving plural agreement between noun and modifier and the appropriate English word order (modifier before noun).

This current research used the Developmentally Moderated Focus on Form (DMFonF) instruction in an experimental group. DMFonF instruction is derived from the combination of two components in L2 acquisition (Di Biase

“Focus-on-Form and Development in L2 Learning” 200-01). The first component is a principled psycholinguistic developmental schedule for the L2, namely PT (Pienemann). The second component is a principled schedule applied to teaching and learning by incorporating an interactionist approach through tasks i.e., developmentally moderated instruction and Focus on Form (Long “Focus on Form: A Design Feature in Language Teaching Methodology”; Long and Robinson). The form to be focused depends on the learner’s developmental stage. For instance, if the learner is at PT Stage 2, i.e., they are able to mark plural *-s* on noun, then the form to be focused can be from Stage 3, e.g., plural agreement in noun phrase, because the learner is developmentally ready for Stage 3.

Methodology

This project was a longitudinal, quasi-experimental classroom-based study (Larsen-Freeman and Long 20). The participants were ten Indonesian kindergarten children and their classroom teacher. Among ten, five children were from Group A (*ab initio*, 4 to 5 years old) and five children were from Group B (second year, 5 to 6 years old). In Group A, DMFonF instruction was introduced in the classroom experimentally while in Group B, the teacher continued the same regular teaching instruction which was not DMFonF. Note that both Group A and Group B were taught by the same teacher but with different teaching methods.

Experimental Group A children’s grammatical development results, through DMFonF, at the end of one semester instruction were assessed and compared against baseline results at the beginning of the semester. Also, Group A results after DMFonF instruction were compared with Group B results without DMFonF.

The research was conducted over one school semester and a “pre-test, instruction and post-test” approach was adopted in Group A (Figure 1 below). As for Group B, data were collected at one point, i.e., after they learned English for three semesters at the kindergarten. Before the quasi-experimental study, meetings were organised with the classroom teacher to discuss lesson plans and the proposed English programme.

Figure 1 Data Collection of Group A



Based on Figure 1, a pre-test was held to measure the baseline of each individual child's English knowledge, e.g., English lexicon, grammatical encoding relating to noun phrase constructions and singular-plural expressions for about 15-20 minutes per child. The pre-test was held in the form of one-to-one conversation in English between the principal researcher and the participants outside of the classroom. Also, the researcher checked if the children had acquired the concept of singular and plural in English, e.g., *apple* (singular) and *apples* (plural). The researcher used simple elicitation task, i.e., picture description task (Di Biase "Focus-on-Form and Development in L2 Learning") with ten or so opportunities for lexical plural and ten or so for phrasal plural. The purpose of the pre-test was to determine the level of child language development based on PT stages (Pienemann).

The English programme was a DMFonF instruction programme for 12 weeks in Group A which consists of two sessions (20–25 minutes of recordings) per week with a focus on form and task-based communicative learning activity within their Kindergarten English programme according to PT stages. Progress was monitored through video and audio recording of each session. The teacher gave the topics, for instance, 'I know the Numbers' and 'Fruits and Vegetables'. Examples of category procedure to be introduced were single noun, singular (e.g., *apple, banana, tomato*); single noun, lexical plural (e.g., *apples, bananas, tomatoes*) and NP, lexical plural (e.g., *red apples, yellow bananas*). Examples of phrasal procedure were NP, singular (e.g., *one red apple, one yellow banana*); phrasal plural with definite quantifier (e.g., *two red apples, two green mangos*) and phrasal plural with indefinite quantifier (e.g., *a lot of oranges, a lot of red apples*).

Grammatical structures were introduced communicatively following the developmental stages as defined by PT. In Stage 1, the children learned various lexical items in English such as animals, fruits, colours, numbers, and so on as well as greetings and other formulaic expressions used in classroom interactions. Stage 2 consists of lexical categories and features. For example, number marking on nouns (*triangle/triangles*) and noun phrases consisting of adjective and noun (e.g., *red flower/red flowers*). Stage 3 consists of phrasal agreement in noun phrase, for example, *two triangles, many cats*.

A post-test was conducted after the DMFonF instruction and the children were tested with the lexicon and grammatical items which they may have acquired through the DMFonF. Similar to the pre-test, this was also done individually with the children.

Data Analysis: The data were transcribed and fed into the ELAN annotation tool for video and audio resources (Sloetjes and Wittenburg). Then KWIC (Key Word In Context) software was used to create word frequency lists and to concordance the transcription (Tsukamoto). For the children's lexical and grammatical development, the data were analysed based on PT stages (see Table 1).

