DOCUMENT RESUME

ED 372 612 FL 022 297

AUTHOR Mackey, Allison
TITLE Targeting Morpho-Syntax in Children's ESL: An Empirical Study of the Use of Interactive Goal-Based Tasks.
PUB DATE 94
NOTE 24p.; For complete volume in which this paper appears, see FL 022 292.
PUB TYPE Journal Articles (080)
JOURNAL CIT Working Papers in Educational Linguistics; v10 n1 p67-89 Spr 1994

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Children; Elementary Education; *English (Second Language); Foreign Countries; Interlanguage; Interviews; *Language Usage; Morphology (Languages); Second Language Learning; *Sentence Structure; Spanish Speaking; *Speech Communication; Syntax; Tape Recordings; *Task Analysis
IDENTIFIERS Australia

ABSTRACT

This paper reports on a study of the efficiency of interactive tasks at eliciting targeted morpho-syntactic structures from child speakers of English as a Second Language (ESL). Two groups of subjects between 7 and 10 years of age were examined, one group with various first language backgrounds, and a second which used Spanish as their first language. Both groups had varying degrees of exposure to English. Data for the first group were gathered through an audiotaped conversational interview, while data for the second group were gathered through a task-based elicitation procedure. The tasks included picture recognition, story completion, informal interview, picture sequencing, picture differences, and peer meeting. The results indicated that tasks were more efficient than interviews in eliciting targeted morpho-syntactic structures with child speakers of ESL and that the tasks were successful in targeting the structures for which they were designed. (MDM)

Targeting morpho-syntax in children's ESL[1]: An empirical study of the use of interactive goal-based tasks

Alison Mackey

University of Sydney

This study is an investigation of the efficiency of interactive tasks at eliciting targeted morpho-syntactic structures from child speakers of English as a Second Language (ESL). The objectives of the study were to examine whether task-based elicitation procedures were more efficient than interviews at eliciting specific targeted morpho-syntactic structures with children and to ascertain how far tasks designed to target specific morpho-syntactic structures achieved their aims. Results show that the tasks were more efficient than Informal Interviews at eliciting targeted morpho-syntactic structures with child speakers of ESL and that the tasks were successful in targeting the structures for which they were designed.

The study reported here was part of a wider project which was designed to provide data on the acquisition of ESL by children and the use of Rapid Profile to assess children's ESL development.[2] The tasks reported on here form the elicitation procedure for Rapid Profile (Mackey, Pienemann, & Thornton, 1991; Pienemann, 1992; Pienemann & Mackey, 1993). Rapid Profile is a computer-based second language assessment device. It places language learners on a developmental schedule by screening their speech against standard patterns of acquisition of the target language. Rapid Profile assesses the learner's production of morpho-syntactic structures. For Rapid Profile to work efficiently, the structures need to be elicited from the learners in a quick and unobtrusive manner. The tasks were designed for this purpose. This study of the use of tasks to target specific morpho-syntactic structures also represents a contribution to the growing body of work on the use of tasks as research tools.

Many definitions/operationalisations of the term 'task' have been offered. Pica, Kanagy and Falodun (1993) make the point that tasks are difficult to define adequately because many features can be interpreted broadly by teachers and researchers and almost any activity-generating, goal-oriented experience can be classed as a communicative task, even an interview. They characterize tasks as having two recurrent features (1993:11). The first is that they are oriented towards goals, i.e. that participants need to arrive at an outcome; the second is that they include some sort of work or activity that the participants themselves must carry out. Long and Crookes summarize their previous definitions, considering the dimension that tasks focus on something that is done not something that is said (1992:44). Crookes specifies that tasks can be considered as "a piece of work or an

activity, usually with a specified objective, undertaken as a part of an educational course or at work" (1986:1). Long states that "by task is meant the hundred and one things people *do* in everyday life, at work, at play and in between" (1985:89). All these definitional features can be applied to the tasks used in this study. They are goal-oriented interactive activities which are designed to promote conversational interaction between the participants as they carry out the activity.

Developing procedures for the elicitation of data has relevance for the fields of Second Language Acquisition (SLA) research and teaching. It may be the case that some researchers and teachers will view morpho-syntactic data elicited through tasks in different ways. Researchers may view the data in terms of its potential for shedding light on interlanguage/SLA processes. Teachers and those who are interested in assessing developmental level in terms of syntax and morphology may see the data as having potential for revealing the student's stage of development. They may evaluate it to determine the learner's progress towards mastery and define what they can usefully be taught next, highlighting any "gaps." This paper will focus on tasks as tools for elicitation rather than teaching. The subject of tasks and syllabus design has been well documented in the literature, especially in response to the communicative competence movement in language teaching. For a review article and further information see Long (1989) and Crookes and Long (1992).

The Effects of Tasks on Interlanguage Production

Why use tasks for eliciting samples of interlanguage instead of naturally occurring data? Apart from the obvious factor of time constraints attached to collecting, transcribing, and analyzing naturalistic data there are other reasons. Previous studies have shown that gaps were present in many samples of naturally occurring data in English (Pienemann & Johnston, 1987; Pienemann, Johnston, & Brindley, 1988). Certain language features do not occur naturally in conversation very often, but are important in determining developmental level. Learners in free conversation and conversational interviews with researchers have shown avoidance strategies, such as dropping topics when structures which cause problems for those learners may need to be used. It is often these troublesome structures which need to be studied for insight into learners' interlanguage. Constantly directing a learner's attention to structures which are not being used in an interview situation may have undesirable consequences. It is obviously preferable that subjects remain as unaware as possible of the structures being studied and that the learner's performance is as naturalistic as possible.

