

Appendix A Multi-syllable Word Spelling Pretest and Posttest in the Pilot Study

班級:_____ 姓名:_____ 座號:_____

英文多音節字拼字測驗

親愛的同學:

請依據你聽到的音拼出下列單字,本測驗是老師為了了解學生們聽音拼字的能力,故測驗內容設計多為不熟或未教的生字,請不用擔心遇到未聽過的字,每個生字,將唸三次,請儘量依據你自己的了解拼字。(Audio cues)

答案欄	Spelling words	Syllables	Scoring
	1.habit	2	(“h”, “a”, “b”, “i”, “t” 5 points)
	2.perhaps	2	(“p”, “er”, “h”, “a”, “p”, “s” 6 points)
	3.pumpkin	2	(“p”, “u”, “m”, “p”, “k”, “i”, “n” 7 points)
	4.fantastic	3	(“f”, “a”, “n”, “t”, “a”, “s”, “t”, “i”, “c” 9 points)
	5.September	3	(“S”, “e”, “p”, “t”, “e”, “m”, “b”, “er” 8 points)
	6.indicate	3	(“i”, “n”, “d”, “i”, “c”, “a-e”, “t” 7 points)
	7.watermelon	4	(“w”, “a”, “t”, “er”, “m”, “e”, “l”, “n” 8 points ; “o” is a shwa sound and counts no point)
	8.discoverer	4	(“d”, “i”, “s”, “c”, “o”, “v”, “er”, “er” 8 points)
	9.energetic	4	(“e”, “n”, “er”, “g”, “e”, “t”, “i”, “c” 8 points)
	10.magnificently	5	(“m”, “a”, “g”, “n”, “i”, “f”, “c”, “n”, “t”, “l”, “y” 11 points; “i” and “e” are shwa sounds and count no point)
	11.misunderstanding	5	(“m”, “i”, “s”, “u”, “n”, “d”, “er”, “st”, “a”, “n”, “d”, “i”, “ng” 13 points)
	12.personality	5	(“p”, “er”, “s”, “n”, “a”, “l”, “t”, “y” 8 points; “o” and “i” are shwa sounds and count no point.)

(P.S. 灰色網底部分為本題答案,音節數及計分方式,正式測驗時將不會出現在測驗卷上)

基本資料及英文學習情形調查

親愛的同學：

新的學期開始，老師想了解各位同學至目前為止，學習英文生字上遇到的困難，這不是考卷，所以沒有正確答案，本問卷共7題，請務必每題作答，並依實際情況勾選或填答相關問題。

第一部分(個人資料)

____年 ____班 ____號 姓名：_____

1. 性別：男 女

2. 從以前到現在，除了在學校，你是否有其他機會學習到背英文生字的方法？

沒有

有，(1)從 補習班 家教 爸媽 錄影帶 其他：_____

(2)方法為：_____

3. 你目前有參加英文補習或請英文家教嗎？

有

沒有，(有打算參加嗎？可能會 不會)

第二部分(英文學習情形)

4. 你平時用什麼方法背英文生字？

會逐字母背，如：t-e-n-n-i-s，網球

會用自然發音規則背英文生字（自然發音規則t/t/, e/ε/, n/n/, i/I/, s/s/）。

會分音節背，如：ten-nis，網球

會分音節背，並利用學過的自然發音法背，如：ten-nis，（自然發音規則t/t/, e/ε/, n/n/, i/I/, s/s/）。

其他：_____

非常同意 同意 不同意 非常不同意

5. 根據以往的學習經驗, 你覺得背英文生字是_____:

- | | | | | |
|----------------|--------------------------|--------------------------|--------------------------|--------------------------|
| (1)輕鬆的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2)有趣的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3)有挑戰性的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (4)困難的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (5)無聊的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (6)複雜的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. 根據以往的學習經驗, 你覺得學習英文是_____:

- | | | | | |
|----------------|--------------------------|--------------------------|--------------------------|--------------------------|
| (1)輕鬆的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2)有趣的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3)有挑戰性的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (4)困難的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (5)無聊的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (6)複雜的 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. 在背英文單字的上, 你感到最困難的問題是什麼?

☺ 謝謝你用心填寫, 祝你學習愉快! ☺

Appendix C Syllable Counting Test

班級:_____ 姓名:_____ 座號:_____

音節測驗

這是一份瞭解你音節概念的測驗,老師將會唸出 20 個生字,每個生字會唸兩次,你們要仔細聽並計算每一個英文單字有幾個音節。例如:你聽到老師 hi,知道它有 1 個音節,便在例題 1 的括弧中填入 1。若你聽到老師唸 window,聽到它有 2 個音節,便在例題 2 字的括弧中填入 2。

例題 1: (1) (Audio cues)

例題 2: (2) (Audio cues)

本測驗生字的音節數不只限 1 或 2 個音節,請依據你所聽到每個字的音節數作答:

