Strategies to Enhance Reading Comprehension for the
NESB Students

Tina Meng-Ting Liu

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Abstract

Reading skills are essential for all students for their successful advancement through school and on into adult life. With limited English, many Non English Speaking Background (NESB) students are under-achieving at school due to their lack of reading ability in English. This research investigates a skills-based program with an emphasis on decoding (often referred to as a bottom-up theoretical perspective) compared to a program emphasising the development of comprehension strategies, where higher level thinking is required (top-down perspective). Using a case study approach with one NESB student, it appeared that a skills-based approach was more successful and preferred by the student.

Introduction:

Over the past ten years, New Zealand’s Non-English Speaking Background (NESB) student population has increased dramatically due to New Zealand’s immigration policy and the presence of international fee-paying students. Many NESB students arrive in New Zealand with limited English or no English at all, a factor which has become a significant challenge to the country’s teachers.

Reading is an essential skill for all students because most curriculum subjects depend on the ability to read fluently with a focus on meaning. It also helps to improve one’s English language ability for second language users. All students, regardless of whether they are native speakers or NESB students, need to be taught to comprehend text effectively in order to access, analyse and use information from a variety of sources.
Comprehension or acquiring meaning from written text is an interactive process and involves the reader, the text and the context (Gambrell, Black & Pressley, 2002). It is a cognitive strategy that necessitates the reader thinking and reading at the same time, as well as connecting the texts to make meanings. Readers with good comprehension strategies will process more of the text than those who do not and therefore will be able to interpret increasingly complex text successfully. Hence, it is important for teachers to prepare their students to be competent readers as soon as possible in their schooling.

Many NESB students who are under-achieving at schools lack the necessary skills in English to comprehend text (Cummins, 1994). A lack of some fundamental English skills may result in a lack of engagement through not being able to understand the lessons, the texts and even interacting with other peers and teachers. Students’ frustration may lead to poor or disruptive behaviours and low self-esteem. As a result, they can be identified as under-achievers at schools and at risk of alienation from the education system and society at large.

Specific approaches for teaching reading skills (e.g. shared and guided reading, Ministry of Education (MOE), 2003) to native-English-speaking children have been frequently used with NESB students in schools (Chamot & O’Malley, 1994). Although these strategies have been proven effective for teaching reading comprehension to many students whose English is their first language (MOE, 2003), not all of them have been proven to be effective strategies in teaching NESB students. Teachers need to understand that NESB students are often functioning at twice the cognitive work of native English speaking students (Camine, Silbert & Kameenui, 2004). They require more time to process the information and language learning experiences. Such students need assistance to make links to what they already know and can do. Children learn more effectively
through familiar experiences and texts that they can easily link to their background. Many of the NESB students’ previous learning experiences are focused on skills-based, sequenced learning style. However, in New Zealand the teaching strategies have a text-based emphasis from which it has been argued that it may be difficult for students with limited English ability to adapt (Simner, 1993; Nagao, 2002). As Chamot and O’Malley (1994) pointed out, different students respond to different approaches. Although many strategies that have been used to teach native speakers and have been proven as effective to NESB students, adjustments are still required to meet the needs of these learners.

Reading Comprehension

Gambrell, Black and Pressley (2002:5) state that:

Reading comprehension is an interactive process involving the reader, the text and the context. During the reading process, the reader may attend to the text-based information. At other times, the reader may relate to the text in terms of his or her own experiences.

They go on to say,

Skilled comprehenders come to the reading process with rich exposure to literacy, well-developed oral language ability, well-developed world knowledge, competence in social interactions with others about text, efficient word identification skills, and effective comprehension strategies. (Gambrell, et al., 2004:7).
To teach students to be competent readers, Pressley, El-Dinary, Gaskins, Schuder, Gergman, Almasi, and Brown (1992) have identified effective classroom instruction that improved students’ comprehension skills:

- Teachers teach students a small repertoire of comprehension strategies
- Teachers instruct students in how to use those strategies taught
- Students practise reading with the strategies
- Students model and explain the strategy to each other
- Teachers convey to students information about when and where to use the strategies
- Summaries and clarification are often used as teacher-directed strategies
- There is flexibility in students’ use of strategies
- Teachers continue to encourage students to think.