A primary concern of this study was to impose constraints on learners in terms of the range of possible responses they produced. This was accomplished by providing specific contexts for morpho-syntactic structures to occur in a way that was as unobtrusive as possible, through the use of the interactive goal-based tasks. The tasks were designed to impose constraints on the learner which means contexts have to occur. These make it possible to study the interlanguage production rules. This is based on a long tradition of SLA research and data analysis (e.g., Meisel, Clahsen, & Pienemann 1981). If, for example, a learner must state what a person's actions are in order to complete a picture-based task successfully, then they will probably attempt to use either 3SGs or -ing forms. They might produce a 3rd person form without an 's' e.g., she read (-) or with an 'extra' 's/copula', she is reads (>) or with an 's', she reads (+). (All of these forms are of equal interest to the SLA researcher, whereas to many teachers - and > are usually the same as both may be construed as an error which requires correction.) The tasks were designed to provide as many contexts for the structures as possible, regardless of whether the production equals that of the target language, with the intention of counteracting avoidance strategies. The aim of this study was to elicit spoken data which was as natural as possible with as many examples of filled contexts as possible.

Task Design

When designing the tasks a variety of methods which are in current use for eliciting morpho-syntactic structures were reviewed. A comprehensive review of such methods is contained in Larsen-Freeman and Long (1991). These include things such as reading aloud, structured exercises, completions, elicited imitation, guided composition, Q-A stimulus reconstruction, role plays, oral interviews, and free composition. Aspects of some of these methods were included in the design of the tasks, for example guided composition was interpreted as an oral response to pictures (Story Completion task), Q-A stimulus was incorporated to a limited extent in the Informal Interview which was compared with the tasks. Space does not permit a complete review of the advantages and drawbacks of all of these methods of elicitation. While a variety of methods were considered, many were inappropriate because of the lack of opportunity for contexts for targeted structures to occur, the likelihood that models would be provided, or because grammatical rather than pragmatic competence was the focus of this study. The tasks represent a variety of types and were designed to utilize a range of features documented in the research. Features of the task design are listed below.

One/Two way

The tasks include examples of both one and two-way information distribution. Research suggests that more useful *negotiation* work occurs with two way tasks (Long, 1990; Doughty & Pica, 1986). However, concerning the elicitation of *morpho-syntactic structures*, empirical research has not yet shown convincingly which are most effective. An example of a one-way task used in this study is a learner orally retelling a story from pictures by asking questions of a researcher who knows the story (Story Completion task). An example of a two-way task is two learners collaborating to put a set of pictures in order to create a story (Picture Sequencing task).

Closed/Open

Most of the tasks are closed rather than open. This reflects hypotheses that closed tasks may produce larger amounts of data and more useful negotiation work than open tasks (Long, 1990). An example of this is a "Spot the Differences" task where learners are told there are a specific number of differences (Picture Differences task). Open tasks often result in learners treating topics briefly, dropping topics when in linguistic difficulties and incorporating less feedback. One open activity, the Informal Interview, is used in this study as a comparison.

Planned/Unplanned

The tasks are unplanned in order to be as naturalistic as possible, and also to avoid uncertainties created by the extra time involved in carrying out planning. (It should be noted, however, that research shows that planned tasks stretch interlanguages further, e.g., Crookes, 1989).

Cooperative/Competitive

The tasks have learners in dyads working towards the same/convergent goal in a cooperative rather than competitive manner. Learners working individually are not competing with researchers. This allows the tasks to be non-threatening. The tasks chosen were all task types which are in use in various language teaching situations and as such were likely to be tasks learners were familiar with. They appear to be of a non-serious nature and as such have some face validity in that they are in popular use and are entertaining. An additional reason for the choice of tasks as opposed to interviews for the purposes of eliciting targeted morpho-syntactic structures is that they avoid many of the unpleasant characteristics of interviews such as interrogation style questions, learner shyness, and topic control and dominance by the interviewer.

Task Bias

An additional feature considered to be important in the task design was the attempt to avoid sexism/ethnocentric bias. This area of task design is not widely discussed in the research. Many of the tasks in use in the classroom and reviewed for this study were biased in some way. In designing these tasks attempts were made to avoid bias as far as possible, for example to reflect Australia's multicultural society by including people/food/scenes etc. with a variety of origins and to reflect the status of women as active participants without stereotyping. However, more research into this aspect of task design is necessary. Resources did not allow this study to focus on that aspect as much as would have been desirable and it is inevitable that flaws remain in these tasks.

Table 1 provides a summary of the task types, the structures focused on in the results section, the design features used, and the participants involved in the interactive situation.

Table 1: Overview of Tasks

Task	Structure	Features	Participants
1. Picture Recognition	3SG 'S' -ing	One way/closed/ convergent goal/unplanned	Subject & Researcher
2. Story Completion	Wh questions	One way/closed/ convergent goal/unplanned	Subject & Researcher
3. Informal Interview	General	Two way/open/ unplanned	Subject & Researcher
4. Picture Sequencing	Negs Cop Inv Questions	One way/closed/ convergent goal/unplanned	Subject & Subject & Researcher
5. Picture Differences	Negs General Questions	One way/closed/ convergent goal/unplanned	Subject & Subject & Researcher
6. Meet Partner	Questions	One way/open/ convergent goal/unplanned	Subject & Subject & Researcher

Examples are given in Table 2 below–both of tasks which were originally designed and tested with adults and of tasks which were designed specifically for children and tested for the first time in this study. Some tasks were appropriate for both adults and children. For tasks 1, 2, 4, and 5 at least two examples of each task-type were used with each subject. With the other two tasks (3 and 6) one example was used.

