Teachers' perceptions on the Explicit Teaching of Reading Comprehension to Learners with dyslexia: The Importance of Teacher Training in Ensuring Quality Delivery and Instruction

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Abstract

In response to ensuring that the reading comprehension curriculum continues to support students with varying learning needs, profiles and age groups, including secondary students, an enhanced reading comprehension curriculum was introduced and subsequently evaluated in a qualitative and quantitative study. In this paper, the philosophy and methodology of the curriculum is outlined. The authors highlight the explicit and concrete teaching techniques of some essential reading skills and textual features such as cohesive devices and vocabulary, to help students understand texts with greater depth and clarity. A key feature in the success of any new or enhanced curriculum is the perceived competence of teachers' capacity to deliver it effectively. The teacher training provided to equip the teachers with the necessary skills and knowledge to deliver the enhanced reading comprehension curriculum will also be addressed. The following research questions are addressed: (1) investigating the effectiveness of the enhanced reading comprehension curriculum through teacher perceptions, (2) investigating the confidence of teachers in their delivery of the enhanced reading comprehension curriculum. The results yielded positive feedback and satisfaction with the enhanced reading comprehension curriculum and its potential in supporting learners with dyslexia although there is a need for further and ongoing training to ensure that teachers are comfortable and confident in delivering the more advanced reading comprehension skills.

Keywords: Explicit reading instruction, annotation, cohesive devices, referring expressions; conjunctions; motivation, vocabulary, metacognition, teacher training

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INTRODUCTION – THE NEED

The decision to develop and implement the enhanced reading comprehension curriculum was driven by the changing needs, profiles and demands of students on the Main Literacy Programme (MLP) at Dyslexia Association of Singapore. The increase in the number of secondary students coupled with the need to keep abreast with the mainstream curriculum were instrumental in the efforts made to enhance the reading comprehension curriculum. The enhanced curriculum includes not only the skills and concepts essential in supporting students with varying profiles and age groups (primary and secondary), it also includes techniques and methods to teach reading comprehension in a structured and explicit way that benefits students with dyslexia.

Following a review of the literature, this article draws special attention to the importance of critical textual details such as vocabulary and conjunctive expressions and annotation techniques as well as building the motivation to employ these techniques, all of which are paramount in helping students improve their reading comprehension skills. Finally, the significance of teacher knowledge and the capacity to provide effective and appropriate instructions through teacher training will be discussed in this article.

As a consequence of the growing number of students from the secondary levels needing support at the DAS as compared to previous years (where the demographic of students largely comprised students from the primary levels), the DAS's ELL prides itself on ensuring that the curriculum is continually enhanced to better cater to the growing needs of the students as they move on to secondary school and beyond and more importantly, keeping abreast with the changes and demands observed in mainstream schools.

In order to better support our students, DAS needed to develop a more explicit and concrete approach to teaching reading skills to help scaffold and guide the students to acquire not only the relevant and necessary reading comprehension skills, but also to empower them to apply the skills acquired to tackle reading comprehension questions with confidence.

The reading comprehension curriculum was thus enhanced to better tailor it to the learning needs of students with differing profiles and abilities, where the emphasis is on the linguistic skills required for them to cope with the growing demands of reading comprehension tasks and assessment formats in school, as prescribed in the English language syllabus for primary and secondary, the Ministry of Education (MOE, 2010). The enhanced curriculum also focuses on questioning interpretation skills, where learners are taught to interpret the various question patterns and their demands in terms of target skills to help them to answer questions correctly and appropriately.

REVIEW OF LITERATURE

Dyslexia

Rose (2009) defined dyslexia as "a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling". Dyslexia is not related to a person's intelligence. "Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and processing speed" (Rose, 2009). The Dyslexia Association of Singapore (DAS, 2017) identified signs and symptoms of dyslexia which include a number of issues that impact reading comprehension. These include effortful reading, difficulty in understanding text passages, difficulty in extracting important points and poor memory for sequences and unfamiliar facts.

Rose (2009) also reported that "tailoring teaching and learning to the needs of the individual is being promoted to schools as a critical driver in helping pupils make the best possible progress, and achieve the best possible outcomes". DAS (2017) also highlighted that a literacy programme that is appropriate for learners with dyslexia should include components like phonemic awareness, phonics, fluency, vocabulary, reading comprehension and writing; where these components are also highly recommended in an effective literacy intervention and supported by evidence-based research and practice that includes the National Reading Panel (NRP), the Rose Report and the Professional Practice Guidelines (PPG) (NRP, 2000; Rose, 2009; PPG, 2011).

Dyslexia and Reading Comprehension

Reading comprehension is defined as the "process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (Snow, 2002). Apart from experiencing difficulty in reading, spelling and writing, learners with dyslexia also struggle significantly with comprehending texts that involve higher-order thinking processes which are critical to helping them make meaningful connections. Thus, a systematic and structured teaching approach through the employment of annotation was put in place to teach reading comprehension to students on the Main Literacy Programme (MLP) at the Dyslexia Association of Singapore (DAS), to ensure that they are well guided and supported to cope with the exacting demands of reading comprehension.

Reading Comprehension has traditionally been defined as a process of constructing meaning from written text based on a complex coordination of a number of interrelated sources of information (Anderson, Hiebert, Scott, & Wilkinson, 1985) to enable learners to effectively draw inferences, derive meanings from texts and answer comprehension questions. Therefore, it is arguably one of the most important academic skills taught in school and the expectations and requirements for reading comprehension increase significantly as learners progress through school (Deshler, Ellis, & Lenz, 1996). Reading

comprehension is a complex task that involves various cognitive processes and reading skills. The difficulties learners with dyslexia face are further compounded as a result of their deficiencies which include (but are not limited to) difficulties in the following areas: processing information, interpreting and understanding texts and making inferences about the information presented.

Over the years, several different views of the nature of learning differences have influenced research and practice (Wixson & Lipson, 1991). One of them highlights how the current view of inefficiency rather than deficiency most accurately characterises the difficulties and struggles faced by learners with learning differences such as dyslexia. In other words, while students with learning differences possess the necessary cognitive tools to effectively process texts and information, for some reason, they do so inefficiently. These inefficiencies, breakdowns and learning gaps could be attributed to their inability to process information strategically as well as manage their cognitive activities in a meaningful and reflective manner.

