CROSS-LANGUAGE TRANSFER OF MORPHOLOGICAL AWARENESS AMONG YOUNG MALAY SECOND LANGUAGE LEARNERS OF ENGLISH

Anne Benedict Nair\(^1\) and Sridevi Srinivas\(^2\)
Faculty of Languages and Linguistics, University of Malaya, 50603 Kuala Lumpur
E-mail: annebene@um.edu.my\(^1\); sridevi@um.edu.my\(^2\)

ABSTRACT
This study seeks to investigate cross-language transfer of morphological awareness among young Malay learners who are learning English as their L2 and have Malay as their L1. The study examines the relationship between morphological awareness and performance on English and Malay spelling tests. The data for the study was drawn from a sample of Malay learners aged nine and twelve from two Malaysian urban schools. A quantitative study was undertaken. The quantitative study investigated if morphological awareness in Malay can predict English Spelling Accuracy. Correlations were used to analyse the data in the study. The findings suggest that there is cross-language transfer from the L1 to the L2. Strict consistency of English roots correlated strongly with Malay word analogy (p<.001). Malay word analogy also correlated with Lenient consistency of English roots (p<.01). The correlations show that Malay word analogy does predict the spelling of English roots. This indicates that transfer is taking place across the two languages.

Keywords: cross-language transfer, L2 learners, morphological awareness, spelling accuracy

INTRODUCTION
This study seeks to investigate cross–language transfer of morphological awareness among young Malay second language learners. Cross – language transfer is taken to mean the positive transfer of linguistic knowledge and skills across languages (Cazden, 1974). Morphological Awareness (MA) refers to recognizing the presence of morphemes in words (Carlisle, 1995). Awareness in the context of this study is the ability of being able to recognize the presence of linguistic knowledge and the ability to manipulate it. Second language learners would refer to learners who are learning English as a second language in Malaysian schools.

Morphemes are the smallest units of words that carry meaning. For example, the word ‘hearts’ is composed of two morphemes, the root ‘heart’ and the plural ‘-s’.

Morphological knowledge includes knowledge of inflections and knowledge of derivational forms as well as knowledge of compound words, for example ‘firefighter’. Inflectional morphemes indicate the grammatical status of the words to which they are attached. For example: ‘kill’ and ‘-ed’ where the past tense inflection ‘-ed’ is added to the root ‘kill’. Derivational morphemes change the base word to create a new word which usually includes a change in grammatical category, such as the adjective ‘naughty’ to the noun ‘naughtiness’. Awareness of compound words is another aspect of morphological awareness. Morphological awareness can be measured at these three levels. For the purpose of this study only knowledge of inflections and knowledge of derivational forms will be used to measure morphological awareness. Carlisle (1995) refers to morphological awareness as the conscious ability to think about and to manipulate the forms and structure of words.
Cross-Language Transfer of Morphological Awareness among Young Malay Second Language Learners of English Language

Bilingual studies have provided empirical support for the transfer of phonological, literacy and grammatical skills between the learner's first language and his second. This study would like to determine if morphological awareness could be positively transferred between two languages. The transfer of phonological awareness could not be determined by the study, as there was not enough time to administer the phonological awareness tasks as there was access to the sample classes for only one and a half weeks. The two languages that were studied are Malay and English. The sample will be taken from children who are native-speakers of Malay and who begin to learn English as a second language in school at the age of seven.

Aim and Research Questions of the Study
The aim of the study is to show that morphological awareness can be transferred across languages. The current study will examine the relationship between Malay morphological awareness tasks and English morpheme spelling tasks. It will determine whether there was transfer between morphological awareness in the first language and the spelling of morphemes in the second language. A positive correlation between the awareness tasks and the spelling tests will predict that transfer does occur.

Hence the following research question is formulated to seek answers to the aims outlined above:

Can morphological awareness in the first language facilitate the spelling of morphemes in the second language?

REVIEW OF RELATED LITERATURE
Cross Language Transfer of Morphological Awareness
A study conducted by Bindman (2004) showed that there was transfer of morphological awareness across languages. Since transfer does take place, the question one might ask is:

Whether there is anything in children’s competence in their native language that can help them learn a second language – in particular whether they will be better learners of L2 morphology if they are more aware of morphology in their own language.
Nunes and Bryant (2009:201)

In this section, studies will be reviewed to show that children’s competence in their native language can be used to facilitate performance in their second language, providing support for the present study which investigates whether morphological awareness in the L1 can facilitate performance on morphological spelling in the L2.