Table 2: Descriptions of Redesigned Tasks

Task-type	Examples created for adults	Examples redesigned for children
Picture Recognition	Librarian- series of photographs depicting a day in the life of a librarian. Subjects asked "what would she do every day?" etc.	Supplementary characters used included those which would be familiar to children who have been in Australia for several months or longer e.g., their teacher, their parent/s or cartoon characters
Story Completion	Poisoning: Series of pictures depicting a poisoning and a ransom demand. Subjects instructed to find the story behind the pictures.	Stories depicting scenes such as zoos, picnics and outings and the escapades of animals.
Informal Interview	Researcher and subject speak informally about a number of topics. The researcher is instructed to avoid dominance and topic control where possible.	Topics raised by interviewer for discussion aimed at children e.g., favorite food, names of friends, etc.
Picture Sequencing	Mishaps: A series of pictures depicting a number of mishaps which befall a person on their way home needs to be ordered. Two subjects each have half of the pictures and attempt to put them in order. They cannot see each other's pictures.	Pictures aimed at children, e.g., series of mishaps happens to an animal who needs to relearn a skill it has lost e.g., digging/flying in order to get out of trouble.
Picture Differences	Marriages: Pairs of wedding scenes from different cultures. This is a "spot the differences" task where each pair has a picture which the other person cannot see. They collaboratively try to work out the differences.	Scenes are changed to those which children might come into contact with at school e.g., animal/spaceship pictures.
Meet Partner	Series of topics given to a pair of subjects to enable them to find out information about each other and report it back to the researcher. Topics include issues such as job, menu preferences, etc.	Topics aimed at children include information such as pets owned/wanted, school attended, and favorite TV shows.

Examples of the Targeted Morpho-syntactic Structures

Table 3[3] below provides an explanation and examples of all of the targeted structures in this study. Not all of these structures are analyzed in detail in the results section due to constraints of space, but they all contribute to the total structure counts. Structures analyzed in detail in the results section are specified, together with the tasks designed to target them, in Table 1. It is important to note that many of the examples of the structures can be grammatical or ungrammatical.

Table 3: Examples of the Targeted Morpho-syntactic Structures

Negation	
Neg + SVO	Sentence External Negation. A negator is placed before the sentence or clause. Negator form is irrelevant Example: **No me live here**
Neg + Verb form	Preverbal Negation. A negator is placed before the main verb in a sentence. Negator is irrelevant Example: **She not going home**
Neg Do-2nd	In negated main clauses and wh-questions, a negated form of the verb 'do' is placed in second position Example: **(Why) don't he like fish**
Word Order	
Topicalisation	Objects or Subordinate Clauses are placed in sentence initial position. Example: **Because I love you I can't leave**
Particle-Shift	With certain English compound verbs (e.g.,. switch off) it is possible to split the verb and the preposition Example: **Have you *switched* the light *off***
SVO express	Subject Verb Object is the basic word order for English. Canonical order is used to a range of functions Example: **I like you; No he go home**
Adverb	Adverbs or Adverbials in sentence initial position Example: **Tomorrow I'm going home**
Questions	
SVO Question	Canonical word order used in question formation. Example: **You live here ?**
Do-Fronting	Direct questions with main verbs must have some form of the verb 'do' in initial position Example: **Does you like fishing ?**
Y/N-Inversion	In direct yes/no questions an auxiliary or modal verb is placed in sentence initial position Stage 4 Example: **Have you got my money ?**
Copula Inversion	Wh-questions involving the copula require that the copula and the subject change places. Example: **Who is she?**
Do/Aux-2nd	In English main clauses, the auxiliary and modal verbs are placed in second position in affirmative and wh-questions i.e. they change places with the subject Example: **Why have you left home ?**
Cancel Inv.	In relative clauses wh-question inversions do not apply Example: **I wonder what she's doing ?**
Verb Morphology	
-ed	Regular past tense marking on main verbs Example: **He walked (+) He goed (>) He eat (-)**
-Irr past	Past marking with irregular main verbs Example: **She came (+)**
-ing	Any use of the 'ing' postfix. Example: **She going home**
- 3sg -s	Third person singular 'S' marking Example: **He eats (+) She is eats (>) She eat (-)**

Noun Morphology	
Piural -s	Addition of plural 's' postfix to nouns Example: **dogs (+) breads(>) The three dog (-)**
Poss -s	Possessive 's' marking on nouns Example: **Pat's cat (+) Pat cat (-)**
Pronoun Morphology	
Possessive	Use of possessive pronouns Example: **Their (+) Peter's his (>) they dog (-)**
Object	Use of object pronouns. **...called her (+) ..John him (>) ..called she (-)**
Adverb	Use of -ly to construct adverbs out of adjectives. Example: **run slowly (+) run fastly (>) run slow (-)**
General	
Single Words	Use of single words to express complex intentions Example: **Central -> "I am going to Central"**
Formulae simply	Learners may use quite complex 'unanalysed' chunks of language which they have memorized Example: **How do you do**
Omission	
Subject	The subject of a sentence is missing Example: **go home**
Verb	The main verb is omitted Example: **she home**
Copula	The copula is omitted Example: **That dog big**
Article	The article is missing from a noun phrase Example **dog is big**

As mentioned earlier, Rapid Profile provided the motivation for why these particular morpho-syntactic structures were targeted. Pienemann, Johnston, and Brindley (1988) provide a full discussion and explanation of the placement of these structures into their proposed developmental schedule in terms of the processing constraints which they claim apply to these structures. For further information about the way Rapid Profile incorporates these structures and the acquisition constraints see Pienemann (1992).

Research Questions and Hypotheses

The two main objectives of this study were, firstly, to investigate whether the tasks used were more efficient than the Informal Interviews at eliciting targeted morpho-syntactic structures with children and, secondly, to test whether tasks elicited the structures which they were meant to target when used with children. Related questions were concerned with whether there was a difference between subject and researcher, and subject and subject situations and whether there was a difference between the two groups of subjects.

Specific research questions and hypotheses formulated were:

1. Did the tasks or the interview produce a higher density of total structures?

> Hypothesis 1: The density of total structures in the interview would not be higher than in the tasks.

The interview was targeted at total structures whereas the tasks were targeted at specific structures. However, it was expected that the tasks and the interview would be similar in terms of the total structures they generated.

2. Did each of the tasks produce the structures at which they were targeted?

> Hypothesis 2: 3SGs would be produced in greatest quantities by the Picture Recognition task.
>
> Hypothesis 3: -ing would be produced in greatest quantities by the Picture Differences task.
>
> Hypothesis 4: Question forms would be produced in greatest quantities by the Picture Differences task.
>
> Hypothesis 5: None of the structures targeted by the tasks would be produced in the greatest quantities by the Informal Interview.

