

## **A CHILD ENGLISH L2 DEVELOPMENT OF PLURALITY**

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### **Abstract**

This study examines the development of English plurality of a child learner learning English as a second language, which focuses on plural marking in written English. The data was in the form of written language produced by IA, a younger child learner learning English as L2 in an instructional context, and was collected at ten points in time during the period of five months. Based on the data, a distributional analysis of the participant was carried out, and then the findings were analysed by using the implicational scaling according to the emergence criterion to determine the acquisition points of the target structures. The results of the distributional analysis indicate that plural -s marking emerged in IA since Time 7 of the data collection, and it has since been used productively by the subject in the subsequent points of time. The finding of this longitudinal study suggests that the development of plural marking appears to follow PT's predictions. Moreover, the result of this research reveals that the prediction of PT are followed in written production of English L2, which indicates PT's capacity to account for morphological acquisition in written language production.

**Keywords:** English as L2, Development, Plurality, Emergence

### **INTRODUCTION**

Processability Theory (henceforth PT) is one of the current mainstream theories in SLA, which has attracted attention among researchers (VanPatten & Williams, 2007). Most PT studies so far have been oriented on spoken language production (Rahkonen & Håkansson, 2008). However, written L2 production has recently started to be examined under the PT framework, for example, studies conducted by Håkansson and Norrby (2007) and Ågren (2009). The results of the studies show PT's capability to account for morphological acquisition in written as well as oral language production.

Regarding the application of this theory to English as a second language, Pienemann (1998) tested PT's predictions against data from two cross-sectional research, that is, Johnston's (1985) study of adult learners of L2 English and Pienemann and Mackey's (1993) study of child learners of L2 English. Since the two research studies on English morpho-syntactic structures, the number of subsequent research based on Processability Theory which focuses specifically on English morphological forms has, however, been relatively few (see e.g. Yamaguchi, 2009). Furthermore, most of the studies on the acquisition of L2 English morphology within Processability Theory which have been conducted to date are cross-sectional, in which data gathering was carried out at one single time point.

In brief, since the number of research based on PT specifically studying English morphemes to date is still limited, and virtually all of them are cross-sectional, this longitudinal research can be seen as another novel attempt to further investigate the L2 English morphological development. This present research aims to investigate written

language produced by a child learner acquiring English as L2, focusing on the acquisition of plurality.

## **METHOD**

This study intends to investigate the main research question - i.e. *“Does the development of plurality in the L2 production by a child learner of English follow the prediction in PT?”*

This research takes the form of a longitudinal case study of one child learner learning English as a foreign language. The research participant, henceforth referred to as IA, was in the fourth grade of primary school and aged nine years and two months old when he was firstly involved in the research. IA formally started learning English when she was eight years old, and so he had been learning it for about one year when the data collection of this present research firstly started.

The research data was collected longitudinally at ten points in time with one-month interval, thus there were in total ten months used for the data collection. The data was in the form of written language produced by the learner based on the prompts given, namely in the form of picture-guided narrative and descriptive writing.

The criterion of plural form acquisition in this research was based the emergence criterion - i.e. the first systematic uses of the linguistic structure (Pienemann, 1998). The application of the emergence criterion was based on Rahkonen and Håkansson (2008) who state that the emergence of morphological structures in the learner’s developing IL system can be seen from the presence of three different tokens at minimum in the contexts which vary lexically.

The method of data analysis to test the prediction proposed by PT on learning sequence of the morpheme under examination is described as follows. After the raw data were coded by means of a corpus tagger, the result was then summarised in a distribution table. At the next stage, the quantitative data were analysed by using the implicational scale based on the emergence criterion in order to determine IA’s IL development according to the hypothesis in PT.

The coding used in this research study in order to determine whether a grammatical structure is acquired is based on Pienemann (2012), i.e. the plus sign (+) means that the morphological structure has emerged in the learner’s interlanguage, whereas the minus sign (-) means that no emergence of the morphological structure in question is found in the learner’s interlanguage.