While most researchers have tended to focus heavily on building learners' metacognitive awareness and skills in reading comprehension, other theorists such as Kollingian and Sternberg (1987) have argued that too little focus and attention have been placed on factors that are equally as important in improving comprehension. Some of these factors include (a) knowledge of text structure and language features (b) vocabulary knowledge (c) the appropriate use of world knowledge to aid understanding (d) the importance of active reading and task persistence, (e) the role of fluent reading in comprehension.

Vocabulary Knowledge and Reading Comprehension

Learners with dyslexia also struggle immensely with the vocabulary aspect of comprehension. Reading comprehension requires the learners to have not only good world knowledge on the topic at hand but also familiarity and exposure to the technical vocabulary present in texts (Anderson & Pearson, 1984; Bos & Anders, 1990). Learners with dyslexia tend to bring less of this knowledge to the reading task as compared to those who are proficient readers thus, their comprehension suffers significantly. The relationship between reading comprehension and vocabulary knowledge is strong and unequivocal (Baumann & Kameenui, 1991; Paul & O'Rourke, 1988; Stanovich, 1986). Vocabulary knowledge contributes significantly to reading comprehension (Stanovich, 1986) and grows through reading experience (Cunningham & Stanovich, 1998). In other words, without good vocabulary knowledge, reading comprehension will be severely impaired. This relationship holds true for all readers. The importance of vocabulary knowledge is further supported by the National Reading Panel (2000) which states that comprehension being a highly cognitively demanding task will be impacted by weak vocabulary knowledge consequently impairing the reader's capacity to achieve meaningful understanding of text.

The Role and Function of Cohesive Devices in Reading Comprehension

Cohesion is the linking of elements within the text at the semantics, syntactic and discourse structure levels. According to Halliday & Hassan (1976), cohesion plays a critical role in language use and communication. This highlights the significance of cohesion to both readers in constructing meanings from texts and to writers in creating texts that can be easily understood. Consequently, the presence of cohesive devices in texts which include conjunctions and referring expressions contributes to textual cohesion where the writers' thoughts are related to each other through a series of cohesive ties, ensuring that texts do not appear disjointed and disconnected.

Furthermore, studies of reading comprehension have also suggested that the presence of cohesive devices provide focal points for readers to understand the texts they read better (e.g., Garrod & Sanford, 1977; Kintsch, 1974; Lesgold, 1972; 1973; 1974). Thus, cohesive devices enhance the quality of a writers' writing by increasing the clarity, appropriateness and comprehensibility of texts (Halliday, 1985; Halliday & Hasan, 1976).

Reading Comprehension and Motivation

Motivation affects performance in all academic areas and is related to how learners develop a sense of failure and frustration whenever they perceive tasks to be demanding and challenging for them. This is even more important for learners with learning differences. When they encounter repeated setbacks on a particular task, they start to feel demoralised and as a result, their motivation to continue working on that task decreases. More importantly if such behaviour persists, learning in general will be impacted. As reading comprehension is acknowledged to be one of the most complex among the language skills, it is without doubt that the acquisition of reading strategies and comprehension skills require learners to put in a great deal of effort while maintaining their motivation (Stipek, 2002).

Highlighted in a large observational study by McKinney, Osborne and Schulte (1993), one characteristic of learners with learning differences that hinder reading comprehension is their limited task persistence. Research has also provided evidence that if learners are engaged and motivated during the reading process, they process information more deeply and therefore they are able to achieve better comprehension. Moreover, when learners read with purposeful intent and greater understanding, they increase in reading comprehension proficiency (Guthrie, Wigfield, Metsala, & Cox, 1999). More recently, Guthrie and colleagues have produced a model of the impact of motivation on secondary school students, the Concept-Orientated Reading Instruction framework (CORI) that has consistently demonstrated positive results in terms of on task-behaviour and success in comparison with traditional intervention. (Guthrie and Klauda, 2014).

In conclusion, a summary of traditional and current thinking on teaching reading comprehension to students with dyslexia has highlighted the need for a more explicit and concrete teaching of skills at the secondary level to empower students' capacity to process texts in a more effective manner by paying more attention to grammatical features such as cohesive devices to approximate the meaning of unknown vocabulary and consequently, arrive at a deeper level of understanding the reading comprehension text. Their growing success at decoding texts with these explicit techniques will increase their motivation to continue using these techniques to handle their reading tasks.

This approach is designed to enhance the existing Main Literacy programme, which provides individualised group lessons taught in accordance to the Orton-Gillingham (OG) principles (Ritchey & Goeke, 2006; Rose & Zirkel, 2007), as well as the previous MLP reading comprehension curriculum. This focused mainly on general skills based on Bloom's Taxonomy (Bloom, 1956): higher order thinking skills (i.e. inferential and evaluative) and lower order skills (i.e. literal). The teaching was broken down into three stages especially for beginning readers from Grades K-6 to scaffold and guide the learners:

1. Pre-reading: making connections with the texts through the activation of prior knowledge and schema

2. During reading: deriving meaning through questioning techniques as well as exposure to vocabulary

3. Post reading: application and the transference of skills learnt to answer reading comprehension questions

METHODOLOGY

a) Enhanced MLP Reading Comprehension Curriculum

In developing the enhanced reading comprehension curriculum, the researchers have combined a variety of approaches drawn from a body of research and materials, encompassing well-established traditional methods to more recent innovations that highlight the importance of metacognition, vocabulary and motivation. The enhanced reading comprehension curriculum includes a combination of the questions types and target skills devised by Benjamin (2002; 2003; 2015) in conjunction with the required skills derived from the mainstream syllabus (MOE, 2010).

The elements of the enhanced reading comprehension curriculum are outlined in Table 1 below, and illustrated in Tables 2 to 7.

