# LANGUAGE PREFERENCE AMONG FILIPINO GRADE 2 CHILDREN

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## ABSTRACT

Three groups of pupils were requested to name a series of words, letters and pictures, either in English or Tagalog. For some of the stimuli, only an English response was appropriate, for others only a Tagalog response was appropriate, while for the rest either language label could be used. The *Ss* were selected from 3 instructional groups at the Philippine Normal College (English, Tagalog and 'alternate days' bilingual). The results indicated that the language given in response to the stimulus varied as a function of the language of instruction (86% English for the English group, 43% English for the bilingual group and 40% English for the Tagalog group) and type of stimulus (72% English for letters, 57% English for words and 40% English for pictures). In addition, the pupils tended to imitate, in their responses, the language in which the non-neutral stimuli were presented. The language preference, as shown in this study, might be related not only to the language of instruction, but also to the age and place at which the various concepts, represented by the stimuli, had been learned.

Hymes (1967), Vildomec (1963) and Kolers (1968) have suggested that a bilingual's choice of language depends mainly upon three major factors. The first involves certain social pressures in the speech community which lead the bilingual to switch from one language to another. The second deals with certain emotional involvements with the language which cause him to prefer one language over the other. The third factor deals with the psychological processes that explain how a bilingual person stores verbal information and subsequently selects a particular linguistic code in retrieving such information.

The socially-governed phenomenon of language preference, the first factor, has been studied by sociolinguists in an attempt to develop a theory on the interaction of language and social setting. Fishman (1967), Hymes (1967) and Gumperz (1967) advocate the use of a theoretical model which could handle all types of code variations, those of the monolingual as well as those of the bilingual individual. Hymes (1967) proposed a model for analyzing most components of the speech act on which one's choice of language can be based.

Research on the second factor has involved surveys of languages preferred by multilinguals, and the reasons behind these preferences. In his survey of 61 multilinguals, Vildomec (1953) reported that the first language ($L_1$) is usually among the languages preferred by the multilinguals. A second language ($L_2$) may also be highly preferred if, for example, it is the medium of instruction in school. An example of such preference can be found in a local experiment. Children in the Iloilo Experiment (see Davis, 1953) reported that they were happier studying in the native Hiligaynon than in English, and that they attended school regularly because they liked the medium of instruction.

Studies on the third factor have dealt mainly with the formulation of theories designed to explain the mental processes involved in the storage and retrieval of verbal informa-

tion. These theories are based on the assumption that the two languages of the bilingual are functionally separate, and that the bilingual processes verbal information in one language independently from the other. Penfield and Roberts (1959) and Preston (1965) have proposed the single-switch and two-switch models respectively, neither of which has been validated by subsequent research. Kolers (1968) and his associates formulated the one-tank and two-tank storage systems which were also not substantiated by experimental findings. However, Kolers (1968) concluded that the access of information for the bilingual depends mainly on the language in which the information was stored and the language context in which it was encoded. Macnamara (1967) has suggested that linguistic (i.e. written and spoken language) and non-linguistic (i.e. persons, places and topics) cues in the speech environment guide the bilingual in his choice of speech code, but support for this theory is merely anecdotal.

The present research constitutes a systematic study of the language preference of bilingual Filipino grade 2 children who are being instructed in one of three language schemes. In one scheme, pupils are taught using English as the medium of instruction. In the second, the medium of instruction is Pilipino (Tagalog). The third scheme utilizes an 'alternate days approach' where English and Pilipino are used as medium of instruction on alternate days.

## METHOD

*Subjects* (Ss). Ten male and 10 female grade 2 pupils from each of the English, Pilipino and Bilingual instruction groups at the Philippine Normal College Laboratory School served as *Ss.*

*Materials.* For each of 3 tasks (Letter Naming, Word Naming and Picture Naming), separate sets of stimuli were prepared, composed of a combination of N (neutral – i.e. response in either English or Tagalog is appropriate), T (appropriate response can be given only in Tagalog) and E (appropriate response can be given only in English) stimuli.

a) Letter Naming Task – the stimulus evoking the E response was "Q", that evoking the T response was "Ng", and all other letters appearing in both the English and Tagalog alphabets were considered to be N (e.g. S, A, P ).

b) Word Naming Task – the word "girl" was designated as the E stimulus, "bata" as the T stimulus, and any word appearing in both the English and Tagalog languages, with the same meaning, as an N stimulus (e.g. kite, bus, duke).

c) Picture Naming Task – a picture of an "astronaut" was selected as the E stimulus, a Filipino "barong-tagalog" as the T stimulus, and any object appearing in both cultures as an N stimulus (e.g. flower, butterfly, cup).

Within each task, 5 presentation sets were prepared, in accordance with the following schemes:

1) N, N, N, N
2) E, N, N, N
3) T, N, N, N
4) E, T, N, N
5) T, E, N, N

All stimuli were drawn on 5" x 8" index cards.

*Procedure.* The experimental procedure consisted of training and testing phases.

1. Training Phase – *Ss* were trained to give the appropriate E or T response to the predetermined E and T stimuli i.e. Q, Ng, girl, bata, picture of astronaut, picture of barong-tagalog.

2. Testing Phase – *Ss* were asked, via English-Tagalog instructions, to identify the letters, words and pictures which were on the index cards. Cards were flashed to the *Ss* at intervals of 2 seconds. For each group of *Ss*, presentation sets were randomized. The responses of the *Ss* were tape-recorded and subsequently scored as either English (1) or Tagalog (2).

*Data Analysis.* For each presentation set, only the first two N responses were scored. The data were initially analyzed via three separate 3 x 2 x $\overline{5}$ x $\overline{2}$ analyses of variance, with repeated measures on the last two factors. The independent variables in each analysis were Language of Instruction (English, Tagalog or Bilingual), Sex, Presentation Set (Neutral, English, Tagalog, English-Tagalog and Tagalog-English) and Trial Block (first vs. second response).

A further 3 x 3 x $\overline{2}$ analysis of variance was carried out, in which the independent variables were Language of Instruction, Task, and Trial block.

