Teaching English & Literacy With Students With Learning Difficulties & Disabilities: Dyslexia As A Common Reading Disability

Rationale

Reading is the ability to engage with, and gain meaning from written language. The reading process is complex. To be able to read fluently and make sense of text “requires the development of:

- Phonological Awareness
- Phonemic Awareness
- Alphabetic Principle
- Orthographic Awareness
- Fluency
- Vocabulary
- Comprehension” (LD@School, 2016).

Students who are not able to effectively perform in the above areas, and are having persistent difficulty reading may have a learning disability. Learning disabilities affect an individual’s ability to process information. They vary greatly in how they affect each individual. Typically, those with learning disabilities have average to above average intellectual ability, but despite this, do not usually meet their potential. According to the Ministry of Education & Columbia School Superintendents Association, “relative to their peers, students with learning disabilities are often:

- less engaged in learning tasks
- less confident in their ability to learn
- less willing to take risks in learning situations
- unable to cope with multiple instructions
- poorly organised in both thoughts and work habits
- frustrated with difficult work tasks
- discouraged by their lack of success” (2011, p.9).

Dyslexia is a common reading disability that is neurological in its origin and is diagnosed by a psychologist. Students with dyslexia struggle to decode words, spell accurately, read aloud fluently, have issues with working memory and demonstrate slow processing speed. They will usually have a reading ability that is much lower than would be expected for their age. (Banner, 2019, Topic 1 Unit Reader).

Within the classroom, students with a reading disability may struggle with:

- Phonetic Coding and Sound/Symbol Association, eg., difficulty learning visual letters and sounds for letters.
- Word Recognition, eg., difficulty recognising words and letters in print.

- Visual Processing/Rapid Automatic Naming, eg., difficulty with visual discrimination or recognition of letters.
- Reading Comprehension, eg., difficulty with working memory - re-reads a passage numerous times before understanding it (Banner, 2019, Topic 5 Unit Reader).

Difficulty with developing phonemic awareness is an issue that some students with a reading disability may encounter. Phonemic awareness is “the ability to identify and manipulate phonemes (the smallest units of sound)” (LD@school, 2016). It is a skill that is vital to the capacity to smoothly read and interpret texts.

The presence of a reading disability, or other learning disability, does not equate to definite failure in achieving educational outcomes. Through identification and assessments, teachers are able to implement strategies and interventions that can support affected students and facilitate successful learning. The following report outlines some suggestions for assessment and intervention for students who have difficulty with phonemic awareness.

Assessment for Phonemic Awareness

In teaching students with learning difficulties or disabilities, diagnostic assessment is the process by which teachers can identify, collect and decode information about students’ learning. Through assessment, teachers can reflect on their practice, evaluate and inform future practice. More specifically, the practice of assessment involves:

- “gathering evidence of student achievement through a range of assessment techniques
- analysing the evidence to arrive at judgments about the achievement of the student in relation to expected outcomes or standards
- using the information arrived at for planning, programming, and teaching to promote further learning” (Banner, 2019, Topic 4 Unit Reader).

The purpose of performing assessment is to identify “what a student can do, and what they need to be taught” (Banner, 2019, Topic 4 Lecture). Before assessing a student, it is important to:

- ascertain your objective
- pinpoint the skills that are to be measured
- ensure the foundational skills are being assessed
- select an assessment tool that is available, affordable, you will be capable of using and will provide the relevant information (Banner, 2019, Topic 4 Lecture).

Phonemic awareness, a competence that students with reading disabilities may have difficulty with, can be assessed through the Letter/Sound Test (LeST). This assessment was developed by researchers at Macquarie University, who formulate experimental tests that are underpinned by their studies. The tests became very popular with clinicians and teachers, and to make them more easily accessible, the Macquarie Online Test Interface (MOTIf) was created (Macquarie University, 2019). The LeST “tests a person’s ability to sound out single letters and letter combinations” (MOTIf, 2019). This test can identify the extent to which a student might be having difficulty recognising letter sounds, symbols, and relationships between letters. The students are shown letters on a page, and they must verbalise the sounds corresponding with

those letters. The LeST aims to assess a student's phonemic awareness so that any issues they are having can be addressed.

To perform the LeST, the teacher is given an instruction sheet, a response sheet, and a testing booklet. The teacher is given dialogue outlining how to respond to correct or incorrect answers, how to prompt, give guidance and feedback to the student. For example, if the student responds with a letter name rather than a letter sound. The teacher is also given instructions on how to record the student's answers. Some examples of the content of the LeST are single letter sounds /t/, /n/ and /s/, as well as digraphs such as /th/, /sh/ and /ng/. The results of the test are given in ranges such as 'well below average', 'average' and 'above average'. The student's results are also ranked by percentile score that compares the tested student's results to students of the same age. For example, a percentile of 80 means that the student's score is higher than 80% of the scores of students of the same age (MOTIf, 2019).

