國小四年級新住民子女英語閱讀能力之研究

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本研究是中部新住民子女教育資料庫建置整合型計畫之一部分,主要目的 在了解中部地區國小四年級新住民子女之英語閱讀能力,以及哪些背景因素影 響他們的英語閱讀能力表現。本研究編製了一份國小英語閱讀能力測驗,並使 用整合型計畫團隊其他研究者所發展的背景問卷,共有 238 位小四新住民子女 學童以及 260 位小四一般學童參與測試。研究發現一般學童在英語閱讀能力測 驗的表現優於新住民子女學童。跟一般學童比起來,新住民子女學童在閱讀環 境標示文字、句子、故事與兒童劇這三類能力指標的試題答題顯著較差。影響 新住民子女學童英語閱讀能力測驗表現的背景因素有七項,分別爲是否參加課 後輔導、是否補習英語、學習英語的時間、學習英語的興趣、父親教育程度、 母親教育程度、是否爲低受入戶。依據研究的發現,論文最後討論研究與教育 的建議與未來可行方向。

關鍵字:新住民子女,國小英語教學,英語閱讀能力

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專論

Introduction

The purpose of the study was to understand the English reading proficiency of grade four children of new immigrant parents (hereafter NIP) in the central part of Taiwan. This study was part of a greater effort initiated by the author's research institute in the establishment of an educational database of children of immigrant parents. In this integrated research project, researchers from the author's institute developed Chinese language arts, math, and English tests to examine the academic achievements of grade four NIP children in central Taiwan. Three different questionnaires were also developed to understand their learning style preferences, social adjustments, and cultural identity. The study reported here came out of this joint effort.

The other important purpose of this integrated research project was to use our NIP student achievement data to compare with and complement those collected by Taiwan Assessment of Student Achievement (TASA) tests. This purpose explains why grade four children were chosen in the integrated research. Furthermore, as Cheng and Chen (2009) have pointed out in their analysis and report of the 2007 TASA tests, the number of the sampled students in TASA that had immigrant parents was small and therefore future research on the academic achievements of these students are necessary. In what follows, I discuss the background of the study, the research method, the results, and discussion and conclusion.

Background

The background of the study can be discussed in three different areas: the educational needs of NIP children, the importance of English, and the critical role of English reading.

First, the educational needs of NIP children have been well recognized by educational policy makers, classroom practitioners, and the society at large. According to the statistical reports of the Ministry of Education (2010), there are more than 150 thousand NIP children enrolled in elementary and secondary schools in the 2009-2010 academic year. Several studies found that many, but not all, of the NIP children encounter learning difficulties in the school. For example, Lu (2004) found that for many NIP children, a lower Chinese language proficiency translates to lower achievements in other school subjects. Wu (2006) also found that many upper grade NIP children have difficulties in reading and math.

On the other hand, there are also studies that found that NIP children's academic achievements were comparable to Non-NIP children's. H.-C. Chen (2004) found no difference in the intelligence, Chinese language ability, and academic achievements between first graders of immigrant mothers and native Taiwanese mothers. Chen indicated that this result challenged the misconception that many people held about children of immigrant mothers as less competent. H.-C. Lin's (2005) Chinese miscue analysis case study discovered that while her case, a fifth-grade student of an immigrant mother from the Philippines, was not especially enthusiastic about reading, she did not demonstrate problems in reading comprehension or oral expression. Similarly, Hung and Lin's (2010) Chinese miscue analysis study pointed out that while the sixth-grade NIP children in their study lacked relevant background knowledge to make sense of the text, the third-grade NIP children were quite fluent in reading and understanding Chinese. For one more example, C.-H. Chen's (2004) study indicated that in Penghu County, elementary school children of newly immigrant mothers did not fall behind in school performance, learning attitude or self-adaptation compared to Taiwanese native children. However, she pointed out that these children tended to be from lower social economic status (SES) families.

These studies help the public to correct the misconception that all NIP children are low achievers. In summary, multi-cultural and multi-lingual classrooms are a reality for almost all teachers on the island. While not all NIP children are economically and academically disadvantaged, the increasing number of NIP children in the school warrants educational research and support for this group of students.