1	()	Ans: (5) aboriginal	11	()	Ans: (4) relationship
2	()	Ans: (1) eve	12	()	Ans: (3) Halloween
3	()	Ans: (4) American	13	()	Ans: (3) apartment
4	()	Ans: (5) productivity	14	()	Ans: (2) among
5	()	Ans: (3) teenager	15	()	Ans: (3) accident
6	()	Ans: (1) grass	16	()	Ans: (2) safety
7	()	Ans: (5) enthusiastic	17	()	Ans: (2) public
8	()	Ans: (1) priest	18	()	Ans: (1) north
9	()	Ans: (4) technology	19	()	Ans: (5) indispensable
10	()	Ans: (2) cover	20	()	Ans: (4) regularly

(P.S. 灰色網底部分為本題答案,正式測驗時將不會出現在測驗卷上)

Appendix D Mono-syllable Word Spelling Test

班級:_____ 姓名:_____ 座號:_____

英文單音節字拼字測驗

親愛的同學:

請依據你聽到的音拼出下列單字,本測驗是老師為了了解學生們聽音拼字的能力,故測驗內容設計多為不熟或未教的生字,請不用擔心遇到未聽過的字,每個生字,將唸三次,請儘量依據你自己的了解拼字。(Audio cues)

	答案欄	Spelling words	Scoring
1		1. max	(“m”, “a”, “x”, 3 points)
2		2. fez	(“f”, “e”, “z”, 3 points)
3		3. guv	(“g”, “u”, “v”, 3 points)
4		4. yon	(“y”, “o”, “n”, 3 points)
5		5. quiz	(“q”, “u”, “i”, “z”, 4 points)
6		6. hale	(“h”, “a-e”, “l”, 3 points)
7		7. peke	(“p”, “e-e”, “k”, 3 points)
8		8. sire	(“s”, “i-e”, “r”, 3 points)
9		9. bode	(“b”, “o-e”, “d”, 3 points)
10		10. jute	(“j”, “u-e”, “t”, 3 points)
11		11. wac	(“w”, “a”, “c”, 3 points)

(P.S. 灰色網底部分為本題答案及計分方式,正式測驗時將不會出現在測驗卷上)

Appendix E Multi-syllable Word Spelling Test (Pretest/ Posttest)

班級: _____ 姓名: _____ 座號: _____

英文多音節字拼字測驗

親愛的同學:

請依據你聽到的音拼出下列單字,本測驗是老師為了了解學生們聽音拼字的能力,故測驗內容設計多為不熟或未教的生字,請不用擔心遇到未聽過的字,每個生字,將唸三次,請儘量依據你自己的了解拼字。(Audio cues)

答案欄	Spelling words	Syllables	Scoring
	1.kiosk	2	(“k”, “i”, “o”, “s”, “k” 5 points)
	2.bikini	3	(“b”, “i”, “k”, “i”, “n”, “i” 6 points)
	3.jasper	2	(“j”, “a”, “s”, “p”, “er” 5 points)
	4. zigzag	2	(“z”, “i”, “g”, “z”, “a”, “g” 6 points)
	5. quintet	2	(“q”, “u”, “i”, “n”, “t”, “e”, “t” 7 points)
	6. endemic	3	(“e”, “n”, “d”, “e”, “m”, “i”, “c” 7 points)
	7. flimflam	2	(“f”, “l”, “i”, “m”, “f”, “l”, “a”, “m” 8 points)
	8. golliwog	3	(“g”, “o”, “l”, “l”, “i”, “w”, “o”, “g” 8 points)
	9. Leningrad	3	(“l”, “e”, “n”, “i”, “n”, “g”, “r”, “a”, “d” 9 points)
	10. vitriolic	4	(“v”, “i”, “t”, “r”, “i”, “o”, “l”, “i”, “c” 9 points)
	11. antitoxin	4	(“a”, “n”, “t”, “i”, “t”, “o”, “x”, “i”, “n” 9 points)
	12. insomniac	4	(“i”, “n”, “s”, “o”, “m”, “n”, “i”, “a”, “c” 9 points)
	13. nonprofit	3	(“n”, “o”, “n”, “p”, “r”, “o”, “f”, “i”, “t” 9 points)
	14. disinherit	4	(“d”, “i”, “s”, “i”, “n”, “h”, “e”, “r”, “i”, “t” 10 points)
	15. magnificent	4	(“m”, “a”, “g”, “n”, “i”, “f”, “i”, “c”, “a”, “t” 10 points)

(P.S.灰色網底部分為本題答案,音節數及計分方式,正式測驗時將不會出現在測驗卷上)

Appendix F A Letter of Authorization

英文課程規劃家長同意書

親愛的_____班家長:

您好,我是本班的英文老師,孩子剛升上國中,英文學習相形重要,這學期英語課程的規劃,將針對孩子的英文學習,增加英文拼字活動,期望對孩子學習英語生字有更多的幫助,本次活動將提供本人從事「改善中學生拼字能力」研究之參考,特此通知家長。

____年____班 學生姓名:_____ 家長簽名:_____

同意增加英文拼字的練習。

不同意增加英文拼字的練習。

英文老師 張陳平 敬上



Appendix G-1 Post-instruction Questionnaire on Learning

英文學習情形調查(For control group)