Table 1. Elements of the MLP Enhanced Reading Comprehension Curriculum
(Adapted from Benjamin, 2003)

QUESTION TYPES	TARGET SKILLS
Content	♦ Target skill: EXTRACT ♦ Extraction of EXPLICITLY stated information in the text/passage [Answers can be found in the text/passage]
Inferential	♦ Target skill: INFER ♦ Answers are not found in text, only implied and thus, need to be inferred
Vocabulary	♦ Target skill: REPHRASE ♦ Answers need to be rephrased in one's own words
Content-inferential	♦ Target skill: EXTRACT and INFER ♦ Answers will be based on extracted details from which further inferences are drawn
Vocabulary-inferential	♦ Target skill: REPHRASE and INFER ♦ Answers will be based on inferring nuances of the meaning of a quoted word in specific contexts.
Content-vocabulary	♦ Target skill: EXTRACT AND REPHRASE ♦ Extraction of required information/specific detail(s) from the text and then rephrase in one's own words

The table above shows some of the types of questions and the corresponding target skills that are included in the enhanced reading comprehension curriculum and teaching materials.

Skills that are taught and delivered according to the PPP (Presentation, Practice, Production) stages (Criado, 2013) to:

♦   facilitate the pre-activity discussions through modelling
♦   scaffold and guide students in a structured, cumulative and sequential manner to enhance learning
♦   provide opportunities for students to be independent in applying the concepts/skills learnt

PPP begins with the Presentation stage where the teacher highly controls the teaching and learning process (Criado, 2013). Following that, the practice stage is where the teacher continues to provide support and guidance to the students while creating some opportunities for them to apply what they have learnt. The third and final stage is the Production stage where the students would have attained mastery of the skills and concepts acquired and should be able to apply them independently across different domains. Not only is the PPP approach a systematic way of teaching students, it also takes the students from the dependent and guided learning stages to the independent stage. Getting the learners to do independent tasks at the production stage allows the teachers to diagnose and assess if their learners have firmly understood the concepts and skills taught. Students who continue to have difficulties will require over-learning hence the teachers would need to review what had been taught previously by going through the PPP stages again.

The PPP stages are used not only for Reading/Listening Comprehension but also in scaffolding and guiding our students in other literacy components such as Writing. In between each PPP stage, there can be various levels of scaffolding and some parts of PPP can be recursive to ensure greater automaticity and confidence before moving on to the next stage. For example, students in between the Presentation and Practice stages can be shown a good deal of teacher modelling followed by the teacher asking a few questions to elicit responses or to reaffirm answers. When students demonstrate greater levels of confidence, competence and automaticity in what they've been taught, the teacher can then undertake the practice activity with the students during Practice. During this stage, more scaffolding may be required to guide the students. If needed, the teacher may need to present the whole concept again. When the students have attained mastery of concepts, they will be asked to carry out the assigned tasks independently.

Reading Comprehension and Annotation

Research findings have supported the importance of careful modelling, scaffolding and active text-annotation to improve comprehension (Fowler & Barker, 1974). This is especially so for students with learning differences to better encourage active participation as well as promote greater maintenance and transference of skills and strategies. Annotation, a writing-to-learn strategy for use while reading or rereading, is highly encouraged to help readers develop a greater and deeper engagement with the text and in turn, promote active reading. Explicit and direct instruction ensures structure, clarity, careful task sequencing and guidance- all of these are essential in supporting students with dyslexia.

Most proficient readers are able to make use of their intuitive knowledge of linguistic structure to help them make sense of the text they read and thus, are able to understand and interpret the writer's intent and his approach to conveying his thoughts and ideas effectively. However, less proficient readers may not possess this intuitive knowledge and

therefore, need to be trained with a more concrete and explicit technique of interpreting texts such as annotation to help them understand the contents of the text. Annotating a text helps readers pay attention to both grammatical features and vocabulary that are crucial in helping them connect related ideas and interpret more accurately what they are reading.

While annotation as a reading technique is not new to the field of reading comprehension, teacher knowledge and usage of the technique can vary greatly leaning mostly towards a teacher-led approach of explaining meanings instead of demonstrating how textual details especially grammatical features can help to explicate meanings in text including working around unknown vocabulary. Hence the capacity to help learners see the efficacy of annotation technique in bridging the gaps in their understanding of text may not always be successful. As a result, while most students are aware of annotation as a reading technique, they may not be motivated to employ it because they do not understand how to execute the technique independently. Therefore, when teaching reading comprehension to students on MLP, cohesive devices and vocabulary are two main areas of emphasis that teachers will focus on as they guide and scaffold the lessons to help them to interpret texts meaningfully and successfully.

Cohesive Devices

Table 2. Textual Features at word level- Cohesive Devices (Referring Expressions)
          (Halliday & Hasan, 1976)

TEXTUAL FEATURES	DEFINITIONS/EXAMPLES
Referring Expressions Referring expressions are pronouns or articles that are used to refer to participants in a text categorised in terms of where the referent can be found or the complexity of referent.	
Anaphoric Referring Expressions	The referent of the referring expression can be traced backwards in the text to find the interpretation. E.g. <u>Blood</u> is the main fluid in the body. **It** (= blood) has many functions and thus, no part of the body can survive without it.
Cataphoric Referring Expressions	The referent can be traced forwards in the text to find the interpretation. E.g. In the distance, **they** (= the clouds) looked like huge cotton balls heaped up in a picturesque yet disorderly way; little by little <u>the clouds</u> swelled up and the rain started pouring down from the sky soon after.

Table 2.1. Textual Features at word level- Cohesive Devices (Referring Expressions-
Extended Text Referent) (Benjamin, 2015)

Extended Text Referent	The referent is found by going backwards in the text but involves the interpretation of an entire clause. E.g. Imagine if you will, what it is like to <u>dive into cold black waters</u>, not knowing where or when you will again see the light of day. A cave diver did just **that** (= dive into cold black waters) and found some of the oldest sculptures ever made by man.