Second, the learning of English is not simply a school subject; it is in de facto a national craze (Hung, 2007). The nation's educational polices have been modified in the past decade to mandate English teaching in the elementary grades. However, young children themselves do not truly understand the importance of English as a window and connection to the world. Individual differences due to SES variations are also one of the major challenges in elementary English education (Chiu, 2007; Hung & Wong, 2009). Based on TASA tests and surveys that accompanied these achievement tests, Cheng and Chen (2008, 2009) found that student gender, native or immigrant background, parents' educational level, and learning motivation were among the factors that positively correlated with higher English achievements. To seek and reach true educational equity, it is important to understand the state and needs of NIP children's learning of English. It is also important to understand what personal and family factors influence their learning of English reading.

Finally, this study chose to focus on reading proficiency because in the English as a foreign language (EFL) scenario in Taiwan, reading is probably the most important language ability to master for Taiwanese students. While chances to use oral English are rare in the Taiwanese EFL context, reading can be pursued beyond time and space limits (Hung & Wong, 2009), is an excellent way to strengthen English proficiency (Scott & Ytreberg, 1990), and helps to narrow the gap between students' cognitive and English ability development (Tsao, 2004).

According to the English reading ability indices of the grade 1-9 curriculum guidelines as drawn up by the Ministry of Education (2003), there are different aspects of English reading abilities to be mastered. Specifically for the first to the third grades, students are expected to learn the upper- and lower-case English letters, simple vocabulary, simple words and short sentences used in the classroom, environmental English, and simple words and sentences used in children's stories, plays, and books. In the 2006 TASA English tests, grade four students scored the worst in reading simple English environmental print, as compared to their performance in listening test and items about other aspects of reading ability, the correct rate being 67.73% (Cheng & Chen, 2008). In the 2007 TASA English tests, grade four students did not perform as well in word identification as they did in listening test and items about other aspects of reading ability, the correct rate being 72.55% (Cheng & Chen, 2009). It would be worthwhile to understand whether NIP and Non-NIP children differ in the learning of different aspects of reading abilities.

It was against this background that the current study was conducted to explore NIP children's English reading proficiency. Based on these background and rationales, the current study sought to answer the following three research questions:

- 1. Are there any differences in English reading proficiency between grade four NIP and Non-NIP children in central Taiwan?
- 2. Do grade four NIP and Non-NIP children score differently on different item categories on the English reading proficiency test?
- 3. What background factors might influence NIP children's performance on the English reading proficiency test?

Method

Instruments

The instruments of the study include the elementary English reading proficiency test developed by the author and the NIP student background questionnaire developed by another researcher in the integrated research team.

English Reading Proficiency Test

Framework. Several test frameworks were consulted in the development of the test framework for the current study. The framework of the current test was developed and based on two concerns. First, from a global perspective, this framework took into consideration important aspects of reading and literacy proficiency valued in other international language/literacy standardized tests. For example, the central role of communication and the four goal areas of cultures, connections, comparisons, and communities in the foreign language test framework of the National Assessment of Educational Progress (NAEP) (Kenyon, Farr, Mitchell & Armengol, 2003) were consulted. Bloom's revised taxonomy of educational objectives (Anderson & Krathwohl, 2001) provides a good basis for differentiating different cognitive processes and knowledge dimensions to be tested in the English reading proficiency test.

From a local perspective, this study aimed to connect the results of the test to the local educational scene. In this respect, the framework must be tied to the educational goals outlined and mandated by the national curriculum. Also, similar tests conducted in Taiwan, such as the English tests of TASA (Cheng & Chen, 2008, 2009) were consulted to determine the framework of the current test. Based on the above consultation and consideration, the framework of the test was determined (see Figure 1). On one dimension are the elementary English reading ability indices as specified in the 2003 grade 1-9 curriculum guidelines (Ministry of Education, 2003). Some of the reading abilities were not included because of the constraints of the test format. On the other dimension are three of Bloom's knowledge dimensions (Anderson & Krathwohl, 2001). The metacognitive knowledge dimension was not included because grade four students in Taiwan are only beginning English learners.