In general, a competent reader should be able to understand both the surface meaning of the text as well as the deeper underlying meaning. Opportunities therefore need to be available to increase comprehension levels through an effective guided reading approach.

**Bottom-up and Top-down theoretical perspectives on literacy learning**

Bottom-up approaches, according to Simner (1993), reflect a phonics or code-emphasis approach. The approaches emphasize on students associating sounds with individual letters and letter combinations. The strategies are focused on sounding and decoding words. Top-down approaches, on the other hand, teach students to focus on the overall meaning of the text, using text context cues such as pictures and the author's meaning. Children learn to read through ‘rich texts’ and relating their prior experiences to the author’s message.
Teaching students decoding and phonics in order to help them to sound out unfamiliar words enhances word learning by linking to words that they have already known (Williams, 2003). Moreover, the approach provides students opportunities to practise so they can build up their fluency and improve their speed in reading. This will help them in comprehending the text (Williams, 2003; Howell & Lorson-Howell, 1990).

O'Sullivan (2003:133) cautions against bottom-up approaches stating that,

_Some critics were concerned that the focus of bottom-up approaches on the identification of individual words and the mechanical aspects of reading would lead to a loss of focus on the meaning aspect of reading._

Reading is an active process; it is an interaction between text and the reader. Readers not only use their decoding skills but also a range of knowledge in comprehending texts (Nagao, 2002).

As Williams (2003:160) pointed out,

_Although poor readers may be able to pronounce every word in a passage, ..., they are quite unable to summarize the meaning of what they have just read. They are processing words, not meaning._

Top-down strategies are believed to be able to enhance language growth of NESB students (cited in Hsu, 1994). Based on the theory that children can learn best by focusing on the meanings, top-down strategies expose the students to a print rich and literature rich environment.
The effects of using top-down approaches are that they:

- make use of whole, meaningful reading materials
- focus on comprehension and communication
- utilize and depend upon quality children’s literature
- help students learn to integrate and balance all cuing systems such as graph-phonics, syntactic, semantic, background and experiences
- treat literacy learning as a language development
- encourage risk taking, hypothesis testing, self monitoring
- treat literacy as a means to an end
- approach literacy as a movement from whole to parts
- encourage students to utilize their backgrounds
- promote reading and writing as enjoyable, useful and purposeful activities.

(Hsu, 1994:9)

Some authors argue that students with poor reading ability may struggle with such an approach (Nagao, 2002; Simner, 1993). In Parry and Su’s (1998) study, a group of Chinese were taught using top-down and bottom-up approaches in reading. One student commented that she preferred top-down approaches yet she needed to use decoding strategies for solving unknown words and vocabulary. Another student commented that the top-down approach failed her completely and she had to change back to the bottom-up approach which was commonly used in China. Often students who master the top-down strategies are competent language users who have already learned to decode the language. For NESB students, neither top-down nor bottom-up approaches have been proven successful (Chamot & O’Mellay, 1994). There is a move in second language teaching to use both top-down and bottom-up strategies in the teaching of reading to second language learners and in actual fact for all learners (MOE, 2003).
Direct Instruction and Precision Teaching

Direct Instruction (DI) is a scientific methodology that has been used across varieties of ethnic groups and has been proven as an effective strategy to teach language and children identified with special needs (Grossen, 2004; Marchand-Martella et al., 2004). It is a bottom-up teaching approach teaching students a variety of skills. The goal of DI is to close the educational gaps faced by at-risk students (Grossen, 2004). To accomplish this goal, DI is designed to accelerate learning by achieving high accuracy on task behaviour and is often combined with Precision Teaching (PT) to empower the strategy and build on fluency of the skill or knowledge learnt. Fluency refers to the ability to read a text quickly and at acceptable accurateness with ease and expression (Carine et al., 2004).

Carine (2004) and his colleagues found out that if vocabulary extension and enrichment are a focus, then students can learn the meanings of three hundred more words each year. Teachers must spend time teaching vocabulary, especially to students who have NESB backgrounds. The more vocabulary they know, the easier it is for them to comprehend the text.

They also include the teaching of comprehension skills to students stating that:

*In the early primary state, the skills and strategies are focused on literal comprehension exercises in which the answers to questions are stated explicitly in the text... In the late primary grades to intermediate level, the focus shifts to inferential comprehension exercise in which the answers are not stated explicitly in the text.* (Carine et al., 2004:229)

Once the students have learnt decoding skills, building on fluency (speed) is the next step. PT is particularly useful in helping students build fluency in reading. Howell and
Lorson-Howell (1990) identified some reasons why teachers should observe the fluency of student responses.