## RESULTS

*Letter Naming Task.* The analysis of variance produced significant F-ratios for

TABLE 1

LETTER NAMING TASK: Summary of Analysis of Variance

| SOURCE OF VARIATION | *MS* | *df* | *F* | *P* |
|---|---|---|---|---|
| A – Language of Instruction | 9.172 | 2 | 16.318 | <.01 |
| B – Sex | 0.282 | 1 | 0.501 | |
| A x B | 1.332 | 2 | 2.362 | |
| Within Groups | 0.562 | 54 | | |
| C – Presentation Set | 1.248 | 4 | 13.688 | <.01 |
| A x C | 0.257 | 8 | 2.819 | <.01 |
| A x B x C | 0.115 | 8 | 1.266 | |
| B x C | 0.032 | 4 | 0.347 | |
| C x Subjects | 0.091 | 216 | | |
| D – Trial Block | 0.082 | 1 | 0.691 | |
| A x D | 0.412 | 2 | 3.479 | <.05 |
| B x D | 0.042 | 1 | 0.351 | |
| A x B x D | 0.082 | 2 | 0.691 | |
| D x Subjects | 0.118 | 54 | | |
| C x D | 0.707 | 4 | 6.856 | <.01 |
| A x C x D | 0.293 | 8 | 2.842 | <.01 |
| B x C x D | 0.133 | 4 | 1.295 | |
| A x B x C x D | 0.130 | 8 | 1.257 | |
| C x D x Subjects | 0.103 | 216 | | |
| TOTAL | | 599 | | |

TABLE 2

LETTER NAMING TASK: Table of Means

| Language of Instruction | Sex | Presentation Set | Trial Block | | Group Means |
|---|---|---|---|---|---|
| | | | Block 1 | Block 2 | |
| English | Male | 1. Neutral | 1.000 | 1.000 | 1.015 |
| | | 2. English | 1.000 | 1.000 | |
| | | 3. Tagalog | 1.000 | 1.000 | |
| | | 4. Eng. – Tagalog | 1.000 | 1.000 | |
| | | 5. Tag. – English | 1.100 | 1.100 | |
| | Female | 1. Neutral | 1.000 | 1.100 | |
| | | 2. English | 1.000 | 1.000 | |
| | | 3. Tagalog | 1.000 | 1.000 | |
| | | 4. Eng. – Tagalog | 1.000 | 1.000 | |
| | | 5. Tag. – English | 1.000 | 1.000 | |
| Bilingual | Male | 1. Neutral | 1.600 | 1.400 | 1.370 |
| | | 2. English | 1.500 | 1.300 | |
| | | 3. Tagalog | 1.300 | 1.300 | |
| | | 4. Eng. – Tagalog | 1.300 | 1.700 | |
| | | 5. Tag. – English | 1.900 | 1.60 | |
| | Female | 1. Neutral | 1.400 | 1.400 | |
| | | 2. English | 1.400 | 1.000 | |
| | | 3. Tagalog | 1.200 | 1.400 | |
| | | 4. Eng. – Tagalog | 1.200 | 1.300 | |
| | | 5. Tag. – English | 1.400 | 1.300 | |
| Pilipino | Male | 1. Neutral | 1.300 | 1.800 | 1.400 |
| | | 2. English | 1.300 | 1.200 | |
| | | 3. Tagalog | 1.100 | 1.400 | |
| | | 4. Eng. – Tagalog | 1.100 | 1.300 | |
| | | 5. Tag. – English | 1.800 | 1.200 | |
| | Female | 1. Neutral | 1.400 | 1.600 | |
| | | 2. English | 1.400 | 1.40 | |
| | | 3. Tagalog | 1.100 | 1.50 | |
| | | 4. Eng. – Tagalog | 1.200 | 1.50 | |
| | | 5. Tag. – English | 1.700 | 1.70 | |
| Group Means | Male 1.283 | 1. Neutral 1.330 | 1.250 | 1.273 | |
| | | 2. English 1.225 | | | |
| | | 3. Tagalog 1.166 | | | |
| | Female 1.253 | 4. Eng. – Tag. 1.220 | | | |
| | | 5. Tag. – Eng. 1.400 | | | |

Language of Instruction ($F = 16.318$, $df = 2,54$, $p < .01$), Presentation Set ($F = 13.688$, $df = 4,216$, $p < .01$), the two-way interaction between Language of Instruction and Presentation Set ($F = 2.819$, $df = 8,216$, $p < .01$), the two-way interaction between Presentation Set and Trial Block ($F = 6.856$, $df = 4,216$, $p < .01$), and the three-way interaction among Language of Instruction, Presentation Set and Trial Block ($F = 2.842$, $df = 8,216$, $p < .01$). Examination of the means revealed that the English-instructed *Ss* gave more English responses than either the Bilingual or Pilipino-instructed *Ss* (1.015 vs. 1.370 and 1.400, respectively). All three groups, however, tended to give more English than Tagalog responses.

All Presentation Sets elicited more English than Tagalog responses, with the greatest number of English responses being elicited by the Tagalog set (Tagalog – 1.166, English-Tagalog 1.220, English 1.225, Neutral 1.330 and Tagalog-English 1.440). The two-way interaction between Language of Instruction and Presentation Set (See Figure 1) can be seen to be due to the performance of the English-instructed group. Whereas the other two groups showed differences in performance as a function of the Presentation Set, the English group gave English responses regardless of the Presentation Set. The two-way interaction between Language of Instruction and Trial Block can be seen to be due to the performance of the Pilipino group (See Figure 2). Whereas the English and Bilingual groups gave more English as their first than as their second responses, the Pilipino group did the reverse. The two-way interaction between Presentation Set and Trial Block appears to be due to the responses given following the English and Tagalog-English sets (See Figure 3). Whereas the other sets tended to elicit more Tagalog labels in the second than in the first response, the reverse was true for the English and Tagalog-English sets, which elicited more English responses. The three-way interaction among Language of Instruction, Presentation Set and Trial Block is shown in Figure 4. Whereas both the Bilingual and Pilipino-instructed groups tended to show marked differences as a function of the Presentation Set and Trial Block, the English-instructed group gave English responses regardless of Presentation Set or Trial Block.

*Word Naming Task.* The analysis of variance produced significant F-ratios for Language of Instruction ($F = 20.165$, $df = 2,54$, $p < .01$), Sex ($F = 10.920$, $df = 1,54$,

TABLE 3

WORD READING TASK: Summary of Analysis of Variance

| SOURCE OF VARIATION | *MS* | *df* | *F* | *P* |
|---|---|---|---|---|
| A – Language of Instruction | 8.645 | 2 | 20.165 | <.01 |
| B – Sex | 4.682 | 1 | 10.920 | <.01 |
| A x B | 2.502 | 2 | 5.835 | <.01 |
| Within Groups | | | | |
| C – Presentation Set | 0.637 | 4 | 4.263 | <.01 |
| A x C | 0.189 | 8 | 1.262 | |
| A x B x C | 0.179 | 8 | 1.195 | |
| B x C | 0.053 | 4 | 0.351 | |
| C x Subjects | 0.150 | 216 | | |
| D – Trial Block | 0.882 | 1 | 5.988 | <.05 |
| A x D | 0.182 | 2 | 1.235 | |
| B x D | 0.015 | 1 | 0.101 | |
| A x B x D | 0.045 | 2 | 0.306 | |
| D x Subjects | 0.147 | 54 | | |
| C x D | 4.894 | 4 | 29.947 | <.01 |
| A x C x D | 0.113 | 8 | 0.691 | |
| B x C x D | 0.702 | 4 | 4.298 | <.01 |
| A x B x C x D | 0.076 | 8 | 0.467 | |
| C x D x Subjects | 0.163 | 216 | | |
| TOTAL | | 599 | | |

