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字母拼讀教學與電腦輔助重複閱讀對台灣國小學童早期英文讀寫發展之影響  
Effects of Phonics Instruction and Computer Assisted Repeated Reading Training on  
Early Literacy Development of Elementary School Students in Taiwan

郭鳳蘭; 張學美; 江憲坤

中文摘要

字母拼讀教學與電腦輔助重複閱讀對台灣國小學童早期英文讀寫發展之影響閱讀流暢度的發展是學習閱讀的重要階段，其中一項可預測成功閱讀的要素即為對於程度適合的讀本及依年級分類文章具備閱讀流暢度。在審視 77 個實證研究後，美國的 National Reading Panel (2000)，指出口語閱讀流暢度是影響閱讀理解的重要因素。然而，依據 Ringenber (2005) 引用美國 National Association of Education Progress 的實證研究數據指出，44% 的小學四年級學童對於該年級的閱讀教材有閱讀不流暢的問題。另一方面，本研究群針對國內國小五年級一個班級 27 名學童所進行的一項「一分鐘朗讀字數」先驅研究結果顯示，這些學童的閱讀流暢度僅達到相當於母語使用者國小一年級百分之 25 的表現。鑑於文獻指出口語閱讀不流暢會影響閱讀理解並進一步影響閱讀的發展，雖數量不多，但少數學者已開始探討採用 Read Naturally 閱讀教材(Kemp, 2006; Tindal, 2006) 對提昇閱讀流暢度的成效。隨著 Read Naturally 電腦軟體版閱讀教材的開發，後續研究應探討此種電腦輔助示範重複閱讀對提昇閱讀流暢度的成效。此外，相關文獻顯示整合音韻覺識及字母拼讀教學能有效提升語言學習者的口語朗讀速度及精確度(Eldredge, 2005)。因此，本研究擬比較電腦輔助示範重複閱讀與教師示範重複閱讀對提升學童早期英文讀寫能力之影響，同時探討音韻覺識結合字母拼讀教學的成效及學生的閱讀程度對教學成效的影響，並進一步探究不同重複閱讀模式、音韻覺識/字母拼讀教學及學生的起始點閱讀程度之間的互動關係。研究對象為中部某國小六年級四個班級的學童，隨機分為實驗一組、實驗二組、實驗三組及實驗四組共四組，進行為期十二週的閱讀教學訓練。其中，A 組使用接受音韻覺識/字母拼讀教學加上老師引導 Read Naturally 十二篇紙本短篇故事的練習;B 組接受音韻覺識/字母拼讀教學加上 Read Naturally 十二篇電腦輔助示範重複閱讀的練習;C 組僅接受老師引導 Read Naturally 十二篇紙本短篇故事的練習;而 D 組僅接受 Read Naturally 十二篇電腦輔助示範重複閱讀的練習。每週並對於所練習的讀本進行「一分鐘朗讀字數」的閱讀流暢度評量。在實驗前，本研究首先對參與實證研究的學童進行劍橋兒童英語檢定(Cambridge English for Young Learner

Test)以確定其閱讀程度。本研究擬採用 DIBELS (Dynamic Indicator of Basic Early Literacy Skills, Coulter, Shavin, & Gichuru, 2009; Good & Kaminski, 2002, 2007; Hintze, 2004)作為前測及後測，以測量學童們在實驗前後的早期英文讀寫能力。National Reading Panel (2000)及先前的研究皆指出 DIBELS 為測量學童早期英文讀寫能力包含音韻覺識、拼音規則、閱讀流暢度、字彙及閱讀理解五種主要能力之具備高信度及效度之標準測驗。針對閱讀流暢度的測量，有別於先前的研究採用「一分鐘朗讀字數」的閱讀流暢度評分標準，僅著重朗讀的速度與單字的精確度，本研究另參考 Zutell and Rasinski's (1991) 及 NAEP (2002) 的閱讀流暢度評分標準，加入斷句/停頓、平順度、朗讀步調以及整體閱讀流暢度四級評分之閱讀節奏評量因素，並邀請具有 15 年口語教學經驗及多年兒童英語的外師擔任評量委員。進行教學實驗之英語教師為具有 5 年兒童英語教學經驗之在職老師。在實證教學後，本研究擬對進行教學之教師及學生進行問卷調查以了解其對 Read Naturally 重複閱讀練習及音韻覺識/字母拼讀教學的看法。

關鍵字：閱讀流暢度；字母拼讀教學；電腦輔助重複閱讀；早期英文讀寫

## Abstract

Effects of Phonics Instruction and Computer-assisted Repeated Reading Training on Early Literacy Development of Elementary School Students in Taiwan The development of fluency is an essential stage in learning to read. One predictor of reading success is gaining reading fluency on instructional and grade-level text. After carefully reviewing results of 77 experimental studies, the National Reading Panel, USA (2000) concluded that oral reading fluency was a causal determinant of reading comprehension. Nevertheless, the National Association of Education Progress, USA (Grossen, 1997; Pinnell, 1995; Ringenber, 2005) found that 44% of 4th graders were disfluent on grade level material. On the other hand, in a pilot study conducted by the researchers of the present study, it was found that an average class of 5th grade in Taiwan only achieved 25 percentile (19.5 words correct per minute, WCPM) of oral reading fluency in comparing to the native speaker norms. Since failure to develop fluency can hamper reading comprehension and further development in reading, empirical studies, though limited, conducted in an L1 context have endeavored to show that the Read Naturally fluency intervention program (Kemp, 2006; Tindal, 2006) is effective in increasing reading fluency. With the advent of the software edition of the Read Naturally program, it remains to be empirically shown the effectiveness of the computer-assisted modeled repeated oral reading on facilitating fluency. Phonics instruction in conjunction with phonemic awareness training have further been found to improve learners' word recognition growth (Eldredge, 2005), which in turn has a causal effect on their reading speed and accuracy. Likewise, the Dynamic Indicator of Basic Early Literacy Skills (DIBELS, Coulter, Shavin, & Gichuru, 2009; Good & Kaminski, 2002, 2007; Hintze, 2004) fluency measurements have been found to reliably probe L1 learners' abilities in 5 core early literacy components including phonemic awareness, alphabetic principle, fluency, vocabulary and reading comprehension as identified by National Reading Panel (2000). This study thus aims to investigate the effects of computer-assisted repeated reading and the effectiveness of phonics instruction plus phonemic awareness training on early literacy development of elementary school students in Taiwan. The subjects of this study are 4 intact classes of six grade students from an elementary school in central Taiwan. They will be given the Cambridge Young Learner English Test to establish their reading proficiency levels. The DIBELS will be used as the pretest and the posttest to measure their early literacy development. Differing from previous studies, this study considers not only the speed and accuracy components of reading fluency but also the prosody dimension. Therefore, Zutell and Rasinski's (1991) refined oral reading fluency scale as well as NAEP's (2002) reading fluency scale will be adopted to assess students' phrasing, smoothness, pace, and overall reading fluency. The subjects will be randomly assigned to either Group A receiving phonics instruction plus teacher-assisted repeated reading training, Group B receiving phonics instruction plus computer-assisted repeated reading training, Group C receiving only teacher-assisted repeated reading training, or Group D receiving only computer-assisted repeated reading training. Twelve Read Naturally grade-level

passages will be practiced over a three month period. Subjects will also be given weekly assessments to monitor their fluency progress and their decoding problems. After the treatment, through questionnaire this study further intends to examine the teacher's and the young learners' preferences of different modeled repeated reading.

Key words : Oral reading fluency; Phonics; Computer-assisted repeated reading; Early literacy