1. Knowing the reading rate indicates how well a student knows or can do a task
2. Fluency has functional implications. Some things must be done quickly
3. High level of fluency allows students to become automatic in responding.

By using DI and PT, the teachers are able to teach their students different strategies at different levels of learning.

However, a study done by University of Wisconsin-Milwaukee indicated a low overall reading comprehension result for DI (Ezarik, 2004). Teachers involved in this study commented that DI should be limited in its use and should be used as a corrective and supplementary reading programme. The training of teachers to effectively teach using this approach is an issue according to the author.

**SQ3R and Three Level Guides**

The research on the effectiveness of SQ3R and Three Level Guides is difficult to locate. Robinson first designed SQ3R in the early 1940s (Huber, 2004). It is an established system for independent reading and processing texts. It contains five stages, survey, question, read, recite and review. It has been found useful with shared book experiences and it lends itself to independent student use (Scott, 1994; Huber, 2004).

Audio, Visual, Kinaesthetic and Oral Educational Research Foundation (AVKO) (McCabe, 1982), an organisation helping people learn to read and write, found that SQ3R for reading is effective. Students who independently use the strategy for studying almost universally find it successful.
Scott (1994:676) used SQ3R with nonfiction books. She commented that her students were very enthusiastic about using the strategy,

`The steps of SQ3R have been used often throughout the school year in my classroom with both fiction and nonfiction, ... the children were excited at the thought of being able to talk about television as we began the SQ3R strategy.'

SQ3R strategy is not only used in reading comprehension, but is also applied in reading music and writing (Music Educator Journal, 1995; Litteral, 1998).

Though many teachers are using such strategies in classrooms, Huber (2004) pointed out that there are several problems with SQ3R.

1. Lack of research. There are not enough studies and there is no universal consensus on SQ3R strategy.

2. Low frequency of student use. This could due to the failure of teachers to provide explicitly careful instruction to students on how to implement the strategy.

Three Level Guides are designed with questions at different levels to test a reader’s comprehension. It is intended to help students understand that there are different types of thinking involved in gaining meaning from the text. This method is useful for those who read well yet with limitation of understandings (Lamont, 1998). The questions in Three Level Guides can be used as a tool for teachers to acknowledge students’ comprehension of the text, as well as a good resource for discussion. However, there is little research on the effectiveness of Three Level Guides. Despite the lack of research surrounding these approaches, they provide procedures that emphasises different aspects of the reading process, i.e., decoding and comprehension.
As an NESB student in New Zealand classrooms twelve years ago, learning to read in English presented many challenges. The comprehending of increasingly complex text as you go through the school curriculum and learning new vocabulary required a huge amount of cognitive effort. My current role of working with NESB learners led me to investigate the most effective ways of ensuring that the students are provided with strategies to comprehend text in English. This case study will look at the application of a skills-based (bottom-up teaching) approach via Direct Instruction (DI) and Precision Teaching (PT) and another approach that emphasises comprehension using text as the vehicle (top-down) via SQ3R and Three Level Guides in teaching reading comprehension to a NESB student. The strategies will be implemented with the student and the recorded data will be used to compare the effectiveness of the two strategies.

**Method**

**Methodology**

This is a single case study using quantitative data collection as well as qualitative observation and interview. Single case studies are often used to observe individual units in clinical settings, school settings, single student, a family group or a community (Burns, 2000; Anderson, 1990; Cohen, Manion & Morrison, 2000; Hillard, 1993). Advantages of carrying out a single case study are that they are strong in reality, easily understood by a wide audience, they capture unique features, provide insights into similar situations, are undertaken by only a single researcher, embrace and build in unanticipated events and uncontrolled variables (Nisbet & Watt, 1984 cited Cohen, Manion & Morrison, 2000). One of the most important features is that it enables the readers to understand how ideas and abstract principles can fit together and how a specific instance can be a step in generating more general principle (Cohen, Manion & Morrison, 2000). For researchers
who are interested in collecting large amounts of data for a subject, a single case study is an appropriate methodology.