TABLE 4

WORD READING TASK: Table of Means

| Language of Instruction | Sex | Presentation Set | Trial Block | | Group Means | by Inst. by Group |
|---|---|---|---|---|---|---|
| | | | Block 1 | Block 2 | | |
| English | Male | 1. Neutral | 1.000 | 1.100 | | 1.200 |
| | | 2. English | 1.000 | 1.100 | | |
| | | 3. Tagalog | 1.400 | 1.100 | 1.160 | |
| | | 4. Eng. – Tagalog | 1.000 | 1.300 | | |
| | | 5. Tag. – English | 1.300 | 1.300 | | |
| | Female | 1. Neutral | 1.100 | 1.200 | | |
| | | 2. English | 1.100 | 1.300 | | |
| | | 3. Tagalog | 1.700 | 1.000 | 1.240 | |
| | | 4. Eng. – Tagalog | 1.100 | 1.500 | | |
| | | 5. Tag. – English | 1.200 | 1.200 | | |
| Bilingual | Male | 1. Neutral | 1.600 | 1.600 | | 1.465 |
| | | 2. English | 1.400 | 1.800 | | |
| | | 3. Tagalog | 1.900 | 1.500 | 1.630 | |
| | | 4. Eng. – Tagalog | 1.500 | 1.800 | | |
| | | 5. Tag. – English | 1.600 | 1.600 | | |
| | Female | 1. Neutral | 1.100 | 1.100 | | |
| | | 2. English | 1.000 | 1.300 | | |
| | | 3. Tagalog | 2.000 | 1.000 | 1.30 | |
| | | 4. Eng. – Tagalog | 1.100 | 1.900 | | |
| | | 5. Tag. – English | 1.100 | 1.400 | | |
| Pilipino | Male | 1. Neutral | 1.600 | 1.800 | | 1.610 |
| | | 2. English | 1.600 | 1.800 | | |
| | | 3. Tagalog | 1.900 | 1.600 | 1.75 | |
| | | 4. Eng. – Tagalog | 1.600 | 2.000 | | |
| | | 5. Tag. – English | 1.800 | 1.800 | | |
| | Female | 1. Neutral | 1.300 | 1.600 | | |
| | | 2. English | 1.100 | 1.700 | | |
| | | 3. Tagalog | 1.800 | 1.000 | 1.47 | |
| | | 4. Eng. – Tagalog | 1.100 | 1.800 | | |
| | | 5. Tag. – English | 1.600 | 1.700 | | |
| Group Means | Male 1.513 | 1. Neutral 1.330 | | | | |
| | | 2. English 1.360 | | | | |
| | | 3. Tagalog 1.491 | 1.39 | 1.463 | | |
| | Female 1.336 | 4. Eng. – Tag. 1.471 | | | | |
| | | 5. Tag. – Eng. 1.475 | | | | |

$p < .01$), Presentation Set ($F = 4.263$, $df = 4,216$, $p < .01$) and Trial Block ($F = 5.988$, $df = 1,54$, $p < .05$), the two-way interaction between Language of Instruction and Sex ($F = 5.835$, $df = 2,54$, $p < .01$), the two-way interaction between Presentation Set and Trial Block ($F = 29.947$, $df = 4,216$, $p < .01$) and the three-way interaction among Sex, Presentation Set and Trial Block ($F = 4.298$, $df = 4.216$, $p < .01$). Examination of the means revealed that the English group gave predominantly English responses (1.200), the Bilingual group gave almost an equal number of English and Tagalog responses (1.465) and the Pilipino group gave predominantly Tagalog responses (1.610). Overall, girls gave more

English responses than did the boys (1.336 vs. 1.513). The Neutral set obtained the largest number of English responses (1.350), followed by the English set (1.360), the English-Tagalog set (1.471), the Tagalog-English set (1.475) and the Tagalog set (1.471). In all cases, *Ss* gave more English than Tagalog responses. The first response tended more often to be English (1.399) than did the second (1.463). The two-way interaction between Language of Instruction and Sex is due to the performance of the English-instructed girls (See Figure 5). Whereas the girls in the Pilipino and Bilingual groups gave more English responses than boys of the same groups, the reverse is true for the English-instructed girls. The two-way interaction between Presentation Set and Trial Block is caused by the effects of the Presentation Set on the *Ss* responses. In all cases, the *Ss* responses tend to follow the pattern provided in the Presentation Set, e.g. the English-Tagalog set elicits more English labels as the first response and more Tagalog labels as the second response (See Figure 6). The three-way interaction among Sex, Presentation Set and Trial Block is shown in Figure 7. Following the English, Tagalog and English-Tagalog Presentation Sets, *Ss'* responses for both boys and girls tended to follow the pattern provided in the set. For the other two sets (Neutral and Tagalog-English), the pattern of responses is somewhat different. In both sets, boys tended to give more Tagalog responses than did the girls.

*Picture Naming Task.* The analysis of variance produced significant F-ratios for Language of Instruction ($F = 73.973$, $df = 2.54$, $p < .01$), Presentation Set ($F = 3.746$, $df = 4,216$, $p < .01$), Trial Blocks ($F = 18.582$, $df = 1,54$, $p < .01$) and the two-way interaction between Presentation Set and Trial Block ($F = 63.201$, $df = 4,216$, $p < .01$). Exam-

TABLE 5

PICTURE NAMING TASK: Summary of Analysis of Variance

| SOURCE OF VARIATION | *MS* | *df* | *F* | *P* |
|---|---|---|---|---|
| A – Language of Instruction | 33.140 | 2 | 73.979 | <.01 |
| B – Sex | 1.402 | 1 | 3.129 | |
| A x B | 0.327 | 2 | 0.729 | |
| Within Groups | 0.448 | 54 | | |
| C – Presentation Set | 0.317 | 4 | 3.746 | <.01 |
| A x C | 0.138 | 8 | 1.632 | |
| A x B x C | 0.050 | 8 | 0.586 | |
| B x C | 0.143 | 4 | 1.695 | |
| C x Subjects | 0.085 | 216 | | |
| D – Trial Block | 2.281 | 1 | 18.582 | <.01 |
| A x D | 0.187 | 2 | 1.521 | |
| B x D | 0.002 | 1 | 0.054 | |
| A x B x D | 0.007 | 2 | 0.054 | |
| D x Subjects | 0.123 | 54 | | |
| C x D | 0.323 | 4 | 3.201 | <.05 |
| A x C x D | 0.122 | 8 | 1.208 | |
| B x C x D | 0.077 | 4 | 0.759 | |
| A x B x C x D | 0.101 | 8 | 0.007 | |
| CD x Subjects | 0.101 | 216 | | |
| TOTAL | | 599 | | |