Table 3. Textual Features at word level- Cohesive Devices (Conjunctions)
(Halliday & Hasan, 1976)

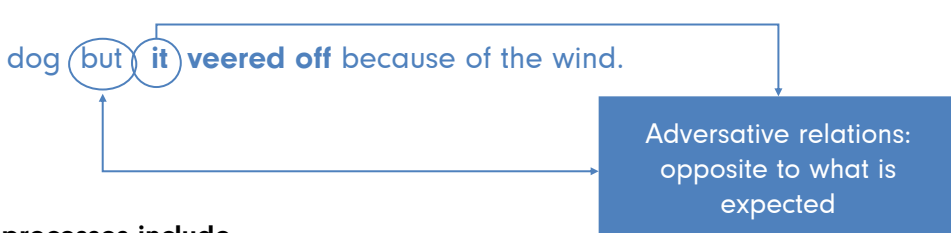| TEXTUAL FEATURES	DEFINITIONS/EXAMPLES
Conjunctions Conjunctions are linking words that show the relationship between clauses that may either be additive, adversative, causative or temporal.	
Additive - signals addition, introduction, similarity to other ideas	<u>Besides</u> being good at cooking and sports, Jane is also a professional pianist.
Causative - signals cause/effect and reason/result/ purpose	It was announced recently that the working hours for nurses would increase by ten percent. <u>Consequently</u>, we can expect even fewer candidates applying to join the profession.
Adversative - signals contrast, conflict, contradiction	I can provide you with some simple directions on how to get to the conference venue <u>but</u> you will have to find your way there yourself.
Temporal - signals chronological or logical sequence	The tired girl slept soundly <u>until</u> her alarm clock went off.

Having the knowledge of cohesive devices such as referring expressions and conjunctions helps students develop text-processing skills required to comprehend texts in general and not just for a particular text or genre. Additionally, referring expressions and conjunctions have been proven to be critical textual targets in the text-processing efforts required for working out answers to comprehension questions (Benjamin, 2002). Consequently it is important for students to pay attention to such cohesive devices in their annotations of texts. For instance, in trying to work out the answers to the comprehension questions, students need to be able to trace the referents to track the flow of events and ideas as well as interpret the conjunctions to understand and note how certain ideas are related to one another in order to interpret the text meaningfully.

The example below demonstrates how students can be guided explicitly to decipher the meaning of 'veered of' by paying attention to the presence of cohesive devices.

Table 4. An example of guided and explicit steps to decipher unfamiliar vocabulary words

E.g. "Watch out!" shouted a teenager who had thrown a frisbee towards his

dog (but)(it) **veered off** because of the wind.

Adversative relations: opposite to what is expected

Thought processes include:

Ask what 'it' refers to?

The referent 'it' refers to the frisbee.

What is the function of the conjunction 'but'?

'But' is used to refer to something that is opposite from what is expected.

Thus, although the frisbee was originally thrown in the dog's direction, the conjunction 'but' shows that it (frisbee) went in another direction instead. The other textual clue 'because of the wind' further confirms the change in direction of the frisbee. Therefore '**veered**' means to go in another direction from where it originally intended to go.

Vocabulary Knowledge

Vocabulary, according to Richards (1985) involves knowing a word syntactically, semantically and pragmatically and can therefore be understood at three levels:

1. Syntactically- what word forms does a word hold in sentences? Is it a noun, verb, adjective or adverb?
2. Semantics- what does a word mean?
3. Pragmatics- how to use a word appropriately in the correct context

1. Syntactically- what word form does a word hold in sentences? Is it a noun, verb, adjective or adverb?

Table 5. Nonsense Comprehension Text to illustrate the importance of syntax

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EXAMPLE:

Two days ago, I saw a grandish chester pollining begrunt the gruck. He seemed very thunderbil, so I did not norter him, just feepled towards him quistly. Hopefully, he will be more desand pander later so that I will be able to rangel to him.

What was the chester doing, and where?

He was pollining begrunt the gruck.

What sort of a chester was he?

He was a grandish chester.

Why did the writer decide not to norter him?

He seemed very thunderbil.

How did the writer feeple towards the chester?

The writer feepled quistly towards the chester.

Adapted from Cambridge University Press, 1996

The text above, though short and simple, demonstrates the importance of word forms. In spite of the incomprehensibility of the text, the questions are still answerable. While the vocabulary items are unrecognisable, one can still figure out the word forms and answer the questions easily without understanding the meaning of each of the words Thus, if a reader were to recognise the grammatical patterns, he/she would be able to answer the questions rather accurately.

2.   Semantics- what does a word mean?

The meaning of a word is determined by the context of the sentence in which it occupies. For unfamiliar words, readers would need to use the grammar and cohesive links within the text to guesstimate the meaning. The lexical cohesive links within the text can support interpretation as demonstrated below.

Lexical Cohesion

Lexical cohesion refers to the synonymous and antonymous links between words in the text.

Synonyms

E.g.1

There is always a certain amount of danger to diving in strange waters.

It is hazardous to explore the dark and winding passages of an unknown cave on foot.

Antonyms

E.g.2

While many desert snakes are harmless, the sidewinder is deadly.

Pale in colour and up to about 1 m long, this rattlesnake has a short, dark

If a student is not able to decipher the meaning of the word 'deadly', the presence of textual clues such as words with similar and/or opposite meanings to the unknown words might help that student work out and therefore, be able to make informed deductions. In example 2: the presence of the conjunction provides an important clue because 'while' is used to compare things, situations or people as well as to show how different they are. Therefore, if a desert snake is harmless, then the sidewinder is 'harmful'- the opposite of harmless.

Connotations

Words can have both denotative and connotative meanings, that is, holding literal (denotative) as well as connotative meanings depending on the context of the sentences that the words are located in. Connotations can be described as having positive or negative implications while denotations are neutral. Connotation is suggestive and it is dependent on various social overtones, cultural implications or emotional influences. Connotations can be reflected either contextually or by word choice as demonstrated below.

Contextual Connotation:

The word 'snake' can have denotative and connotative meanings depending on the context of the sentence. E.g.

> She saw a **snake** slithering up the tree. (reptile) denotation
> He was such a **snake.** (evil) negative connotation

Connotative Word choice

The denotative meaning of home is 'a place where person resides' while the connotative meaning of home could mean 'a place of comfort and security'. E.g.

