# Oral Vocabulary as a Predictor of English Language Proficiency among Malaysian Chinese Preschool Children

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#### ABSTRACT

The vocabulary of children is an important indication of their language ability during the preschool years. This study examined whether oral vocabulary is a good predictor of the English language proficiency of Malaysian Chinese preschoolers by examining the correlation of oral vocabulary and English language proficiency. A total of 204 Chinese preschoolers aged between 3 to 6 years participated in this study. A parental report was used to gauge the English language proficiency level of the children; while a set of stimulus pictures containing 160 basic and easy vocabularies were used to determine the oral vocabulary abilities of the children. The results showed that preschoolers' oral production of English vocabulary had a significant and positive correlation with their English language proficiency. Older children showed more correct production of English vocabulary compared to younger children. There were no gender effects in their oral productions. The findings of the present study could serve as a way to gather information on preschoolers' level of English language proficiency, to inform instructional practice and to rule out second language learning problems or language delay.

Keywords: oral vocabulary; English language proficiency; Malaysian; Chinese; preschoolers

#### INTRODUCTION

Malaysia is a multiethnic and multilingual country, where many languages are used. The commonly used languages include Malay, English, Chinese and Tamil. Malay is the official language while English serves as the second language in Malaysia. Therefore, the scenario in Malaysian preschool classrooms is one where the majority of children do not have English as their first language. For instance, the Malaysian Chinese children usually speak Mandarin or a Chinese dialect as their first language, and use English as the secondary language. Because of this, teachers may find it challenging to effectively support young children with limited English skills. In English language learning, vocabulary plays an important role as vocabulary knowledge is considered a prerequisite for successful communication (Nation 2001) and has also been associated with improved reading comprehension skills as well as improved oral ability and later academic success (Wise, Sevcik, Morris 2007).

Vocabulary is broadly defined as knowledge of words and word meanings. Vocabulary is classified into four large types, which are meaning/oral vocabulary, receptive vocabulary, expressive vocabulary and literate/written vocabulary (Pikulski & Templeton 2004, p.2). Meaning or oral vocabulary refers to the combination of both listening and speaking vocabularies. Receptive vocabulary is defined as the words that an individual can comprehend when heard or read in context, and includes listening and reading vocabularies. Expressive vocabulary refers to words that an individual can use to express him/herself, and includes

speaking and writing vocabularies. Literate or written vocabulary refers to the combination of one's reading and writing vocabularies. Oral vocabulary consists of words that children comprehend when heard and that they can essentially use in their speech. During this period, children have not yet acquired literate vocabulary because reading and writing skills are only learnt when they enter preschool. Nonetheless, fostering improvement in one aspect will likely enhance improvement in all other aspects. This is because there is a high correlation of all four aspects of vocabulary, which involve listening, speaking, reading and writing.

Vocabulary can be classified into different levels (Pikulski & Templeton 2004) or tiers (Beck, McKeown & Kucan 2002). Pikulski and Templeton (2004) proposed four levels of vocabulary. Level I vocabulary is commonly referred to as 'conversational speech', and consists of words that are used repeatedly in everyday speech. All children learn them and the examples include car, boy, dog, sun and down. Level II vocabulary is referred to as 'academic vocabulary' or 'instructional vocabulary', which consists of words that are mostly learnt via reading or instruction. Some examples of these words include advance, speculation, endeavour and process. Level III vocabulary is made up of the 'technical vocabulary' of a particular field of profession or study. Words such as dyspraxia, autism, dysarthria are possible examples in the speech therapy profession. Level IV consists of words that are so rare and esoteric that they are not useful. Some words that are no longer being used are majuscule, xanthodont, noctuary. Beck Beck, McKeown & Kucan (2002) proposed a similar three tiered framework. Tier I comprises basic and easy words which are known by most individuals, such as run, stone and boy. Tier II is made up of vocabulary with important meanings across a variety of domains, such as *teach*, coincidence and absurd. Tier III contains low frequency and difficult words that occur in specific domains. For instance, molecule, atom and amino acid are words that are learnt during a chemistry lesson. The understanding of different levels or tiers of vocabulary are essential as it helps teachers to plan how to teach and develop vocabulary based on pupils' level of development.

