

A comparison of the effectiveness of dialogic teaching method versus the 123 method of individually reading instruction for deaf children

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Background

1. Reading achievement among deaf students typically lags significantly behind those of their hearing peers. Taiwanese deaf students struggle to master reading a logographic script.
2. While using the oral approach or total communication method, deaf students still struggle to master reading skills.
3. To this end, within a TSL/Taiwanese Bilingual-Bicultural paradigm, it was hypothesized that by using a Shared Book Reading sessions (Vacca et al. 2012) which included storybooks, Taiwanese Sign Language (TSL) and written Chinese, that these visual modes would assist in vocabulary and reading comprehension of Chinese.

Purpose

1. Developing Taiwanese Sign Language/ Chinese Bilingual Storybook Reading Programs for deaf children.
2. Compared two different kinds of storybook reading techniques
 - ⊕ 123 teaching method
 - ⊕ Dialogic teaching method

Methodology

§ Participants

- ★ Three deaf school students
 - ⊕ grade one to grade two
 - ⊕ Hearing loss: above 90 dB HL
- ★ One Teacher
 - ⊕ A deaf adult
 - ⊕ 30 years old
 - ⊕ male

★ Research design

- ⊕ Single subject experimental design: Combining multiple probe across subject design and alternating treatments design (called as parallel treatments design)
- ⊕ Duration: The intervention time is 8 weeks, 4 days per week, 30 mins per day
- ⊕ Alternating treatments: 123 and dialogic are used according to counter balance control by switching from one student to the other.

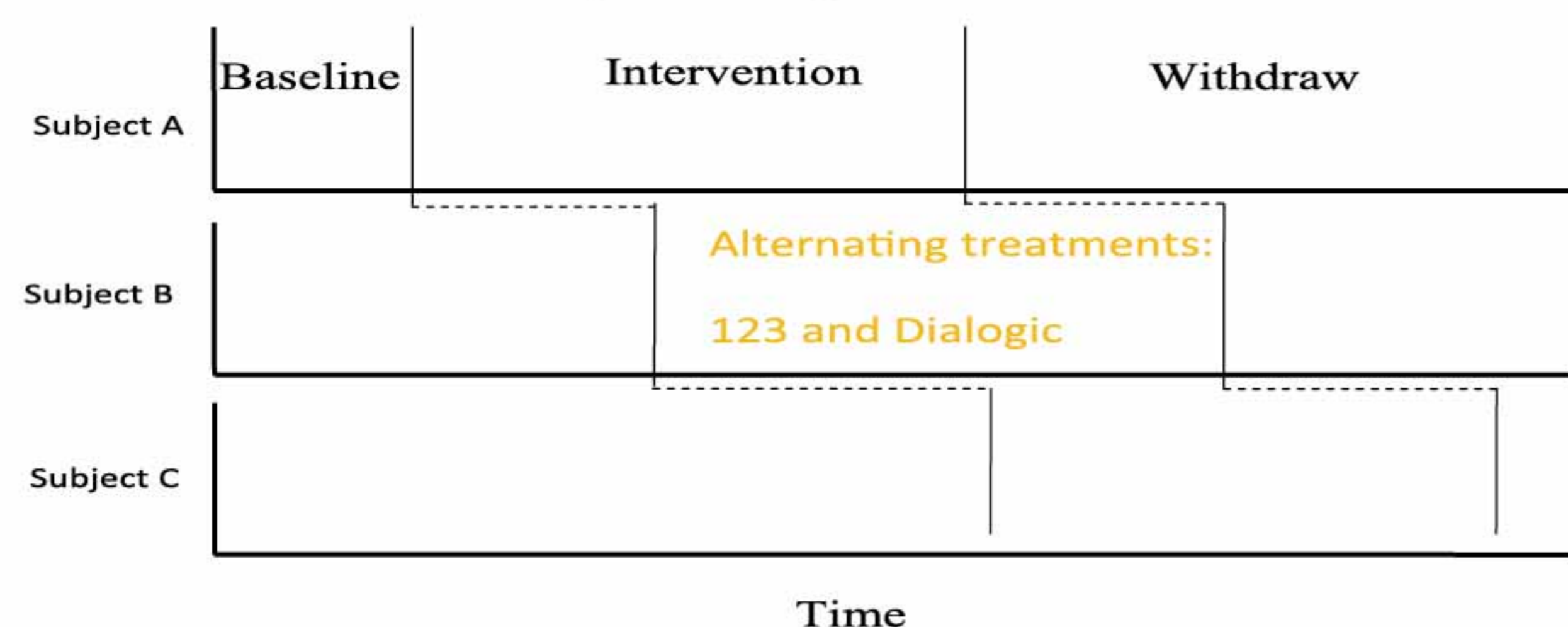


Figure 1. The research design of Single subject experimental design

§ Intervention

- ★ One deaf teacher works with one deaf student each time.
- ★ TSL/Taiwanese Bilingual-Bicultural paradigm.
- ★ Two different kinds of storybook reading methods
 - ⊕ 123 teaching method: Balance approach