TABLE 6

PICTURE NAMING TASK: Table of Means

| Language of Instruction | Sex | Presentation Set | Trial Block | | Group Means |
|---|---|---|---|---|---|
| | | | Block 1 | Block 2 | |
| English | Male | 1. Neutral | 1.000 | 1.200 | 1.100 |
| | | 2. English | 1.000 | 1.100 | |
| | | 3. Tagalog | 1.100 | 1.200 | |
| | | 4. Eng. – Tagalog | 1.000 | 1.100 | |
| | | 5. Tag. – English | 1.000 | 1.000 | |
| | Female | 1. Neutral | 1.100 | 1.200 | |
| | | 2. English | 1.200 | 1.000 | |
| | | 3. Tagalog | 1.000 | 1.000 | |
| | | 4. Eng. – Tagalog | 1.000 | 1.300 | |
| | | 5. Tag. – English | 1.100 | 1.300 | |
| Bilingual | Male | 1. Neutral | 1.500 | 1.900 | 1.709 |
| | | 2. English | 1.700 | 1.800 | |
| | | 3. Tagalog | 1.700 | 1.900 | |
| | | 4. Eng. – Tagalog | 1.700 | 1.900 | |
| | | 5. Tag. – English | 1.900 | 1.900 | |
| | Female | 1. Neutral | 1.400 | 1.900 | |
| | | 2. English | 1.700 | 1.800 | |
| | | 3. Tagalog | 1.700 | 2.000 | |
| | | 4. Eng. – Tagalog | 1.700 | 2.000 | |
| | | 5. Tag. – English | 1.900 | 2.000 | |
| Pilipino | Male | 1. Neutral | 1.500 | 1.900 | 1.805 |
| | | 2. English | 1.700 | 1.700 | |
| | | 3. Tagalog | 1.700 | 1.800 | |
| | | 4. Eng. – Tagalog | 1.600 | 1.700 | |
| | | 5. Tag. – English | 1.900 | 1.600 | |
| | Female | 1. Neutral | 1.700 | 1.800 | |
| | | 2. English | 1.800 | 2.000 | |
| | | 3. Tagalog | 1.900 | 2.000 | |
| | | 4. Eng. – Tagalog | 1.900 | 1.900 | |
| | | 5. Tag. – English | 2.000 | 2.000 | |
| Group Means | Male 1.530 | 1. Neutral 1.508 | 1.513 | 1.636 | |
| | | 2. English 1.545 | | | |
| | Female 1.623 | 3. Tagalog 1.590 | | | |
| | | 4. Eng. – Tag. 1.590 | | | |
| | | 5. Tag. – Eng. 1.645 | | | |

ination of the means revealed that the Pilipino-instructed group gave the largest number of Tagalog responses (1.805) followed by the Bilingual group (1.709). The English-instructed *Ss* gave predominantly English responses (1.100). The Tagalog-English set elicited the largest number of Tagalog responses (1.645), followed by the Tagalog and English-Tagalog Sets (1.590), the English Set (1.545) and the Neutral Set (1.508). More of the second than first responses (1.636 vs. 1.513) tended to be Tagalog. The two-way interaction between Presentation Set and Trial Block (see Figure 8) can be seen to be due to the language response means obtained for the Presentation Sets *not* including Tagalog

as part of the set (i.e. English and Neutral Sets). Whereas the sets involving Tagalog tended to elicit slightly more Tagalog labels as the second than first response, there was a marked shift from English to Tagalog labels from the first to the second response for the Neutral Set. The English Set, however, elicited an almost equal number of English and Tagalog labels for both the first and second responses.

*Cross-Task Analysis.* The analysis of variance produced significant F-ratios for Language of Instruction ($F = 54.730$, $df = 2,57$, $p < .01$), Task ($F = 60.603$, $df = 2,114$,

TABLE 7

CROSS TASK ANALYSIS: Analysis of Variance

| SOURCE OF VARIATION | *MS* | *df* | *F* | *P* |
|---|---|---|---|---|
| A – Language of Instruction | 8.893 | 2 | 54.730 | <.01 |
| Within Groups | 0.162 | 57 | | |
| B – Tasks | 2.397 | 2 | 60.603 | <.01 |
| A x B | 0.175 | 4 | 4.426 | <.01 |
| B x Subjects | 0.041 | 114 | | |
| C – Trial Block | 1.689 | 1 | 26.324 | <.01 |
| A x C | 0.380 | 2 | 5.923 | <.01 |
| B x C | 0.452 | 2 | 11.173 | <.01 |
| A x B x C | 0.263 | 4 | 6.493 | <.01 |
| B x C x Subjects | 0.040 | 114 | | |
| TOTAL | | 369 | | |

TABLE 8

CROSS–TASK ANALYSIS: Table of Means

| Language of Instruction | Preference Tasks | Trial Block | | Group Means |
|---|---|---|---|---|
| | | Block 1 | Block 2 | |
| English | Letter Naming | 1.010 | 1.130 | 1.112 |
| | Word Reading | 1.020 | 1.080 | |
| | Picture Naming | 1.300 | 1.130 | |
| Bilingual | Letter Naming | 1.390 | 1.360 | 1.557 |
| | Word Reading | 1.350 | 1.760 | |
| | Picture Naming | 1.610 | 1.870 | |
| Pilipino | Letter Naming | 1.390 | 1.480 | 1.605 |
| | Word Reading | 1.430 | 1.800 | |
| | Picture Naming | 1.710 | 1.820 | |
| Group Means | By Preference Task | Block 1 | Block 2 | |
| | Letter Naming 1.293<br>Word Reading 1.407<br>Picture Naming 1.573 | 1.388 | 1.500 | |