Bindman (2004) in her study examined relationships between performance on morpho-syntactic awareness tasks in English (L1) and Hebrew (L2) and between L2 morpho-syntactic awareness and L1 morphological spelling, in the two groups of children aged six to eleven years. The aims of the study were to explore whether grammatical awareness tasks in one language can be used for the child’s other language even when the surface-level features of both languages are dissimilar.

Her findings showed that performance on the Hebrew Oral Cloze task was correlated with all three English morpho-syntactic awareness tasks although these correlations were weak (between .3 and .39; n = 116; p < .001). This showed that grammatical awareness gained in L1 (English) can be used for the L2 (Hebrew).
Castro, Nunes and Strecht-Ribeiro (cited in Nunes & Bryant, 2009) carried out a study which analysed whether Portuguese children’s awareness of morphology in Portuguese was a predictor of their English learning after one year of instruction. The subjects of the study were monolingual Portuguese children aged 9 to 12 years. At the beginning of the year, the children were given an assessment of their verbal ability in the form of the Wechsler Intelligence Scale for Children translated and adapted to Portuguese. The British Picture Vocabulary Test, three morphological awareness measures in Portuguese: the sentence completion similar to the Berko test, a sentence analogy and a word analogy task were administered to the children.

The subjects of the study were given English instruction for a year. The same book and instruction method were used with all the children. At the end of the school year the children were given an oral assessment in English. The researcher scored the children’s production on the variety of their vocabulary, the variety of sentence structure and morphological correctness of the sentences.

A multiple regression analysis was conducted. The aim of the analysis was to investigate whether children’s scores on Portuguese morphological awareness task given at the beginning of the year would correlate significantly with their English production at the end of the year after controlling for age, general verbal ability and their previous knowledge of English words. Children’s verbal ability measured in Portuguese was significantly related to their English scores (it explained 34% of the variance in the children’s English scores). After controlling for the children’s age and verbal ability, the partial correlations between each of the three measures of morphological awareness and the children’s English scores were still significant. The researchers conclude that there is evidence that children’s awareness of morphology in their native language is related to their L2 learning. The above study shows that children’s awareness of morphology in their own language is a good predictor of their learning of L2 in the classroom.

Morphological transfer occurs when morphological awareness in one language can be used for the child’s second language even when the surface-level features of both languages are dissimilar. Even if Malay does not have any inflectional morphemes a good grounding in Malay morphemes helps with the child’s L2 learning.

METHOD

Participants of the Study
60 children participated in this study. 35 children were 9-year-olds and in their third year of primary education. 25 children were 12-year-olds and in their sixth year of primary education. The children were sampled from these age groups because a few months prior to this study samples of these same children's writing were obtained from these two groups and the kind of errors that appeared in their writing seemed to suggest that they were making these errors based on the level of phonological and morphological awareness they possessed at the time.

The group of children participating in this study were children whose first language is Malay and who were also learning English as a second language. The group of learners was sampled from two urban primary national schools in Malaysia. The children sampled from the school in Petaling Jaya generally came from lower to middle income homes. The children sampled from the school in Kuala Lumpur generally came from middle to higher income homes. This information was obtained by asking a sample of children from each school to write down the occupation of both parents.
Procedure
The sample was obtained by giving 9-year-old and 12-year-old Malay children the following tasks:

**English Language Tasks**
A. Spelling Tasks
   i) Morphological Spelling Tests - these tasks were based on test administered by Nunes, Bryant and Bindman (1997). See Appendix A.

**Malay Language Tasks**
A. Spelling Tasks
   i) Morphological Spelling Test. See Appendix B

B. Oral Morphological Awareness Task
   i) Word Analogy Task. See Appendix D
   ii) Sentence Analogy

**General Testing Procedure**
The testing period took one and a half weeks. During this time we met the Head Teacher as well as the class teacher of the classes that were to be tested. We then met the pupils and conducted the morphology awareness tasks. The spelling tasks were conducted by the class teachers who were native-speakers of Malay. The researchers advised each teacher that the tasks required that the teacher read the sentences in the Spelling Tests with the kind of pronunciation that they would use for normal everyday speech. The pupils were also advised that they should not copy from each other.