This research aims to apply both bottom-up and top-down strategies to a NESB student, hence, a large amount of data collection becomes essential. The research uses a repetitive data collection method on the students’ achievement during the pre-test and post-test and in-class responses. An informal interview is carried out after the strategies are taught in order to find out the participant’s opinion and feelings about the strategies. This will allow a greater freedom of expression on the part of interviewer and interviewee (Collins, 1998).

**Participant, settings and assessments**

The participant is a twelve year-old-boy who is currently studying at a local school. He has been living in New Zealand for two years. He has some basic phonic awareness in sounds and letters but is having some difficulty in applying them to reading more complex words. In terms of his language ability, the participant is capable of reading and comprehending newspapers and textbooks appropriate to his age level in his first language. There is no report or history indicating that he has any cognitive difficulties. The lessons were taken twice a week during normal tutorial lessons in a one-on-one situation for a total of two hours per week.

**Assessments**

The Burt word reading test (Gilmore, Croft, & Reid, 1981) was used to discover the participant’s word recognition skills. This is chosen because it is a standardised test for New Zealand children, and age norms have been provided for children from six years old to twelve years old. The recognition of words of increasing complexity provides an
indication of the development of decoding skills. It does not measure strategies used in text reading such as vocabulary knowledge or ability to obtain and retain meaning.

The second assessment used was STAR: Supplementary Test of Achievement in Reading (Elley, 2001) for assessing students’ reading comprehension from Year 3 to 9. It is used to determine the participant’s reading comprehension level. The STAR Reading Test is divided into six categories, word recognition, sentence comprehension, paragraph comprehension, vocabulary range, the language of advertising, and reading different genres or styles of writing. This recently has become a widely used standardised assessment procedure in New Zealand classroom.

Procedure
This project was carried out for a year with five phases; pre-test, implementing DI with PT in teaching, first post-test, implementing SQ3R with Three Level Guide in teaching, and a second post-test. Each approach was carried out for one term. Consent was granted and forms signed by both the participant and parents. An informal interview was also carried out after the interventions to collect information regarding the feelings and attitudes of the participant in regard to both of the procedures.

Pre-test
In phase one; the participant was assessed using the STAR and the Burt word recognition test. The assessments were carried out according to the procedures in the teacher’s manual. He achieved a score of 32 in STAR and 70 in Burt. According to STAR, students who do the assessment between February to May and scored 32, their Stanine Score is 3, which is below average (19%). The equivalent age bands for boys scoring 70 at Burt are
around 11.03 to 11.09 years old. Both of the results indicated that the participant is not performing at his current age (see Gilmore, Croft, & Reid, 1981 and Elley, 2001).

**Direct Instruction and Precision Teaching**

In phase two, the participant was taught using DI with new knowledge which includes decoding sounds of a word, sounds of letters, sounds of letters combining with other letters, decoding a sentence, and steps in reading a long sentence. This new knowledge was taught using the six knowledge forms: simple fact, discrimination, verbal chain, relationship, cognitive and concept (For more information, see Kameenui & Simmons, 1990). Each new information, skill, or new knowledge taught is referred here as a new knowledge.

The new knowledge was taught using DI, frame, model, lead and test. For example, when teaching the sound of ‘ph’ using simple fact, the instructor will say the following:

**Frame:** Today we are going to learn the sound of ph

**Model:** Ph sounds like /f/

**Lead:** Say it after me, ph sounds like /f/,

Say it with me, ph sounds like /f/,

Say it yourself, ph sounds like /f/

**Test:** What’s the sound of ph?

(for more details on examples of how to teach DI, see Kameenui & Simmons, 1990).

The data were collected via 10 trials data collection sheets. When the participant responded correctly, a + was written beside the number of trials, and a – for errors made with immediate corrections. He was praised for every correct response given. The criterion of acceptable performance (CAP) was set for every phase. During the new
learning stage, the CAP was set at 80% accuracy or better for three consecutive lessons. Once the new knowledge met the CAP, the skill was then moved to fluency training and no longer treated as a new learning stage. For example, when teaching the sounds of /s/, the participant was able to say all letter combinations that produce the sound of /s/ for 80% accuracy or better for three consecutive lessons. At the fourth lesson, the participant was be given a probe sheet with some words with /s/ sounds in it to read to build up his fluency. This was the second phase and a CAP was set for both the probe and reading practice. The participant was also asked to read everyday and time his reading for one minute. The number of words read per minute was recorded and charted on the Celeration Chart. Once the participant reached the CAP, he then moved to approach two. A follow up one minute reading test was carried out three weeks later to see if he had maintained the skill. At the end of the term, phase three was introduced by assessing the participant with BURT and STAR assessments.