The targeted structures which are the focus of this question are the six types of question formations and the 3SGs and -ing morphological forms. Time constraints did not allow for analysis of each of the 28 structures, so these structures were selected as interesting on the basis that they were either high level structures, found to be difficult to both produce and elicit, or because previous studies (Mackey, Pienemann, & Doughty, 1992) had found them to be more difficult to elicit.

3. Was a range of questions produced?

> Hypothesis 6: The Picture Differences task would result in each subject producing at least three different question types from a range of five.

Although other tasks were designed to produce specific question types (for example the Meet Partner task and Copula inversion/yes/no inversion questions) the Picture Difference task was targeted at a wide range of questions.

4. Did the elicitation situation affect the production of structures?

> Hypothesis 7: The researcher and subject situation (ns & nns) would be equally as productive in terms of total structures as the subject and subject (nns & nns) situation.

This question was designed to examine the productivity in terms of total structures of situations which involve nns/nns and ns/nns dyads. All the researchers were native speakers; all the subjects were non-native speakers.

5. Was there a difference in terms of total structures produced between Group 1 and Group 2?

> Hypothesis 8: Group 1, who were subjected to one long conversational interview and no tasks, would produce less total structures than Group 2's task production.

No strong claims can be made on the basis of findings in relation to this question because the situational variables were not controlled for Group 1, however, it is still thought to be an interesting comparison.

Research Design

Biodata

The empirical study carried out for this project involved two groups of children, one group which had various L1 backgrounds and one group which had Spanish L1 backgrounds. The children were all between 7 and 10 years old. They had varying degrees of exposure to English, length of residence in Australia and age of arrival in Australia. Group 1 (7 children, various L1s) were all students at the same public school. Group 2 (6 children, Spanish L1) were all contacted through the Ethnic Schools Centre in Sydney. The data collection situation differed for the two groups of subjects. Data from Group 1 forms only a small part of the study in that it is used as a comparison group for the final research question. Group 2 is the focus of the study. Data from Group 1 was used so that a task/interview comparison across the groups as well as between the groups could be made.

Data Elicitation Situation for Group 1

Data from Group 1 was collected through a "Conversational Interview." Children were encouraged to chat to a researcher who asked them stimulus questions. No visual cues were used. The participants were researcher and subject. The data collection took between 20 and 30 minutes. Subjects were audio taped.

Data Elicitation Situation for Group 2

The task-based elicitation procedure was used with Group 2. Five communicative tasks and one Informal Interview[4] were used to elicit speech. Each task/interview took approximately seven minutes. The total amount of data collected from each child was

between 40 and 50 minutes. Data was collected in two situations for each child. Participants were researcher and subject (ns & nns) and subject and subject (nns & nns). At least two examples of each task type were used in all cases (see Table 4). Researchers were members of the Rapid Profile project team at the Language Acquisition Research Centre (LARC), University of Sydney. They were given written instructions for administering the tasks and were directed to avoid producing models wherever possible. Variables such as task ordering and gender and age of researcher and subject were controlled. Data was audio taped and stored on Digital Audio Tape (DAT). All subjects in Group 2 were at a similar developmental level.[5] This choice of a group of learners who are all at a similar level was made to remove variation which might be caused by differences in developmental level. However, future studies need to be carried out with learners representing a range of levels. This would increase the generalisability of the results.

Table 4: An Overview of the Data Elicitation Situations

Group 1 Mixed L1s 20-30 mins	Group 2 Spanish L1 40-50 mins
Situation: Researcher & Subject (ns & nns)	Situation A: Researcher & subject (ns & nns)
Conversational Interview	1. Picture Recognition task 2. Story Completion task 2. Informal Interview.
	Situation B: Subject & subject (nns & nns)
	1. Picture Sequencing task 2. Picture Difference task 2. Meet Partner task

Transcription and Coding of Data

Transcriptions were made using audio tapes and memoscribers. Transcription was carried out by four people including the researcher and all transcripts were randomly checked by the researcher. Transcription conventions developed at LARC were used. These transcription conventions allow transcribers to mark things such as backchannel ("mmm") and pauses in a consistent manner and allow for easier reference to the transcript. The transcriptions are orthographic representations of the data.

All data was coded in a software program (Thornton, 1991) for the purpose of coding Rapid Profile data, known as Rapid Edit. Coding was carried out by three people including the researcher and was all checked by at least one other person. Inter-rater reliability tests show coding reliability at approximately 95% ($p>0.05$). Coding took approximately 4 hours for an analysis of a 30 minute transcript. For the total data set of approximately 7 hours coding took approximately 57 hours.

Measures of Data

The data used for the analysis includes an examination of all data for all tasks and an individual analysis of three specific tasks for questions 2 and 3. These tasks are: Picture Recognition, Picture Differences, and Informal Interview. The Informal Interview is referred to as a task for the purpose of the comparison in the analysis. The structures which form the focus of this study are outlined in Table 3.

Six tasks were described and used. The results section focuses on data from three of those tasks to address questions 2 and 3 and data from the remaining three tasks for the comparisons and total structure counts in questions 1, 4, and 5. Both situations, i.e. subject and researcher (ns & nns) and subject and subject (nns & nns), are represented in the three tasks used to answer questions 2 and 3. The Picture Recognition Task and the Informal Interview represent the first situation and the Picture Differences task represents the second situation.

Contexts and tokens of the data are both counted. This method follows a tradition of Interlanguage analysis based on Meisel, Clahsen, and Pienemann, 1981. For more details of why they are both considered important see Pienemann and Mackey, 1993. Positive (+), negative (-) and oversupplied (>) cases are counted; for example, "she go (-), she goes (+), and she is goes (>)" are all counted as examples of the structure, in this case 3SGs, or contexts for its occurrence.

Statistics

The Friedman non-parametric two way analysis of variance was used as the data did not meet all the assumptions required for standard ANOVA due to the small sample of subjects and tasks used. Because of the small numbers, exact probability values have been given.