## VOCABULARY ACQUISITION

The acquisition of vocabulary begins long before children are of school age. Children present with different levels of vocabulary knowledge when they enter school as a result of differences in experiences and exposure to literacy and language activities (Hart & Risley 1995). It was found that vocabulary gaps grow larger in the early grades. Children who possess limited vocabulary knowledge show more discrepancies in their vocabulary acquisition over time as compared to their peers who have rich vocabulary knowledge (Biemiller & Slonim 2001). A child's vocabulary growth is affected by a number of factors. A toddler's vocabulary growth between 16 and 24 months is affected by his/her mother's speech frequency (Huttenlocher, Haight, Bryk 1991). The size of a child's vocabulary is influenced by the extent of his/her exposure to teacher discourse and classroom curriculum in a preschool environment, as well as his/her knowledge of rare words (Dickinson & Tabor 2000). In addition to this, children learn new vocabulary from oral language experiences such as listening to stories read aloud (Bus, van Ijzendoorn & Pellegrini 1995, Whitehurst, Zevenbergen, Crone 1999). Apart from this, vocabulary knowledge and size have been found to be related to a variety of indices of linguistic ability. Vocabulary knowledge was reported to be strongly related to reading proficiency and eventually school achievement (Beck, McKeown, & Kucan 2002, Anderson & Nagy 1991). Vocabulary size was reported to be a significant predictor of reading comprehension (Anderson

& Freebody 1981). Similarly, Cunningham and Stanovich (1997) reported that at the end of first grade, oral vocabulary is a potent predictor of reading comprehension ten years later. In view of the importance of vocabulary acquisition, vocabulary development is regarded as a fundamental goal for students in the early grades in the United States (National Reading Panel 2000).

## VOCABULARY TESTS

The importance of vocabulary in language acquisition cannot be overstated. Hence the need to measure vocabulary is just as crucial. There are a number of published vocabulary tests that have been found to be valid indicators of children's language ability, for example, Expressive One-word Picture Vocabulary Test (EOWPVT) (Brownell 2000), Expressive Vocabulary Test (EVT) (Williams 2007), Montgomery Assessment of Vocabulary Acquisition (MAVA) (Montgomery 2008) and Peabody Picture Vocabulary Test (Dunn & Dunn 2007). Vocabulary tests are quick to administer and simple to score. Vocabulary testing provides a fast and easy way to monitor progress in children's language tests where they can serve many purposes. Firstly, they can be utilised as an achievement test, by assessing whether learners have mastered the words they were taught. Secondly, they can serve as a diagnostic test, by detecting whether there are gaps in the vocabulary knowledge of learners. Thirdly, they can be used as a placement test, by placing part of a more global or comprehensive language proficiency test to gauge the learner's skills in a particular language.

Vocabulary tests that are based on international standards are not suitable for use with Malaysian children. These tests have typically been designed for native English speaking children. Therefore, they are not developmentally and culturally appropriate for Malaysian children as they fail to consider the specific linguistic and cultural background of Malaysian children. A number of biases exist in tests normed for native English speaking children. For instance, deliberate bias occurs when test items are unrepresentative of the individual's language, learning style, behavioural set, community or culture (Adler 1993), or content bias occurs when all children are assumed to have similar exposure to certain concepts or vocabulary (Grossman 1995). Although vocabulary tests are useful in many ways, there is no standardised English vocabulary tests designed for Malaysian children.

## ENGLISH LANGUAGE PROFICIENCY

As aforementioned, vocabulary tests can serve as part of a more comprehensive language proficiency test to evaluate the learner's skills in a language. It is worthwhile to know whether Malaysian children's English oral vocabulary production is closely related to English language proficiency, particularly oral language proficiency. English language proficiency (ELP) is used in State and Federal Laws of the United States for assessing any student whose first language is other than English; or who lives in a home where another language is spoken; or who has had significant exposure to another language. The same premise can be applied in the Malaysian context. Many Malaysian children acquire English simultaneously with other languages, such as Mandarin or Malay at home, or learn English in preschool as a secondary language. English is an international language and a lingua franca in Malaysia. Approximately 32% of Malaysians communicate in English in their daily life (Bolton 2008). The English Language Curriculum

developed by the Ministry of Education of Malaysia (2001) aims at enabling preschool children to actively communicate with others in their immediate environment and to develop a sense of enjoyment of the English language through the use of stories, rhymes, poems, songs and games. Vocabulary development will be enhanced through exposure to and use of language related to familiar experiences, things in the environment and children's literature. English teaching is included as a basic thrust module in the National Preschool Standard Curriculum (NPSC), which allocates a specific weekly study time for learning English. English is introduced at the preschool level, so that Malaysian children will become familiar with the language when they enter primary school. A higher proficiency in English will help Malaysian children to communicate fluently and cope better academically.