**SQ3R and Three Level Guides**

In phase four, there are two approaches involved here, firstly SQ3R and then the Three Level Guides. This was done by following the procedures of Survey, Question, Read, Recite and Review. The participant was first asked to survey the text, that is, to skim read the text, and notice the headings, words in board, pictures, diagrams and layout of the text. Then the participant was encouraged to think about the following questions.

- What do I think the text is about?
- What am I expect to know?
- What is the purpose of the pictures?
- Why has the text been laid out this way?
- How will I recognise the main points?
- What do I want to find out from the text?
The researcher guided him through these questions without providing any answers. The participant was encouraged to think of the answers himself. During the third step, Read, the participant was asked to read the text thoroughly with his finger pointing to each word as he reads along. This was to make sure that he read every single word. The participant had a choice of either reading it silently or reading it out loud. Then he tried to think back and answer the questions asked in step 2 and was asked to recite the text by retelling the story to the researcher. Lastly, at Review, the participant was asked to read the text again and check if he had not misunderstood anything.

After the SQ3R, the researcher asked the participant thirteen questions based on the Three Level Guides. The first level is known as the literal comprehension level. Five true or false statements were asked relating to the information from the text. Five level two true or false statements were then asked, which is also known as the inferential comprehension level. In this level, the participant would have to answer the statements by combining the literal information together with some information elsewhere in the text or from their background knowledge. In the last level, which is known as the applied understanding, three statements would be shown; the participant would have to discuss point of views extended beyond the limit of the text. He would have to read the statement and determine whether or not the author would agree with such a statement and why (see appendix two for example). The texts were all chosen from Part 2, School Journals published by the MOE with an estimated reading age eight to nine years. All the statements were shown to the participant with unknown words explained. Once again, a BURT assessment and a STAR assessment were tested at end of the term. Each time, a different STAR assessment was used.

**Informal Interview**
The participant was interviewed after implementation of both strategies (bottom-up and top-down) and asked to comment on each approach. The interview was semi-structured, which means the interview consists of open pre-determined questions. This was used to allow the interviewer to explorer each question further in order to obtain detailed information from the interviewee (Britten, 1995). For details, please refer to appendix four.

**Results**

*Pre-test/Post-test*

**Burt word recognition results**

As can be seen in the table below, throughout the three tests, the participant has achieved from below his age to equivalent to his age. His scores improved especially on the Burt test from the first test to the second with an improvement of 27 points. However, the score has remained the same in the third test.

<table>
<thead>
<tr>
<th>BURT</th>
<th>Scored (Total 110)</th>
<th>Interpreted Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>70</td>
<td>11.03-11.09 years old</td>
</tr>
<tr>
<td>Test 2</td>
<td>97</td>
<td>12 years old and above</td>
</tr>
<tr>
<td>Test 3</td>
<td>97</td>
<td>12 years old and above</td>
</tr>
</tbody>
</table>

**STAR results**

In appendix one, as can be seen first and second comparison of the test, it shows that the participant was achieving equivalently well for the word recognition and sentence comprehension. He achieved the highest in reading different genres or styles of writing and achieved the lowest in paragraph comprehension. However, though he achieved higher in vocabulary range than the language of advertising in the first test, the result was the opposite for those two categories in the second test. In the third test, the participant
once again achieved the highest in reading different genres or styles of writing and achieved equivalently well in word recognition. Though he achieved the lowest in paragraph comprehension and vocabulary range, they are not different from other scores.