Results

1. Did the tasks or the interview produce a higher density of total structures?

> Hypothesis 1: The density of total structures in the interview would not be higher than in the tasks.
>
> *Hypothesis 1 was confirmed.* There are no significant differences between the interview and the tasks in terms of the density of total structures counts ($x=1.33$, $p=0.57$, $k=3$, $n=6$).

The tasks are no less efficient at generating total structures than the interview, despite the fact that the interview was targeted at total structures and the tasks were not. It is necessary to consider the total structures in relation to t-units. T-units are defined as a

clause containing a tensed verb and any attached dependent clauses. Although each of the tasks were performed in roughly similar amounts of time (an average of seven minutes), t-units are a more effective measure of usefulness of data as it is possible that a task could take twice the average time but generate very little talk by the child. A t-unit is a way of checking that there are meaningful utterances in the speech. The measure is t-units rather than turns at talk in order to exclude minimal turns such as "mmm" and "yes." The t-unit measure represents density of structures in the data. For example if a child produces 5 structures in 5 t-units (or 5 minutes) this is a much richer (and more efficient) data set than if the same child produces 5 structures in 50 t-units (or 15 minutes). The most t-units were produced by the interview. This means that although slightly more structures occur in the interview, more t-units are necessary for these structures to occur. Where large numbers of t-units occur, there are obviously more opportunities for structures to occur. All figures were measured as raw scores in relation to t-units. Statistical tests were carried out on both sets of figures with no qualitative difference between them.

2. Did each of the tasks produce the structures at which they were targeted?

Hypothesis 2: 3SGs would be produced in greatest quantities by the Picture Recognition task.

Hypothesis 2 was confirmed.

Friedman's two-way analysis of variance confirmed that the difference in tokens between the tasks was highly significant ($x=10.33$, $p=0.0017$, $k=3$, $n=6$). A post-hoc Least Significance Difference measure showed that Picture Recognition produced significantly more 3SGs than either of the other situations ($p=0.05$). Table 7 shows that 3SGs or its contexts appeared in greatest quantities in the Picture Recognition task which was designed to elicit 3SGs. This trend appears for all subjects and is reflected in the overall total. 3SGs is a late acquired structure in terms of development and is often difficult both to produce and observe. Therefore, it is noteworthy that this task was successful. To summarize, therefore, this table indicates that the Picture Recognition task is highly successful at eliciting 3SGS, the structure which it was designed to target.

Table 5: Total Structure Counts

Subject ID	Picture Recognition	Informal Interview	Picture Differences	Totals (for all 3 situations)
3.1	62	102	96	260
3.2	168	146	157	471
3.3	98	273	86	457
3.4	169	148	120	437
3.5	85	36	60	181
3.6	195	178	98	381
Totals	777	883	617	2,187

Table 6a: Total T-units

Subject ID	Picture Recognition	Informal Interview	Picture Differences	Totals (for all 3 situations)
3.1	28	43	42	113
3.2	48	60	51	159
3.3	31	133	33	197
3.4	63	52	45	160
3.5	30	19	20	69
3.6	37	114	32	183
Total t-units	237	421	223	881

Table 6b: Average Structures per T-unit

Subject ID	Picture Recognition	Informal Interview	Picture Differences
3.1	0.45	0.42	0.43
3.2	0.28	0.41	0.32
3.3	0.31	0.48	0.38
3.4	0.37	0.35	0.37
3.5	0.35	0.52	0.33
3.6	0.18	0.64	0.32
Total t-units	0.34	0.47	0.36

Table 7: Tokens of 3SGs or Contexts for its Occurrence

Subject ID	Picture Recognition	Informal Interview	Picture Differences	Totals (for all 3 situations)
3.1	8	6	5	19
3.2	25	8	3	36
3.3	16	13	5	34
3.4	16	7	0	23
3.5	13	0	2	15
3.6	21	12	0	33
Totals (all subjects)	99	46	15	160

Hypothesis 3: -ing would be produced in greatest quantities by the Picture Differences task.

Hypothesis 3 was disconfirmed.

As can be seen in Table 8, there was no significant difference between the task targeted at -ing, the Picture Differences task and the Informal Interview or the other task. The Friedman test showed x=2.33, p=0.430, k=3, n=6.

Table 8: Tokens of -ing or Contexts for its Occurrence

Subject ID	Picture Recognition	Informal Interview	Picture Differences	Totals (for all 3 situations)
3.1	14	0	6	20
3.2	7	5	14	26
3.3	7	15	1	26
3.4	4	0	5	9
3.5	10	0	2	12
3.6	3	11	12	26
Totals	45	31	40	119

Hypothesis 4: Question forms would be produced in greatest quantities by the Picture Differences task.

Hypothesis 4 was confirmed.

Friedman's two-way Analysis of Variance for this question showed that there was a significant difference in the number of question forms between the tasks ($x=9.33$, $p=0.0055$, $k=3$, $n=6$). Post hoc analysis indicated that the Picture Differences task produced significantly more questions than the other two tasks ($p=0.05$). The Picture Differences task is dramatically more efficient than the Picture Recognition task and the Informal Interview at eliciting questions. A large number of different question types were observed in the data. For the purposes of this part of the analysis it is sufficient to say that whereas previous studies (Mackey, Pienemann, & Doughty 1992) had noted that questions were difficult to elicit, that finding was not reflected in this data. This may be a functor of age (children may be more likely than adults to ask questions) or task-type. Further study is needed to assess the effect of these variables.

Table 9: Tokens of Questions or Contexts for their Occurrence

Subject ID	Picture Recognition	Informal Interview	Picture Differences	Totals (for all 3 situations)
3.1	1	0	20	21
3.2	1	0	44	45
3.3	3	3	18	24
3.4	0	3	33	36
3.5	0	0	19	19
3.6	3	3	23	26
Total (all subjects)	8	9	157	171

Hypothesis 5: None of the structures targeted by the tasks would be produced in the greater quantities by the interview than the tasks.