Results and Discussion

This section presents the results of the study based on the two research questions. The first question asked about the production of lexical items and grammatical forms from instruction in English L2 in Indonesian kindergarten children. The second question asked if there are any differences in the lexical and grammatical development of the two groups under consideration, i.e., Group A children, who have received three months DMFonF instruction, and Group B children, who are three semesters ahead of Group A but had not received DMFonF instruction during their first and a half year of English programme.

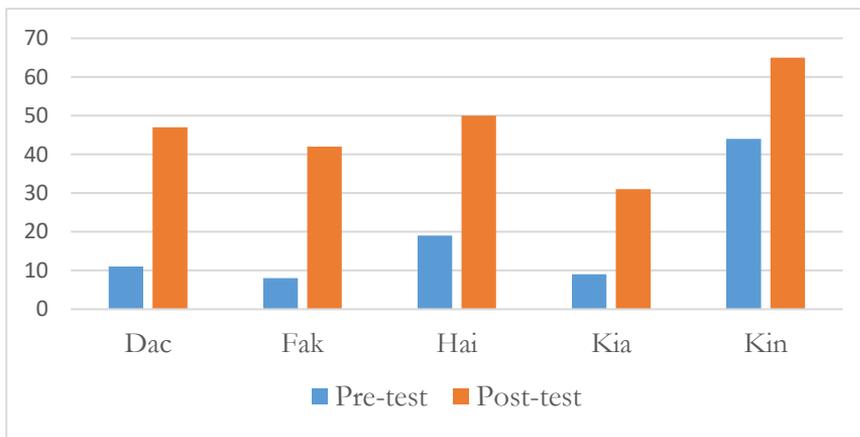
The results of the lexical and grammatical development in English in five children in Group A and five in Group B will be presented in this section. Then, the language development results of five children in Group A will be compared with five children in Group B based on the second research question.

1. Lexical Development

This subsection presents the results of the analysis of English lexical types in five children in Group A followed by five children in Group B.

Figure 2 shows the types of English words produced by five children in Group A at pre- and post-test. The horizontal axis shows the name of the participants and the vertical axis represents the total number of types produced by the participants.

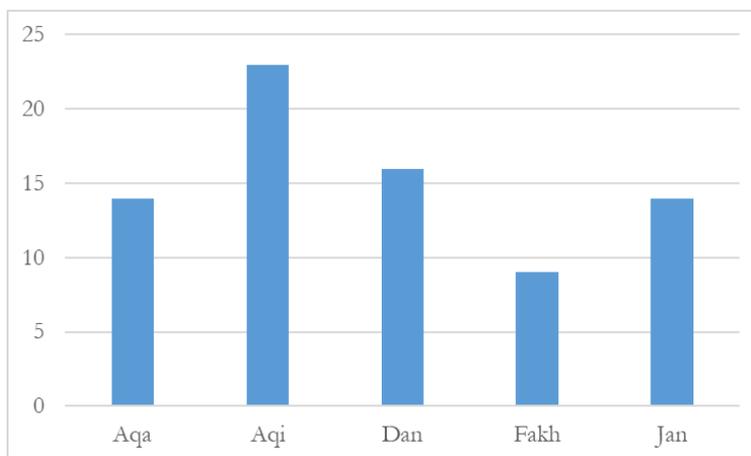
Figure 2 Types of English words in Group A at Pre- and Post-test



It can be seen from Figure 2 that four children (Dac, Fak, Hai and Kia) in Group A were able to produce the types of English words at around 9 to 19 at pre-test. Only one child, Kin, was able to produce 44 types at pre-test. At post-test, the production of types of English words in Group A improved dramatically at around 31 to 65. After the children in Group A received three months DMFonF instruction with communicative learning activities in the classroom, they were able to learn many lexical items and their vocabulary items expanded over the three months.

Figure 3 below illustrates the production of types of English words in Group B. It shows that five children in Group B were able to produce the types of English words for about 9 to 23. This means that after three semesters (1.5 years) of English instruction, the children produced the English word types less than 25.

Figure 3 Types of English words in Group B



If we compare Group A result at Post-test with Group B result, the number of word types produced by the children is significantly different. At post-test, i.e., after three months DMFonF instruction, the children in Group A produced 31 to 65 types. Meanwhile the children in Group B, who had not received DMFonF instruction, produced 9 to 23 types. The range number of production of word types in Group B is quite similar with the result in Group A before they received three months DMFonF instruction. This indicates that the DMFonF instruction is able to improve the vocabulary learning in the classroom.