## **RESULT AND DISCUSSION**

Based on the longitudinal data in the form of writing produced by IA, a child learner learning English as a second language, a distributional analysis of the examined morpheme- i.e. plural marker -s, was carried out. The obligatory context for plurality was determined according to the criteria by Yamaguchi (2003) who used structural cues and contextual cues for the obligatory plural context. The result of the distributional analysis of plural marker -s, is presented in Table 1 below. The first row shows the different time points, and the first column shows the morpheme - that is, plural -s marker.

**Table 1.** Distributional analysis of IA's morphological acquisition

<b>Morpheme</b>	<b>T1</b>	<b>T2</b>	<b>T3</b>	<b>T4</b>	<b>T5</b>	<b>T6</b>	<b>T7</b>	<b>T8</b>	<b>T9</b>	<b>T10</b>
Plural -s marker	1/15	0/12	1/17	2/15	0/10	2/18	4/16	3/13	6/19	8/16
	.07	.0	.06	.13	.0	.11	.25	.23	.31	.50

Table 1 above shows that plural -s marker did not appear to have emerged in IA's IL from Time 1 to 6. At Time 1, IA only supplied plural -s marker on one out of 15 obligatory contexts available for this morpheme. One month later at Time 2 it was found that out of 12 contexts IA failed to supply plural -s marker on any of the twelve nouns. Time 3 shows a similar pattern to Time 1, for IA only successfully supplied the plural -s on one noun despite there being 17 occurrences of obligatory contexts for this morpheme. Time 4 shows an increase of the number of correct suppliance of plural -s marker on nouns, with two occurrences of correct use of the morpheme. Yet, that time point is not considered the emergence point as the criterion requires the presence of at least three tokens in lexically varied context. One month after Time 4, that is, at Time 5, it was found that the pattern is similar to that in Time 2; IA failed to supply plural -s marker on any of the ten obligatory contexts. However, at Time 6 he was successful again to supply plural -s marker on two nouns out of eighteen obligatory contexts.

As can be seen in Table 1 above, the first time point for the emergence of plural -s marker in IA's IL was found to occur in Time 7. IA successfully supplied the -s marker on 4 instances out of 16 obligatory contexts. There was a considerable rise by up to 14 per cent as compared to Time 6 in terms of the correct use of the morpheme. Since that point of time the plural -s marker started to be used productively by IA. As shown in Table 1, at Time 8, out of 13 contexts, 3 correct instances of this morpheme supplied by IA also reached this minimum number for the morpheme to be regarded as having emerged in the learner's IL. One month later, namely Time 9, saw a noticeable increase in the number of correct suppliance of the morpheme by IA, with the occurrences of correct suppliance being twice as many as those at Time 8, or by percentage the increase reached 9 per cent. At the last time point, Time 10, there was a considerably increasing percentage of the correct instances of plural -s marker by up to 19-per cent of increase as compared to Time 9. By number of occurrences, there was also an increase to 8 instances of correct suppliance of plural -s marker.

**Table 2.** Implicational scaling of IA's acquisition

<b>Morpheme</b>	<b>T1</b>	<b>T2</b>	<b>T3</b>	<b>T4</b>	<b>T5</b>	<b>T6</b>	<b>T7</b>	<b>T8</b>	<b>T9</b>	<b>T10</b>
Plural -s marker	-	-	-	-	-	-	+	+	+	+

Note: "+"= acquired, "-"= not acquired

The finding shows that the developmental stages of the morphological form in IA was implicational as illustrated in Table 2 above. That is, they follow the stages predicted in Processability Theory. The calculation of the scalability (or reproducibility) of the implicational scale shown in Table 2 above based on Pienemann (1998) shows that the coefficient score of the research participant is 1 with no cell in the table deviating from the prediction. It means the implicational scaling table is a valid implicational table.

As can be seen in the table above, according to the emergence criterion, plural -s marker was not found to have emerged in the subject's IL from Time 1 to Time 6. The

first systematic use of the morphological form occurred at Time 7, indicated by the presence of more than three instances in lexically varied contexts. Since that point of time onwards, plural -s marker was regularly supplied in the subject's L2 written production.

## CONCLUSION

Based on the finding and discussion in the previous section, it can therefore be concluded that the prediction of PT concerning the development of plural -s marker is followed in the production of L2 English of the research subject, which indicates its capacity to account for development of the L2 morphological structure in written language production.

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