Figure 2. 8 steps of 123 teaching method

- ⊕ Dialogic teaching method: Top-down approach

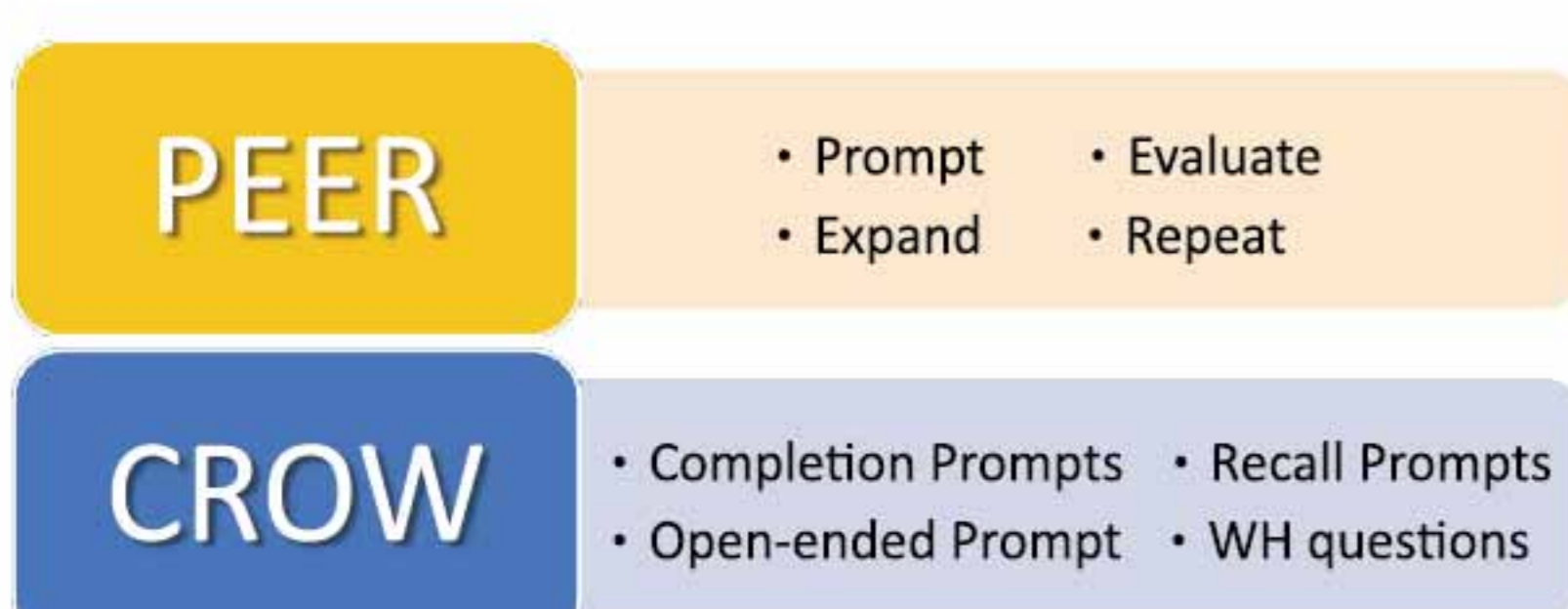


Figure 3. 8 strategies of dialogic teaching method

★ Dependent variables

- ⊕ Word recognition rate: The correct number of items is divided by the total number of items.
- ⊕ Word Recognition Progression: The gains of word recognition rate from pretest to posttest