**English Language Tasks**
A. Spelling Tasks
   (i) *English Morpheme sub-test*

**Rationale**
The spelling test used in this study was designed to test children's ability to spell words that departed from the regular phonetic spelling of the word.

**Design**
The children were asked to spell a total of 33 words. The words contained in the test fell into different categories, and were chosen so that the child would not be able to spell the words using a phonological spelling alone, he would need to make use of morphological processing in order to spell the words correctly. The morpheme sub-test consisted of words that contained the following grammatical morphemes ‘-ed’ past tense end morpheme, the ‘wh-interrogative morpheme, the ’-cian' noun forming end morpheme and the ‘-ness’ noun-forming end morpheme.

**Malay Language Tasks**
A. Spelling Tasks
   (i) *Malay Morpheme sub-test*

**Rationale**
The tests were designed to test children's ability to spell words that departed from the regular phonetic spelling of the word.
Design
The words contained in this test were chosen because they contained different grammatical morphemes. In order to spell these words correctly the child would have to draw on his awareness of morphology. This would indicate that the child is using the lexical route to spell words. The children were asked to spell a total of 12 words. Category One tested the prefix ‘ber’ (6 words). Category Two tested double letters (6 words). The morpheme sub-test consisted of words in the following categories:

B. Oral Malay Morphological Awareness Tasks
(i) Word Analogy Task

Rationale
This task was designed following the model of the task by Nunes, Bryant and Bindman (1997). The aim of the task was to test the child’s explicit awareness of morphology in spoken language. This task involved grammatical transformations between different parts of speech.

(ii) Sentence Analogy Task

Rationale
This task was designed following the model of the task by Nunes, Bryant and Bindman (1997). The aim of the task was to test children’s awareness of Malay morphology. This is done by examining how well the children are able to use verbs in their base form as well as verbs with the addition of suffixes and prefixes.

Oral English Morphological Awareness Tasks
The English awareness tasks followed the same rationale, design and procedure of the Malay awareness task.

Data Analysis Procedure
The data collected were computed and analysed using the Statistical Package for the Social Sciences (SPSS).

Morphological Awareness in this study was measured by obtaining a score from the total number of correct items on the Word Analogy Task which is a morphological awareness task. The awareness task and the spelling tests were then subjected to the statistical procedure – Pearson Product-moment Correlation which is used for parametric statistics.

Results
Descriptive Statistics
The sample for this study consisted of 60 bilingual Malay learners. The learners were in Year 3 in School 1 (9-years-old) and Year 6 in School 2 (12-years-old).

English Measures
English Spelling Test
(i) Morpheme sub-test
The morpheme sub-test consisted of words that contained the ‘-ed’ past tense end morpheme, the ‘wh-‘interrogative morpheme, the ‘-ian’, noun-forming end morpheme and the ‘-ness’ noun-forming end morpheme.

As the morpheme sub-test was administered only once, Spearman Brown’s split-half measure of internal consistency was used to estimate the reliability of the test. The test was divided into two halves. The first half contained all the odd numbered items and the second
half contained all the even numbered items. Spearman Brown’s split-half reliability for the test was at an acceptable level.

The distribution of scores on the task for the 9-year-olds is shown below in Figure 1.1. All the analysis for the reliability tests were done separately because the study showed that the 12-year-old children were regarded as too old for the study as some of the scores showed ceiling effects. For the 9-year-olds, out of a total of 19 items, 8 items were included in the test. The scores were approximately normally distributed for the 9-year-olds.

Table 1.1. Kendall correlation coefficients between total English morphological spelling scores and item scores on the sub-morpheme test for the 9-year-olds

<table>
<thead>
<tr>
<th>Total English Morphological Spelling Scores</th>
<th>naughtiness</th>
<th>where</th>
<th>what</th>
<th>when</th>
<th>who</th>
<th>why</th>
<th>which</th>
<th>magician</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (33)</td>
<td>0.3424</td>
<td>0.5153</td>
<td>0.3091</td>
<td>0.4374</td>
<td>0.4939</td>
<td>0.3496</td>
<td>0.515</td>
<td>0.1921</td>
</tr>
<tr>
<td>.029</td>
<td>N (34)</td>
<td>N (34)</td>
<td>N (34)</td>
<td>N (33)</td>
<td>N (33)</td>
<td>N (33)</td>
<td>N (34)</td>
<td>N (31)</td>
</tr>
</tbody>
</table>

The past ‘-ed’ form reached floor levels on the item-total correlational analysis. Words like ‘magician’ remained on the test even if the items were not significant because they increased the reliability scores.