### GENDER AND VOCABULARY LEARNING

Gender is one of the most researched factors in vocabulary learning to investigate differential achievement among learners. A number of studies have examined gender differences in vocabulary acquisition among young children but have reached different conclusions. Most of the studies found that girls had superior vocabulary skills compared to boys. Huttenlocher et al. (1991) who examined early vocabulary growth of 22 children by using data obtained at several time points from 14 to 26 months found that gender is an important factor in the rate of vocabulary growth, with girls outperforming boys. Bornstein, Haynes and Painter (1998) studied vocabulary competence of 126 children aged 20 months in the context of a multivariate developmental ecological model and found that girls develop vocabulary at a more accelerated rate compared to boys. Likewise, Galsworthy et al. (2000) who examined genetic and environmental origins in 3000 2-year-old twin pairs also found that girls scored higher on verbal ability as measured by productive vocabulary. In a study on birth order, Bornstein, Leach and Haynes (2004) found that at 20 months, first born girls performed better than boys on all vocabulary competence measures, and second born girls were superior to boys on vocabulary comprehension and vocabulary production. Westerlund and Lagerberg (2008) investigated 1091 children aged 17 to 19 months and revealed that girls had a more developed vocabulary and were more involved in reading than boys at 18 months. Bavin et al. (2008) who studied 1447 children in Australia noted that a child's gender also affects vocabulary development, with girls producing more words than boys at both 12 and 24 months of age. Similarly, Andersson et al. (2011) investigated gender differences in speech production for Swedish children aged between 18 to 24 months, and found that girls had higher mean scores than boys at 21 and 24 months, but not 18 months. In contrast to the above studies, two studies demonstrated non-significant gender effect in vocabulary acquisition (Heinrichs et al. 2010, Hyde & Linn 1988). Hyde and Linn (1988) conducted a meta-analysis of over 170 studies on verbal ability, including vocabulary, and found no gender gap; or that the gender gap narrows and disappears all together in vocabulary acquisition for participants aged 3 to 21 years old. Based on the reports from mothers of 3759 children who completed the MacArthur Communicative Development Inventory at 18 months and the Language Development Survey at 30 months, Heinrichs et al. (2010) found at both 18 and 30 months, that boys had a higher tendency to be delayed in expressive vocabulary skills than girls. However, the gender difference contribution to the overall variance was small. In sum, one can conclude that the results are inconclusive regarding the role of gender in vocabulary acquisition and gender is acknowledged as a complex and nuanced issue.

## AIMS OF THE STUDY

Although the importance of vocabulary acquisition among young children has been acknowledged in many studies, the area of vocabulary acquisition in preschool children is relatively under-researched in the Malaysian context, as most of the studies in Malaysia focused on older children and young adults (Letchumanan & Tan 2012, Radzuwan 2011). Thus, there is a critical need to address the research in this area. Oral vocabulary was chosen as a predictor of ELP as vocabulary is easy and fast to assess and score objectively. This is especially suitable for young preschoolers who have a shorter attention span. In this study, the researchers focused primarily on oral vocabulary as it is well-developed at preschool level. This study attempted to address three research questions:

- 1) Is the oral production of English vocabulary related to the English Language Proficiency (ELP) of Malaysian Chinese children?
- 2) Do older children exhibit more oral production of vocabulary than younger children?
- 3) Is there a significant difference between male and female children in their oral production of vocabulary?

## METHODS

### PARTICIPANTS

Typically developing Malaysian Chinese children aged between 3 to 6 years were recruited from private kindergartens and child-care centres in Penang Island, Malaysia. In order to ensure that the selected children are typically developing with no delay in personal developmental milestones including medical, hearing, speech and language, parental questionnaires were used to select the appropriate participants. A total of 204 Chinese children were sampled, with 108 females and 125 males. The demographic information of the participants is displayed in Table 1.