<table>
<thead>
<tr>
<th>STAR</th>
<th>Scored (Total 80)</th>
<th>Interpreted Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>32</td>
<td>Stanine score 3 (below average 19%)</td>
</tr>
<tr>
<td>Test 2</td>
<td>38</td>
<td>Stanine score 4 (average 54%)</td>
</tr>
<tr>
<td>Test 3</td>
<td>41</td>
<td>Stanine score 4 (average 54%)</td>
</tr>
</tbody>
</table>

*Direct Instruction and Precision Teaching*

The participant met the criteria for acceptable performance (CAP) for most of the new learning knowledge within 3 consecutive lessons. Those new learning involved learning and discriminating between sounds of letters, discriminating between long and short sentences, formation of simple sentences and complex sentences, how to read a long word, the concept of apostrophe, distinguishing between past tense sentences and present tense sentences, and the meaning of personification.

The ten trials data record sheets show that the participant achieved extremely well in learning ‘r’ controlled vowels (100%), and achieved 90 % or better with formation and complexity of sentences, how to read a long word, and the meaning of personification. He achieved 80% or better with sounds of letters and his lowest result was distinguishing between past tense and present tense sentences.
In terms of measurement for reading fluency and speed, the participant reached the CAP, 110 words per minute, with 80% or higher accuracy, in 3 weeks. The follow-up test was done 3 weeks later and he read 101 words in a minute.

**SQ3R with Three Level Guides**

The participant was able to answer most of the questions accurately. Throughout the twelve lessons, he only made five mistakes. He participated in all discussions and had no difficulty in expressing his point of view. There was some new vocabulary for him in the Three Level Guides sheets, after the meaning of the vocabulary was explained to him, he was able to make up his decision and answered the questions sufficiently well.

**Interview**

In the first part of the interview, the participant commented that he enjoyed the ten trial tests and retained the knowledge taught to him. Moreover, he also liked the fluency building in reading. He could see his own improvement by counting himself and enjoyed realising that he can read faster. He also commented that although he could see the value of speed reading, he found it tiring counting the words he read. Also, because he was concentrating on reading fast, he did not pay attention to what he had read. When asked if he would use what was taught in his own reading, the answer was positive. He remembered all the sounds of the letters and was able to apply the approach of decoding a long sentence.

In the second part of the interview, the participant commented that he prefers the first approach more than the second. He found the S (survey) and Q (question) in SQ3Rs unhelpful because he can often predict the story by looking at the title. Moreover, he also found the review unnecessary as he believed that he did not need the second review to
comprehend the text. He described the review part as 'boring and not interesting'. However, he thought that by reading out loud in the first R, he can comprehend more and the second R helped him to understand the text more as well. He also mentioned that he liked the true or false questions in Three Level Guides because those questions made him think and hence remembered the storylines better. The participant also commented that by using this second method, he was unable to work out the meaning of new vocabulary at all times. When asked if he would apply such an approach to his own reading, the answer was 'no' with no further explanations.

When asked to compare the two strategies, the participant said that he prefers the first approach to the second. The reason being that with the first approach, he could see his own improvements.

**Discussion**

The overall results from the two tests, Burt and STAR indicated that both strategies are effective. The participant is improving steadily throughout the two interventions but with a stated preference for DI and PT.

The results in STAR show that the participant achieved the highest in word recognition and reading different genres, and the lowest in reading comprehension. This supports Cummins’ (1994) point that many under-achievers’ problems in English result from a lack of necessary skills in comprehending text. Although he can decode the words successfully, the meaning of the words is still problematic. Word recognition does not necessarily help him in comprehending the text.
In terms of the Burt word reading test, the result indicated that the participant showed an increase in recognising words in the first post-test and maintained the decoding skill overtime. However, there was no improvement when comparing the second and third post-tests, which suggested that the second approach did not increase world-level strategies.

The participant met the criterion for acceptable performance (CAP). Most of the new knowledge was taught by using DI within three consecutive lessons. This implied that the approach makes it relatively easy for him to learn new things. The result of the post test showed that skills learnt are maintained over time.

Though the results indicated that both top-down and bottom-up strategies are effective, the participant favoured the bottom-up approach. This replicated the findings in Parry and Su’s (1998) study that NESB learners prefer this approach. The reason for this could possibly lie in their previous schooling experiences in Asian countries, when a more formalised skills-based pedagogy is prevalent.

The concern raised by O’Sullivan (2003) that bottom-up approaches would lead to a loss of focus on the meaning aspect of reading did not occur in this research. Rather, the participant showed steady improvement in reading comprehension in the post tests. The interview found that the participant responded well to the bottom-up approach. This is because the approach broke the knowledge down into smaller bits and pieces, hence, the participant felt more successful. The top-down approach, however, did result in some improvement, although the score was less in the second post-test (scored 4 more points) compared to the first post-test (scored 6 more points). This indicates that, to improve
students' reading ability, though the approach used is important, methods of engaging students' attention and interest is also important.