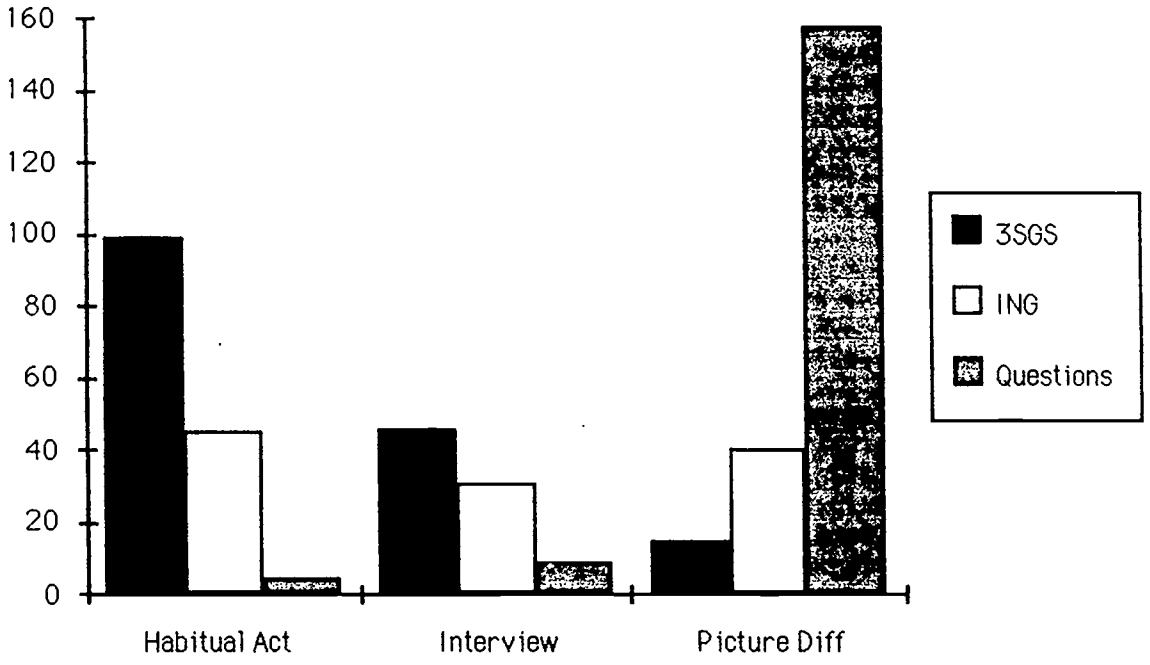
Hypothesis 5 can be confirmed by reference to the results for testing of hypotheses 2, 3, and 4.

Concerning the differences between the individual tasks and the interview in terms of the structures which they produce, it is clear that the tasks produce the structures for which they were designed in greater quantities than the interview. We can conclude from the previous three hypotheses that in no case did the interview produce more targeted structures than the tasks which were designed to elicit these structures.[6] The tasks are significantly more efficient at eliciting the structures for which they were designed than the Informal Interview. Table 10 and the Bar Graph (Figure 1) serve to illustrate this point.

Table 10: Total Tokens of 3SGS, -ing, Questions,and all Structures

Structure	Picture Recognition (3SGS)	Informal Interview	Picture Differences (questions)	Totals for the 3 situations
3SGS	99	46	15	160
-ing	45	31	40	116
Questions	5	9	157	171
Total all structures	149	86	212	447

Figure 1: Totals of 3SGS, -ing, and Questions for the two tasks and Informal Interview.



3. Was a range of questions produced?

Hypothesis 6: The Picture Differences task would result in each subject producing a range of different question types.

Hypothesis 6 was confirmed.

Table 11 shows that the Picture Differences task is efficient at eliciting a wide range of questions and that it is most efficient at eliciting Y/N Inversion and Copula Inversion.

4. Was there a difference in the elicitation situation?

Hypothesis 7: The researcher and subject (ns & nns) situation would be equally as productive in terms of total structures as the subject and subject (nns & nns) situation.

Hypothesis 7 was confirmed.

Table 11: Types of questions elicited by the Picture Differences Task

Subject Id	SVO	Do-fronting	Y/N Inversion	Copula Inversion	Do/Aux 2nd
3.1	3	3	12	1	1
3.2	1	1	16	25	1
3.3	1	7	8	0	2
3.4	0	2	21	9	1
3.5	0	8	3	3	5
3.6	0	4	18	1	0
Totals for all subjects	5	25	78	39	10

Figure 2 : An Illustration of the Types of Questions Generated by the Picture Differences Task

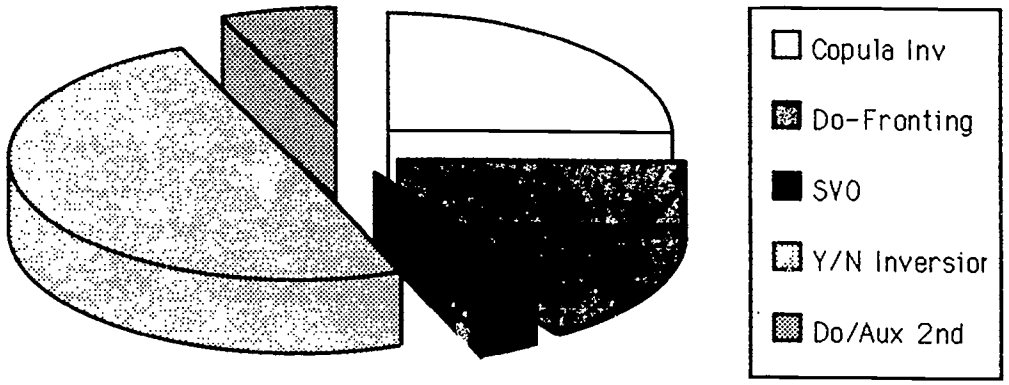


Table 12 shows the totals of all structures for all tasks, both for the ones focused on here and the ones not discussed in detail. The Picture Recognition and the Informal Interview from Situation A and the Picture Differences task from Situation B were the focus of this study. As can be seen from the figures, total structure counts for the two situations are in a similar range. It seems that the situation with researcher and subject (ns & nns) is slightly more productive than the situation with subject and subject (nns & nns) but the numbers are not significant.