專論

		Elementary English Reading Ability Indices (Grades 1-3) in the Grade 1-9 Curriculum Guidelines
	Factual	3-1-1 Recognize block capital and block lower case English letters.
Bloom's Knowledge	Factual	3-1-2 Recognize and understand vocabulary words learned in school English class.
	Conceptual	3-1-4 Read simple English labels and signs in single words or sentences.
	Conceptual	3-1-5 Read and understand common words from songs, rhymes, and stories.
Dimensions	Conceptual	3-1-6 Read and understand simple sentences.
	Conceptual	3-1-7 Understand basic English writing format and punctuation marks.
	Procedural	3-1-9 Read and understand simple stories and children's plays with visual aids.
	Procedural	3-1-10 Make prediction and reference based on pictures, book titles, and context.

Figure 1 Framework of the elementary reading proficiency test.

Test development. Three experienced elementary English teachers were responsible for writing test items based on the test framework. Meetings were held to communicate with these teachers about the purpose, framework, design, and specifics of the test. A total of 20 test items, in 8 different item categories, were put in the test. Each category begins with an instruction and an example item. All items are multiple choice questions with 4 alternatives. Table 1 shows the specifics of the test and Figure 2 shows an example of a test question.

Item	Category	Number of
Category	Title	Items
1	Reading letters	2
2	Reading vocabulary words	3
3	Reading simple labels and signs	3
4	Reading words from songs and rhymes	2
5	Reading simple sentences	4
6	Understanding English writing format	2
7	Reading simple stories and children's plays with visual aids	2
8	Predicting and referencing from pictures, titles or context	2

 Table 1
 Item Specifics (Total Item Number=20)

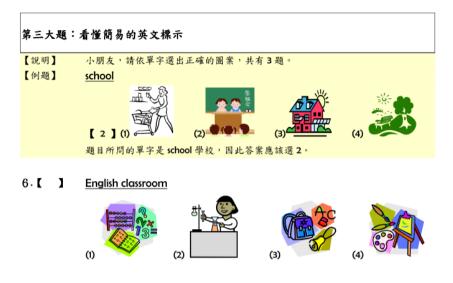


Figure 2 An example of a test question.

Validity and reliability. To ensure the content validity of the English reading proficiency test, three elementary school English teachers were invited to write the test items. They are veteran teachers with rich test writing experiences. One of them won the country's elementary English test design contest; one of them is an elementary English counselor in the local government; the last serves both in the local and the central governments' elementary English advisory team. The author chose the test items these three teachers wrote and put them in a complete test. The complete test was again reviewed by another elementary English veteran teacher and a university English professor who has extensive experiences in training pre- and in-service elementary English teachers. Final minor revisions were made based on their suggestions and comments.

Another source of the test validity came from the concurrent validity. Based on Pearson correlation test results, NIP children's English reading proficiency test scores were positively and significantly correlated with their English grades from the previous school year (first semester: r=.43, p<.001; second semester: r=.50, p<.001). This is an indication of validity of this reading proficiency test.

The reliability of the English reading proficiency test was examined by the Cronbach's alpha method. The 20 items in the test yielded a Cronbach's alpha of .79 (N=498, including both NIP and Non-NIP children).

Student Background Questionnaire

A student background questionnaire was designed to understand how different background factors might influence these children's English reading proficiency. Items in the questionnaire include: gender, the main person who helps with homework, the main care-taker, participation in after school programs, participation in after school English lessons, number of years learning English, interest in learning English, father's and mother's education level, number of years the immigrant parent has been living in Taiwan, immigrant parent's participation in Chinese literacy lessons for adults, and low income family status.

NIP children's homeroom teachers were asked to fill out the questionnaire on behalf of them. This decision was made out of the following three considerations. First, since each child in this study, NIP or not, had to take two achievement tests and 3 questionnaires, we did not want to increase the burden of NIP children by asking them to fill out one additional questionnaire. Second, it was difficult logistically to find class time for the NIP children to fill out one more questionnaire. Last and most importantly, we decided to ask NIP children's homeroom teachers to answer this questionnaire to make sure that accurate information was gathered. These teachers were asked to consult with new immigrant parents to provide correct NIP children background information. Elementary school teachers were consulted to ensure that prospective respondents (i.e., NIP students' homeroom teachers) would not have problems understanding or filling out the questionnaire.

