HYPOTHESIS

The study was undertaken as the dissertation for a Master's Degree in Education at Nottingham University, Nottingham, England, graduation July 6, 2001. The degree was in Educational Psychology with particular reference to Special Needs including Dyslexia. The aim of the dissertation was to show that The Listening Program could be implemented in an ordinary school, with all the difficulties inherent in such a situation, and still produce results.

DESIGN

Chuter Ede is a county primary school. The majority of the children are well behaved and it has excellent OFSTED (Office For Standards in Education) results. The school has limited provision from a Speech Therapist but no listening or audiology tests are done.

The children are all of average ability or above but are failing to make expected progress and are falling further and further behind. All are of Junior School age from 7 to 11 years old. All receive 30 minutes a week extra help, all have listening problems, and most have visual perception and motor problems. The Listening Program continues to be used at Chuter Ede, and is now being used with younger children and with ADHD children. The children were those on the school special needs register. They were children who scored average and above in non-verbal reasoning scores but did not progress at the same rate, in the language area in particular. They were all behind with reading. Children 8 and 9 had not been on the register previously but had been picked up after the annual tests for progress.

The Quest Diagnostic Reading Test was used to assess pre-reading skills. The test was administered in an area adjacent to the classroom rather than a silent space, so the conditions gave results related to those listening skills as employed in the classroom. Those showing weakness in the auditory area were then selected as the ones most likely to derive greatest benefit from the program. Priority was given to older children and those with whom there had been the greatest input in the past.

EQUIPMENT AND SETTINGS

Listening was done in the school staff room, several pupils at a time. Children listened in pairs through headphones, with two children listening to the same CD player using a splitter. If a pupil missed one or more sessions for any reason, there was no opportunity to catch up. They had to continue listening to the same TLP CD as the others and at the same volume level for everyone. Furthermore, due to organization and testing processes, there is never an opportunity to listen for 8 straight weeks in any one half term. Thus children inevitably have at least a one-week gap in any TLP schedule. Due to various constraints, each child has only ever had a maximum of 8 weeks listening.
TESTING

The scores at the end of the year are from the NFER-Nelson tests (a leading provider of tests in the United Kingdom) done by the County (Local Education Authority) to assess progress and are thus independent. A score of 0 on English and Mathematics indicated the child has scored equivalent to their standardized score of the previous year. Any improvement made is divided into three score areas: progress, average progress, and scores above the upper limit are considered exceptional. Exceptional scores are indicated in red, those that needed only one more point to be exceptional are indicated in blue. Two children did not achieve exceptional improvement in any area, but nevertheless they too have made reasonable progress. Reading scores show the increase in months over a 12-month period.

OVERVIEW

My aim was to show that TLP could be used in school and produce results. The tests I used are not long and involved but show results. The important thing for me was that these test results were also reflected by the results of the NFER group tests that all the children do. The NFER tests are used by Nottinghamshire and many other counties to track the progress of the children through school. That is hard evidence that cannot be disputed. The Headmaster was very skeptical about my work when he joined the school after Christmas but his attitude has changed since seeing the results.

RESULTS

All the children monitored in this study improved in auditory discrimination and memory and showed improvement in reading scores greater than the 2 months of the program. Every single parent noted that communication at home had improved. Parents thanked us for the help and children who have been on the program recommend it to others.

PRE/POST TLP

Child 1
Male. Chronological age: 10 years, 6 months.
Reading age pre-program: 6 years.
Reading age post-program: 7 years, 9 months and continues to improve.

Comments: Never appeared to be "with you." He has begun to be more alert and has made steady progress over the year.

Child 2
Male. Chronological age: 10 years, 4 months.
Reading age pre-program: 9 years.
Reading age post-program: 12 years, 9 months.

Comments: Was attending the Speech Therapist. He had severe problems with sequencing and had been described as phonic dyslexic. The Speech Therapist has since terminated his help considering it is no longer necessary. She is very impressed with TLP and has asked for help with other pupils. Parents reported that the boy had watched an adult spy drama all the way through and when questioned showed he understood the film. Previously he could not watch even a Disney cartoon through and understand it. The child did Primary Movement (a reflex inhibition program) afterwards. The NFER testing the following year showed improvement as follows: English +2 months, Math +3 months, Reading age +39 months (exceptional).
Child 3
Male. Chronological age: 9 years, 9 months.
Reading age pre-program: 8 years, 6 months.
Reading age post-program: 10 years, 9 months.

Comments: Did Primary Movement after TLP and NFER testing the following year showed improvement as follows: English +13 months, Math +3 months, Reading age +29 months (exceptional).

Child 4
Male. Chronological age: 10 years.
Reading age pre-program: 8 years, 6 months.
Reading age post-program: 10 years, 9 months.

Comments: Was unable to filter out sounds. When he started TLP he could not hear it for the hum of the fridge in the staff room where he did his listening. He drew a line every time he heard a sound at all. By the end of the second week he was hearing something continuously. He had severe handwriting problems that disappeared entirely, and he was able to finish his work for the first time ever. This child did Primary Movement afterwards. The NFER testing the following year showed improvement as follows: English +15 months, Math +3 months, Reading age +27 months (exceptional).

Child 5
Male. Chronological age: 9 years, 11 months.
Reading age pre-program: 7 years, 6 months.
Reading age post-program: 8 years, 6 months.

Child 6
Male. Chronological age: 9 years, 6 months.
Reading age pre-program: 7 years, 6 months.
Reading age post-program: 9 years.

