

A Pilot Study on Australian Refugee Children

A pilot study was undertaken to assess the effectiveness of the Fast ForWord language program in enhancing the English language skills of refugee children. The study was a collaboration between Learnfast Australia and STARTTS.

The results showed a statistically significant positive result indicating that the Fast ForWord program can help refugee students learn language.

PARTICIPANTS

The study group comprised of 10 children (mean 10y 9m, range 9y 6m – 12y 7m) of which 5 were female and 5 male. All children spoke English as a second language and were involved in the STARTTS program. The average time period between the CELF-4 pre-test and post-test assessments was 5 months (range 4 – 6 months).

RESULTS

Change from pre-test to post-test on CELF-4 scores

The difference between pre-test and post-test standard scores were analysed using Paired Samples T Tests for the following Core and Index CELF-4 scores: Core Language Score, Receptive Language Index, Expressive Language Index, Language Content Index, Language Memory Index, and Working memory Index.

Figure 1: Study results

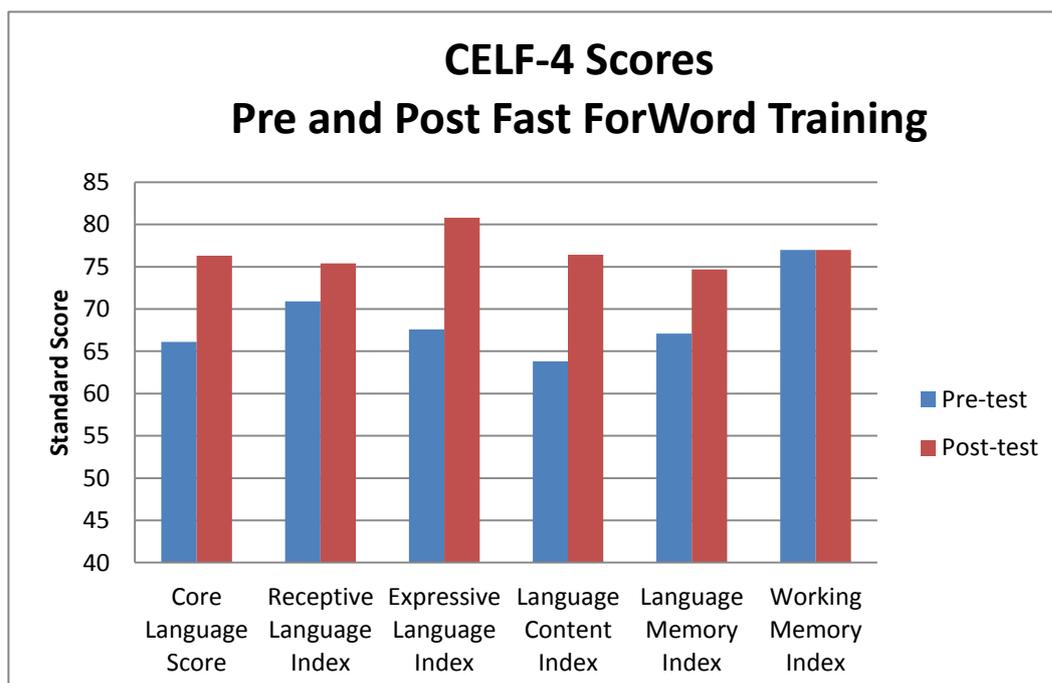


Table 1: Group average standard scores for the CELF-4 measures at pre-test and post-test, average gains made between pre-test and post test, and the statistical significance of the gain. [NB a p value <0.05 is a statistically significant finding]

CELF-4 Core and Indexes	Pre-test	Post-test	Gain	Statistical Significance
Core Language Score	66.10	76.30	10.20	[T(9) = 5.413; p=0.000]
Receptive Language Index	70.90	75.40	4.50	[T(9) = 1.548; p = 0.156] *
Expressive Language Index	67.60	80.80	13.20	[T(9) = 5.023; p=0.001].
Language Content Index	63.80	76.40	12.60	[T(9) = 4.435; p=0.002]
Language Memory Index	67.10	74.70	7.60	[T(9) = 4.435; p=0.012]
Working Memory Index	77.00	77.00	0.00	[T(9) = 0; p=1.00] *

*Gains for the Receptive Language Index and Working Memory Index did not reach statistical significance (p > 0.05). Gains for all other measures reached statistical significant p<0.05

Summary of Results

Overall, there was a statistically significant increase in scores from pre-treatment to post-treatment for the following CELF-4 measures: Core Language Score, Expressive Language Index, Language Content Index, and Language Memory Index.

Although the post-test scores for the Receptive Language Index were on average 4.5 standard scores higher than the pre-test scores, this difference did not reach statistical significance. For the Working Memory Index, there was no significant difference between post-test scores and pre-test scores.

Additional notes

Average gains as percentiles:

- Average gains for the Core Language Score corresponded to improving from the 1st percentile to the 5th percentile.
- Average gains for the Expressive Language Index corresponded to improving from the 1st percentile to the 9th percentile.
- Average gains for the Language Content Index corresponded to improving from the 1st percentile to the 5th percentile.
- Average gains for the Language Memory Index corresponded to improving from the 1st percentile to the 4th percentile.

DEFINITIONS

Standard Score: Core and Index Scores on the CELF-4 are expressed as standard scores with an average of 100 and a standard deviation of 15. This means that 68% of the population score between 85 and 115 (this is what is referred to as the 'Average' range).

CELF-4 Core and Index definitions:

Core Language Score: This is a measure of overall language performance.

Receptive Language Index: This measures the ability to understand what is spoken.

Expressive Language Index: This measures the ability to communicate using words.

Language Content Index: This measures the ability to understand the meaning of words and sentences.

Language Memory Index: This measures memory dependent language tasks (e.g., following directions, and repeating sentences verbatim).

Working Memory Index: This measures the ability to temporarily store and manipulate information in memory.