Results

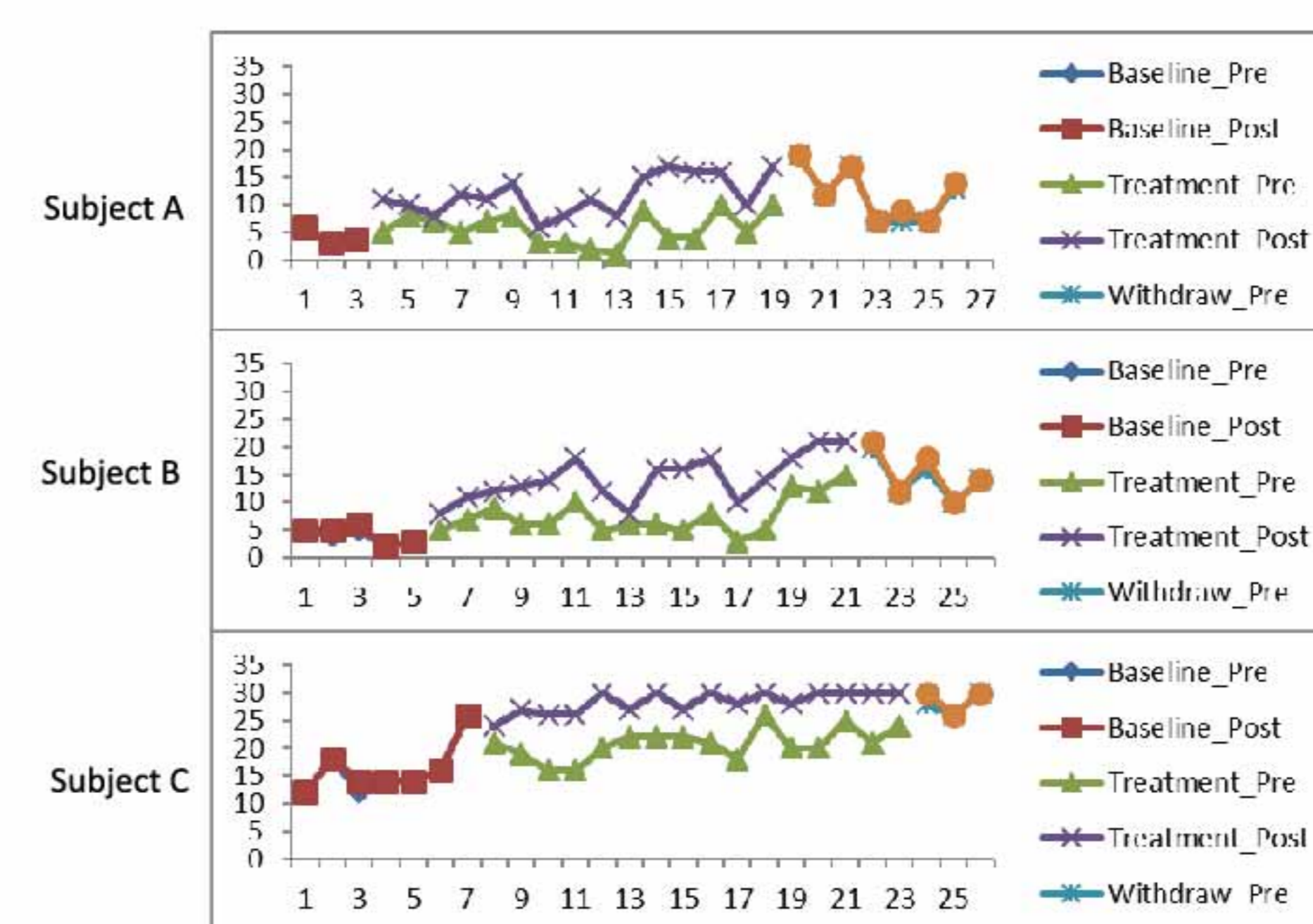


Figure 4. Word recognition rate on Pretest and Posttest

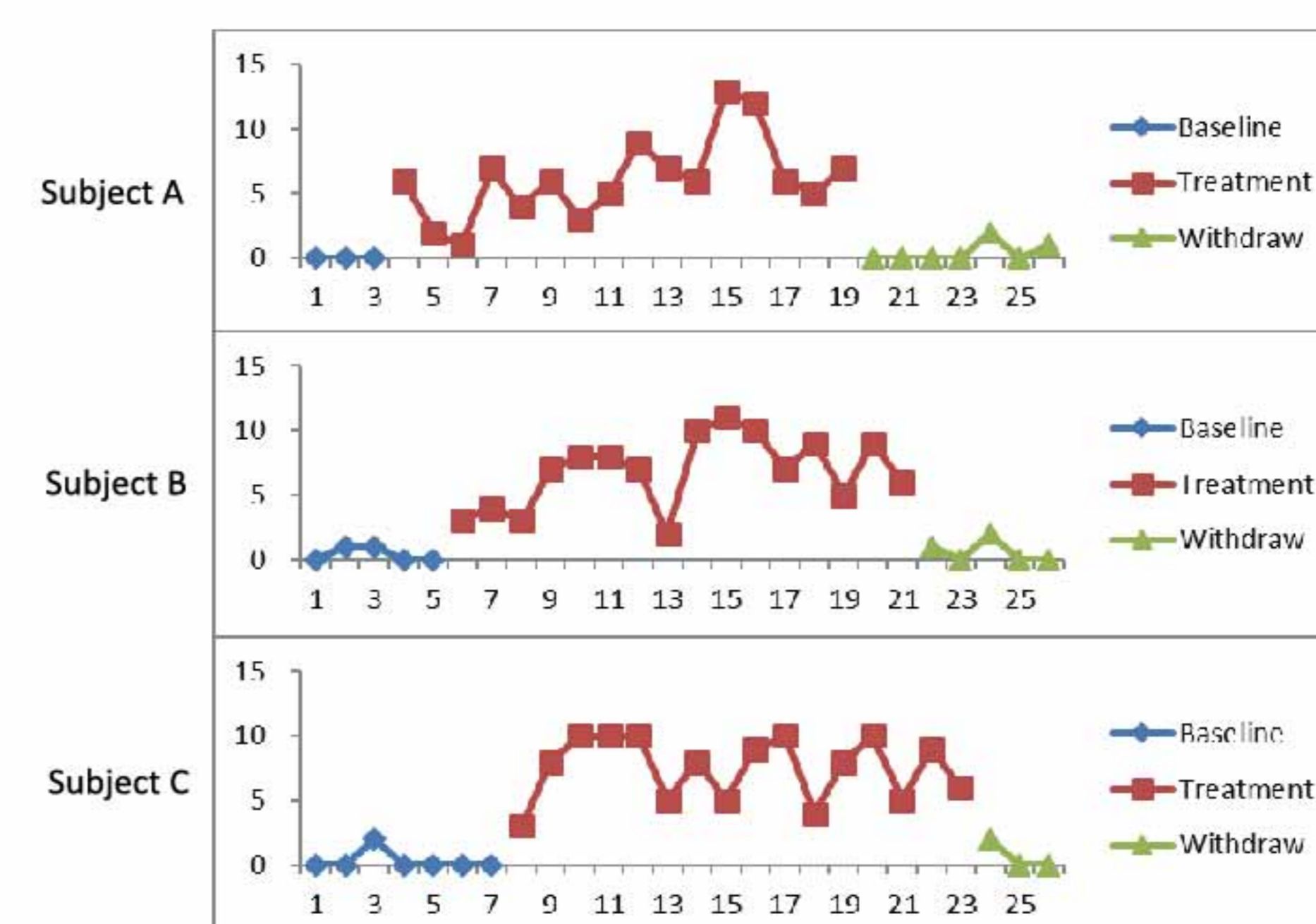


Figure 5. Word Recognition Progression on Pretest and Posttest

Table 1. The comparison of two different kinds of storybook reading techniques on word recognition

	Program	Word recognition rate on pre-test (words)	Word recognition rate on post-test (words)	Progressive rate in word recognition (words)	Comparison
Student A	123	.20 (6.13)	.43 (12.75)	.23 (6.63)	123>dialogic
	dialogic	.18 (5.25)	.37 (11.00)	.19 (5.75)	
Student B	123	.23 (7.00)	.48 (14.38)	.25 (7.38)	123>dialogic
	dialogic	.27 (8.13)	.48 (14.38)	.21 (6.25)	
Student c	123	.48 (14.50)	.93 (27.88)	.45 (13.38)	123>dialogic
	dialogic	.70 (20.88)	.96 (28.75)	.26 (7.88)	
Average	123	.31 (9.21)	.61 (18.33)	.30 (9.13)	123>dialogic
	dialogic	.38 (11.42)	.60 (18.04)	.22 (6.63)	

Conclusion

1. The Bilingual Picture Book Share Reading Program did enhance the word recognition of the deaf students significantly.
2. Each student got more gain in word recognition in the "123" Program than in the "Dialogic" Program.