Child 7
Male. Chronological age: 11 years, 1 month.
Reading age pre-program: 8 years, 4 months.
Reading age post-program: 11 years, 5 months. (Neale Analysis of Reading Ability)

Child 8
Male. Chronological age: 10 years, 6 months.
Reading age pre-program: 8 years, 6 months.
Reading age post-program: 13 years, 3 months.

Comments: Was not previously considered special needs, but his progress in literacy was very poor. He was included in this program to see if the underachievement could be reversed. With an increase in reading age of 57 months over a 12-month period, it certainly worked.

Child 9
Female. Chronological age: 11 years, 6 months.
Reading age pre-program: 9 years, 3 months.
Reading age post-program: 11 years, 6 months. (Neale Analysis of Reading Ability)

Comments: Was an underachiever, particularly in reading. She was the only one in her class to have made no progress in reading over 12 months. During TLP, she started to progress. The most notable change was in her confidence. From being a reluctant reader she became a volunteer reader for the school carol service, reading it perfectly.
Child 10
Male. Chronological age: 9 years, 4 months.
Reading age pre-program: 6 years, 3 months.
Reading age post-program: 7 years, 3 months.

Comments: Had Primary Movement first. He had severe visual problems, could not recognize
and match letters and had dyspraxic symptoms as well as dyslexia.

Child 11
Male. Chronological age: 10 years, 6 months.
Reading age pre-program: 9 years.
Reading age post-program: 9 years, 3 months.

Child 12
Male. Chronological age: 9 years, 10 months.
Reading age pre-program: 6 years, 6 months.
Reading age post-program: 7 years, 3 months.

Child 13
Female. Chronological age: 10 years, 4 months.
Reading age pre-program: 7 years, 9 months.
Reading age post-program: 7 years, 9 months.

Comments: Had a strong Moro reflex (stimulated by a sudden movement of the head backwards)
and other reflexes present. She did Primary Movement, TLP and then went back to the Primary
Movement. Although the County NFER testing did not show reading improvement, she did show
a 3-month improvement in reading age on the Salford Sentence Reading Test. See Figure 1. for
Auditory, English and Math improvements.

Child 14
Male. Chronological age: 9 years, 10 months.
Reading age pre-program: 8 years, 3 months.
Reading age post-program: 9 years.

Child 15
Male. Chronological age: 9 years.
Reading age pre-program: 6 years, 7 months.
Reading age post-program: 8 years, 1 month.

Comments: Is receiving private help out of school. He improved immediately and continues to
progress.

Child 16
Female. Chronological age: 9 years, 10 months.
Reading age pre-program: 7 years, 8 months.
Reading age post-program: 8 years, 4 months.

Comments: Is receiving private help out of school. She improved immediately and continues to
progress.

Child 17
Female. Chronological age: 12 years, 1 month.
Reading age pre-program: 7 years, 6 months.
Reading age post-program: 8 years, 3 months.
Comments: Is receiving private help out of school. She improved immediately and continues to
progress.
FIGURE 1

Figure 1. shows my pre- and post- testing as well as the County NFER testing. As the last three pupils were private, no further data will be available until fall.

<table>
<thead>
<tr>
<th></th>
<th>Auditory Discrimination Scored out of 24</th>
<th>Auditory Memory Scored out of 8</th>
<th>Reading Test</th>
<th>Reading Age in yrs/mth Improvement in mth</th>
<th>County Tracking Scheme NFER External Testing Improvement in mths</th>
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<td>pre / post</td>
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<td>Schonell</td>
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<td>3 / 5</td>
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<td>17 / 21</td>
<td>1 / 4</td>
<td>Schonell</td>
<td>8.1 / 8.6 + 5 mths</td>
<td>+15 + 3 + 14</td>
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<td>5 / 7</td>
<td>Schonell</td>
<td>8.8 / 9.1 + 5 mths</td>
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<td>22 / 24</td>
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<td>Schonell</td>
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<td>+18 + 10 + 11</td>
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<td>7.2 / 7.11 + 9 mths</td>
<td>+10 + 14 + 18</td>
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<td>SATS - no testing</td>
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<td>9.3 / 9.6 + 3 mths</td>
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<td>9.0 / 9.8 + 8 mths</td>
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<td>7.6 / 8.3 + 9 mths</td>
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</tbody>
</table>

SUMMARY

I like to use The Listening Program first and then go on to Primary Movement if it is still necessary. The children are afraid of failure initially and teachers still have low expectations for them. After discussions, this matter is being rectified and the work is rising to the standard that might be expected. As you can tell, I am delighted and now have the county tracking figures as supportive evidence with my own testing on the effects of this intervention. Even the skeptical are taking an interest and colleagues are recommending children for inclusion in our program.
FURTHER INFORMATION ON TESTS USED

Neale Analysis of Reading Ability: NFER-Nelson Publishing Company Ltd.

Primary Movement: A reflex inhibition program. Research results for this program were published in The Lancet-2000, Psychologist February 2001 and were well received.

Quest Test: Used to assess pre-reading skills. The auditory discrimination involves saying if words are the same or different and saying for the second half which of 2 words contains a particular sound by underlining. Auditory memory is a digit span test and shopping list where they are told items and have to repeat it back.

Salford Sentence Reading Test: Involves sentences whereby you can tell if the child understands what they read.

Schonell Test: A word-reading test that is part of the standardized test of the Aston Index. This is a set of tests to get a measure of the child's abilities in a variety of areas, to produce a profile for the child.

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End of Research Study

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