> 'Our home is not just a house.'

Knowing the different connotations would enable readers to accurately interpret the writer's intent and attitude and his whole approach to conveying his thoughts and ideas.

Table 6. Examples of words with different connotations

WORDS	NEGATIVE	NEUTRAL	POSITIVE
Nosy / curious / inquisitive	nosy	curious	intrigued
Mob / gathering / crowd	mob	crowd	gathering
Young / childish / child-like	childish	young	child-like

Table 6 consists of words with the same behaviour and/or phenomena but with different connotations. For example, the word 'stubborn' has a negative connotation while the word 'tenacious' has a positive connotation although both words represent the same behaviour.
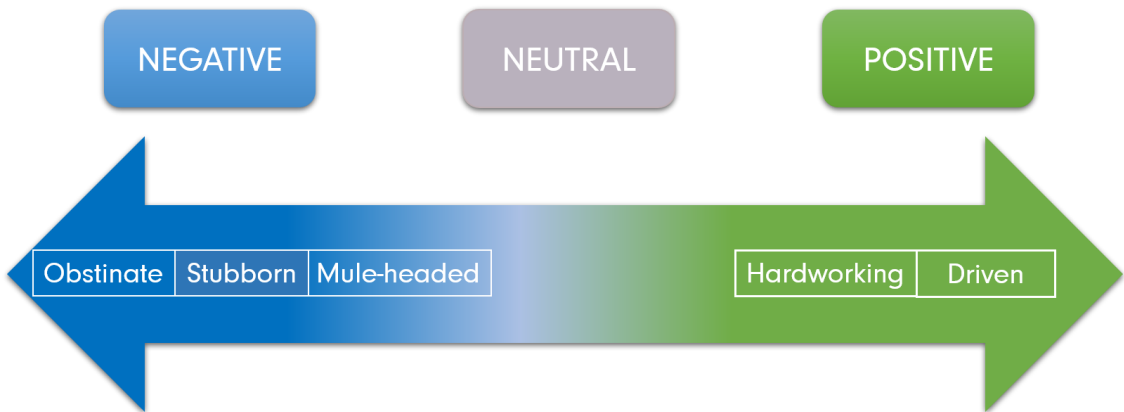
Figure 1. Words with positive or negative connotations with varying intensity

Additionally, there are also some words with only negative or positive connotations although they still differ in terms of intensity and magnitude. For example in Figure 1, the word 'driven' has a much higher intensity (positive) than the word 'hardworking'.

Thus, through the teaching of related words on a gradient, the hope is for the students to be able to capture the nuances between words and thereby increase their precision when it comes to answering the comprehension questions.

3.   Pragmatics- how to use a word appropriately in the correct context

Table 7. Examples of words with multiple meanings

POLYSEMOUS WORDS

Words that have the same spelling and pronunciation but with multiple meanings.

Meat is **rich** (= abundant; full of) in protein.

The farmers were delighted that they were able to reap a **rich** (= great worth or value) harvest of crops this year.

The **rich** (= wealthy) businessman bought a mansion close to a million dollars to surprise his only one and beloved daughter.

The **rich** (= vivid and deep in colour) red hue of the queen's gown was mesmerising.

The ability to understand texts is dependent not only on the reader's background knowledge regarding the topic at hand but also his/her familiarity with terminologies and vocabulary used in the given context. Therefore, in order for students to fully comprehend any text, they will need to be aware of textual details such as critical vocabulary and cohesive devices such as conjunctive and referring expressions that must be interpreted accurately in order to better comprehend texts.

In conclusion, the enhanced reading curriculum was derived from a body of literature on good practices as well as techniques devised and evaluated in a rigorous yet flexible approach. The enhanced curriculum was driven largely by knowledge as well as the importance of developing students' text processing skills through the employment of explicit techniques to increase motivation in handling reading tasks as ascertained from the work of Guthrie and colleagues (Stipek, 2002; Guthrie et al.,1999 ; Guthrie and Klauda, 2014).

b) Effectiveness of the enhance programme and perceived efficacy of the teachers

The enhanced reading comprehension curriculum was rolled out in Term 4 of 2016. With any enhancements made to the curriculum comes the necessity to train and provide in-house support to teachers to ensure that they not only acquire the content knowledge and skills, but also the confidence and competence to plan and deliver lessons that are relevant, meaningful and beneficial to the students.

In designing the training content, a number of factors were considered that related to teacher training based on both good practice in the literature and previous training sessions delivered at DAS. In a study comparing the effectiveness of two approaches to teacher training, the cognitive apprenticeship model and the direct instruction model, in comparison with no specific training for teachers, significant advantages were found for both approaches (de Jager et al., 2002). The key issues identified included changing the mindsets and practice of experienced teachers, the need for ongoing support and training, and the importance of using videos to review what was covered during training. The results indicated that metacognitive strategy used was the major difference for teachers who had completed the training in contrast to teachers who had no specific training.

Drawing on these principles for effective training outlined above, three mass training sessions were organised and conducted for all MLP teachers, emphasising the key essential reading comprehension skills that are aligned to the mainstream syllabus. The process of teaching and scaffolding those skills using explicit and concrete explanation and techniques were also highlighted to help teachers guide their students towards independence and success. Further, the sessions were also video-recorded and shared with the teachers to allow them to review and watch the videos at their convenience.

The reading comprehension resource materials designed were also presented in a structured, sequential and cumulative manner to facilitate the teaching of reading comprehension. The materials developed not only emphasise the use of relevant and localised content with appropriate teaching principles, the topics of interest as well as the levels of difficulty within each band were also duly considered.

Ongoing support by the Curriculum Team was provided to the teachers through platforms such as focus group sessions and consultations. Moreover, on the ground support led by a team of Educational Advisors was also made available to the teachers should they have encounted any challenges implementing and/or delivering the curriculum.