Participants

Participants of the study were recruited by identifying elementary schools in central Taiwan that had a higher than average percentage of students from immigrant families. Some participants were invited to take part through the personal connection of researchers in the integrated research team with elementary classroom teachers. A total of 531 grade four students participated in this study. After invalid tests were removed, 498 remained for data analysis. There were 238 NIP children and 260 Non-NIP children. 259 of them were boys and 239 of them were girls.

To help the reader understand the children who participated in this study, I report the demographic characteristics of these children in this section instead of showing the statistic results of the background questionnaire later in the results section. Table 2 shows the demographic information of the participants. Among the 238 NIP children, only 12 had their father as the immigrant parent. Then again,

among these 12 children, 4 had both parents as immigrants. For the majority of the NIP students, the immigrant parents were from China and other Southeast Asian countries.

All of the participants attended public elementary schools; however, since different local governments began elementary English courses at different grade levels, these grade four participants varied in how many years they had been learning English in school. This was compounded by the fact that English lessons from private English language institutes and after school care centers were quite common. Analysis of the student background questionnaire revealed that among the NIP children, 37% of them had learned English for less than 2 years, 53% of them between 2 to 4 years, and 10% over 4 years.

Table 2	Demographic morn	lation of the Participants (N-	-498)
		G	roup
		NIP	Non-NIP
		N=238	N=260
Gender	Boy	123	136
	Girl	115	124

Table 2 Demographic Information of the Participants (N=498)

Note. NIP stands for students of new immigrant parent.

Homeroom teachers filled out the student background questionnaire on behalf of the NIP children. Non-NIP children's homeroom teachers were not asked to fill out this questionnaire. Frequency counts revealed that mothers, fathers, and others (other family members or personnel from after school care centers) shared an equal chance to be the main person providing help with homework. For 59% of the children, however, mother was the main care taker. 65% of the NIP children took part in after school programs, which included after school care, cram school lessons, arts and talents classes, and so forth. 27% of the children took extra English classes from outside the school. More than half of these children (53%) had been learning English for 2 to 4 years, and half of them were interested in learning English. Their parents' education level was generally not high. 13% of the children's families received the government low income subsidy, which was almost ten times higher than the national percentage of 1.37% (Ministry of Interior, 2010). Table 3 shows the results of the questionnaire.

Characteristics	Percentage	s of children	(N=238)		
Gender	Girl	Boy			
	48%	52%			
Person helping	Mother	Father	Others		
with homework	34%	33%	33%		
Main care-taker	Mother	Father	Others		
	59%	31%	10%		
After school programs	No	Yes			
	35%	65%			
After school	No	Yes			
English lessons	73%	27%			
Number of years	<2	2-4	>4		
learning English	37%	53%	10%		
Interested in	No	Yes			
learning English	50%	50%			
Father's education	Tier 1*	Tier 2**	Tier 3***		
	13%	46%	41%		
Mother's education	Tier 1*	Tier 2**	Tier 3***		
Number of years	<5	5-10	11-15	16-20	>20
living in Taiwan	3%	17%	67%	7%	6%
Adult Chinese	No	Yes			
literacy lessons	79%	21%			
Low income	No	Yes			
family subsidy	87%	13%			

 Table 3
 Demographic Characteristics of the NIP Children (N=238)

* Tier 1 means 4 year college or higher.

** Tier 2 means junior college or high school.

*** Tier 3 means junior high school or lower.

Data Collection

專論

All of the participants took the English reading proficiency test, which took around 20 minutes. The homeroom teachers of NIP children were asked to answer the student background questionnaire on behalf of the NIP children.

Data Analysis

One-way ANOVA tests were conducted to evaluate the relationship between different conditions (NIP vs. Non-NIP, gender, and background factors) and performance on the English reading proficiency test. SPSS 15.0 for Windows was used to conduct these statistical analyses.

Results

To understand how NIP and Non-NIP children performed on the English reading proficiency test and whether gender affected their test performance, one-way ANOVA tests were conducted. It was found that Non-NIP children had higher test scores (F=7.29, p=.007) and girls performed better than boys (F=5.22, p=.023) (Table 4). In follow up multiple-ways ANOVA tests, no interaction was observed in the two factors of group and gender.