$p < .01$), Trial Block ($F = 26.324$, $df = 1,114$, $p < .01$), the two-way interactions between Language of Instruction and Task ($F = 5.923$, $df = 2,114$, $p < .01$), and between Task and Trial Block ($F = 11.173$, $df = 2,114$, $p < .01$), and the three-way interaction among Language of Instruction, Task and Trial Block ($F = 6.493$, $df = 4,114$, $p < .01$). The results suggest that Pilipino- and Bilingually-instructed *Ss* gave predominantly Pilipino responses (1.605 and 1.557, respectively) while the English-instructed *Ss* gave predominantly English responses (1.112). Further, the picture-naming task elicited predominantly Tagalog responses (1.573) while the other two tasks were followed by predominantly English responses (1.407 for word-reading and 1.293 for letter-naming). While the responses in the first block tended to be predominantly English (1.388), those in the second block were evenly divided between English and Tagalog (1.500). The two-way interaction between Language of Instruction and Task is due mainly to the choices of the English-instructed group. Whereas both the Pilipino- and Bilingually-instructed subjects provided the greatest number of Pilipino responses to the picture-naming task and the least number of Pilipino responses to the letter-naming task, the English-instructed group provided mainly English responses to all three sets of stimuli (See Figure 9). The two-way interaction between Language of Instruction and Trial Block results from a greater shift toward Pilipino responses in the second block for the Pilipino and bilingually-instructed children than for those instructed in English (See Figure 10). The two-way interaction between Task and Trial Block apparently is the result of the responses given to the word reading task, where more than in the other two tasks, there is a tendency toward a shift from an English to a Tagalog response (See Figure 11). Finally, the three-way interaction among Language of Instruction, Task and Trial Block can be attributed to the performance of the Pilipino-instructed and Bilingually-instructed *Ss* in Trial Block 2 (See Figure 12). Whereas all other subgroups demonstrated a somewhat similar performance to the letter- and word-naming tasks accompanied by a shift toward Pilipino for the picture-naming task, these two subgroups showed a shift from English to Pilipino for both the word- and picture-naming tasks.

## DISCUSSION

At the time this study was conducted, the pupils involved were in grade 2 and had received approximately three semesters of instruction in their respective language media. By that time, the major differences among the groups are found between the English-instructed pupils who show a definite preference for English in all three task areas and the bilingually and Pilipino-taught pupils whose preference varied as a function of the task. Overall, approximately 85% of the English-instructed *Ss'* response were in English. For the other two groups, approximately 60% of the responses were in Pilipino. The only difference between the latter two groups occurs in their responses to the word stimuli, where the bilingually-instructed pupils provided somewhat more English responses (51%) than did the Pilipino group (43%). The bilingual group shows an interesting preference pattern. They more often label letters in English (60%) pictures in Pilipino (80%) but show no preference in the word-reading task. It thus appears from the data that language of instruction does have a strong influence on the language preference of pupils.

The results also indicated that pupils' language preference is related to the nature of the stimulus materials presented to them. This is obvious especially from the cross-task analysis where it can be seen that the three types of materials elicited different percentages of English and Tagalog responses (72% English for words, 57% English for letters and 40%

English for pictures). Three factors might account for these differences. First, pupils probably learn the labels for pictures, letters and words at different age levels. The picture concepts used in the study were learned earlier in life than were the word and letter stimuli, and are associated more frequently with the first language of these pupils, i.e. Tagalog. The words and letter stimuli, learned later in life, are more often labeled in the pupils' second language, i.e. English.

The second factor which might be related to the language preference of these pupils is closely related to the first. Not only did pupils learn the picture concepts earlier in life than the other stimuli, but they also learned them in a different setting. Whereas the concepts represented by the pictures were learned at home, the sounds to be elicited by the word and letter stimuli were likely learned at school. The major difference between the home and school environment is the language. The former is undoubtedly largely Tagalog while the latter is largely English. It appears that the concepts learned early in life, probably in the first language are, in a free situation, more often referred to by the first than by the second language, while those learned at school in a second language situation are more often associated with the language setting in which they were learned. Such an explanation would be in agreement with the findings of Kolers (1968) who found that access to information for the bilingual (language preference?) is governed at least partially by the language in which the information was orginally learned and/or encoded.

The third factor refers to a 'concreteness' dimension of the stimuli. In this study, the stimuli can be seen as part of a continuum ranging from very concrete (i.e. pictures) to rather abstract (i.e. letters). In this study the concrete representations (i.e. pictures) more often elicited first-language responses, while the more abstract stimuli tended to elicit second-language responses. Does this suggest that the bilinguals' storage of concepts in the first or second language depends partially upon the nature of the materials to be stored?

Finally, the response of the pupils seem to be dependent upon the order in which the stimuli are presented to them. Originally, the order of the stimuli was deliberately manipulated to see if we could force the pupils into a specific language area. That is, if bilinguals store information in 'two tanks' (Kolers, 1968), and if one forces them to dip into one tank first (pre-experimental training) by giving a stimulus associated with $L_1$, then into the other tank by giving them a stimulus associated with $L_2$, will succeeding neutral stimuli elicit responses from $L_2$, since that was the more recent language area under manipulation? The data in the present study suggest that this is not the case. The subjects did not draw the label for the next stimulus from the more recent area manipulated. Neither was the choice purely random. Instead, the pupils tended to follow the set presented. If the first set was the forced English response (i.e. astronaut) and the second was the forced Tagalog response (i.e. barong-tagalog), the pupils tended to label the first neutral response in English and the second in Tagalog. Possibly presenting only one non-neutral stimulus (e.g. barong-tagalog) alone or followed by another single non-neutral stimulus is not enough to force the student into that particular 'language storage' area, especially since the forced response in this study became rather automatic for the student. In future studies, one could possibly design methods where the subject is, by his own choice or training, forced into a particular 'language storage' area, then given neutral stimuli. In that type of situation, his response to these neutral stimuli would possibly be given in the language in which he had been operating immediately prior to the onset of the neutral stimulus.

Language preference in this study has been defined rather narrowly as the language in which single stimuli, which could be appropriately labelled in English or Tagalog, are named. Obviously, the phenomenon of language preference is much broader. Just because a bilingual tends to label certain singly-presented stimuli in a certain language, that does not necessarily mean that he will more readily converse in that language or indeed that he will be more proficient in that language. Performance in such other areas, which would also be defined under the heading of 'language preference', is undoubtedly governed not only by the language used to identify single stimuli, but also by other psycholinguistic and/or sociolinguistic factors.