Age group	Age		Gender		Total number (n)	
	Mean (year; month)	SD (month)	Female	Male		
<b>3.00-3.</b> 11	3.55	0.34	24	17	41	
<b>4.00-4.</b> 11	4.49	0.28	29	30	59	
<b>5.00-5.</b> 11	5.43	0.28	30	30	60	
<b>6.00-6.</b> 11	6.35	0.27	25	19	44	
	Total		108	96	204	

TABLE 1. Demographics of participants

### INSTRUMENTS

Two types of instruments were designed for the purpose of this study. A stimulus book was designed to elicit single word production of English vocabulary from the participants. Due to the lack of standardised vocabulary tests for Malaysian children, a researcher-developed stimulus

book was used. A total of 160 words, from Level I (Pikulski & Templeton 2004) and Tier I (Beck et al. 2002) of English vocabulary (Appendix A) were sampled. The targeted words were culturally appropriate and familiar to young Malaysian children. The words that were not common to Malaysian children, for instance, *snow, sled, winter, fireplace* and *earnuff* were excluded from the word list. The content of the stimulus pictures was validated by two preschool teachers who had at least 5 years of teaching experience in the preschools. The targeted words were then illustrated and presented colourfully in 30 composite pictures according to themes. For instance spoon-*fork-knife-plate-glass* was grouped as a theme. Then, a parental report (Phoon 2010) was designed to record the language profile of the selected children. The parental report was used as parents are reliable in providing information about their child's language and overall development (Pavri & Fowler 2005). Parents were asked to rate the level of English language proficiency according to five ratings: 1 - non-proficiency, 2 - very limited proficiency, 3 - limited proficiency, 4 - good proficiency and 5 - native-like proficiency.

### DATA COLLECTION

All 204 children were seen individually by the first researcher at kindergartens and child-care centres. The researcher established rapport with the child prior to conducting the task. The task was administered in a quiet room, and the stimulus book was clearly visible to the child. The child was instructed to name the picture in responding to questions such as "What is this?", "What colour is this?", "What sound does a cow make?" The session was audio-recorded in order to check and complete the scoring after the task.

#### DATA ANALYSIS

The children's responses were marked as '0' if incorrect or no response was given and '1' mark was given if a correct response was noted. The correct and incorrect responses were counted. The percentage of correct responses was calculated based on the number of correct responses over the total number of targeted responses. The data obtained were analysed statistically using frequency counts and percentages.

### RESULTS

### ORAL PRODUCTION OF ENGLISH VOCABULARY

The mean and standard deviation of vocabulary that the children produced correctly according to age group is shown in Table 2. Older children showed more correct responses than younger children. For instance, 3.00-3.11 year-old children named on average 90 words out of 160 words, while 6.00-6.11 year-old children named approximately 132 words out of 160 words.

Age group	Ν	Minimum	Maximum	Mean (n=160)	Standard Deviation
3.00-3.11	41	55.00	129.00	90.17	19.92
4.00-4.11	59	73.00	145.00	106.39	17.95
5.00-5.11	60	84.00	150.00	124.10	13.96
6.00-6.11	44	84.00	155.00	132.73	16.73

#### ENGLISH LANGUAGE PROFICIENCY

Children's level of English language proficiency, as reported by the parents, is displayed in Table 3 while the description for each level of proficiency is given below. None of the parents rated their children as being in the category of 'non-proficiency'. Most of the parents rated their children as either having limited proficiency (45.10%) or good proficiency (43.14%). Only a small portion of parents (7.84%) rated their children as having native-like proficiency.

Rating	English Language Proficiency Level			
	Ν	%		
Non-proficiency	0	0		
Very limited proficiency	8	3.92		
Limited proficiency	92	45.10		
Good proficiency	88	43.14		
Native-like proficiency	16	7.84		
Total	204	100		

TABLE 3. Parents' Rating of English Language Proficiency Level

Rating of Proficiency Level
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Non-proficiency	Cannot speak English, has only a few words or phrases, cannot produce
	sentences, only understands a few words
Very limited proficiency	Cannot speak English, has a few words or phrases, understands the general
	idea of what is being said
Limited proficiency	With grammatical errors, limited vocabulary, understands the general idea of
1 2	what is being said.
Good proficiency	With some grammatical errors, some social and academic vocabulary,
F	understands most of what is said.
Native-like proficiency	With few grammatical errors, good vocabulary, understands most of what is
run ve me proneieney	said.