親愛的同學：

老師想了解各位同學至目前為止，學習英文生字上遇到的困難以及對英語課的看法，這是一份問卷，請你按照心理所想的，選出最接近的答案，這不會影響你的成績，而且內容也絕對保密，謝謝你的合作！

____年____班____號 姓名：_____

1. 本學期，除了在學校學英文以外，你有沒有在校外補習/學習英文？

沒有

有(學習的對象是 補習班老師 家教 父母 其他_____)

(第2題請「有在校外補習/學習英文」的學生做答即可，其他同學請跳第3題做答。)

2. 你學習英文的對象是否有針對背生字，提供你有效的背生字方法？

沒有 有，方法？_____

以下請依你個人的學習經驗及感覺作答

	非常 同意	同 意	不 同 意	非 常 不 同 意
3. 背英文生字時，使用本學期教過的 <u>自然發音法</u> ，可以幫助我拼出單字.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. 背英文生字時，使用本學期教過的 <u>自然發音法</u> ，可以幫助我記住單字的拼法.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. 經過這一學期的拼字訓練，我覺我更了解拼字和發音的規則...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. 經過這一學期的拼字訓練，我覺得自己的拼字能力有進步.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. 經過這一學期的拼字訓練，我比較敢嘗試拼較長的英文單字...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. 我覺得老師本學期教過的 <u>自然發音法</u> 背生字的方式是__：				
(1) 清楚的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) 容易記得的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) 有趣的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4) 易混淆的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(5) 不易記得的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(6) 討厭的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

非 常 同 意	同 意	不 同 意	非 常 不 同 意
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9. 現在,我覺得背英文生字是_____:

- | | | | | | |
|----------|-------|--------------------------|--------------------------|--------------------------|--------------------------|
| (1)輕鬆的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2)有趣的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3)有挑戰性的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (4)困難的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (5)無聊的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (6)複雜的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

10. 現在學習英文是_____:

- | | | | | | |
|----------|-------|--------------------------|--------------------------|--------------------------|--------------------------|
| (1)輕鬆的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2)有趣的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3)有挑戰性的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (4)困難的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (5)無聊的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (6)複雜的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11. 上英文課,用老師教的自然發音背英文單字時,我感到最困難的問題是:(請儘量寫出來)

☺ 謝謝你用心填寫,祝你學習愉快!☺

Appendix G-2 Post-instruction Questionnaire on Learning

英文學習情形調查(For experimental group)

親愛的同學：

老師想了解各位同學至目前為止，學習英文生字上遇到的困難以及對英語課的看法，這是一份問卷，請你按照心理所想的，選出最接近的答案，這不會影響你的成績，而且內容也絕對保密，謝謝你的合作！

____年____班____號姓名：_____

1. 本學期，除了在校學英文以外，你有沒有在校外補習/學習英文？

沒有

有(學習的對象是 補習班老師 家教 父母 其他_____)

(第2題請「有在校外補習/學習英文」的學生作答即可，其他同學請跳第3題作答。)

2. 你學習英文的對象是否有針對背生字，提供你有效的背生字方法？

沒有 有，方法？_____

以下請依你個人的學習經驗及感覺作答

	非 常 同 意	同 意	不 同 意	非 常 不 同 意
3. 背英文生字時，使用本學期教過的 <u>自然發音法加上分音節</u> ，可以幫助我拼出單字.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. 背英文生字時，使用本學期教過的 <u>自然發音法加上分音節</u> ，可以幫助我記住單字的拼法.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. 經過這一學期的拼字訓練，我覺我更了解拼字和發音的規則...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. 經過這一學期的拼字訓練，我覺得自己的拼字能力有進步.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. 經過這一學期的拼字訓練，我比較敢嘗試拼較長的英文單字...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. 我覺得老師本學期教的 <u>自然發音加分音節</u> 背生字的方式是__：				
(1) 清楚的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) 容易記得的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) 有趣的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4) 易混淆的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(5) 不易記得的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(6) 討厭的	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

非常
同意

不
同意

非
常
不
同
意

9. 現在,我覺得背英文生字是_____:

- | | | | | | |
|----------|-------|--------------------------|--------------------------|--------------------------|--------------------------|
| (1)輕鬆的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2)有趣的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3)有挑戰性的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (4)困難的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (5)無聊的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (6)複雜的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

10. 現在學習英文是_____:

- | | | | | | |
|----------|-------|--------------------------|--------------------------|--------------------------|--------------------------|
| (1)輕鬆的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2)有趣的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3)有挑戰性的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (4)困難的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (5)無聊的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (6)複雜的 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11. 上英文課,用老師教的自然發音加分音節背英文單字時,我感到最困難的問題是:(請儘量寫出來)

☺ 謝謝你用心填寫,祝你學習愉快!☺

Appendix H-1 Teaching Schedule for the Experimental Group

Teaching Schedule for Formal Study (Experimental Group)