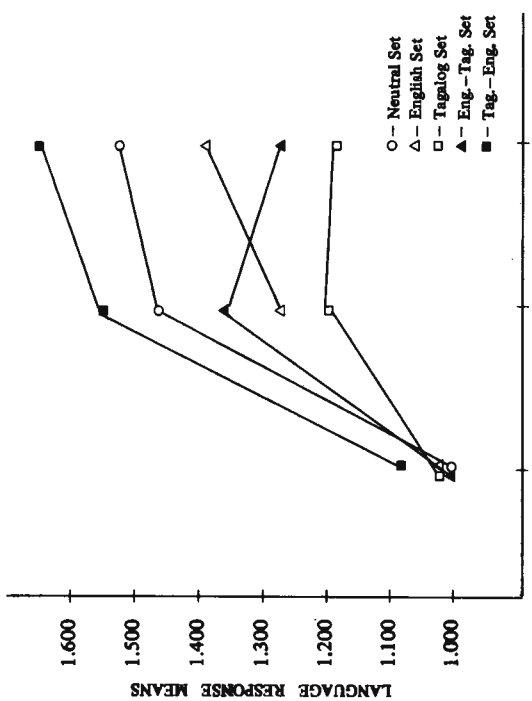


Figure 1 – *LETTER NAMING TASK*: Interaction between Language of Instruction and Presentation Sets

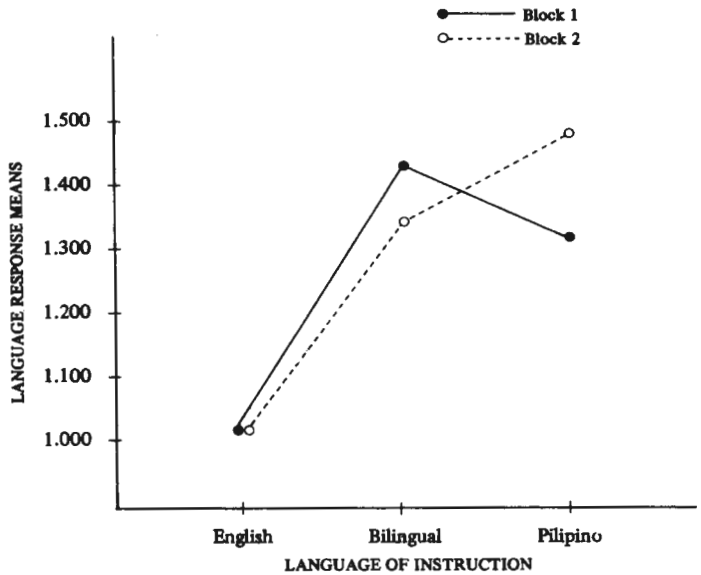


Figure 2 – *LETTER NAMING TASK:* Interaction between Language of Instruction and Trial Block

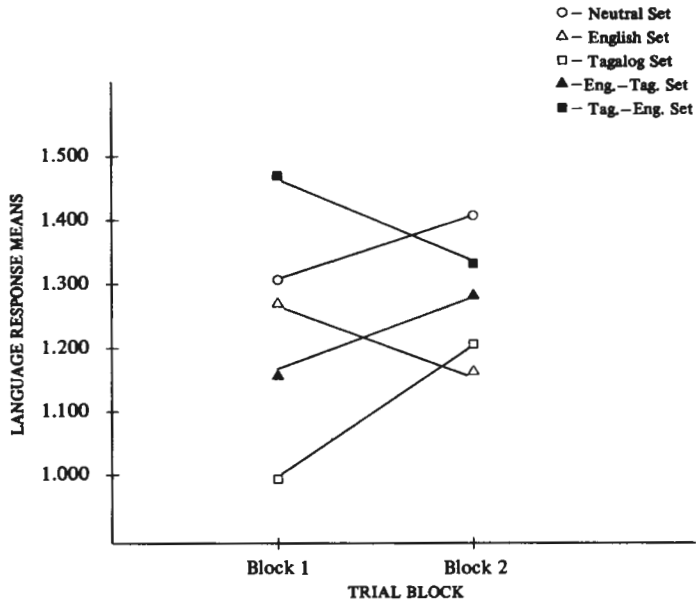


Figure 3 – *LETTER NAMING TASK:* Interaction between Presentation Sets and Trial Blocks

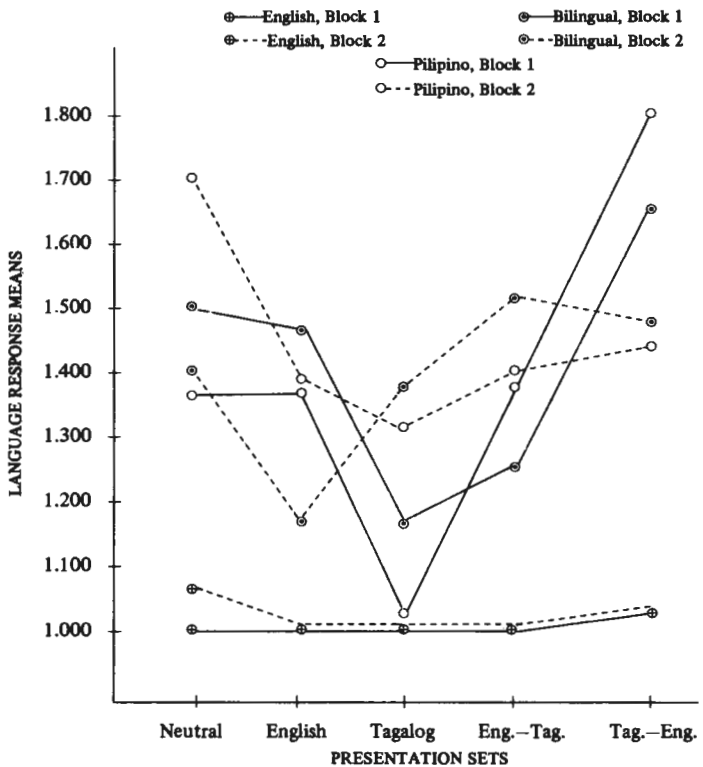


Figure 4 – *LETTER NAMING TASKS:* Interaction among Language of Instruction, Presentation Sets and Trial Block

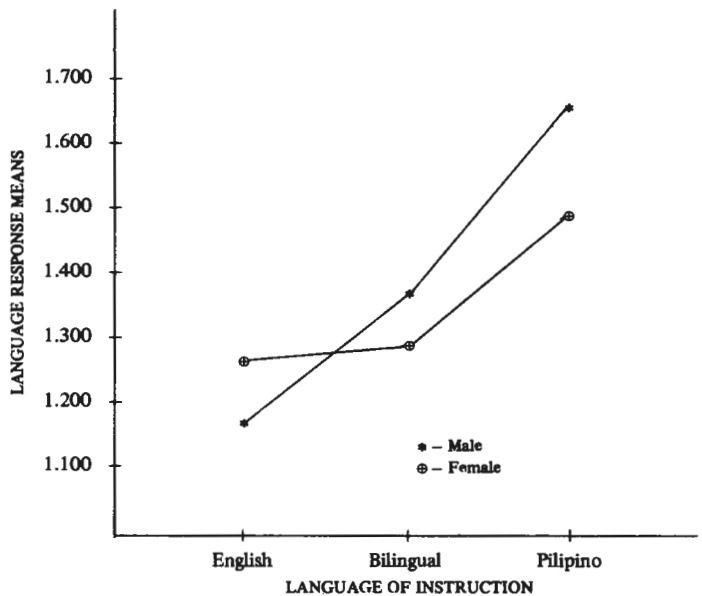


Figure 5 – *WORD READING TASK:* Interaction between Language of Instruction and Sex