### CORRELATION OF ORAL PRODUCTION OF VOCABULARY TO ENGLISH LANGUAGE PROFICIENCY

The relationship of English oral vocabulary production and English language proficiency was examined using *Pearson* statistics, using  $r^2$  for effect size (see Table 4). Effect sizes were interpreted as follows: .1-.29 = small, .3-.59 = medium and .6 and greater = large (Cohen, 1988).1-.29 = small, .3-.59 = medium and .6 and greater = large (Cohen, 1988). English oral vocabulary production was significantly correlated with English language proficiency for all age groups, except 6.00-6.11 year-old children. However, the effect sizes were all small, indicating a weak relationship between English oral vocabulary production and English language proficiency.

TABLE 4. Correlations between vocabulary naming and English language proficiency

Age group	- <i>r</i>	р	$r^2$
3.00-3.11	0.401**	0.009	0.161
4.00-4.11	0.475**	0.000	0.226
5.00-5.11	0.304*	0.018	0.092
6.00-6.11	0.073	0.639	0.005

\*\* Correlation is significant at the 0.01 level

\* Correlation is significant at the 0.05 level

### EFFECTS OF AGE GROUP AND GENDER ON ORAL PRODUCTION OF VOCABULARY

A Univariate Analysis of Variance (ANOVA) was performed to examine combined effects of age group and gender on the number of correct oral vocabulary production. Effect size was calculated using partial eta square ( $\eta_{\rho}^2$ ) with interpretation using the following guidelines: 0-.10 = negligible, .10-.25= small, .25-.50 = moderate, .50-.80 = large, and .80-1.00 = very large (Fiestas & Peña, 2004). The results showed a significant main effect of age group on the number of correct oral vocabulary production, *F* (7, 203) = 53.861, *p* < 0.0001,  $\eta_{\rho}^2$  = .452, with moderate effect size. The post-hoc Bonferroni tests showed that 3;00-3;11 year-old children were significantly different from other age groups; 5.00-5.11 year-old children were significantly different from other age groups; 5.00-5.11 year-old children were significantly different from other age groups; 5.00-5.11 year-old children were significantly different from other age groups; 5.00-5.11 year-old children were significantly different from other age groups; 5.00-5.11 year-old children were significantly different from other age groups; 5.00-5.11 year-old children were significantly different from other age groups; 5.00-6.11. The older children produced more correct oral vocabulary productions than younger children. The effect of gender on the number of correct oral vocabulary production was not significant, *F* (1, 203) = .132, *p* = .717,  $\eta_{\rho}^2$  = .001. There was also no significant interaction between gender and age group for the number of correct oral vocabulary production, *F* (7, 203) = 0.916, *p* = 0.434,  $\eta_{\rho}^2$  = .014.

#### DISCUSSION

The first research question in this study was: Is the oral production of English vocabulary related to English Language Proficiency (ELP) of Malaysian Chinese children? The findings revealed that oral production of English vocabulary was significantly correlated with English language proficiency for all age groups, with the exception of 6.00-6.11 year-old children. In other words, English vocabulary naming is a good predictor of English language proficiency for Malaysian Chinese preschoolers up to 5 years old. Therefore, an oral vocabulary test can be used to gauge English language proficiency of Malaysian Chinese preschoolers below 6 years old. Oral production of English vocabulary failed to predict English language proficiency in 6 year-old children. There are a number of reasons that may account for this. First, the present study only assessed basic vocabulary, which was mostly made up of simple nouns. The acquisition of basic vocabulary might not be able to predict the proficiency level of the 6 year-old children. Therefore, the assessment of more advanced vocabulary, for example, words from Level II (Pikulski & Templeton 2004) or Tier II (Beck et al. 2002) might be able to reflect the English Language Proficiency (ELP) of this group of children. Second, it is highly likely that at this age, children's language skills are more advanced and complex, and therefore, tests based solely on oral vocabulary are insufficient to account for children's language proficiency. Besides this, other linguistic aspects such as grammar and syntax should also be taken into consideration. A more comprehensive English language test might be needed to predict English language proficiency for Malaysian Chinese preschoolers older than 5 years old.