Some challenges that may be encountered whilst using the LeST include:

- Testing 51 sounds in one setting, with a no-stopping rule, could be overwhelming and stressful for the students and affect their ability to perform the test.
- Ceasing feedback after the first 3 sounds could confuse the student, and they may struggle with the lack of guidance.
- The most common pronunciation of a grapheme is considered the correct response. The test does not take into account that there can be more than one pronunciation, and the student may favour this over the most common one (Larsen et al., 2015).
- The sample of students considered the norm in each age group is quite small (Larsen et al., 2015).

The LeST is an effective tool to determine how well a student can identify letter sounds, by allowing students to focus on single sounds rather than decoding whole words. This is beneficial to the learning of students with reading difficulties as they "not only struggle with recognizing [sic] words in text but also have difficulty suppressing irrelevant information in text which places limitations on the use of their short term capacity for comprehending printed material" (Pressley, 1998, cited in Joseph, 2002).

According to Larsen et al. (2015), some advantages of the LeST include:

- The test is easy to execute and evaluate. It doesn't take much time (5-10 minutes), which is beneficial to time-poor teachers and keeping students' attention.
- It contains a thorough list of the most essential Grapheme-Phoneme Correspondences for learning to read.
- It uses both age and grade based norms, so the teacher can select the most applicable norm for their purpose.
- It is only trivially affected by floor or ceiling effects.
- It is free, and can be automated or not automated.

Upon completion of the LeST, teachers should be able to identify which strategies and intervention approaches will be most suitable and beneficial to the student in developing their reading skills.

Intervention 1: Developing Phonemic Awareness

The What Works Clearinghouse (WWC) developed a practice guide that offers “education specific, evidence-based recommendations for teaching foundational reading skills to students in kindergarten through 3rd grade” (WWC, 2016b). The recommendations are intervention approaches that are the product of an expert panel’s knowledge, and the results of comprehensive research. They aim to address the challenge of improving literacy skills in the early years of education (WWC, 2016b).

Recommendation 2 is one of their proposals and aims to “develop awareness of the segments of sound in speech and how they link to letters” (WWC, 2016b, p.14). It could be categorised as a ‘synthetic’ approach to developing phonemic awareness skills, in that it proposes the “behavior [sic] analysis principles of teaching children to systematically progress from one phonic skill to the next. Initially, individual sounds are taught and then children are asked to blend sounds to form words. Cueing, feedback, and opportunities to make many responses are provided during every lesson” (Joseph, 2002). The Ministry of Education (2009) states that students who have difficulties with reading skills (including phonemic awareness) display:

- confusion with sounds in words
- poor sound sequencing in words
- limited automaticity in decoding
- difficulty with comprehension (due to lack of fluency in decoding)
- difficulty retaining sounds/symbol correspondence
- difficulty extracting essential concepts due to focus on decoding

The suggestions in Recommendation 2 address the above issues by “teaching students to recognise and manipulate the segments of sound in words… to link those sounds to letters is necessary to prepare them to read words and comprehend text” (WWC, 2016b, p.14).

There is strong evidence supporting the interventions in Recommendation 2, consisting of 17 studies that obtained constructive results in identifying letters and sounds and/or phonology outcomes, and “strong internal validity” (WWC, 2016b, p.67). In their research, Torgesen et al., (2010, cited in WWC, 2016b, p.71) demonstrates that in administering the interventions in Recommendation 2, “students learned how to articulate phonemes, used manipulatives to represent phonemes in words, used software that mimicked teachers’ instructional activities and provided feedback, and read text both on and off the computer”. Another study, performed by Ouellette & Senechal, entailed the recognition of phonemes by having students select the image that had the same first sound as a given spoken word (2008, cited in WWC, 2016a). This study obtained encouraging results among kindergarten students on phonology and/or letter names and sounds. This stands to reason that Recommendation 2 is a suitable intervention approach to develop phonemic awareness skills in students with reading disabilities.

Teachers who have identified and assessed students should implement Recommendation 2 as early as possible, as “early identification and intervention, appropriate adaptations and supports are keys to success” (The Ministry of Education & Columbia School Superintendents Association, 2011, p. 10). The following instructions have been summarised from the information provided in the WWC guide (2016b):

Teach students to recognise and manipulate segments of sound in speech

1. Demonstrate that sentences can be broken into words.
2. Demonstrating building and dividing compound words.
3. Demonstrate how words can be broken into syllables.
4. Demonstrate how to identify even smaller units within a syllable (onsets and rimes).
5. Demonstrate how to identify and manoeuvre phonemes, (e.g., use Elkonin sound boxes (see Figure 1).

Teach students letter-sound relations

Introduce the letters of the alphabet in both lower and uppercase, and their corresponding sounds by:

1. Presenting the most commonly used phonemes first (e.g., /s/,/m/,/d/,/p/,/a/).
2. Introducing consonant blends (e.g. fl, sm, st) and common two-letter consonant digraphs (e.g., sh, th, ch).
3. Teaching long vowels with silent e.
4. Teaching two-letter vowel digraphs (e.g., ea, ou).

Use word-building and other activities to link students' knowledge of letter-sound relationships with phonemic awareness

"The final step in teaching students the alphabetic principle is connecting their awareness of how words are segmented into sounds with their knowledge of different letter-sound relationships" (WWC, 2016b, p.19). This can be executed by:

1. Using word building exercises to demonstrate how each letter or phoneme in a word influences how it is spelled and pronounced.