In addition to organising and conducting the mass training sessions, focus group sessions were also held for all teachers from the different clusters. The intent of the focus group was not only to provide an avenue for teachers to share their feedback and suggestions in small group settings for more targeted interactions and discussions but also to take the opportunity to review and address any gaps highlighted by them. Thus, in order to ensure that the focus group sessions benefitted the teachers and targeted their areas of needs, they were asked to complete a pre-focus group survey prior to attending the sessions.

METHODOLOGY

Participants

Out of the 120 teachers who attended the training, 80 of them participated by completing all required fields in the surveys administered before and after the training sessions. They provided data on their perceptions of the effectiveness of the enhanced reading comprehension curriculum as well as the approach taken to teach reading comprehension in an explicit and concrete way. The teachers had received ongoing training at the DAS for the Main Literacy Programme (MLP) including the previous reading comprehension curriculum. Additionally, most of them have had several years of experience teaching and supporting students with dyslexia. The surveys included information and data derived from using both the Likert scale as well as open-ended questions.

In addition, the teachers who participated represented the different clusters and have supported students of varying needs and profiles. Lastly, the skills targeted in the enhanced curriculum were classified into three broad categories: basic, intermediate and advanced in order to provide information on the skills the teachers required more support in.

Materials

The Survey Forms can be found in Appendix 1.

RESULTS

The results for some of the survey questions have been highlighted and presented in the following graphs based on two broad classifications:

♦   Teachers' perceptions and sentiments towards the enhancements made to the reading comprehension curriculum
♦   Areas of gaps highlighted by the teachers

Apart from getting the teachers to rate their responses on a Likert scale of 1-5, (with 1 being strongly disagree and 5 being strongly agree), some of the questions also required them to state their reasons in order to provide a qualitative understanding of their responses.

Teachers' perceptions and sentiments toward the enhanced Reading Comprehension Curriculum

After having implemented the enhanced reading comprehension curriculum, it was pertinent to gather feedback on whether the enhanced curriculum:

♦   includes skills that are relevant to the students' varying profiles and learning needs, and

♦   provides more support to students in reading comprehension

In Figure 2, based on a total of 80 respondents, 63% of teachers (summing up those who agreed and strongly agreed) felt that the reading comprehension skills in the enhanced curriculum are relevant to the learning needs and profiles of students in their classes. In other words, the enhanced curriculum as well as the materials developed support their students in reading comprehension regardless of their literacy proficiency and needs.

Even though the enhanced reading comprehension curriculum had only been implemented for less than a year at the time of the survey, the Curriculum Team wanted to obtain some preliminary results on whether or not the teachers thought their students had improved in their reading comprehension ability. From Figure 3, it is heartening to know that none of the teachers reported 'no improvements'. On the contrary, 21.3 % of the teachers reported positive results while the majority (78.8%) reported that their students have shown some improvements. The results could suggest that given more time to implement the enhanced reading comprehension curriculum, the teachers would

Do you find the Reading Comprehension skills relevant to the learning needs of students in each band?
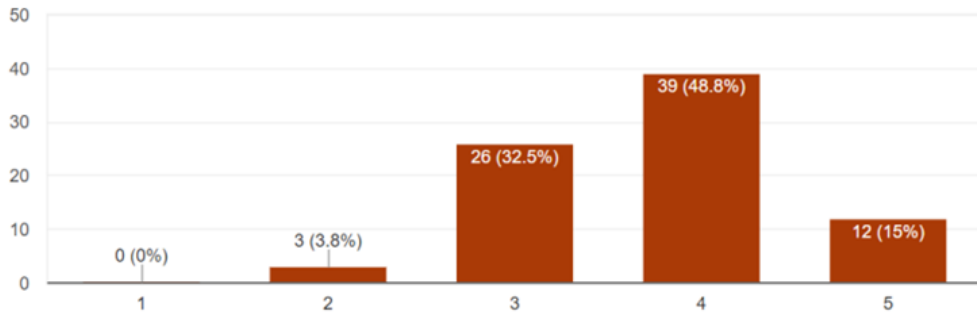
80 responses

Figure 2. The relevance of the reading comprehension skills for each band

Do you feel that your students have improved in their Reading Comprehension after the implementation of the enhanced curriculum?
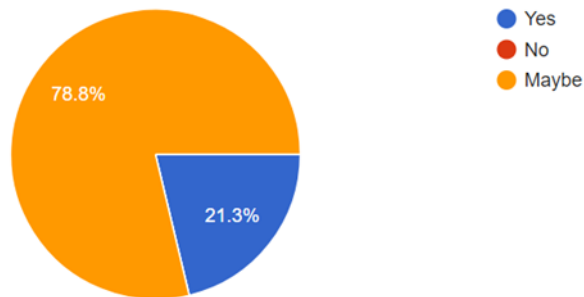
80 responses

Figure 3. The teachers' perspectives on their students' improvements in reading comprehension

observe more substantial progress in their students' reading comprehension. Some of the qualitative responses extracted (from the survey) and reflected in the table below also yielded encouraging feedback from the respondents.

Table 7. Qualitative comments from the teachers

♦   "They (students) are more confident and are more able to apply the skills taught to them."
♦   "better awareness in tackling questions"
♦   "Have only covered couple of skills, unable to track overall improvements yet. But I am confident over time they (students) will improve."
♦   "Students are showing progress."
♦   "Application of skills are not consistent, but there have been improvements when identifying types of questions."
♦   "Yes in my class. and it would very encouraging if I know they use the skills they learnt in their mainstream classes."
♦   "There is more structure in the teaching of RC concepts now. A single concept can be reiterated over a few lessons for better understanding."

Areas of gaps highlighted by the teachers

Apart from providing a platform for the teachers to come together, share their thoughts and feedback, as well as provide suggestions on ways to further improve the reading comprehension curriculum, the focus group also aimed at supporting the teachers in areas that they still felt inadequate in. Hence, in order for the focus group sessions to be targeted and meaningful for them, the following questions were included in the survey:

♦   Which skills do you feel most confident teaching to your students?
♦   Which skills do you feel least confident teaching to your students?

The reason for including two extreme ends of the question was to ensure that the respondents chose their responses thoughtfully, thereby providing more objective responses.