Table 2 below presents the production of lexical categories of the children in Group A at pre-test and Table 3 presents the post-test.

Table 2 Lexical categories in Group A at Pre-test

Name	Lexical Categories						
	Noun	Adjective	Proper names	Affirmative particle	Exclamation	Part of formula	Conjunction
Dac	5	5	1				
Fak	6	1			1		
Hai	13	5	1				
Kia	9						
Kin	24	9	1	1		8	1

Table 3 Lexical categories in Group A at Post-test

Name	Lexical Categories						
	Noun	Adjective	Numeral	Proper names	Affirmative particle	Part of formula	Quantifier
Dac	30	9	6	1	1		
Fak	18	12	8	1		3	
Hai	26	8	15	1			
Kia	21	8	1		1		
Kin	28	10	15	1	1	8	2

It can be seen from Table 2, at pre-test, children in Group A were able to produce various lexical categories in English, i.e., noun (e.g., *banana, dog*), adjective (e.g., *yellow, red*), proper names (e.g., self-naming), etc. After the three months of DMFonF instruction as shown in Table 3, children in Group A learned many more lexical categories including numeral (e.g., *two, four*), part of formula (e.g., *my, name, is*), affirmative particle (e.g., *yes*) and indefinite quantifier (e.g., *a lot of, lots of*).

Table 4 below presents the lexical categories produced by the children in Group B who were three semesters ahead of Group A but without DMFonF instruction.

Table 4 Lexical categories in Group B

Name	Lexical Categories			
	Noun	Adjective	Proper names	Part of formula
Aqa	7	6	1	
Aqi	18	5		
Dan	9	3	1	3
Fakh	7	2		
Jan	8	3	1	2

As can be seen from Table 4, after 1.5 years of usual English instruction programme in the classroom, children in Group B were able to produce lexical categories such as noun, adjective, proper names and part of formula. None of the children in Group B produced numerals. This is because numeral usually emerges as a modifier in the noun phrase.

Children in Group A, after one semester of the English instruction (pre-test), and Group B, after three semesters of the usual English programme,

produced a similar range of categories in English i.e., noun and adjective (e.g. *banana*, *apple* and *red*). However, those children did not produce numerals (i.e., cardinal numbers). This indicates that the children in both groups were still at a single word stage.

If we compare the result of lexical categories in Group A at post-test (after two semesters including one semester DMFonF instruction) with Group B result (after three semesters of English instruction but without DMFonF), the range of lexical categories of the children in Group A is higher than Group B. This means that the DMFonF instruction may be able to promote the lexical development: not only on noun category but also on numerals, definite and indefinite quantifiers which are crucial categories for the plurality of the noun.

2. Grammatical Development

This subsection presents the results of grammatical development of English focusing on plural marking *-s* on nouns. The analysis of plural production in Group A will be presented first followed by the analysis of Group B.

Table 5 below presents the production of plural marking of Group A at pre- and post-test results. The number with the sign “+” in the table shows the suppliance of plural marking *-s* in the obligatory context (e.g., *apples*, *two apples*). The non-suppliance of plural marking *-s* in obligatory context is shown after the sign “-” (e.g., *five orange*). The number with the sign “>” shows the over-suppliance of plural marking *-s* in singular contexts (e.g., *one stars*). The total number of plural contexts is shown after the slash (“/”).

Table 5 Production of lexical and phrasal plural marking in Group A

Code	Group A at Pre-test							Group A at Post-test					
	Lexical Plural			Phrasal Plural				Lexical Plural		Phrasal Plural			
	Noun	Adj+Noun	Modifier+Noun	Num+Adj+Noun	Num+Noun	Quant+Adj+Noun	Quant+Noun	Noun	Adj+Noun	Num+Adj+Noun	Num+Noun	Quant+Adj+Noun	Quant+Noun
Dac	-3/3							+9/9		+11-1/12	+2/2		
Fak	-2/2								+2/2	+4-5>3/9	+2>1/2		
Hai	-11/11							+2/2	+5-2/7	+10/10	+5-2/7		
Kia	-8/8							+8-5/13	+5-3>3/8	-1/1	+2-2/4		
Kin	+2-18>2/20	-1/1	-2/2							+17/17		+4/4	+3/3

empty cell = no context; Adj = Adjective; Num = Numeral; Quant = Quantifier

As shown in Table 5, at pre-test, four out of five children in group A failed to mark plural *-s* on nouns. For example, Hai had 11 plural contexts but he did not supply plural marking *-s* on nouns at all (thus “-11”). There was one child, Kin, who produced plural marking *-s* on nouns in a very limited number for two times (e.g., *strawberries* and *oranges*). Kin, on the other hand, oversupplied plural *-s* on nouns in singular contexts for two times, as in examples (10) and (11). Although Kin marked noun with *-s* two times at pre-test, she failed to mark

plural for 18 times. Therefore, her production of plural *-s* was highly limited and inconsistent at that time. In terms of PT stages, all children except Kin were “single words” stage while Kin was at “lexical” stage.