Table 1.2. Kendall correlation coefficients between total English morphological spelling and item scores on morpheme sub-test for the 12-year-olds

<table>
<thead>
<tr>
<th>Total English Morphological Spelling Scores</th>
<th>covered</th>
<th>kissed</th>
<th>laughed</th>
<th>specialness</th>
<th>naughtiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>.4224</td>
<td>.5963</td>
<td>.5182</td>
<td>.4421</td>
<td>.5354</td>
<td></td>
</tr>
<tr>
<td>.062</td>
<td>.006</td>
<td>.010</td>
<td>.034</td>
<td>.008</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1.1

The wh-interrogative morpheme reached ceiling levels after the item-total correlation analysis.
Each word was scored for accuracy; a score of 1 was given to the correct spelling of the morpheme for each word and a score of 0 was given to incorrect spelling. A total score was obtained. An item-total correlation was obtained between the score in each item in the sub-test and the total score for the morpheme sub-test. Because the data are scored as pass-fail items, non-parametric measures of association were used. The Kendall’s tau-b correlation coefficients and Spearman’s rho correlation coefficient was considered more suitable as the data set was small. Based on the correlation obtained, (see Table 1.1 and Table 1.2) the items that had poor correlations were taken out of the analysis.

For the 9-year-olds the wh- interrogative morpheme words were significant, the ‘-ness’ end morpheme words were also significant. The ‘-ed’ past verbs items reached floor effect in the analysis. This is because the children are expected to find these words difficult to spell. In the analysis on the 12-year-olds, the wh-words reached ceiling effect.

Consistency of the Stems of English Words
In this test, children were given two words that shared the same stem, for example, ‘know’ and ‘knowledge’. Scores were given based on whether they spelled the stems of the pairs of words given to them in the same way. Two methods of scoring were used for this task, a strict scoring method and a lenient scoring method. The strict criterion gave a score of 1 if the child spelled the stems of the pair of words correctly, and in the same way. All other spelling given were scored 0.

The lenient criterion gave a score of 1 if the child spelled the word stems of the words consistently even if incorrectly although in this case the child may have spelt the words using a phonological strategy.

Spearman Brown’s split-half reliability for the consistency test using the strict scoring method was .70 for the 9-year-olds. This is an acceptable level of reliability (Mehrens & Lehmann, 1978). The distribution of scores is shown in Figure 1.2. The scores were approximately normally distributed.

![Figure 1.2](image)

The item-total correlation analysis for the 9-year-olds were insignificant for all except three items this was because there was a floor effect for the items.

Spearman Brown’s split-half reliability for the consistency test using the strict scoring method was .75 for the 12-year-olds. This is an acceptable level of reliability (Mehrens & Lehmann, 1978).
The scores were approximately normally distributed. The item-total correlation analysis for the 12-year-olds is as follows:

Spearman Brown’s split-half reliability for the consistency test using the lenient criterion was .47 for the 9-year-olds. The distribution scores are shown in Figure 1.3.

The item –total correlation analysis for the 9-year-olds is as follows:

<table>
<thead>
<tr>
<th>Total Consistency of English Roots (Lenient Criterion)</th>
<th>strong/strength</th>
<th>long/length</th>
<th>magic/fan</th>
</tr>
</thead>
<tbody>
<tr>
<td>.4781</td>
<td>.4676</td>
<td>.2439</td>
<td></td>
</tr>
<tr>
<td>.003</td>
<td>.005</td>
<td>.164</td>
<td></td>
</tr>
</tbody>
</table>

Spearman Brown’s split-half reliability for the consistency test using the lenient criterion was at an acceptable level of reliability (Mehrens & Lemann, 1978). A comparison of the means between the two age groups showed that scores using the strict criterion increased by school year.

**Malay Measures**

**Malay Spelling Test**

(i) *Morpheme sub-test*

The morpheme sub-test consisted of words in the following categories:

(a) The prefix ‘ber’ + consonant where the letter ‘r’ is not pronounced in spoken Malay. The prefix ‘ber’ + vowel where the letter ‘r’ is pronounced and ‘be’ words where ‘be’ is part of the stem.

(b) The prefix ‘meng + g’ where the double letter ‘g’ occurs in words that begin with ‘g’.