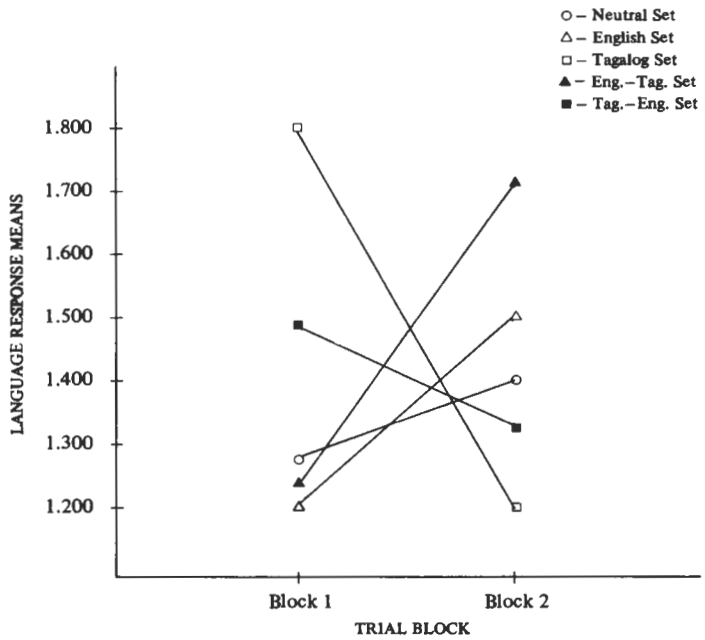


Figure 6 – *WORD READING TASK:* Interaction between Presentation Sets and Trial Block

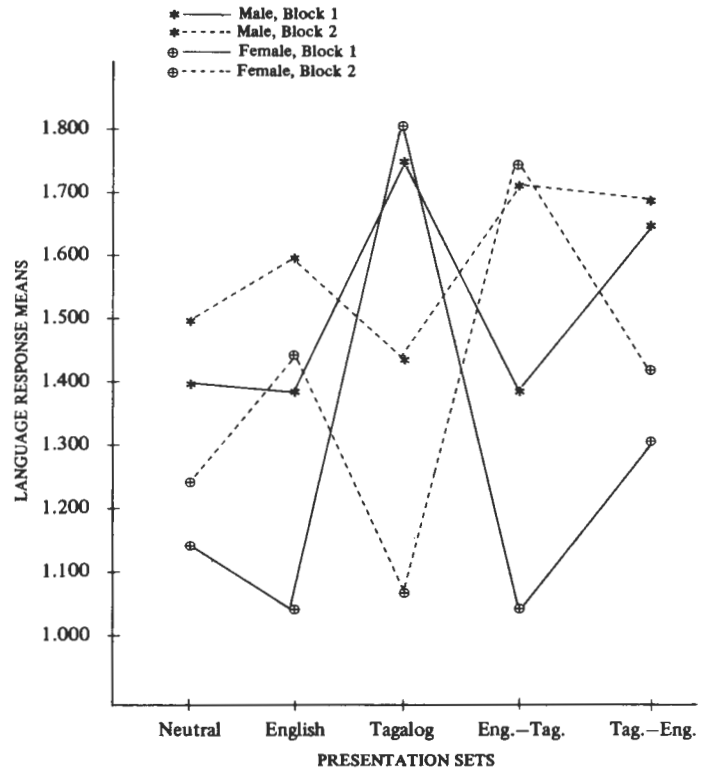


Figure 7 – *WORD READING TASK:* Interaction among sex, Presentation Sets and Trial Block

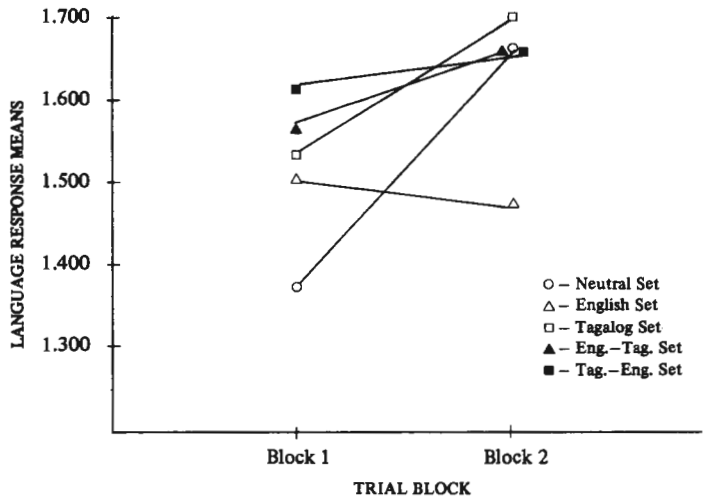


Figure 8 – *PICTURE NAMING TASK:* Interaction between Presentation Sets and Trial Block

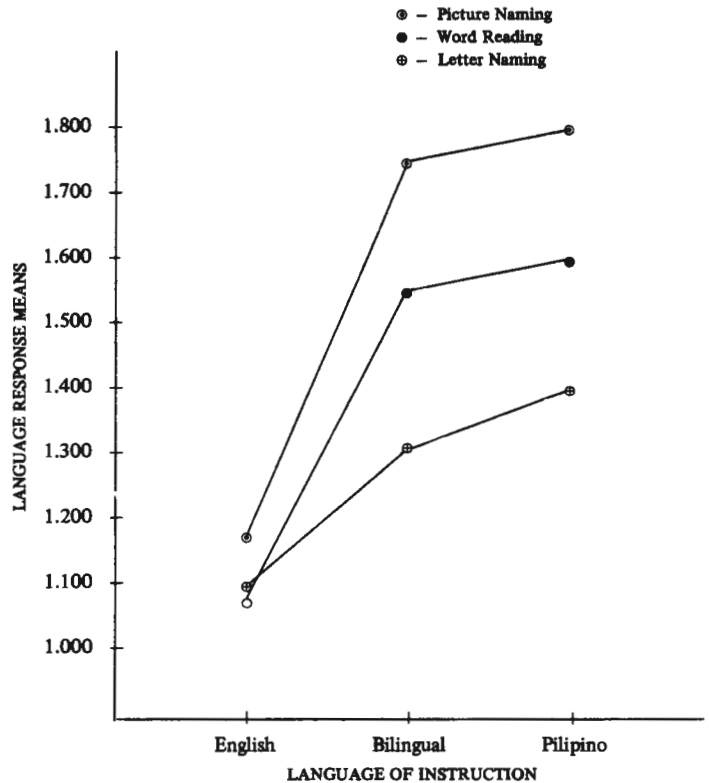


Figure 9 – *CROSS-TASK ANALYSIS:* Interaction between Language of Instruction and Tasks