The panel that developed Recommendation 2 has provided some suggestions to prevent or overcome potential challenges in implementing this approach:

- Focus on one letter at a time with plenty of reinforcement until the student can recognise the name and sound instantly, as some students confuse shapes or sounds of letters
- Work one-on-one or in small groups to help separate and link sounds to letters, as this has been shown to be most beneficial for students who have persistent difficulty with phonological awareness.

Intervention 2: Developing Phonemic Awareness

Recommendation 3 aims to "teach students to decode words, analyse word parts, and write and recognise words" (WWC, 2016b, p.22). The approaches in this recommendation are based on direct instruction, which involves explicitly teaching specific skills. According to Stanberry & Swanson (2009), this is the "most effective approach for improving word recognition skills in students with learning disabilities". The Ministry of Education & Columbia School Superintendents Association corroborate the suggestions in Recommendation 3 in the strategies they suggest for improving phonemic awareness:

- “breaking compound words into individual words and words into syllables
- Identifying the beginning, middle and end sounds on words
- phonemic games [such as Elkonin boxes]
- word walls to illustrate a phonetic component” (2011, p. 60).

The evidence of the effectiveness of this recommendation is convincing and based on 13 out of 18 studies that observed positives outcomes of students decoding words, analysing word parts and writing words. Vadasy & Sanders’ studies were included in this evidence. They “focused on letter–sound correspondence, phoneme decoding, irregular words, spelling, and oral reading practice” (2011, cited in WWC, 2016b, p.77). Further evidence demonstrated that 11 out of 15 studies showed constructive effects on the “word- reading and/or spelling skills among kindergarten through grade 3 students” (WWC, 2016a, p.3) in using the interventions in Recommendation 3. This includes the research of Gunn, Smolkowski & Vadasy who administered “decoding practice and story reading, focusing on vocabulary, phonological awareness, and understanding of the alphabet among small groups of students” (2011, cited in WWC, 2016a, p.3). Evidently, Recommendation 3 is a suitable intervention approach in developing phonemic awareness skills in students with reading disabilities and can be implemented from Kindergarten to grade 3.

The following instructions have been summarised from the information provided in the WWC guide (2016b):

Teach students to blend letter sounds and sound-spelling patterns from left to right within a word to produce a recognisable pronunciation

- Demonstrate reading from left to right, merging each consecutive letter or group of letters into one sound. This is known as blending and can be achieved by “chunking sounds or by sounding out each letter individually and then saying the sounds again quickly” (WWC, 2016b, p.23), see Figure 2:

Instruct students in common sound-spelling patterns

Demonstrate that letters are frequently united to create distinctive sounds:

- Consonant patterns
- Vowel patterns
- Syllable construction patterns

Teachers can demonstrate these patterns through the use of Elkonin boxes, with each sound (rather than letter) having its own box. See Figure 3:

Teach students to recognise common word parts

Demonstrate how to analyse words by “isolating and identifying meaningful word parts within them that share a similar meaning or use” (WWC, 2016b, p.26). This can be achieved by teaching students about:

- Suffixes (e.g., ed, est)
- Contractions (e.g., aren’t)

- Prefixes (e.g., dis, mis)
- Roots (e.g., aqua, cent)

An activity that encourages students to build and modify words is described in Figure 4.

Have students read decodable words in isolation and in text

1. Give students a list of words with the letter combination being taught, and a corresponding passage containing words with that letter combination.
2. Ask students to identify the letter combination in each word on the word list.
3. Ask students to identify the letter combination in relevant words within the passage.

Teach regular and irregular high-frequency words so that students can recognise them efficiently

By helping students “learn to quickly recognise words that appear frequently in all kinds of text… will speed up the reading process” (WWC, 2016b, p.28). There are two types of high-frequency words:

- Regular words (e.g., in, and) – use letter-sound skills (e.g., Elkonin boxes) to identify the word, practice frequently until the students can identify them quickly
- Irregular words (e.g., the, was) – teach as a whole word, rather than breaking up into sounds.

To teach high-frequency words use flashcards, word walls, and practice words in contexts other than literacy.

Introduce non-decodable words that are essential to the meaning of the text as whole words

“Non-decodable words are comprised of irregular sound-spelling patterns that students have not learned” (WWC, 2016b, p.30). Some books contain words with sound-spelling patterns that students have not yet encountered (e.g., pigeon, villain). To help students navigate these complex words and extend their “reading opportunities beyond decodable texts” (WWC, 2016b, p.30), teachers should:

- Identify any non-decodable words in a new text before introducing it to students.
- Present these words to students before reading the new text, evaluating their spelling and meaning.

The panel that developed Recommendation 2 has provided some suggestions to prevent or overcome potential challenges in implementing this approach:

- Misspelling words should not be discouraged as it provides opportunities to practice using letter-sound skills. As these skills develop, and if the teacher encourages students to assess their spelling to check that it looks logical and correct, misspellings should become less frequent
- If students are struggling with pronunciation, model practicing sounding words out or blending smoothly, without pausing between sounds.

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