(10) Researcher: do you know what this is? (showing a picture of one rose)

Kin: mhm

Researcher: just say it maybe

Kin: ... *roses*

(11) Researcher: what is this? (showing a picture of one orange)

Kin: *oranges*

At post-test, all children in Group A were able to produce both lexical plural *-s* on nouns (e.g., *bananas, oranges, green stars*) as well as phrasal plural *-s* which requires agreement within NP (e.g., *four books, two green mangoes*). Only Kin did not produce the lexical plural. This is not because of no context for lexical plural, but because she always produced NP consisting of more than single words. For example, she was able to produce plural agreement with indefinite quantifiers followed by adjective and noun for four times (e.g., *a lot of brown cats*) and also indefinite quantifiers with noun for three times (e.g., *a lot of mangos*).

All children in Group A at post-test attained phrasal stage, that is, they were able to produce phrasal agreement. For instance, Dac, at pre-test, did not produce lexical nor phrasal plural marking while at post-test, he produced 9 lexical plurals (e.g., *elephants, bananas*), 13 noun phrases with plural agreement including two instances with Numeral+Noun (e.g., *two butterflies* and *four books*) and 11 instances of Numeral+Adjective+Noun (e.g., *two green mangos, four brown dogs*). It is also worth noting that there were two children who oversupplied *-s* on nouns in singular contexts either in lexical and phrasal (e.g., *white horses, one monkeys, one black cats*). This seems to be a developmental error since oversuppliance of *-s* on nouns in singular contexts was reported by other child L2 studies such as Yamaguchi.

The example (12) below shows plural production from Hai at post-test. Hai was able to produce phrasal plural agreement with Numeral+Noun after counting the number of object in the picture, e.g., *one . two . three . four five . six seven . eight . **eight elephants***. However, when there were too many objects to count in the picture (e.g., over 20 strawberries), he simply produced Adjective+Noun without the number such as *red strawberries*.

(12) Researcher: what are these?

Hai: one . two . three . four five . six seven . eight . **eight elephants**

Researcher: what are these?

Hai: **red strawberries**

Table 6 below presents the production of plural marking in Group B after one and a half year of English instruction without DMFonF.

Table 6 Production of lexical and phrasal plural marking in Group B

Code	Group B after 1.5 years of English instruction					
	Lexical Plural		Phrasal Plural			
	Noun	Adj+Noun	Num+Adj+Noun	Num+Noun	Quant+Adj+Noun	Quant+Noun
Aqa	-7/7					
Aqi	-8/8					
Dan	-8>1/8					
Jan	-4/4	-1/1				
Fakh	+1-3/4					

As shown in Table 6, four out of five children in Group B failed to mark plural *-s* on nouns. The example (13) below shows the non-occurrence of plural marking *-s* on noun from Aqa result. Aqa was not able to mark plural *-s* on nouns at all out of seven plural contexts. When the researcher showed the picture with a lot of bananas and apples, Aqa successfully produced the word *banana* and *apple* but failed to mark plural *-s* on them.

- (13) Researcher: what are these?
 Aqa: **banana**
 Researcher: what is this?
 Aqa: apple
 Researcher: what are these?
 Aqa: **apple**

There was one child, Fakh, who was able to mark plural *-s* on noun but only in a single instance (e.g., *stars* instead of *star*). Another child, Dan, produced one plural marking but it turned out to be oversuppliance of *-s* on noun in a singular context (e.g., *cars* instead of *car*). As for grammatical marking, the children did not produce any morphological marking on nouns (i.e., all the words they produced were invariant forms). However, all the words produced by the children were singular form even when the picture showed multiple.

In Processability Theory (Pienemann), a particular form is deemed to be acquired when there is a formal variation (e.g., *apple* and *apples*) and/or a lexical variation (e.g., *apples* and *oranges*) in the data. By applying this emergence criterion (Di Biase and Kawaguchi), Table 5 above was converted into Table 7 of

implicational scaling in Group A at pre- and post-test. In Table 7, “+” signifies a particular structure was acquired by the child while “-” signifies not acquired.