Week	Period	Date	Subject Selection	Testing Materials
1	1	9/2(二)	Pre-instruction Questionnaire	Pre-instruction Questionnaire on learning
	2	9/4(四)	Syllable Counting Test	Syllable Counting Test
2	3	9/9(二)	Mono-syllable Test	Mono-syllable Word Spelling Test
	4	9/11(四)	Pretest (Multi-syllable Test)	Multi-syllable Word Spelling Pretest
Week	Period	Date	Target Letters	Activities
3	5	9/23 (二)	short a , short e , short i , short o , short u	Examples: A: sad, happy E: pen, tennis I: kid, sister O: hot, dollar U: bus, lucky Exercise words: bat, if, nod, cut, test Test Word: bit
	6	9/25 (四)	short a , short e , short i , short o , short u	Examples: A: sad, happy E: pen, tennis I: kid, sister O: hot, dollar U: bus, lucky Exercise words: rapid, edit, insist ,omit, unfit Test Word: obit
4	7	9/30 (二)	b, c, d, f,	Examples: b: boy, baby c: cake, computer d: dog, doctor f: fish, father Exercise words: fat, cup, disk, fist, brunt Test Word: fad
	8	10/2 (四)	b, c, d, f,	Examples: b: boy, baby c: cake, computer d: dog, doctor f: fish, father

				Exercise words: basic, comic, public, dentist, fantastic Test Word: fistic
5	9	10/7 (二)	g, h, j, k,	Examples: g: big, girl h: hat, happy j: juice, jacket k: kid, monkey Exercise words: kit, hug, jam, glad, get Test Word: hip
	10	10/9 (四)	g, h, j, k,	Examples: g: big, girl h: hat, happy j: juice, jacket k: kid, monkey Exercise words: kidnap, jasmin(e), goblin, Hupkins, handgun Test Word: hobgoblin
The First Monthly Exam 10/ 13 ,14				
6	11	10/21 (二)	l, m n, p,	Examples: l: leg, long girl, tall m: Monday, morning Tom, name n: not, nine pen, ten p: pen, pizza Exercise words: mod, net, lap, pit, land Test Word: melt
	12	10/23 (四)	l, m n, p,	Examples: l: leg, long girl, tall m: Monday, morning Tom, name n: not, nine pen, ten

				<p>p: pen, pizza</p> <p>Exercise words: mini, matin , limit, nonfat, magnetic</p> <p>Test Word: minipet</p>
7	13	10/28 (二)	q, r, s, t,	<p>Examples:</p> <p>qu: quiet, quick</p> <p>r: red, rabbit</p> <p>s: sad, sister</p> <p>t: tall, Taiwan</p> <p>Exercise words: sin, quit, rat, tip, send</p> <p>Test Word: sink</p>
	14	10/30 (四)	q, r, s, t,	<p>Examples:</p> <p>qu: quiet, quick</p> <p>r: red, rabbit</p> <p>s: sad, sister</p> <p>t: tall, Taiwan</p> <p>Exercise words: rosin, solid, rabid, sadistic, quinquenniad</p> <p>Test Word: quintet</p>
8	15	11/4 (二)	v, w, x, y, z	<p>Examples:</p> <p>v: very, seven</p> <p>w: water, window</p> <p>x: box, taxi</p> <p>y: you, yellow</p> <p>z: zoo, zero</p> <p>Exercise words: vet, fax, yet, zap, wind</p> <p>Test Word: zend</p>
	16	11/6 (四)	v, w, x, y, z	<p>Examples:</p> <p>v: very, seven</p> <p>w: water, window</p> <p>x: box, taxi</p> <p>y: you, yellow</p> <p>z: zoo, zero</p> <p>Exercise words: valid, yeti, telex, vomit , windbag</p> <p>Test Word: victim</p>

9	17	11/11 (二)	-er, -or, -ar	Examples: -er: father, sister -ar: dollar -or: color, doctor, actor Exercise words: river, never, vender, monster, printer Test word: member
	18	11/13 (四)	-er, -or, -ar	Examples: -er: father, sister -ar: dollar -or: color, doctor, actor Exercise words: liver, visitor, lobster, minister, standard Test word: inductor
10	19	11/18 (二)	consonant cluster: sp-, st-, sc-, sk-	Examples: sp- sport, spring st- star, student sc(k)- ski Exercise words: skin, spot, step, stand, scot Test word: stint
	20	11/20 (四)	consonant cluster: sc-, sk-, sp-, st-	Examples: sp- sport, spring st- star, student sc(k)- ski Exercise words: spirit, skeptic, nonstop, miniski, stigmatic, Test word: understand
The Second Monthly Exam 11/ 25 ,26				
11	21	12/2 (二)	consonant cluster: bl-, cl-, fl-, gl-, pl-, sl-	Examples: bl-: black cl-: close fl-: flower gl-:glass pl-:play sl-:sleep Exercise words: flag, plus, glint, blank, clever,