(c) The suffix ‘kan’ where the double letter ‘k’ occurs when the root word ends with the letter ‘k’. 
Spearman Brown’s split-half reliability for the test was at an acceptable level.71 for the 9-year old age group.

Spearman Brown’s split-half reliability for the test was .82 for the 12-year old age group. The scores were approximately normally distributed. The Malay morpheme subtest was subjected to the same analysis as the English morpheme subtest.

**Morphological Awareness Task**

(i) **Malay Word Analogy Task**

In this task, the children were required to carry out transformations from noun to adjective, verb to noun, and verb to infinitive form.

Out of a total of 8 items, 3 were included in the test for 9-year-olds.
Table 1.5. Kendall correlation coefficient between Total Malay Word Analogy scores and items of the Malay Word Analogy Task – year 9

<table>
<thead>
<tr>
<th>Total Malay Word Analogy Task</th>
<th>3</th>
<th>4</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.3333</td>
<td>.5833</td>
<td>.5443</td>
</tr>
<tr>
<td></td>
<td>.278</td>
<td>.058</td>
<td>.077</td>
</tr>
</tbody>
</table>

The items that were not significant, were retained in the test, as without these items the reliability could not be carried out. Spearman Brown split-half reliability for the test was at an acceptable level of reliability.

Table 1.6. Kendall correlation coefficient between Total Malay Word Analogy scores and items of the Malay Word Analogy Task – year 12

<table>
<thead>
<tr>
<th>Total Malay Word Analogy</th>
<th>3</th>
<th>4</th>
<th>6</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.6910</td>
<td>.3333</td>
<td>.5345</td>
<td>.4167</td>
</tr>
<tr>
<td></td>
<td>.025</td>
<td>.111</td>
<td>.111</td>
<td>.175</td>
</tr>
</tbody>
</table>

The item total correlations for the word analogy task for the 12-year-olds were not significant but the items were retained as without them there would be too few items to calculate the reliability scores.

(ii) Malay Sentence Analogy Scores

In this task, the target words were embedded in a sentence. The transformations involved tenses, i.e. from present to past, present to present continuous, past to past perfect tense and past perfect to present continuous tense. This task was not successful as the Malay language does not carry tenses.
In order to answer the research question correlations were carried out. The results obtained can be seen in Figure 1.7

Table 1.7. A correlation between Malay morphological awareness measures and English spelling of morphemes

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Sentence Analogy</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Word Analogy</td>
<td>.4335</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Morpheme</td>
<td>-.0299</td>
<td>.2212</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spelling</td>
<td>p = .912</td>
<td>p = .41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Spelling Strict</td>
<td>.2653</td>
<td>.8008***</td>
<td>.3801**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Consistency</td>
<td>p = .34</td>
<td>p &lt; .001</td>
<td>p &lt; .01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Spelling Lenient</td>
<td>.4840</td>
<td>.7378</td>
<td>-.0212</td>
<td>.4080</td>
<td>1</td>
</tr>
<tr>
<td>Consistency</td>
<td>p = .06</td>
<td>p &lt; .01</td>
<td>p = .89</td>
<td>p &lt; .01</td>
<td></td>
</tr>
</tbody>
</table>

** p < .01, *** p < .001

DISCUSSION

Research Question
The current study sought to find answers to the question of can morphological awareness in the L1 facilitate the spelling of morphemes in the L2?

The findings of the study show that there is cross-language transfer between morphological awareness and morphological spelling, i.e. from the L1 → L2 Malay morphological awareness is associated with Lenient Consistency (an English spelling measure that scored the child’s ability to spell words that share the same root). This
shows that children were able to use their knowledge of Malay morphological awareness to help them spell English words on a test.

Table 1.17 shows that strict consistency of English roots correlated strongly with Malay word analogy task ($p < .001$). Malay word analogy task also correlated with Lenient consistency of English roots ($p < .01$). The correlations show that Malay word analogy tasks does predict the spelling of English roots. This indicates that transfer is taking place across the two languages. This would mean that learners were using Malay Morphological Awareness to help them spell English morphemes correctly. This is a new finding as previous studies have not shown such a relationship between Malay Morphological Awareness and English Spelling.

This study shows that Malay morphological awareness is used by Malay children to help them spell English words accurately. This finding is unique to this study as previous studies have not shown this. Children who had high levels of morphological awareness in Malay seem to be able to spell English words that require lexical processing in order to spell the words accurately.