Table 4	Results o	IANOVA	lests on	lest Score	es by Grou	p and Gen	der Type	es
				95% Cont	fidence			
				interval fo	or mean			
				Lower	Upper			Effect
		Mean	SD	bound	bound	F-value	р	size
Group	NIP	.57	.20	.54	.59	7.30	.007*	.24
	Non-NIP	.62	.21	.59	.64			
	Total	.59	.20	.58	.61			
Gender	Girl	.62	.20	.59	.64	5.23	.023*	.25
	Boy	.57	.20	.55	.60			
	Total	.59	.20	.58	.61			

 Table 4
 Results of ANOVA Tests on Test Scores by Group and Gender Types

Note. The effect size was computed by the Cohen's d.

* *p*<0.5

To evaluate how NIP and Non-NIP children compared in their performance on different item categories in the English reading proficiency test, one-way ANOVA tests were conducted. It was revealed that compared with Non-NIP children, NIP students scored significantly lower on item category 3 (reading simple labels and signs) (F=8.46, p=.004), category 5 (reading simple sentences) (F=5.62, p=.018), and category 7 (reading and understanding simple stories and children's plays with visual aids) (F=6.72, p=.010). Table 5 shows the statistical results of the ANOVA tests.

$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Gloup Ty			95% Co	nfidence			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					interval	for mean			
1 NIP .84 .30 .81 .88 .12 .733 - 1 NIP .85 .31 .82 .89					Lower	Upper			Effect
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Category	Group	Mean	SD	bound	bound	F-value	р	size
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1	NIP	.84	.30	.81	.88	.12	.733	-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		Non-NIP	.85	.31	.82	.89			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Total	.85	.30	.82	.88			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2	NIP	.80	.28	.76	.84	.54	.462	-
3 NIP .57 .35 .52 .61 8.46 .004* .26 Non-NIP .66 .33 .62 .70 .71 .71 .71 .71 .71 .72 .72 .72 .71 .71 .71 .72 .72 .71 .71 .71 .72 .72 .72 .72 .71 .71 .72 .72 .72 .71 .71 .72		Non-NIP	.82	.27	.78	.85			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Total	.81	.28	.79	.83			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	3	NIP	.57	.35	.52	.61	8.46	.004*	.26
4 NIP .62 .38 .58 .67 1.84 .176 - Non-NIP .67 .40 .62 .72 - - - Total .65 .39 .61 .68 - - - 5 NIP .53 .32 .49 .57 5.62 .018* .22 Non-NIP .60 .32 .56 .64 - - - Total .57 .32 .54 .59 - - - 6 NIP .32 .35 .27 .36 1.06 .304 - Non-NIP .35 .36 .31 .39 - - - Total .33 .35 .30 .37 - - - 7 NIP .50 .42 .45 .56 6.72 .010* .24		Non-NIP	.66	.33	.62	.70			
Non-NIP .67 .40 .62 .72 Total .65 .39 .61 .68 5 NIP .53 .32 .49 .57 5.62 .018* .22 Non-NIP .60 .32 .56 .64		Total	.62	.34	.58	.65			
Total .65 .39 .61 .68 5 NIP .53 .32 .49 .57 5.62 .018* .22 Non-NIP .60 .32 .56 .64	4	NIP	.62	.38	.58	.67	1.84	.176	-
5 NIP .53 .32 .49 .57 5.62 .018* .22 Non-NIP .60 .32 .56 .64		Non-NIP	.67	.40	.62	.72			
Non-NIP .60 .32 .56 .64 Total .57 .32 .54 .59 6 NIP .32 .35 .27 .36 1.06 .304 - Non-NIP .35 .36 .31 .39 .35 .30 .37 7 NIP .50 .42 .45 .56 6.72 .010* .24		Total	.65	.39	.61	.68			
Total .57 .32 .54 .59 6 NIP .32 .35 .27 .36 1.06 .304 - Non-NIP .35 .36 .31 .39	5	NIP	.53	.32	.49	.57	5.62	.018*	.22
6 NIP .32 .35 .27 .36 1.06 .304 - Non-NIP .35 .36 .31 .39 - - Total .33 .35 .30 .37 - 7 NIP .50 .42 .45 .56 6.72 .010* .24		Non-NIP	.60	.32	.56	.64			
Non-NIP .35 .36 .31 .39 Total .33 .35 .30 .37 7 NIP .50 .42 .45 .56 6.72 .010* .24		Total	.57	.32	.54	.59			
Total.33.35.30.377NIP.50.42.45.566.72.010*.24	6	NIP	.32	.35	.27	.36	1.06	.304	-
7 NIP .50 .42 .45 .56 6.72 .010* .24		Non-NIP	.35	.36	.31	.39			
		Total	.33	.35	.30	.37			
	7	NIP	.50	.42	.45	.56	6.72	.010*	.24
Non-NIP .60 .42 .55 .65		Non-NIP	.60	.42	.55	.65			
Total .56 .42 .52 .59		Total	.56	.42	.52	.59			
8 NIP .28 .35 .24 .33 .02 .878 -	8	NIP	.28	.35	.24	.33	.02	.878	-
Non-NIP .29 .36 .25 .33		Non-NIP	.29	.36	.25	.33			
Total .29 .35 .26 .3171		Total	.29	.35	.26	.3171			