				Test word: slim
	22	12/4 (四)	consonant cluster: bl-, cl-, fl-, gl-, pl-, sl-	Examples: bl-: black cl-: close fl-: flower gl-: glass pl-: play sl-: sleep Exercise words: public, plastic, flopnik, slavic, slimnastics Test word: flipflap
12	23	12/9 (二)	consonant cluster: br-, cr-, dr-, fr-, gr-, pr-, tr-,	Examples: br-: breakfast cr-: crab, dr- drive fr: Friday gr-: great pr-: print tr-: try Exercise words: brig, crag, drum, frog, tram Test word: prof
	24	12/11 (四)	consonant cluster: br-, cr-, dr-, fr-, gr-, pr-, tr-, thr-	Examples: br-: breakfast cr-: crab, dr- drive fr: Friday gr-: great pr-: print tr-: try Exercise words: credit, frolic, transplant, grimalkin, prismatic Test word: transonic
13	25	12/16 (二)	Review 3-syllable words	Exercise words: inhibit, banister, agnostic, disinfest, galvanic Test word: fantastic
	26	12/18 (四)	Review 4-syllable words	Exercise words: idiotic, astigmatic, helicopter, interceptor, modernistic

Week	Period	Date	Result Assessment	Testing Materials
				Test word: subeditor
14	27	12/23(二)	Post-instruction Questionnaire, Posttest (Multi-syllable Test)	Post-instruction Questionnaire on Learning Multi-syllable Word Spelling Posttest
	28	12/25(四)		
15	29	12/29-1/2	Learners' interview	
	30			

Total weeks: 15 weeks

Total period: 30 periods

Treatment duration: 11 weeks

Real teaching period: 22 periods (15 minutes per period)



Appendix H-2 Teaching Schedule for the Control Group

Teaching Schedule for Formal Study (Control Group)

Week	Period	Date	Subject Selection	Testing Materials
1	1	9/1(一)	Pre-instruction Questionnaire	Pre-instruction Questionnaire on learning
	2	9/3(三)	Syllable Counting Test	Syllable Counting Test
2	3	9/8(一)	Mono-syllable Test	Mono-syllable Word Spelling Test
	4	9/10(三)	Pretest (Multi-syllable Test)	Multi-syllable Word Spelling Pretest
Week	Period	Date	Target Letters	Activities
3	5	9/22 (一)	short a , short e , short i , short o , short u	Examples: A: sad, happy E: pen, tennis I: kid, sister O: hot, dollar U: bus, lucky Exercise words: bat, if, nod, cut, test Test Word: bit
	6	9/24 (三)	short a , short e , short i , short o , short u	Examples: A: sad, happy E: pen, tennis I: kid, sister O: hot, dollar U: bus, lucky Exercise words: rapid, edit, insist, omit, unfit Test Word: obit
4	7	9/29 (一)	b, c, d, f,	Examples: b: boy, baby c: cake, computer d: dog, doctor f: fish, father Exercise words: fat, cup, disk, fist, brunt Test Word: fad
	8	10/1 (三)	b, c, d, f,	Examples: b: boy, baby c: cake, computer d: dog, doctor f: fish, father

				Exercise words: basic, comic, public, dentist, fantastic Test Word: fistic
5	9	10/6 (一)	g, h, j, k,	Examples: g: big, girl h: hat, happy j: juice, jacket k: kid, monkey Exercise words: kit, hug, jam, glad, get Test Word: hip
	10	10/8 (三)	g, h, j, k,	Examples: g: big, girl h: hat, happy j: juice, jacket k: kid, monkey Exercise words: kidnap, jasmin(e), goblin, Hupkins, handgun Test Word: hobgoblin
The First Monthly Exam 10/ 13 ,14				
6	11	10/20 (一)	l, m n, p,	Examples: l: leg, long girl, tall m: Monday, morning Tom, name n: not, nine pen, ten p: pen, pizza Exercise words: mod, net, lap, pit, land Test Word: melt
	12	10/22 (三)	l, m n, p,	Examples: l: leg, long girl, tall m: Monday, morning Tom, name n: not, nine pen, ten

				<p>p: pen, pizza Exercise words: mini, matin , limit, nonfat, magnetic Test Word: minipet</p>
7	13	10/27 (一)	q, r, s, t,	<p>Examples: qu: quiet, quick r: red, rabbit s: sad, sister t: tall, Taiwan Exercise words: sin, quit, rat, tip, send Test Word: sink</p>
	14	10/29 (三)	q, r, s, t,	<p>Examples: qu: quiet, quick r: red, rabbit s: sad, sister t: tall, Taiwan Exercise words: rosin, solid, rabid, sadistic, quinquenniad Test Word: quintet</p>
8	15	11/3 (一)	v, w, x, y, z	<p>Examples: v: very, seven w: water, window x: box, taxi y: you, yellow z: zoo, zero Exercise words: vet, fax, yet, zap, wind Test Word: zend</p>
	16	11/5 (三)	v, w, x, y, z	<p>Examples: v: very, seven w: water, window x: box, taxi y: you, yellow z: zoo, zero Exercise words: valid, yeti, telex, vomit , windbag Test Word: victim</p>