These findings add to other studies that show that transfer does take place between the L1 to the L2. Such as studies by Bindman (2004) which examined the relationship between performance on morpho-syntactic awareness tasks in English (L1) and Hebrew (L2).

This study showed that morphological awareness in one language can be used for the child’s other language even when the surface–level features of both languages are dissimilar. This showed that grammatical awareness gained in L1 (English) can be used for the L2.

Castro, Nunes and Strecht-Ribeiro (cited in Nunes and Bryant, 2009) also carried out a study that showed that morphological awareness in the L1 is related to their L2 learning. This study showed that children’s awareness of morphology in their own language predicts their performance in the L2.

**CONCLUSION**

If morphological awareness can be transferred to help Malay children spell better in English as can be seen from this study, this then can have implications for the way these subjects are taught in schools. These findings would imply that it does not matter if English is introduced into the school curriculum later than Malay. What seems to be important is to allow the children to receive a good grounding in the Malay language as this will help them later when they learn English (L2). As such it would be beneficial if educational planners would incorporate training in morpheme awareness in the school syllabus as this will help the children learn their L2 more easily.

Nunes and Bryant (2009) also found that morphological teaching can have an impact on the child’s ability to read and spell in a language. The authors conclude that they are “reasonably confident that children will lose no ground in learning to read and to spell and will probably gain a great deal by being taught about morphemes” (2009:220).

It would not be surprising if an awareness of morphemes and phonemes would not only lead Malay children to be better aware of their first language i.e. the Malay language but also find that this knowledge would help them learn their second language i.e. the English language.

**REFERENCES**

Bindman, M. (2004). Grammatical awareness across languages and the role of social context:


APPENDICES

APPENDIX A

English Spelling Test Session One

Listen to the teacher. You will hear a word then a sentence containing the word and finally the word again. Write down the word in the paper provided.

Instructions to the teacher: Give the children 40 seconds to write down the underlined word in the paper provided.

Session 1:

1. gold: My granddad has a gold watch: gold
2. naughty: When I'm naughty my mum tells me off: naughty
3. left: I left the house at 9 o'clock: left
4. length: You can measure length with a ruler: length
5. who: Who is at the door?: who
6. field: The cow was eating grass in the field: field
7. know: I know how to read: know
8. build: If you build a house with bricks, it will be strong: build
9. boat: They rowed the boat across the river: boat
10. teach: Will you teach me a new game?: teach
11. sword: The knight killed the dragon with his sword: sword
12. sold: The shop sold pens and pencils: sold
13. heard: I heard it on the radio: heard
14. talk: You mustn't talk in the library: talk
15. slept: I slept well last night: slept
16. ground: I fell on the ground and hurt my knee: ground
17. magician: The magician pulled a rabbit out of his hat: magician
18. when : When will lunch be ready? : when
19. paint : I like to paint pictures : paint
20. laughed : They all laughed at the joke. : laughed
21. bird : The bird flew away : bird
22. comb : I comb my hair every morning : comb
23. sweat : In very hot weather you sweat a lot : sweat
24. belt : You wear a belt to keep your trousers up : belt
25. killed : The cat caught a bird and killed it. : killed
26. strength : She used her strength to lift the heavy box : strength
27. treasures : Aladdin's cave was full of treasures : treasures
28. iron : I iron my clothes to make them smooth : iron
29. worm : The worm wriggled in the earth : worm
30. soft : The cat's fur was very soft : soft
31. opened : She opened the door and walked in : opened
32. where : Where are you going? : where
33. half : I cut the apple in half : half
34. why : Why did you do that? : why
35. hearts : The Queen of Hearts baked some tarts : hearts
36. next : Next week I might go to see 'Jurassic Park' : next
37. knot : I tied a knot in my shoelaces : knot
38. which : Which way shall we go? : which
39. meaty : The advertisement said the dog food was meaty : meaty
40. special : My best friend is my special friend : special
English Spelling Test Session Two

Listen to the teacher. You will hear a word then a sentence containing the word and finally the word again. Write down the word in the paper provided.

Instructions to the teacher: Give the children 40 seconds to write down the underlined word in the paper provided.