 Table 5
 Results of ANOVA Tests on Scores of Different Item Categories by Group Type

Note. The effect size was computed by the Cohen's *d*. * p < 0.5

Finally, one-way ANOVA tests were again conducted to evaluate the effects of different demographic characteristics on NIP children's English reading proficiency test performance. Table 6 shows the results of the analyses. Seven background factors were identified to have significant effects on NIP children's test scores. They are described as follows.

(1) Participation in after school programs (F=4.65, p=.032). Students who participated in after school programs (including, for example, after school care centers, cram schools, and arts and talents classes) scored higher than those who did

專論

not.

(2) Participation in after school English lessons (F=33.06, p<.001). Students who received extra English lessons outside the school performed better on the test than those who did not.

(3) Number of years learning English (F=3.85, p=.032). The longer students had been learning English, the higher the test scores. Post hoc pair-wise comparisons using the Fisher's LSD test procedures indicated that students who had been learning English for over 4 years performed significantly better than those who had been learning for less than 2 years (p=.006).

(4) Interest in learning English (F=22.25, p<.001). Students who were interested in English had a higher test score than those who were not.

(5) Father's education level (F=7.49, p=.001). The higher the educational level of the father, the higher the test scores. Post hoc pair-wise comparisons using the Fisher's LSD test procedures indicated that students whose fathers had a 4 year college or higher education performed significantly better on the test than students whose fathers had a junior high school or lower education (p=.001). Moreover, students whose fathers had a junior college or high school education also performed significantly better on the test than students whose fathers had a junior college or high school education also performed significantly better on the test than students whose fathers had a junior high school or lower education (p=.004).

(6) Mother's education level (F=4.97, p=.008). Post hoc pair-wise comparisons using the Fisher's LSD test procedures indicated that students whose mothers had a junior college or high school education performed significantly better on the test than students whose mothers had a junior high school or lower education (p=.003).

(7) Low income family status (F=4.80, p=.030). Students whose families received low income family subsidy scored lower than those who did not.

Background factors that did not have significant effects on NIP children's English reading test scores included: the main person helping with homework, the main care-taker, number of years the immigrant parent had been living in Taiwan, and whether the immigrant parent took part in Chinese literacy lessons for adults.