9	17	11/10 (一)	-er, -or, -ar	Examples: -er: father, sister -ar: dollar -or: color, doctor, actor Exercise words: river, never, vender, monster, printer Test word: member
	18	11/12 (三)	-er, -or, -ar	Examples: -er: father, sister -ar: dollar -or: color, doctor, actor Exercise words: liver, visitor, lobster, minister, standard Test word: inductor
10	19	11/17 (一)	consonant cluster: sp-, st-, sc-, sk-	Examples: sp- sport, spring st- star, student sc(k)- ski Exercise words: skin, spot, step, stand, scot Test word: stint
	20	11/19 (三)	consonant cluster: sc-, sk-, sp-, st-	Examples: sp- sport, spring st- star, student sc(k)- ski Exercise words spirit, skeptic, nonstop, miniski, stigmatic, Test word: understand
The Second Monthly Exam 11/ 25 ,26				
11	21	12/1 (一)	consonant cluster: bl-, cl-,fl-, gl-, pl-, sl-	Examples: bl-: black cl-: close fl-: flower gl-:glass pl-:play sl-:sleep Exercise words: flag, plus, glint, blank, clever,

				Test word: slim
	22	12/3 (三)	consonant cluster: bl-, cl-, fl-, gl-, pl-, sl-	Examples: bl-: black cl-: close fl-: flower gl-: glass pl-: play sl-: sleep Exercise words: public, plastic, flopnik, slavic, slimnastics Test word: flipflap
12	23	12/8 (一)	consonant cluster: br-, cr-, dr-, fr-, gr-, pr-, tr-,	Examples: br-: breakfast cr-: crab, dr- drive fr: Friday gr-: great pr-: print tr-: try Exercise words: brig, crag, drum, frog, tram Test word: prof
	24	12/10 (三)	consonant cluster: br-, cr-, dr-, fr-, gr-, pr-, tr-, thr-	Examples: br-: breakfast cr-: crab, dr- drive fr: Friday gr-: great pr-: print tr-: try Exercise words: credit, frolic, transplant, grimalkin, prismatic Test word: transonic
13	25	12/15 (一)	Review 3-syllable words	Exercise words: inhibit, banister, agnostic, disinfest, galvanic Test word: fantastic
	26	12/17 (三)	Review 4-syllable words	Exercise words: idiotic, astigmatic, helicopter, interceptor, modernistic

Week	Period	Date	Result Assessment	Testing Materials
				Test word: subeditor
14	27	12/22(一)	Post-instruction Questionnaire, Posttest (Multi-syllable Test)	Post-instruction Questionnaire on Learning Multi-syllable Word Spelling Posttest
	28	12/24(三)		
15	29	12/29-1/2	Learners' interview	
	30			

Total weeks: 15 weeks

Total period: 30 periods

Treatment duration: 11 weeks

Real teaching period: 22 periods (15 minutes per period)



Appendix I-1 Lesson Plan for the Experimental Group

**Lesson Plan (on 9/23, period 5) for the Experimental Group
(Syllable-awareness based phonics)**

Teacher's Activity	Students' Activity	Materials/ Aids	Time
<p>1.Presentation</p> <p>T-1-1 The teacher writes and reads aloud the words on the blackboard with the same target sound (a, e, i, o, u) and has students find out the rules.</p>	<p>S-1-1 Students read the word and find out the rules of the spelling pattern.</p>	<p>Example: A: sad, happy E: pen, tennis I: kid, sister O: hot, dollar U: bus, lucky Aids: chalk, blackboard</p>	2 minutes
<p>T-1-2 The teacher asks students to conclude the relationship of the target sound and its spelling</p>	<p>S-1-2 Students recites the phonics rule of "a, e, i, o, u /æ, ε, ɪ, a, ʌ?"</p>		1 minute
<p>2. Practice</p> <p>T-2-1 The teacher asks students to give more examples of the words with the same rules</p>	<p>S-2-1 Students give examples.</p>	<p>Give each letter 2 examples. e.g. a /æ/: cat, apple e /ε/: pencil, eight</p>	2 minutes
<p>3.Production</p> <p>T-3-1 The teacher reads a target word with the phonics rule, asked students to count syllables and then drew on the blackboard a line under each syllable of the target word. Then, students would spell aloud the words syllable by syllable.(repeat 3-5 times)</p>	<p>S-3-1 Students spell the word based on the rules just learned. <i>(Students who spell the correct words can get extra point.)</i></p>	<p>Example: bat if nod cut test</p>	8 minutes e.g.: bat <u>bat</u>
<p>4. Quiz</p> <p>T-4-1 The teacher read the test word 3 times</p>	<p>T-4-1 Students write down what they hear.</p>	<p>test: bit</p>	2 minutes

Lesson Plan (on 9/25, period 6) for the Experimental Group (Syllable-awareness based phonics)