Session 2

1. learned: When I started school, I learned to read: learned
2. treasure: The pirates sailed the seas looking for treasure: treasure
3. sweaty: When I run about in the sun I get all sweaty: sweaty
4. except: Everyone except me went swimming: except
5. sent: I sent a letter to my friend: sent
6. lost: I lost my bat at the playground: lost
7. knowledge: My knowledge of dinosaurs is great: knowledge
8. strong: If you drink milk, you will grow up to be strong: strong
9. filled: I filled my glass with orange juice: filled
10. covered: I covered myself up with a blanket: covered
11. specialness: There was a specialness about the new girl in school: specialness
12. heart: My heart was beating fast: heart
13. meat: I went to the butcher's to buy some meat: meat
14. held: I held the money in my hand: held
15. called: I called her name out loud: called
16. what: What are you doing?: what
17. naughtiness: My little sister was full of naughtiness: naughtiness
18. dressed: I got dressed very quickly this morning: dressed
19. stopped: Suddenly, the rain stopped and the sun shone: stopped
20. long: The rope was very long: long
21. kissed: My grandma kissed me on the cheek: kissed
22. found: I found 50 cents in the street: found
23. magic: The magic word is abracadabra: magic
24. told: The teacher told us to be quiet: told
25. felt: I felt ill: felt
26. cold: The weather was very cold yesterday: cold
APPENDIX B

Malay Spelling Test Session One

Sila dengar dengan teliti. Anda akan mendengar sebuah perkataan, diikuti oleh sebuah ayat yang mengandungi perkataan yang tersebut. Selepas itu anda akan mendengar perkataan itu sekali lagi. Sila tulis perkataan yang anda dengar diatas kertas yang dibekalkan.

Session 1

1. besar : Rumah baru Ali adalah besar : besar
2. berikut : Berikut adalah keputusan UPSR tahun 1994 : berikut
3. berjumpa : Saya berjumpa dengan doktor apabila jatuh sakit : berjumpa
4. mahkamah : Peguam merujuk perkara itu ke mahkamah : mahkamah
5. pasaran : Pasaran terbesar bagi getah asli adalah di Amerika Syarikat : pasaran
6. tawaran : Tawaran tuan tidak dapat di terima : tawaran
7. berasal : Buah kiwi berasal dari negara New Zealand : berasal
8. gambar : Kami telah mengambil sebuah gambar keluarga : gambar
9. bermahkota..: Raja-raja yang bermahkota telah memilik Agung yang baru: bermahkota
10. berwarna : Baju baru Sofiah berwarna merah : berwarna
11. begar : Budak itu berperangai begar : begar
12. berkumpul : Murid-murid berkumpul untuk perhimpunan : berkumpul
13. saluran : Permohonan itu dibuat melalui saluran rasmi : saluran
14. kahwin : Dia sudah kahwin dan sekarang tinggal di Kuala Lumpur : kahwin
15. beransur-ansur : Hutang itu di bayar beransur-ansur : beransur-ansur
16. belum : Rumah itu belum di bina : belum
17. pelajaran: Ahmad sangat suka pelajaran Bahasa Inggeris: pelajaran
18. beraneka: Di Malaysia ada kebudayaan yang beraneka jenis: beraneka
19. gambaran: Dia memberikan gambaran yang jelas tentang peristiwa itu: gambaran
20. menggemukkan: Salmah menggemukkan anaknya dengan memberinya banyak kuih: menggemukkan
21. bermain: Budak-budak itu suka bermain dekat sungai: bermain
22. beradik: Ahmad dan Ramli adalah adik-beradik: beradik
23. pasar: Kami pergi ke pasar pada setiap hari Rabu: pasar
24. bebas: Dia sekarang menjadi seorang yang bebas: bebas
25. beku: Daging itu beku: beku
26. dahsyat: Saya melihat kemalangan jalanraya yang dahsyat: dahsyat
27. betul: Jawapan yang diberi oleh murid itu adalah betul: betul
28. pelajar: Pelajar dari kelas 2B telah menang hadiah buku: pelajar
29. pendengaran: Pendengarannya kurang baik: pendengaran
30. bersama: Ali keluar bersama dengan Ahmad: bersama
31. berjalan: Mereka berjalan ke sekolah setiap hari: berjalan
32. berisi: Botol itu berisi dengan gula-gula: berisi
33. kepahlawanan: Kita puji Rizal kerana semangat kepahlawannya: kepahlawanan
34. membaikkan: Dia sedang membaikkan keretanya: membaikkan
35. memasukkan: Dia memasukkan buku itu ke dalam beg: memasukkan
APPENDIX C
Malay Spelling Test Session Two Session 2