Furthermore, the participant commented that by using the SQ3R and Three Level Guides, the vocabulary that was unknown remained unknown to him. Though the vocabulary was expected to be known after reading the text, such expectation did not occur in this study. He was unable to work out the meanings of the vocabulary from the text. He also mentioned that reading the text out aloud helped him in remembering the text better.

Through the interview, an important issue of how much the participant remembered after implementation of the approach was also raised. The participant commented that repetition made what he had learned more memorable. This also influenced his comprehension. By comparison, the participant favoured SQ3R and Three Level Guides approaches less. This reflects Huber's (2004) point that such an approach has a low frequency of student use when reading independently. Hence, both the result and interview indicated that DI and PT had a better outcome than SQ3R and Three Level Guides for this NESB learner.

One limitation of this research is the number of participants. The result is unable to be generalised to all NESB learners. Also the result of this study might not reflect the true effect of the strategies as the participant was also receiving the normal class instruction in literacy at the same time. Another limitation is the selection of the SQ3R and Three Level Guides approaches to teach comprehension. The lack of research surrounding these approaches particularly for NESB students may have influenced the result. Likewise such methods are only one of many strategies for literacy instruction from top-down
theoretical perspective. Further research should try to implement the strategies in real classroom settings with larger population of NESB students.

**Conclusion**

This study looked at the application of a skills-based (bottom-up teaching) approach versus comprehension using text as the vehicle (top-down) approach. This was implemented by comparing the learning performance of a NESB student using Direct Instruction (DI) and Precision Teaching (PT) for bottom-up teaching approach, while exercising SQ3R and Three Level Guides for the top-down teaching approach.

For the top-down approach it was found that it did not help in word reading and that vocabulary that was unknown by the research participant remained unknown to him after employing the top-down methods. When using the bottom-up approach it was found that the participant was favourable to the methods employed by this approach and there was no loss in a focus on meaning during the reading, similar to the findings of O’Sullivan (2003).

Overall, it was apparent that the participant had gained much from using a skill-based (bottom-up) approach over a meaning emphasis (top-down) approach. This suggests that bottom-up approach, similar to Nagao (2002), may be the approach for teaching some NESB students with poor reading ability. Given the small sample size, future studies should include more participants and implementation of research in classrooms. In recent years, the MOE (2003) have documented the need for skills-based learning within authentic and rich texts for all learners. Yet, for NESB learners with no background knowledge of the content subject, and lack of English language ability, they may learn to read more effectively by recognising the sound and symbol relationship of the letters in
texts before an emphasis is placed on the comprehension of them. As Harris, Turbill, Fitzsimmons and McKenzie stated that (2001: 25):

_The range of strategies used by effective readers is made possible because of three sources of knowledge or information: the reader's background knowledge about the content of the subject, his or her knowledge of language itself as well as the reader's ability to work out the sounds/symbol relationships of the letters in the text._
References


### Appendix 1

#### STAR Reading Test

<table>
<thead>
<tr>
<th>Categories (points per categories)</th>
<th>Test 1</th>
<th>Test 2</th>
<th>Test 3</th>
</tr>
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#### The Burt Word Reading Test (Words)

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<td>Fatigue</td>
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<td>Poignancy</td>
<td>Phthisis</td>
<td>Ingratiating</td>
<td>Subtlety</td>
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Appendix 2

Three Level Guides
Title: Smoke By: Kelly Haitana
School Journal: Part 2, No. 3, 1994

Level One: Tick the box if the sentence is true; cross it if the sentence is wrong.
1. □ Pene grabbed the girl because she wants company.
2. □ The chimney is not working.
3. □ Dad found the cigarette butts.
4. □ Mum found the pack of smoke behind the wood.
5. □ Pene wants to be like Jackie.

Level Two: Tick the box if the sentence is true; cross it if the sentence is wrong.
1. □ To be neat is to be cool.
2. □ Smoking is not permitted in the family.
3. □ The girl is very selfish.
4. □ Smoking does us no good.
5. □ Pene is ashamed of what she did.