5. Was there a difference in terms of total structures produced between Group 1 and Group 2?

Hypothesis 8: Group 1, who were subjected to one long Conversational Interview and no tasks, would produce less total structures than Group 2.

Hypothesis 8 is tentatively confirmed with the following qualifications :

Table 12: Comparison Between Researcher and Subject (ns & nns) and Subject and Subject (nns & nns) Situations

Subject ID	A: Total of all structures for researcher and subject: Picture Recognition, Story Completion and Informal Interview	B: Total of all structures for subject and subject: Meet Partner, Picture sequencing and Picture Differences	Total of all structures for all 5 tasks + Interview
3.1	260	255	515
3.2	471	291	762
3.3	437	243	680
3.4	437	305	742
3.5	181	112	293
3.6	381	267	648
Totals of all subjects	2,167	1,473	3,640

It is apparent from Table 13 that total structure counts are much greater for Group 2 than for Group 1. However, caution needs to be taken when analyzing the results which confirm Hypothesis 8. This study focused on Group 2 for testing the Informal Interview and the tasks. No strong claims are made about this difference between the two groups as it must be seen in relation to the fact that the data elicitation situations were different and that data elicitation for Group 2 took, on average, seven minutes longer than for Group 1. However, even when taking this into account by using t-units as a measure of amount of data and creating a ratio of tokens per t-unit, it is still the case that Group 1 produces less total structures in relation to t-units than Group 2.

Table 13: A Comparison Between Total Structure Counts for Groups 1 & 2

Subjects	Group 1	Group 2
1	379	515
2	211	762
3	466	680
4	271	742
5	215	293
6	240	648
7	220	only 6 subjects*
totals	2,002 - 286* = 1,716	3, 640

There were only six subjects for Group 2; the extra score for Group 1 was removed through averaging.

Discussion

Targeted Structures

The results show that the tasks were successful at targeting the morpho-syntactic structures for which they were designed in the interlanguage production of Spanish L1 children.

The tasks were more successful than the interview at producing targeted structures with the exception of the -ing structure. The -ing structure is relatively easy to observe, it was found to occur with all of the tasks and the interview in a similar range of quantities. Therefore, it can be concluded that it is probably not necessary to design a task

specifically to target this structure as it occurs frequently in response to a variety of tasks and in interviews.

The large amounts and wide range of questions elicited with the Picture Differences task was considered to be an interesting finding given that previous studies (e.g., Pienemann, Johnston, & Brindley, 1988) had shown a lack of data on question structures. Future research could address whether this finding was a functor of age by testing the Picture Differences task again with adults.

Third person singular "s" (3SGs) was produced in large quantities by the Picture Recognition task. This structure often proves problematic to target through suitable contexts. The instructions for carrying out the tasks may be important when targeting this structure. One of the subjects produced less structures when compared with the other subjects on the Picture Recognition task, but produced regular tokens of 3SGs in response to the other tasks. On closer examination of the data, it was discovered that the instructions provided by the researcher in relation to this task with this subject were limited to only one of the three models of instructions supplied to all other subjects. The relative lack of direction received by this subject may therefore have been a contributory factor due to the production of fewer tokens. Again, this could be the subject of future study.

Total Structures

Although the interview was designed to elicit large quantities of the total range of structures it was not found to be significantly better at this than the tasks. The total structures produced by both tasks and interviews were in a similar range, no significant differences between them were found. This is an important finding because it was considered that, while the interview would not be more successful at producing the targeted structures, it might be more successful at targeting large quantities of total structures. In fact, it seems that the tasks are equally efficient at doing this. Therefore, it appears that it may be possible to use tasks to elicit a wide range of general structures as well as to target particular structures. When targeting morpho-syntactic structures, it may not be necessary to use Informal Interviews at all. However, future studies would need to analyze the components of the total structure count before this use of tasks could be advocated. Also, the tasks were not found to be significantly better at eliciting total structure counts–just equally as productive as the interview–so it may be pragmatic to retain both methods if time is not a constraint. Future studies could design and test tasks which target a very wide range of structures.

Situation

The finding that researcher and subject (ns & nns) and subject and subject (nns & nns) situations did not show significant differences has relevance for a number of reasons. When using tasks, learners usually work together in pairs or small groups. It seems that where structure-targeted tasks like these are used, learners have as many opportunities for producing targeted structures or contexts in situations with native speakers (or teachers/researchers) as they do with non-native speakers (other learners). Often, where structures are concerned, teachers and learners seem to feel that the native speaker and non-native speaker pair is the optimal situation for opportunities for practice. In this study, the findings suggest that either situation is appropriate. It should be noted that tokens were counted whether there was suppliance, non-suppliance or over-suppliance, and it is possible that more analysis of the types of tokens of data would be interesting.

Conclusion

The aims of this study were to examine whether task-based elicitation procedures were more efficient than interviews at eliciting targeted morpho-syntactic structures and whether tasks designed to target specific morpho-syntactic structures achieved their aims. The data indicates that tasks are more efficient than interviews at eliciting targeted morpho-syntactic structures with child speakers of ESL and that the tasks were successful in targeting the structures for which they were designed. At this point, it would be desirable to carry out replication studies both with adults and with children at different developmental levels. This would increase the generalisability of the results.

---

[1] This study was carried out in 1992-93. It is important to note that an earlier project first examined the use of tasks to target morpho-syntax in adult ESL. The researchers in this earlier project were Manfred Pienemann, Catherine Doughty, and myself. Although conference presentations resulted from the earlier study, no publication has yet arisen from it. Both this study and the previous study address similar basic issues, such as whether tasks target specific structures and whether tasks are more/less efficient than interviews. The study reported on here uses a smaller group of subjects and uses children rather than adults. It also addresses some different issues from the first study e.g., elicitation situation, etc. while issues such as age/gender of facilitator addressed by the first study are not considered here.