專論

				95% Co	nfidence	0		
				interval	for mean			
				Lower	Upper			Effect
Background	d factors	Mean	SD	bound	bound	F-value	р	size
Person	Mother	.59	.19	.55	.63	.55	.577	-
helping	Father	.58	.20	.53	.63			
with	Others	.56	.19	.51	.60			
homework	Total	.58	.19	.55	.60			
Main	Mother	.59	.19	.55	.62	.31	.734	-
care-taker	Father	.57	.20	.51	.62			
	Others	.56	.16	.49	.64			
	Total	.58	.19	.55	.60			
After	No	.53	.19	.49	.58	4.65	.032*	.32
school	Yes	.59	.19	.56	.63			
programs	Total	.57	.19	.55	.60			
After	No	.53	.19	.50	.56	33.06	.000*	.93
school	Yes	.69	.15	.65	.73			
English	Total	.57	.19	.55	.60			
Years	<2	.55	.18	.51	.59	3.85	.032*	**
learning	2-4	.57	.19	.54	.61			
English	>4	.68	.21	.58	.77			
	Total	.57	.19	.55	.60			
Learning	Yes	.65	.17	.61	.68	34.90	.000*	.86
interest	No	.50	.18	.47	.54			
	Total	.57	.19	.55	.60			
Father's	Tier 1	.66	.16	.59	.72	7.49	.001*	**
education	Tier 2	.60	.20	.56	.64			
level	Tier 3	.52	.18	.48	.55			
	Total	.57	.19	.55	.60			
Mother's	Tier 1	.61	.21	.49	.73	4.97	.008*	**
education	Tier 2	.62	.19	.57	.66			
level	Tier 3	.53	.18	.50	.57			
	Total	.57	.19	.54	.60			
Number of		.66	.14	.53	.80	.56	.696	-
years	5-10	.56	.20	.49	.62			
living in	11-15	.57	.19	.54	.60			
Taiwan	16-20	.56	.17	.46	.67			
	>20	.54	.18	.43	.66			
	Total	.57	.19	.54	.59			
Chinese	Yes	.57	.21	.50	.63	.05	.822	-
lessons	No	.57	.19	.54	.60			
	Total	.57	.19	.54	.60			

 Table 6
 Results of ANOVA Tests on Test Scores by All Background Factors

					nfidence for mean			
Backgrou	nd factors	Mean	SD	Lower bound	Upper bound	F-value	р	Effect size
Low	Yes	.50	.18	.43	.57	4.80	.030*	.43
income	No	.58	.19	.55	.61			
subsidy	Total	.57	.19	.55	.60			

Note. The effect size was computed by the Cohen's d.

**p*<0.5 ** See Table 7.

Table 7 Results of Post Hoc Pair-wise Comparisons Using the Fisher's LSD

	u					
			Mean			
Background factors			difference	SD	Significance	Effect size
Years	<2	2-4	.03	.03	.346	-
learning		>4	.13	.05	.006*	.66
English	2-4	<2	.03	.03	.346	-
		>4	.10	.05	.023	-
	>4	<2	.13	.05	.006*	.66
		2-4	.10	.05	.023	-
Father's	Tier 1	Tier 2	.06	.04	.149	-
education		Tier 3	.14	.04	.001*	.82
level	Tier 2	Tier 1	.06	.04	.149	-
		Tier 3	.08	.03	.004*	.42
	Tier 3	Tier 1	.14	.04	.001*	.82
		Tier 2	.08	.03	.004*	.42
Mother's	Tier 1	Tier 2	.01	.05	.865	-
education		Tier 3	.08	.05	.139	-
level	Tier 2	Tier 1	.01	.05	.865	-
		Tier 3	.08	.03	.003*	.49
	Tier 3	Tier 1	.08	.05	.139	-
		Tier 2	.08	.03	.003*	.49

Method

Note. The effect size was computed by the Cohen's *d*. p<0.017

Discussion and Conclusion

Based on the research questions of the study and statistical results, discussion and conclusion are presented below. First, compared to Non-NIP children, NIP children scored significantly lower in the elementary English reading proficiency test. Girls, NIP or Non-NIP, scored significantly higher than boys. These results confirmed what was reported in the 2006 and 2007 TASA English tests (Cheng & Chen, 2008, 2009). This indicates a real gap between NIP and Non-NIP children's English reading ability. Although some studies have pointed out that NIP children do not necessarily lag behind Non-NIP children in academic performance (H.-C. Lin, 2005; C.-H. Chen, 2004; H.-C. Chen, 2004), as I have discussed at the background section of this paper, in this study it was found that at grade four, the gap in English reading proficiency exists.