The comprehension skills were classified into three main categories- basic, intermediate and advanced comprehension skills as shown in Figures 4 and 5. Both figures showed that the majority of the teachers felt most confident when they plan and teach the basic level comprehension skills followed by the intermediate ones. Their confidence starts to dip when it comes to planning and teaching the more advanced comprehension skills, namely figurative language which is far more complex and abstract in nature.

Which skills from Phase 1 curriculum do you feel most confident implementing? (You may choose more than 1 option.)
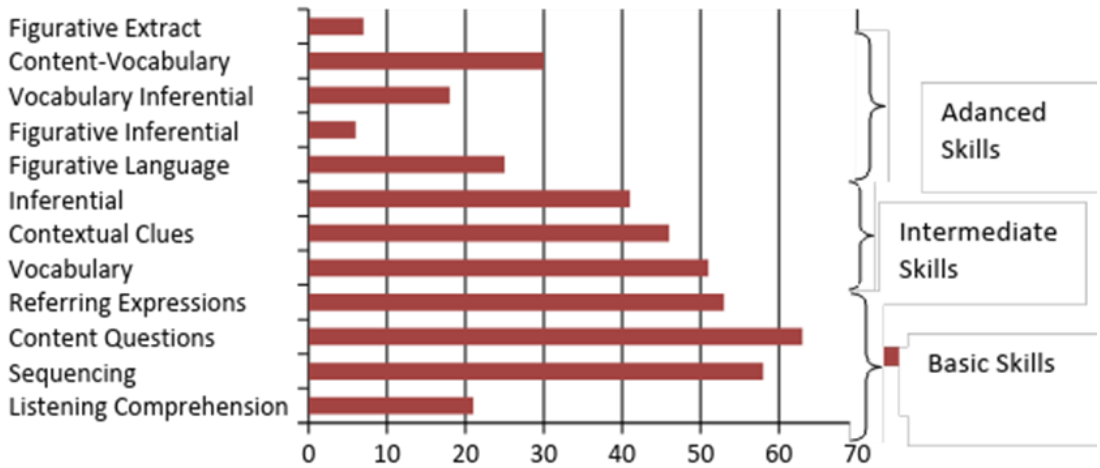
Figure 4. Reading comprehension skills teachers feel most confident delivering

Which skills from Phase 1 curriculum do you feel least confident implementing? (You may choose more than 1 option.)
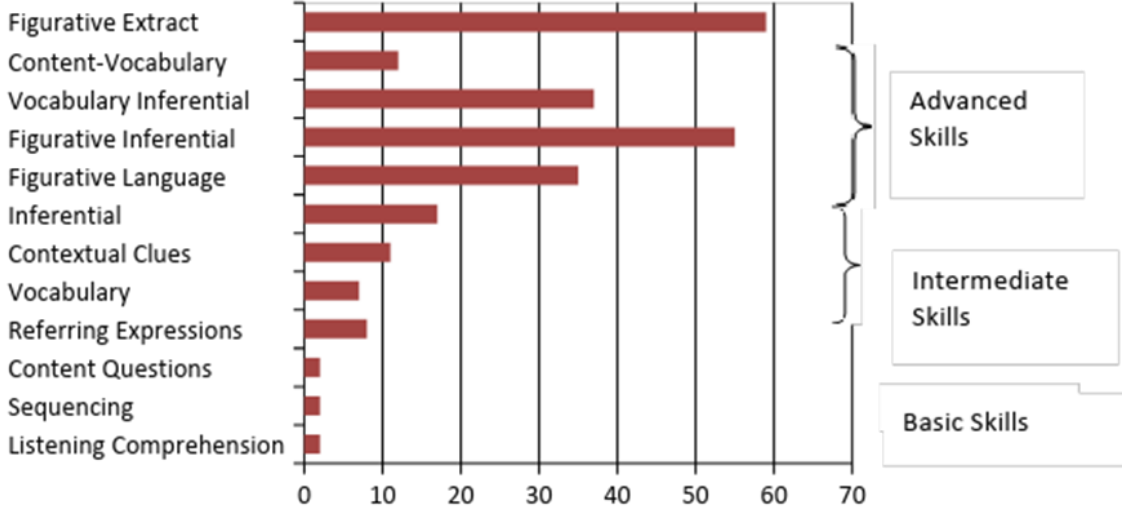
Figure 5. Reading comprehension skills teachers feel least confident delivering

Additionally, the teachers also struggled with guiding the students to comprehend what they read in a concrete, explicit and systematic way that would aid their comprehension-annotation. In other words, how to scaffold and guide the students on how to annotate and what to annotate are some of the difficulties faced by the teachers.

Hence, the focus group sessions included demonstrations and activities that highlighted the process of annotation to enable the teachers to scaffold students' capacity to notice textual details, which in turn support the reading process as well as raising their awareness on the various types of textual features critical to the reading process and the teaching of reading comprehension.

Following the focus group sessions, a post focus group survey was administered to collect feedback on how the teachers felt about the sessions and more importantly, gather information on how their students have benefitted from an explicit and structured way of teaching reading comprehension. All in all, the feedback received was positive and encouraging. Below are some feedback extracted from the post focus group survey.

Table 8. Qualitative comments on focus groups

"The illustrations and demonstrations provided were instructive."
"I have a better understanding on how to demonstrate to my students. To be able to guide them on how to identify question types will help them in their exams."
"The training session was not just about content sharing. A lot of emphasis was on hands-on and practical aspects. This improves the confidence of educators."
"Learnt the skills on how to scaffold during the session and gained better understanding in teaching Reading Comprehension through the focus group."
"I have a better understanding of how I can teach the skills to my lower and higher functioning students."
"The session helped in reaffirming the teaching and delivery methods that I have been practising."
"Most of my students are unable to sequence events, infer or relate text back to the questions. The session provided me with more ideas about how to scaffold, plan and execute those areas."
"clear demonstration during the focus group session"

Organising such focus group sessions with clear intentions not only creates a platform for the teachers to get together and share good practices, it also provides opportunities to address any gaps in content knowledge and skills that the teachers may have. Further, the enhancements made to the reading comprehension curriculum coupled with the continued support received through such training aim to increase the teachers' competence and confidence when planning and delivering reading comprehension to their students.