At pre-test, four children in Group A were below lexical stage (i.e., they were at “single words” stage). Kin was the only child who was qualified to be at lexical stage at that time. At post-test, all children in Group A attained both lexical and phrasal stages. Among these children, Kin was the only one who did not produce lexical plural at post-test. However, this does not reflect Kin’s longitudinal developmental sequence because, in fact, she had already acquired the lexical plural earlier.

Table 7 Plural marking implicational scaling in Group A

Code	Pre-test (after one semester of usual English program without DMFonF instruction)			Post-test (after three months DMFonF instruction)		
	Lexical	Phrasal		Lexical	Phrasal	
	Plural -s	Plural -s + numeral quantifiers	Plural -s + other quantifiers	Plural -s	Plural -s + numeral quantifiers	Plural -s + other quantifiers
Dac	-			+	+	
Fak	-			+	+	
Hai	-			+	+	
Kia	-			+	+	
Kin	+				+	+

“+” = supplied in obligatory context in at least two examples;

“-” = not supplied; empty cell = no context

Table 8 below presents the plural marking implicational scaling in Group B after one and a half year of English instruction in the kindergarten. Four out of five children in Group B were not able to produce plural marking -s on nouns. Only one child, Fakh, produced one occurrence of lexical plural. We put a single occurrence of plural marking -s with the bracket “(+)” sign because a single example without lexical or formal variation is not sufficient to indicate the child had acquired lexical plural. In terms of PT stages, all children were below lexical stage, i.e., single word stage. This means that their one and a half year (i.e., three semesters) in learning English promoted lexical learning but not grammatical development.

Table 8 Plural marking implicational scaling in Group B

Code	after 1.5 years of English instruction without DMFonF		
	Lexical	Phrasal	
	Plural -s	Plural -s + numeral quantifiers	Plural -s + other quantifiers
Aqa	-		
Aqi	-		
Dan	-		
Jan	-		
Fakh	(+)		

In summary, we found measurable differences of lexical and grammatical development with DMFonF instruction in Group A and without in Group B. Children in Group A acquired lexical and phrasal plurals after they received three months DMFonF instruction. While in Group B, who received 1.5 years of English instruction without DMFonF, the children were not able to produce plural marking -s on nouns. This result indicates that the lexical and grammatical development are more promising when the children receive DMFonF instruction.

Conclusion

The current study investigated lexical learning and acquisition of plural marking among kindergarten children in Indonesia within the framework of Processability Theory (Pienemann). Our findings suggest that the English programme with the focus on form instruction combined with task-based communicative learning on developmentally targeted structures is effective. In terms of lexical development, over the three months of the DMFonF instruction, children in Group A learned many more lexical categories and types including numeral, definite and indefinite quantifiers. For grammatical development, children in Group A were able to develop from single word stage to lexical stage and phrasal stage.

Thus, this study found the differences in the lexical and grammatical development between Group A with DMFonF and Group B without the DMFonF instruction. After receiving three months of DMFonF instruction, the range of types and lexical categories in Group A children expanded. Compared with Group B children, who received 1.5 years of English instruction without

DMFonF, the range of types and lexical categories was quite the same as in Group A result before receiving DMFonF instruction.

Group A children with DMFonF instruction successfully attained the first three stages based on the PT hierarchy, i.e., single words, lexical and phrasal stages. By contrast, Group B children without DMFonF instruction, remained at single words stage. This means that their 1.5 years of learning English in Group B promoted lexical learning but not grammatical learning since they did not show syntactic or morphological development. This may indicate that communicative learning by itself may not be sufficient in promoting grammatical development, but only lexical development. Our results are compatible with Di Biase (Focusing Strategies in Second Language Development: A Classroom-Based Study of Italian L2 in Primary School”; “Focus-on-Form and Development in L2 Learning”) and strongly suggest that some form of DMFonF is necessary to promote L2 development beyond purely lexical development.

The present study provides new evidence on the development of plural marking in English L2 in the context of Indonesian kindergarten children as well as the effect of developmentally moderated focus-on-form instruction. This study also contributes to understanding early English education in a linguistically complex situation such as Indonesia, a country which promotes learning English from an early age. Further study is required to examine PT stages in other grammatical structures of English L2 such as verb phrase and sentence procedure in Indonesian context.

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