Teacher's Activity	Students' Activity	Materials/ Aids	Time
1.Presentation			
T-1-1 The teacher writes and reads aloud the words on the blackboard with the same target sound (a, e, i, o, u) and has students find out the rules.	S-1-1 Students read the word and find out the rules of the spelling pattern.	Example: A: sad, happy E: pen, tennis I: kid, sister O: hot, dollar U: bus, lucky Aids: chalk, blackboard	2 minutes
T-1-2 The teacher asks students to conclude the relationship of the target sound and its spelling	S-1-2 Students recites the phonics rule of “a, e, i, o, u /æ, ε, ɪ, ɑ, ʌ”		1 minute
2. Practice			
T-2-1 The teacher asks students to give more examples of the words with the same rules	S-2-1 Students give examples.	Give each letter 2 examples. e.g. a /æ/: cat, apple e /ε/: pencil, eight	2 minutes
3.Production			
T-3-1 The teacher reads a target word with the phonics rule, asked students to count syllables and then drew on the blackboard a line under each syllable of the target word. Then, students would spell aloud the words syllable by syllable.(repeat 3-5 times)	S-3-1 Students spell the word based on the rules just learned. (Students who spell the correct words can get extra point.)	Example: rapid edit insist omit unfit	8 minutes e.g.: rapid <u>ra</u> <u>pid</u>
4. Quiz			
T-4-1 The teacher read the test word 3 times	T-4-1 Students write down what they hear.	test: orbit	2 minutes

**Lesson Plan (on 9/22, period 5) for the Control Group
(Phonics only)**

Teacher's Activity	Students' Activity	Materials/ Aids	Time
1.Presentation			
T-1-1 The teacher writes and reads aloud the words on the blackboard with the same target sound and has students find out the rules.	S-1-1 Students read the word and find out the rules of the spelling pattern.	Example: A: sad, happy E: pen, tennis I: kid, sister O: hot, dollar U: bus, lucky Aids: chalk, blackboard	2 minutes
T-1-2 The teacher asks students to conclude the relationship of the target sound and its spelling.	S-1-2 Students recites the phonics rule of "a, e, i, o, u /æ, ε, ɪ, a, ʌ?"		1 minute
2. Practice			
T-2-1 The teacher asks students to give more examples of the words with the same rules.	S-2-1 Students give examples.	Give each letter 2 examples. e.g. a /æ/: cat, apple e /ε/: pencil, eight	2 minutes
3.Production			
T-3-1 The teacher reads a target word with the phonics rule, draws the lines which are equal to the letters of the target word on the blackboard, and asks the students to spell it aloud.(repeat 3-5 times)	S-3-1 Students spell the word based on the rules just learned. (Students who spell the correct words can get extra point.)	Example: <u>b</u>at if nod cut test	8 minutes e.g.: bat <u>b</u> <u>a</u> <u>t</u>
4.Quiz			
T-4-1 The teacher read the test word 3 times	S-4-1 Students write down what they hear.	test: obit	2 minutes

Lesson Plan (on 9/24, period 6) for the Control Group (Phonics only)

Teacher's Activity	Students' Activity	Materials/ Aids	Time
<p>1.Presentation</p> <p>T-1-1 The teacher writes and reads aloud the words on the blackboard with the same target sound and has students find out the rules.</p>	<p>S-1-1 Students read the word and find out the rules of the spelling pattern.</p>	<p>Example: A: sad, happy E: pen, tennis I: kid, sister O: hot, dollar U: bus, lucky Aids: chalk, blackboard</p>	2 minutes
<p>T-1-2 The teacher asks students to conclude the relationship of the target sound and its spelling.</p>	<p>S-1-2 Students recites the phonics rule of "a, e, i, o, u /æ, ε, ɪ, ɑ, ʌ"</p>		1 minute
<p>2. Practice</p> <p>T-2-1 The teacher asks students to give more examples of the words with the same rules.</p>	<p>S-2-1 Students give examples.</p>	<p>Give each letter 2 examples. e.g. a /æ/: cat, apple e /ε/: pencil, eight</p>	2 minutes
<p>3.Production</p> <p>T-3-1 The teacher reads a target word with the phonics rule, draws the lines which are equal to the letters of the target word on the blackboard, and asks the students to spell it aloud.(repeat 3-5 times)</p>	<p>S-3-1 Students spell the word based on the rules just learned. <i>(Students who spell the correct words can get extra point.)</i></p>	<p>Example: rapid edit insist omit unfit</p>	8 minutes e.g.: <u>r a p i d</u>
<p>4.Quiz</p> <p>T-4-1 The teacher read the test word 3 times</p>	<p>S-4-1 Students write down what they hear.</p>	<p>test: obit</p>	2 minutes

Appendix J Subjects' Multi-syllable Word Spelling Scores in the Pretest and Posttest

No.	Group	Male /Female	Multi-syllable Words Spelling Pretest	Multi-syllable Words Spelling Posttest	Gains
1	1	M1	8	52	44
2	1	M2	9	48	39
3	1	M3	4	65	61
4	1	M4	0	66	66
5	1	M5	0	53	53
6	1	M6	55	75	20
7	1	M7	0	30	30
8	1	M8	0	10	10
9	1	M9	0	1	1
*10	1	M10 (I3)	0	0	0
11	1	M11	0	15	15
12	1	F1	0	82	82
*13	1	F2 (I4)	23	21	-2
14	1	F3	46	71	25
15	1	F4	18	61	43
16	1	F5	20	39	19
17	1	F6	56	84	28
18	1	F7	12	46	34
19	1	F8	27	49	22
20	1	F9	20	53	33
21	1	F10	6	34	28
22	1	F11	2	16	14
23	2	M1	0	24	24
24	2	M2	17	45	28
25	2	M3	8	19	11
26	2	M4	0	4	4
27	2	M5	66	89	23
28	2	M6	0	1	1
29	2	M7	0	5	5
30	2	M8	6	19	13
*31	2	M9 (I3)	0	0	0
32	2	M10	29	79	50
33	2	M11	3	16	13
34	2	F1	44	65	21
*35	2	F2 (I4)	3	1	-2
36	2	F3	7	8	1
37	2	F4	0	69	69
38	2	F5	5	63	58
39	2	F6	5	56	51
40	2	F7	16	39	23
41	2	F8	13	78	65
42	2	F9	15	46	31
43	2	F10	44	72	28
44	2	F11	3	65	62