Second, the study found that compared to Non-NIP children, NIP children scored significantly lower on items that tested their reading and understanding of (1) simple labels and signs, (2) simple sentences, and (3) simple stories and children's plays. The ability to read and understand labels and signs is not developed from school or textbooks alone; it comes from being immersed in an English literate environment (Goodman, 1996). Lack of contact with the English print might explain the lower score on this item category by the NIP children. Reading sentences, stories, and children's plays are arguably more challenging than reading letters, vocabulary words, and words from songs and rhymes. The reading of stories and children's plays involves the linguistic and cognitive processing of more than one sentence coherently connected and structured. The results of this study show that NIP children did not do this as well as Non-NIP children did.

Last, while some background factors did not affect NIP children's English reading proficiency test performance, some did. Among the seven factors found to have a significant effect on test score, the factor of interest in learning English, which was an indication of the intrinsic motivation for learning English, was the only one not directly related to the SES of the children's family. The three factors of father's education level, mother's education level, and low income family status were direct representation of the children's SES. The other three factors of participation in after school programs, participation in after school English lessons, and the number of years of learning English were closely related to the family financial situation. Here I want to point out again the fact that the percentage of NIP children in this study that received low income family subsidy was almost ten times

higher than the national percentage (13% vs. 1.37%) (Ministry of Interior, 2010). In short, this study found that NIP children's SES was closely related to their English reading proficiency.

A multitude of earlier educational studies have clearly shown the challenge that low SES children face when they start schooling. For example, Entwisle, Alexander, and Olson's (1997) large scale longitudinal study found that the fact that SES disadvantaged students did not bear comparison with their less disadvantaged peers could be explained by the academic achievement differences these students began school with and also by summer reading losses over the elementary years. In the comparison of academic achievements of white students and disadvantaged students of Mexican origin, Morales and Saenz (2007) found that SES was the major explanation for the academic achievement gap between the two groups.

In the Taiwanese scenario, several studies have also discussed the correlational relationship between SES and academic achievement generally and English learning achievement specifically. Lin and Wu's (2007) study confirmed that family related variables such as SES of students' parents influenced academic achievement more significantly than school related variables did. Following Entwisle, Alexander, and Olson's (1997) study about student SES background and summer reading loss, Wang and Yuo's (2005) study in Taiwan revealed that students of different SES backgrounds differed in their summer cultural and social capital which were in turn influential of their progress in the summer. As for the learning of English, several studies in Taiwan have confirmed the negative influence of a disadvantaged SES background factors and English learning achievement, she found that parents' SES significantly and adversely influenced students' English achievement. Liu (2006) also found that parents' SES strongly influenced sixth-grade students' English learning achievement.

The importance of helping children from low income family in the future research and practice of reading has been very well recognized and voiced by several leaders in language and literacy research (Allington & McGill-Franzen, 2000; Pearson & Stephens, 1994). In this study, I share the same concern and call for support for the NIP children in their learning of English and all other school subjects.

This study was limited in the research method and the number of students who participated in the test. Many other aspects of the teaching and learning of English reading were not discussed. It is beyond the current paper's scope to discuss them all. For example, if an NIP child spoke the native language of the immigrant parent, it would be important to understand how this language might influence the learning of English as a foreign language. In the design of the integrated research, Non-NIP children's background information was not collected. Therefore, it was not possible to control background variables between the NIP and Non-NIP children in order to compare their English reading proficiency. Nevertheless, important information about a discrepancy in English reading proficiency between these two groups of children was found. Further research is called for to help these children of newcomers to Taiwan.

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English Reading Proficiency of Grade Four Children of New Immigrant Parents

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This study was part of an integrated research project to establish an educational database of children of new immigrant parents (NIP) in central Taiwan. Its purpose was to understand the English reading proficiency of grade four NIP children in the central part of Taiwan, and what background factors might influence their English reading proficiency. An elementary English reading proficiency test and a background questionnaire were developed. A total of 238 NIP and 260 Non-NIP children participated in the study. It was found that Non-NIP children had better English reading proficiency. Compared with Non-NIP children, NIP children scored lower on items about reading labels and signs, reading sentences, and reading simple stories and children's plays. Factors influencing NIP children's English reading test performance included: participation in after school programs, participation in after school English, father's and mother's education, and low income family status. Research and education implications are suggested and discussed at the end of the paper.

Keywords: children of new immigrant parents, elementary English education, English reading proficiency

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專論