I gratefully acknowledge the contribution of Manfred Pienemann to this paper. He provided the inspiration for this study which developed from my involvement in the first study. Also, as Director of the Language Acquisition Research Centre, University of Sydney, he allowed me to continue to work with tasks on the NLLIA/LARC Child ESL project. A report resulted from that project: Pienemann, M. & A. Mackey (1993). *An Empirical Study of Children's ESL Development and Rapid Profile.* In P. McKay, (Ed.), *ESL Development: Language and Literacy in Schools. Commonwealth of Australia and NLLIA* 2:115-259. A much shorter and simplified version of this study of tasks is contained within one chapter of that report. I would also like to gratefully acknowledge the fact that this study was partly funded by a grant from the Department of Education Employment and Training (DEET) to the National Languages and Literacy Institute of Australia (NLLIA) for a National Project entitled ESL Development: Languages and Literacy in Schools.

I would also like to acknowledge the varied contributions of the following people: Ian Thornton, without whose multifaceted help the paper could never have been completed; Catherine Doughty, Mark Harvey, Fredricka Van der Lubbe, Belinda Munroe, David Fletcher, Laura Brinkworth, Vanessa Elwell-Gavins, Penny McKay, Joe Lo Bianco, Irlande Alfred, Jenny Philp.

2 Pienemann, M. & Mackey, A. (1993).

3 The developmental sequences which provide the basis for Rapid Profile and the morpho-syntactic structures targeted in this study are those resulting from a long tradition of work by Manfred Pienemann and his associates (eg Pienemann & Johnston, 1987; Pienemann, Johnston, & Brindley, 1988). This table provides an explanation and some examples of the stages in their work. Ian Thornton (unpublished) devised many of the explanations and examples.

4 The informal interview was actually structured in the sense that "topic guides" were given. During analysis, each subtopic was analysed separately as well as each interview as a whole. No significant differences were found.

5 They were all rated at stage 5 in terms of Rapid Profile. Stage 5 has been compared with an upper intermediate or lower advanced level in terms of proficiency scales. For further information on proficiency scaling and developmental levels (see Pienemann & Mackey, 1993).

6 Only for -ing were the figures not significant.

References

Biber, D. (1988). *Variation across speech and writing*. Cambridge: Cambridge University Press.

Crookes, G. (1989). Planning and interlanguage variation. *Studies in Second Language Acquisition, 11*, 367-83.

Doughty, C. & Pica, T. (1986). Information gap tasks: Do they facilitate second language acquisition? *TESOL Quarterly, 20*, 233-248.

Ellis, R. (1985). Sources of variation in interlanguage. *Applied Linguistics, 6*, 118-131.

Gass, S. & Varonis, E. (1985). Task variation and native/nonnative negotiation of meaning. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 149-61). Rowley, Mass: Newbury House.

Gregg, K. (1990). The variable competence model of second language acquisition and why it isn't. *Applied Linguistics, 11*, 364-383.

Larsen-Freeman, D. & Long, M. (1991). *An introduction to second language acquisition research*. London: Longman.

Lightbown, P. & Spada, N. (1993). *How languages are learned*. Oxford: Oxford University Press.

Long, M. (1983). Native speaker/non-native speaker conversation and the negotiation of comprehensible input. *Applied Linguistics, 4*(2), 126-141.

Long, M. (1985). A role for instruction in SLA: Task-based language training. In K. Hyltenstam & M. Pienemann (Eds.), *Modelling and assessing SLA*. Clevedon: Multilingual Matters.

Long, M. (1990). Task, group and task-group interactions. In S. Anivan (Ed.); *Language teaching methodology for the nineties*. Singapore: SEAMEO Regional Language Centre.

Long, M. & Crookes, G. 1992 Three approaches to task-based syllabus design *TESOL Quarterly 26*(1).

Mackey, A. (1993). Targeting morphosyntax in children's ESL–An empirical study of the use of communicative tasks. *Language Acquisition Research Centre Occasional Papers, 6.*

Mackey, A., Pienemann, M. & Thornton, I. (1991). Rapid Profile: A second language screening procedure. *Language and Language Education, 1*(1), 61-82.

Mackey, A., Pienemann, M. & Doughty, C. (1992). The value of interactional tasks in eliciting morpho-syntactic structures. *Language Acquisition Research Centre Occasional Papers, 2*(2).

Meisel, J., Clahsen, H. & Pienemann, M. (1981). On determining developmental stages in natural second language acquisition. *Studies in Second Language Acquisition, 3,* 109-35.

Pica, T. (1987). Interlanguage adjustments as an outcome of NS-NNS negotiation interaction. *Language Learning, 38,* 45-73.

Pica, T. & Doughty, C. (1985). Input and interaction in the communicative language classroom: A comparison of teacher-fronted and group activities. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 115-32). Rowley, MA: Newbury House.

Pica, T., Kanagy, R. & Falodun, J. (1993). Choosing and using communication tasks in language teaching and research. In S. Gass & G. Crookes (Eds.), *Tasks and second language learning.* London: Multilingual Matters.

Pienemann, M. (1992). Assessing second language through Rapid Profile. *Language Acquisition Research Centre Occasional Papers, 1.*

Pienemann, M., Johnston, M. & Brindley, G. (1988). Constructing an acquisition-based procedure for second language assessment. *Studies in Second Language Acquisition, 10,* 17-243.

Pienemann, M. & Mackey, A. (1993). An empirical study of children's ESL development. In P. McKay (Ed.), *ESL development: Language and literacy in schools* (pp. 115-259). NLLIA & Commonwealth of Australia.

Sato, C. (1986). Conversation and interlanguage development: rethinking the connection. In R. Day (Ed.), *Talking to learn: Conversation in second language acquisition* (pp. 5-22) Rowley, MA: Newbury House.

Tarone, E. (1982). Systematicity and attention in interlanguage. *Language Learning, 32,* 69-84.

Tarone, E. (1985). Variability in interlanguage use: A study of style shifting in morphology and syntax. *Language learning, 35,* 373-403.

Varonis, E. & Gass, S. (1985). Non-native/non-native conversations: A model for negotiation of meaning. *Applied Linguistics, 6,* 71-90.