The second research question was: Do older children exhibit more oral production of vocabulary than younger children? The findings demonstrated that older children produced more correct oral production of vocabulary than younger children. This finding is consistent with many results in the existing literature. For instance, in Biemiller's (2005) study, one year olds to seven or eight year olds were found to acquire words at the rate of approximately 860 root word meanings per year or 2.4 root words per day. Between the ages of 12 months and 18 years, children learn an average of 10 words per day if they hear many new words used in their environment (Bloom 2002). For monolingual children aged 3 to 6 years, they add 3 new words to

their vocabulary repertoire each day (Bloom 2002). All the above findings demonstrate that vocabulary size gets bigger when the children get older. Therefore, preschool children who struggle to increase vocabulary even when they get older should be identified by their teachers, as there might be some problems with these children. First, the children might have difficulty in coping with the second language, which results in poor English vocabulary development. This is probably because of a vocabulary overlap in the lexicon of second language learners' two languages. This vocabulary overlap is attributed to the child acquiring each language in different contexts resulting in some areas of complementary knowledge across the two languages (Saunders 1982). In order to rule out the children having difficulty with the second language, it is crucial to examine both languages of the children and account for this overlap in order to assess the size of their vocabulary. Second, the children might be at risk of having language delay. These children might be encountering problems in increasing vocabulary in both their first and secondary languages. This is because oral vocabulary size in relationship to age appears to be a strong marker of continued language growth (Fischel et al. 1989, Olswang & Bain, 1996). Often, children with language delay have smaller vocabulary size than their peers (Paul 2007). Consequently, these children might require intervention or special education services.

The third research question was: Is there a significant difference between male and female children in their oral production of vocabulary? The findings demonstrated that there was no significant difference in male and female children in their oral production of vocabulary. Because no differences were found for the male and female children, they are then expected to perform equally well in their oral production of vocabulary. The findings of this study are congruent with the meta-analysis reported by Hyde and Linn (1988) who found that gender did not yield a substantial difference. However, the results of the present study indicate contradictory findings to studies which highlighted the superiority of females over males (Andersson et al. 2011, Bavin et al. 2008, Bornstein et al. 1998, Bornstein et al. 2004, Galsworthy et al. 2000, Huttenlocher et al. 1991, Westerlund & Lagerberg 2008). One apparent difference between the present study and the previous studies was the age of participants being studied. The previous studies mainly involved children aged 2 or younger, while the present study included children 3 years and older. The age factor might have an impact on gender differences. Other factors such as aspects of the type of word knowledge explored and the task used for data gathering might also contribute to the differences in the findings. The role of gender in vocabulary acquisition needs to be further examined in future studies to clarify the inconclusive findings of past research.

### IMPLICATIONS OF THE STUDY

There are a number of implications resulting from the findings of the present study. First, it was found that oral production of English vocabulary is significantly correlated with English language proficiency. This finding is informative as preschool teachers and parents could use oral vocabulary production to assess or gauge pupils' English language proficiency, and then plan future action to improve the teaching-learning process of English language. Second, it was shown that older children had a larger oral vocabulary size than the younger children. Therefore, if pupils are found to perform below average in terms of oral vocabulary, preschool teachers should pay special attention to this. It might be signs of them having difficulty in learning the second language or having language delay. For children who encounter difficulty to cope with English, preschool teachers can plan activities that support vocabulary development in English. This is because children with poorer vocabulary are less likely to learn new words from incidental exposure than children with larger vocabulary. Hence, teachers need to provide more explicit vocabulary instruction for children with weaker vocabulary (Nicholson & Whyte 1992, Robbins & Ehri 1994, Senechal, Thomas & Monker 1995). There are a number of activities or methods that preschool teachers could adopt to boost children's vocabulary growth. These can be done through reading-aloud of high-quality picture books (Dickinson & Smith 1994, Neuman and Dickinson 2001), having meaningful conversations such as those about previous events and experiences that take place at school or elsewhere (McGee & Schickedanz 2007), semantic mapping and word family associations (Au 1993, Nagy 1988) as well as story-telling (Collins 2005). As for children who are suspected to be language delayed, preschool teachers ought to refer them to speech-language therapists for language assessment and follow-up intervention if needed.