Sila dengar dengan teliti. Anda akan mendengar sebuah perkataan, diikuti oleh sebuah ayat yang mengandungi perkataan yang tersebut. Selepas itu anda akan mendengar perkataan itu sekali lagi. Sila tulis perkataan yang anda dengar diatas kertas yang dibekalkan. 237

1. manis : Buah oren yang saya beli sungguh manis : manis
2. mengucapkan : Saya mengucapkan terima kasih kepada murid-murid darjah enam : mengucapkan
3. menggunakan : Saya menggunakan minyak sayur-sayuran : menggunakan
4. rahsia : Apakah rahsia kejayaan kamu ? : rahsia
5. mengingatkan : Tolong mengingatkan Faizal membeli tiket-tiket : mengingatkan
6. mengangkut : Ia menolong ibu bapanya mengangkut kayu api : mengangkut
7. buku : Buku yang saya beli sangat mahal : buku
8. menggosok : Azlina menggosok baju dia setiap minggu : menggosok
9. menggantikan : Minyak menggantikan arang sebagai sumber tenaga : menggantikan
10. salur : Salur makanan di huraikan oleh cikgu : salur
11. pahlawan : Pahlawan tanah air sangat di puji : pahlawan
12. menggambarkan : Aishah menggambarkan suasana yang meriah di kenduri : menggambarkan
13. menceritakan : Siti menceritakan bagaimana dia telah nampak satu kemalangan : menceritakan
14. mengejar : Kucing gemar mengejar tikus : mengejar
15. tidak : Saya tidak akan membeli baju dari kedai itu : tidak
16. ikan : Kami boleh menangkap ikan dari sungai itu : ikan
17. mendahsyatkan : Keadaan yang sebenarnya sangat mendahsyatkan hatinya : mendahsyatkan
18. pejabat : Pejabat saya adalah di Kuala Lumpur : pejabat
19. menaikkan : Pekedai itu menaikkan harga barang-barangnya : menaikkan
20. kecil : Adik kecil saya suka makan gula-gula : kecil
21. menghijaukan : Kami menyokong 'Rancangan Menhijaukan Bumi : menghijaukan
22. mahkota : Mahkota negeri telah menyistiharkan hari cuti umum : mahkota
23. mengghaibkan : Ali mengghaibkan diri selepas tindakan mahkamah : mengghaibkan
24. menunjukkan : Jadual itu menunjukkan keuntungan bersih bagi tahun 1990 : menunjukkan
25. membalikkan : Dia membalikkan buku itu ke perpustakaan : membalikkan
26. mendudukkan : Hartini mendudukkan anak patungnya di atas kerusi : mendudukkan
27. mengahwinkan : Akhir tahun ini, ia hendak mengahwinkan anaknya : mengahwinkan
28. bermahkamah : Bandar itu tidak bermahkamah : bermahkamah
29. menerangkan : Cikgu menerangkan peraturan peperiksaan kepada murid-murid : menerangkan
30. tawar : Dia menuang air teh tawar dari teko : tawar
31. mendengar : Saya mendengar orang mengetuk pintu : mendengar
APPENDIX D

Malay Word Analogy Task

1. kebun : pekebun
   (garden) (gardener)
   (Noun) (Noun)

   nasihat : __________ Answer : penasihat
   (advice) (an adviser)
   (Noun) (Noun)

2. bukit : berbukit
   (hill) : (hilly)
   (Noun) (Adjective)

   Kecantikan : __________ Answer : cantik
   (beauty) (beautiful)
   (Noun) (Adjective)

3. tinggal : meninggalkan
   (lives) (leaves)
   (Verb) (Verb)

   jalan : __________ Answer : menjalankan
   (walk) (drives)
   (Verb) (Verb)
4. main : permainan
   (play) (game)
   (Verb) (Noun)
   nilai : ____________ Answer : penilaian
   (assess) (assessment)
   (Verb) (Noun)

5. warna : mewarnakan
   (colour) (to colour)
   (Noun) (Verb)
   gambar : ____________ Answer : menggambarkan
   (picture) (to depict)
   (Noun) (Verb)

6. pukul : memukul
   (beat) (to beat)
   (Verb) (Infinitive Form)
   ______ : menjahit Answer : jahit
   (to sew) (sew)
   (Infinitive Form) (Verb)