Note. 1. Group1 = Experimental Group; Group2 = Control Group

2. Subjects with "*" represent the interviewed subjects.(S10, S13 in Group1; S31, S34 in Group2)

Appendix K Subjects' Pre- and Post- Attitude Scores on Memorizing Vocabulary and Learning English

No.	Group	Male /Female	Pre- Attitude on Memorizing Vocabulary	Post- Attitude on Memorizing Vocabulary	Pre- Attitude on Learning English	Post- Attitude on Learning English
1	1	M1	16	18	16	19
*2	1	M2 (I1)	19	15	21	21
3	1	M3	6	9	6	6
4	1	M4	12	22	12	22
5	1	M5	6	15	6	12
6	1	M6	14	24	15	24
7	1	M7	22	24	14	24
8	1	M8	12	17	12	18
*9	1	M9(I2)	20	18	19	15
10	1	M10	16	16	20	21
11	1	M11	10	19	10	15
12	1	F1	15	21	15	20
*13	1	F2(I4)	15	14	16	14
14	1	F3	23	24	21	24
15	1	F4	16	18	15	18
16	1	F5	17	18	17	22
17	1	F6	22	23	24	24
18	1	F7	12	14	12	14
19	1	F8	14	17	14	18
*20	1	F9(I5)	18	17	16	17
21	1	F10	8	20	7	13
22	1	F11	17	20	16	20
23	2	M1	9	12	8	11
*24	2	M2 (I1)	16	13	16	13
25	2	M3	14	15	17	18
26	2	M4	13	12	13	12
27	2	M5	14	19	17	20
28	2	M6	6	10	6	12
*29	2	M7 (I2)	13	15	13	6
*30	2	M8 (I5)	15	9	15	16
31	2	M9	11	13	10	13
32	2	M10	18	22	14	20
33	2	M11	18	18	16	14
34	2	F1	19	18	18	19
35	2	F2	13	12	13	12
36	2	F3	17	23	16	21
37	2	F4	13	17	14	15
38	2	F5	20	20	20	20
39	2	F6	14	17	13	15
40	2	F7	11	13	10	13
41	2	F8	16	20	16	20
42	2	F9	16	19	17	14
43	2	F10	13	14	12	16
44	2	F11	14	14	12	14

Note. 1. Group1 = Experimental Group; Group2 = Control Group

2. Subjects with "*" represent the interviewed subjects. (S8, 13, 19 in Group1; S24,29,30 in Group2)

Appendix L The Transcription of Subjects' Interviews

One of the Interviews in the Experimental Group

(1) The interview of the first subject:

- T: 這學期的課程,老師覺得你進步很多喔~你的子音聽得很好,母音也有進步,有些字甚至是全對...,可是老師有發現,你填問卷時,你覺得學生字有點困難,困難點在哪裡?
- S1: 有的單字太長,拼不出來。
- T: 你沒有試把長的字分幾個部分拼出來。
- S1: 沒有。
- T: 爲什麼沒試試看?有困難嗎?
- S1: 不知道。不太會拆字後再背。
- T: 那你可以試試看。
- S1: 嗯。
- T: 那你會把字分成幾個音節嗎?請問 animal 有幾個音節?
- S1: 會。3 個。
- T: 很好,你很有概念喔,除此之外,老師這學期在教你 A /æ/,B/b/...發現你都已經有概念了。
- S1: 因爲以前就有學過。
- T: 還有其他你在用這各方法拼字的困難嗎?
- S1: 沒有了,只要多練習就會拼字了。

One of the Interviews in the Control Group

(1) The interview of the first subject:

- T: 這次的拼字測驗,你進步很多喔~上課學期也很認真,但老師看你填問卷時,有提到:有些單字拼不熟,有些字太長有點難拼,對不對?
- S1: 對,對拼長的字沒什麼把握。
- T: 那老師上課說的 b/b/ c/k/...這些方法,有沒有多少解決你拼長字的困難?
- S1: 有。但字很長時就有些難拼完整。
- T: 那你對 b/b/ c/k/...熟悉嗎?比如說/t/要拼?
- S1: T。
- T: 對了。很好,那拼長字時,你都怎麼背?
- S1: 有時分幾個小段背
- T: 請問 animal 怎麼分?
- S1: ANI-MAL
- T: 分小段後,比較容易嗎?
- S1: 對
- T: 還有其他你在用這各方法拼字的困難嗎?
- S1: 我是文法比較不會,希望老師多提醒我。