## STUDY LIMITATIONS AND FUTURE DIRECTIONS

Although the study has provided valuable insights on the vocabulary acquisition among Malaysian Chinese preschoolers, there are some limitations. The sample of the present study only included preschool children of Chinese ethnicity. The other ethnic groups in Malaysia such as Malays and Indians were not included in the present study. It is worthwhile to include children of other ethnicities in future studies so as to examine if ethnicity is a factor which influences vocabulary acquisition. A previous study by Sulaiman (2005) suggested that ethnicity plays a role in vocabulary acquisition. It was found that there were significant differences in English vocabulary achievement based on ethnicity. Indian children demonstrated the highest level of English vocabulary achievement, followed by the Chinese and lastly the Malays. The present study employed single picture naming tasks which targeted simple nouns to measure the number or frequency of vocabulary produced by the preschoolers. In the future, it will be useful to sample other types of vocabulary such as verbs and adjectives in the naming tasks in order to examine if these types of vocabulary knowledge could predict English language proficiency of preschoolers. To extend the investigation of gender as a factor in vocabulary acquisition, future research should focus on testing children starting from a younger age such as 18 months. This is to confirm whether the gender effect has taken place in younger children.

## CONCLUSION

In conclusion, a number of major findings about the vocabulary acquisition of Malaysian Chinese preschoolers emerged from this study. Firstly, there was a relationship of oral vocabulary production with English Language Proficiency of preschool children. Oral vocabulary could be used to predict the English proficiency level of preschoolers. Secondly, older children produced more oral vocabulary as compared to younger children, with no differences between females and males. The findings may have some impact on early childhood education. For instance, it could serve as a way to gather information on preschoolers' level of English language proficiency, to inform instructional practice and to rule out second language learning problems or language delay.

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# APPENDIX A

1	goat	45	prawn	88	watermelon		
2	sheep	46	octopus	89	orange	132	computer
3	cow	47	Dolphin	90	banana	133	dragon
4	pig	48	Shoulder	91	strawberry	134	tissue
5	chicken	49	leg	92	pear	135	pencil
6	chick	50	knee	93	papaya	136	scissors
7	house	51	foot	94	vegetable	137	skirt
8	duck	52	beach	95	tomato	138	glove
9	frog	53	fish	96	carrot	139	sock
10	butterfly	54	treasure	97	cucumber	140	zip
11	grasshopper	55	watch	98	potato	141	vest
12	caterpillar	56	ring	99	jam	142	basket
13	snail	57	moon	100	bread	143	shoe
14	elephant	58	star	101	jar	144	paint
15	zebra	59	pyjamas	102	milk	145	red
16	giraffe	60	belt	103	spoon	146	yellow
17	deer	61	hanger	104	fork	147	blue
18	crocodile	62	bed	105	knife	148	green
19	tiger	63	pillow	106	plate	149	pink
20	cage	64	clock	107	egg	150	hair
21	Z00	65	lamp	108	sandwich	151	eyes
22	rocket	66	sofa	109	ice	152	nose
23	aeroplane	67	vase	110	juice	153	Mouth
24	helicopter	68	television	111	lunch	154	Teeth
25	bridge	69	telephone	112	book	155	Tongue
26	sea	70	dinosaur	113	shelf	156	Hand
27	bus	71	drum	114	teacher	157	Finger
28	bicycle	72	toy	115	guitar	158	Thumb
29	motorcycle	73	kitchen	116	radio	159	Chair
30	smoke		washing	117	magic	160	Lizard
31	ambulance	74	machine	118	flower		
32	hospital	75	oven	119	hat		
33	slide	76	refrigerator	120	box		
34	swing	77	spider	121	thief		
35	seesaw	78	web	122	mask		
36	sun	79	ladder	123	money		
37	umbrella	80	mouse	124	police car		
38	Girl	81	hammer	125	whistle		
39	Tree	82	screw	126	Birthday		
40	Bird	83	boy	127	Present		
41	Ball	84	lift	128	Brother		
42	cat	85	balloon	129	Mother		
43	dog	86	string	130	Father		
44	crab	87	yoyo	131	camera		