Level Three: Tick the sentences that you think the author would agree with it and be prepared to define your answer.
1. □ Chimney should have regular cleans.
2. □ Peers influence us very much.
3. □ We should do what others do.
## Appendix 3

### Direct Instruction and Precision Teaching

<table>
<thead>
<tr>
<th>Skill</th>
<th>Level (new learning / fluency building)</th>
<th>Criterion for Acceptable Performance (CAP)</th>
<th>Average accuracy</th>
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<td>Discriminate sounds of 'qu'</td>
<td>New learning</td>
<td>3 lessons</td>
<td>83%</td>
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<tr>
<td>Concept of apostrophe</td>
<td>New Learning</td>
<td>3 lessons</td>
<td>87%</td>
</tr>
<tr>
<td>S sounds letters</td>
<td>New learning</td>
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<td>87%</td>
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<tr>
<td>R-controlled vowels</td>
<td>New Learning</td>
<td>3 lessons</td>
<td>100%</td>
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<tr>
<td>Summarise a long sentence into a short sentence</td>
<td>New Learning</td>
<td>3 lessons</td>
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<tr>
<td>Understand complex sentence (who/which/what/that sentences)</td>
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<td>3 lessons</td>
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<td>Sounds of words in the form of -a,e, -i,e, -o,e, -u,e eg, kite</td>
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<tr>
<td>Discriminating between long/short sentences</td>
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<td>Meaning of personification</td>
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<td>Distinguish between past tense / present tense sentences</td>
<td>New Learning</td>
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<td>Reading a long word</td>
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<td>Read a text out loud</td>
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<td>Fluency building</td>
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<td>R-controlled vowels</td>
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<td>Formation of a simple sentence</td>
<td>Fluency Building</td>
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### Three Level Guides

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<th>Level 3 (total 3 points)</th>
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Interview

Question: What do you like about the first approach?
Answer: I like that you ask me things (what do you mean by that?) The ten times one. And I like to do the reading. (what kind of reading?) The on that you have to read fast. (why?) Because I think I've improved.

Question: What do you not like about the first approach?
Answer: I don't like remembering too much at a time because I'll forget. I like to do the apostrophe activity (why?) because I can do it. It is easy.

Question: What do you think are the advantages in using this approach?
Answer: I think I've been better... I'm getting better. (How do you know that you are getting better?) Because I can read faster.

Question: Do you think this approach helps you to understand the story better?
Answer: I think SQ3R is better. When I read fast, I only want to read fast. I don't really read the story.

Question: What are the disadvantages with this approach?
Answer: Sometimes... like we have to do it everyday. Very tired, hard to count it (do you mean count the words you read?) yes. I always do this very late.

Question: Did you apply what we have learned in your reading?
Answer: Yes. Like... when I see 'ur', I know it is the sound of 'r'. (how about reading difficult part of the text?) Hmm.... When I read that, I read and... like... put them into short sentence like we did in the practice.

Question: What do you like about second approach? What do you think are good for you in this approach?
Answer: I like the first R. (why?) I think it is good and important.

Question: What is it that you don't like about the second approach and why?
Answer: I don't like the review. I think review is not really need because I don't really need to review. It is boring and not interesting.
Question: What do you think are the advantages and disadvantages in using the second approach?
Answer: I like the true or false questions because they made me more remember about the story. The first S and Q are not good because I can know what is the story about. Sometimes I don’t know the words and I just don’t know. (Do you think you can work out the meaning from the text?) Sometimes I can, but sometimes I can’t.

Question: Do you think this method is helping you?
Answer: I think the recite help because I can understand more. (what do you mean by more? More of what?) More of the story… remember the story better.

Question: Will you use this in your own reading?
Answer: No. I don’t think so. (why not?) hmm… hmm… I don’t know…

Question: So which approach do you like better?
Answer: Hmm… umm…. I think the first one. (why?) Because I can remember better, like… I will not forget, because I did lots and lots of times.

Question: Which one do you think you’ve got the most out of? Which one have you learned more from?
Answer: Maybe the first one as well. (why?) I think… like when I’m doing SQ3R, its like… I think I only learned… more understand the story, but in the first approach I can learn how to speak the words and read faster. I can see more of my improvement in the first one than the second one. I think the words are important. Like, if I can read more words, I can read more books myself.