CONCLUSION

This paper highlighted the importance of heightening students' awareness of critical textual features that impact meaning in a text and the appropriate reading skills to employ when interpreting them, consequently empowering students to develop the necessary reading and text-processing skills required to handle any reading text, thereby increasing their capacity to answer comprehension questions. This focus on textual features followed through with an emphasis on vocabulary building that has been shown to help students make significant improvements in their reading comprehension capacities.

Therefore, the explicit teaching of reading skills and textual features as well as the employment of annotation are highly emphasised in the teaching of reading comprehension to students on MLP. Such explicit and structured delivery process increases the opportunities for more fluid discussions of text through teacher modelling and scaffolding in line with the principles of cognitive apprenticeship outlined by de Jager et al., 2001. This approach serves to improve not only the students' reading comprehension skills but also their participation, confidence and motivation to succeed, a key factor for ongoing improvement.

As a first step in evaluating the impact of this approach, a study was undertaken to ascertain the confidence and motivation of the teachers delivering the enhanced comprehension curriculum. The results showed a growing confidence in the teachers who have attended both the initial training and focus group sessions. 100% of the teachers in total thought that the enhanced reading comprehension curriculum had been beneficial to their students, or was likely to prove beneficial over a longer period (21% and 79% respectively). The majority of the teachers (63%) indicated that the explicit and direct teaching approach was appropriate for the students in the bands they were teaching. To address the first research question, the enhanced curriculum appears to be effective based on teachers' perceptions of progress and suitability. The second question which looked at the teachers' confidence in delivering the curriculum showed over 50 out of the 80 teachers expressing confidence in teaching comprehension skills from the basic and intermediate levels. However, equal or greater numbers (i.e. the majority) felt the least confident when it comes to teaching the advanced skills.

These results provided important information on the need to support the teachers in developing their confidence and competence when it comes to delivering the more sophisticated reading comprehension skills.

Finally, as part of an ongoing process to refine and strengthen the quality and standards of the reading comprehension curriculum as well as improve the learning outcomes for the students, programme effectiveness and efficacy will continue to be evaluated, to ensure that the curriculum remains robust, relevant and responsive to the learning needs of the students. The teaching approach outlined in this study as well as future follow-ups could be seen as an example of best practice in this area in not only considering the needs and motivation of the students but also those of the teachers implementing the curriculum. Ongoing follow-ups will include providing continued support and training to teachers especially in delivering the more advanced comprehension skills as well as evaluate the progress of students.

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APPENDIX 1:

Feedback for RC Phase 1

Dear EdTs, we hope that you've implemented the reading comprehension curriculum in your classes and that you've had the opportunity to use the resource materials. We would appreciate you taking the time to complete this survey as your participation will not only provide information to aid us in preparing for the upcoming focus group sessions, it will also provide information on what helps in the teaching of Reading Comprehension and how our students can benefit more fully from it. The survey responses will also be useful for future revisions of the curriculum.

All responses will be compiled and analysed as a group. Please be assured that the data collected in this survey will only be used as feedback to improve the curriculum and the teaching of reading comprehension.

It will not be used for any other performance-related evaluations. The findings from this survey might also be reported in research studies published by the DAS.

- Which Band do most of your students fall under?
- Do you find the Reading Comprehension skills relevant to the learning needs of students in each?
- Do you find the Reading Comprehension resource materials accessible
- and user-friendly to use?
- Do you find the Reading Comprehension resource materials relevant to
- students in Band A? Band B? Band C?
- Any suggestions to further enhance the resource materials?
- Which skills from Phase 1 curriculum do you feel most confident/least confident implementing? (You may choose more than 1 option.)
    - Listening Comprehension
    - Sequencing of events
    - Content Questions
    - Referring Expressions
    - Vocabulary
    - Figurative Language
    - Contextual Clues
    - Inferential
    - Global Sequencing
    - Figurative Inferential
    - Vocabulary Inferential
    - Content Vocab
    - Figurative Extract

Please share the reason(s) why you feel confident in delivering the skills selected above.

- ♦ Do you think the skills reflected in the enhanced Reading Comprehension curriculum are closely aligned with the mainstream.
  If yes, For which bands? If no for which bands?
- ♦ Do you feel that your students have improved in their Reading Comprehension after the implementation of the enhanced curriculum?
- ♦ Please share your reason(s) for the above responses

Post focus group feedback (omitting specific sections on aspects of comprehension)

Dear EdTs,

Thank you for attending the scheduled Reading Comprehension (RC) Phase 1 Focus Group. The Curriculum and SPD teams hope that the session has been beneficial in addressing all if not most of your queries regarding the enhanced RC curriculum.

Your time in completing this survey as well as your feedback would greatly aid us as we continue to develop the RC Phase 2 curriculum and teaching materials.
Break-out sessions. Sharing of teaching experiences and feedback on the implementation and planning of Reading

- ♦ Do you think that the breakout session was useful in enabling you to share your thoughts and concerns regarding a) lesson planning of the enhanced Reading Comprehension Curriculum to your students?
- ♦ Do you think that such a platform was effective in enabling the sharing of your thoughts and concerns regarding b) lesson delivery?
- ♦ please provide reason(s) why you think the breakout session was useful/not useful in addressing your thoughts
- ♦ please provide reason(s) why you think the breakout session was useful/not useful in addressing your thoughts and concerns regarding a) lesson planning and b) lesson delivery.
- ♦ Do you think that sufficient time was allocated for the sharing during the breakout session?
- ♦ Was the breakout session effective in encouraging the sharing of thoughts and concerns among participants?
- ♦ Would you like small group/peer learning sessions to be conducted in future?
- ♦ Were there any queries you had but were not able to share during the session?
- ♦ Which topics would you like to cover in future focus groups?
- ♦ Which methods of delivery would you prefer for teaching future training. You can choose Group discussion, lecture format, question and answer, lesson demonstration.