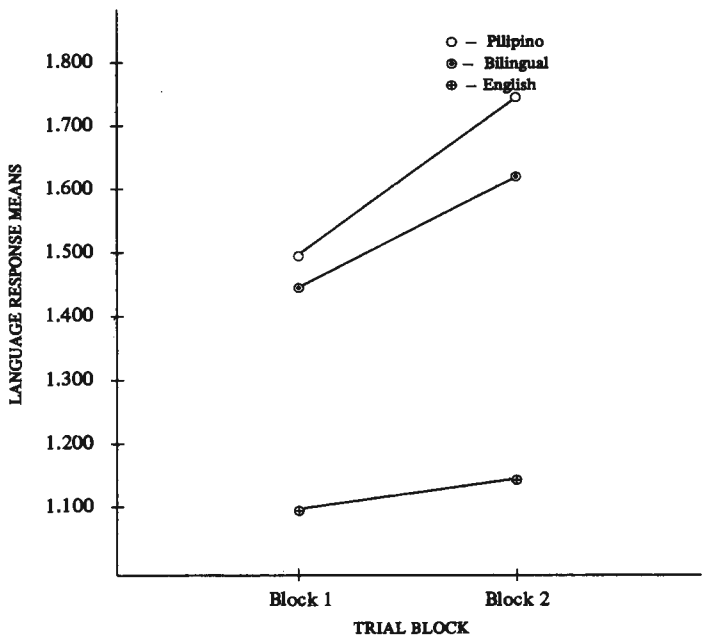


Figure 10 – *CROSS-TASK ANALYSIS:* Interaction between Language of Instruction and Trial Block

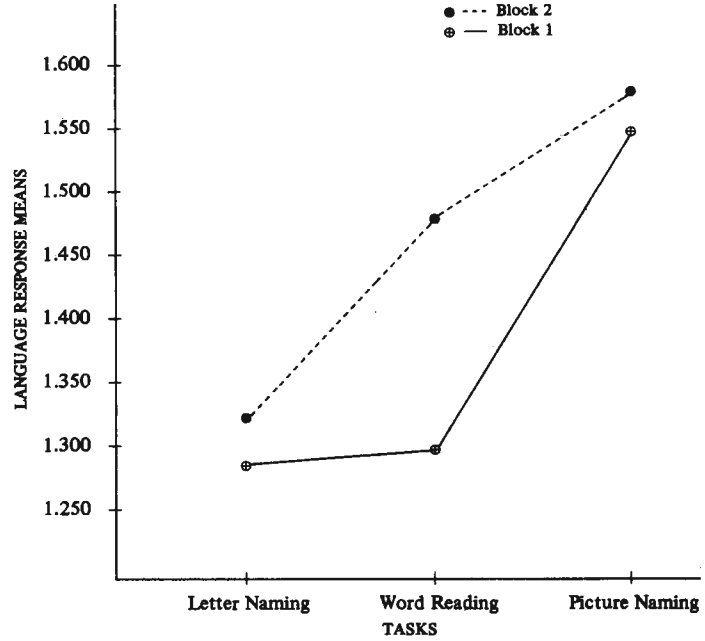


Figure 11 – *CROSS TASK ANALYSIS:* Interaction Between Tasks and Trial Block

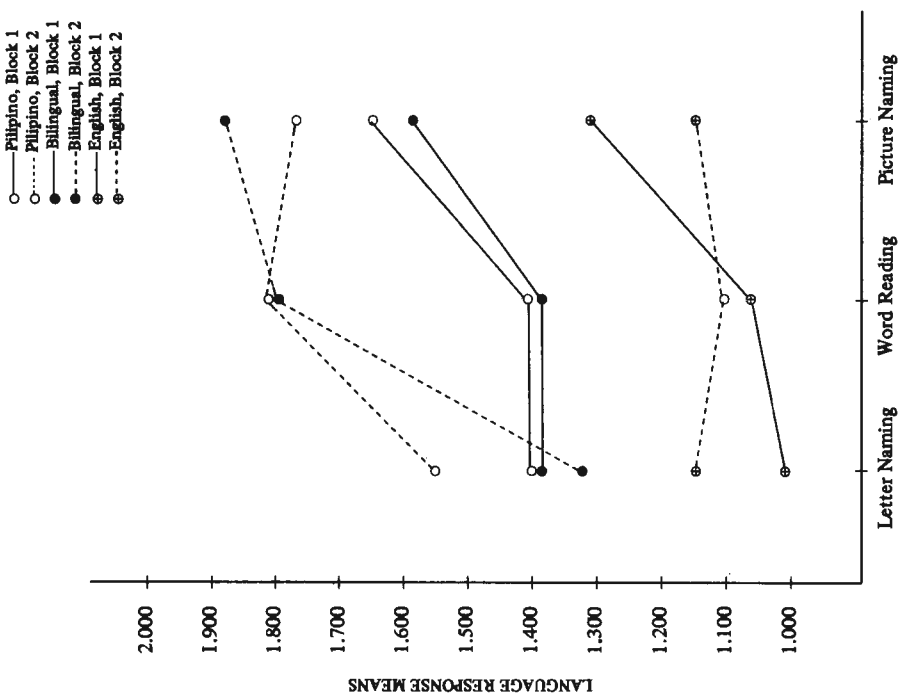


Figure 12 – *CROSS TASK ANALYSIS*: Interaction Among Language of Instruction, Task and Trial Block

## REFERENCES

DAVIS, F. B. Philippine Language-teaching Experiments, Philippine Center for Language Study, Monograph Series No. 5, Phoenix, Quezon City, 1967.

FISHMAN, J. Bilingualism with and without diglossia. *The Journal of Social Issues,* 23, 1967, 29–39.

GUMPERZ, J. J. On the linguistic markers of communication. *The Journal of Social Issues,* 23, 1967, 8–29.

HYMES, D. A. Models of interaction of language and social setting. *The Journal of Social Issues,* 23, 1967, 48–57.

KOLERS, P. A. Interlingual facilitation in short memory. *Journal of Verbal Learning and Verbal Behavior,* 8, 314–319.

MACNAMARA, J. The bilinguals' linguistic performance. *The Journal of Social Issues,* 23, 1967, 58–67.

PENFIELD, W. and ROBERTS, L. *Speech and Brain Mechanism,* Princeton, 1959.

PRESTON, M. S. Interlingual interference in a bilingual version of the stroop color-word list. Unpublished Ph.D. dissertation, McGill University, 1965.

VILDOMEC, V. J. *Multilingualism,* Sythoff Printing, Leyden, 1963.