

DYSLEXIA AT SECOND LEVEL: FACTSHEETS FOR TEACHERS

A PERSONAL NOTE ON THEIR 10TH EDITION

These Factsheets were first written in 2013 to celebrate the 40th anniversary of the Dyslexia Association of Ireland. They have been updated annually and this is their 10th update.

Mary Ball, the former Head of Psychological Services in the Dyslexia Association of Ireland and myself compiled the first edition of the Factsheets in 2013. In recent years, Deirdre McEloy, my colleague, has helped with the editing of the Factsheets and, in particular, with the Maths Factsheet. I would like to thank them both for their invaluable contribution and support.

Throughout the work I have done on the Factsheets, I have been inspired by my three sons, Robin, Simon and Ted, all of whom have dyslexia; each in different ways. I have learnt so much from their experiences and the hard work and determination it took them to keep going in a system that did not fully understand them.

My two husbands have given invaluable and essential support during in all these years. Tom gave me the confidence and backing to take the first brave step to publish my first book, *Lost for Words a practical guide to dyslexia at second level*. Donal has been a constant support and font of invaluable advice. His deeply insightful comments and suggestions have improved the text so much and the fact that we have arrived at the 10th edition is as much his work as my own.

The key objective of their publication was to increase the knowledge about dyslexia among second level teachers. This has been successful in ways I could not have foreseen. By now we have given inservice to the whole school staff in 125 schools across all counties. In total through giving presentations in schools, at central venues and in recent years by zoom through the Education Centres, close to 6000 teachers have participated in learning more about dyslexia and how dyslexia friendly strategies can help these students.

Many thanks to all the wonderful, committed teachers I have met in my journeys over the last ten years. So many have shared ideas, strategies and resources and then generously gave me permission to pass them on in the Newsletters and Factsheets. They all have made it such a positive experience and I have enjoyed every moment of it.

Wyn McCormack

DYSLEXIA AT SECOND LEVEL: FACTSHEETS FOR TEACHERS

These factsheets have been published to give teachers in second level schools in Ireland clear and concise information on dyslexia, how it affects students and how schools and teachers can help. With dyslexia affecting approximately one in ten people, there are many thousands of students with dyslexia in Irish second level schools. For some, the difficulties may be so severe they are receiving extra support through additional teaching. The majority depend on help from mainstream teachers.

The factsheets are a starting point. Factsheet 18 on resources gives information about books, teaching resources and websites which deal with the topic in detail. In particular several books and websites are highlighted that could be considered essential for staff in all second level schools.

How to use the pack

Some factsheets are relevant for all staff. These include:

- What is dyslexia?
- Understanding the educational psychological assessment.
- General classroom strategies.
- Developing reading and comprehension skills across the curriculum.
- Developing vocabulary and writing skills across the curriculum.
- Making information more accessible.
- Resources.

Many of the teaching approaches and strategies that support the student with dyslexia are also of benefit to the general student body. N. MacKay says in the book *Dyslexia, Successful Inclusion in the Secondary School*: 'Dyslexia-friendly policies also enable schools become more effective and improves performance of all pupils. This is the power of the dyslexia friendly approach that changes made on behalf of dyslexic pupils can benefit all'. The British Dyslexia Association in the *Dyslexia Friendly Schools – Good Practice Guide* says 'Dyslexia-friendly teaching techniques will be helpful to all students, while the students with dyslexia may not be able to learn effectively without them'.

Other factsheets are more specific such as those on educational choices, maths and languages. It is hoped that school management would give copies

of the relevant factsheets to all teachers depending on the subjects they teach.

Factsheet 16 has tips for parents on how they can support the student. Factsheet 17 is for students on study techniques and online resources.

The Factsheets are available for free download on the website www.dyslexiacourses.ie and www.dyslexia.ie. They are updated on an annual basis.

The factsheets were first written in 2013 by Mary Ball, an educational psychologist who has worked with Dyslexia Association of Ireland (DAI) for many years and Wyn McCormack, a guidance counsellor and special educational needs teacher.

Wyn offers courses on dyslexia to teachers. Some are through Education Centres as well as courses for whole school staff inside a school setting. She also offers zoom sessions for parents on how they can support the student at second level. Full details are available at www.dyslexiacourses.ie.

The Dyslexia Association of Ireland provides courses for teachers, adults with dyslexia, and parents at venues throughout Ireland as well as seminars on assistive technology and study skills seminars for students. Details of their courses are available on the website www.dyslexia.ie.

For teachers interested in further qualifications there is Master of Education in Specific Learning Difficulties (Dyslexia) available in St. Patrick's College, Dublin City University. It is part-time two-year level 9 programme. The first graduates of this course have set up Dyslexia Specialists Ireland www.dysi.ie

FACTSHEETS ON DYSLEXIA FOR SECOND LEVEL SCHOOLS

- Factsheet 1 What is Dyslexia?
- Factsheet 2 Screening and Identification
- Factsheet 3 Understanding the educational psychological assessment report
- Factsheet 4 The assessment report and its implications for learning
- Factsheet 5 Supports for students with dyslexia in Irish Education
- Factsheet 6 The dyslexia friendly school
- Factsheet 7 General classroom strategies for mainstream teachers
- Factsheet 8 Developing reading, comprehension and memory skills across the curriculum
- Factsheet 9 Developing vocabulary and writing skills across the curriculum
- Factsheet 10 Mathematics: dyslexia and dyscalculia
- Factsheet 11 Teaching mathematics to students with dyslexia and/or dyscalculia
- Factsheet 12 Teaching languages to students with dyslexia
- Factsheet 13 Educational choices for students with dyslexia
- Factsheet 14 Making information accessible, the dyslexia-friendly style guide
- Factsheet 15 Computers and assistive technology
- Factsheet 16 How parents can support the student with dyslexia
- Factsheet 17 Study tips for the student with dyslexia including a section on resources
- Factsheet 18 Useful resources for teachers

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Updated Wyn McCormack 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022

Downloadable at www.dyslexiacourses.ie www.dyslexia.ie

FACTSHEET 1: WHAT IS DYSPLEXIA?

Dyslexia is a neurological condition that makes it difficult to acquire the skills of reading and writing. Characteristic features include difficulties in phonological awareness, verbal memory and verbal processing speed

Key points on dyslexia

- Research identifies genetic components in dyslexia.
- Dyslexia occurs across a range of intellectual abilities.
- It affects about one in ten persons.
- It occurs along a continuum. One student's dyslexia may be very severe while another's may be quite mild. No two students are likely to have the same profile.
- Dyslexic difficulties do not affect all tasks. An individual may be very poor at reading but may excel at engineering, maths or art.
- Dyslexia may co-occur with other specific learning difficulties such as dyspraxia, dyscalculia, attention deficit disorder, and Autism Spectrum Disorder.

Identification

An educational psychological assessment carried out by an educational psychologist is the usual route for an identification of dyslexia. The assessment may include testing of cognitive abilities as well as literacy and numeracy skills. The psychologist also needs relevant background information such as developmental history and other interventions from parents, schools, colleges or any other relevant sources.

A recent development is that there are now also some specialist teachers trained in assessment. They are graduates of the Master of Education in Specific Learning Difficulties (Dyslexia) available in St. Patrick's College, Dublin City University. Graduates have set up Dyslexia Specialists Ireland (www.dysi.ie) which maintains a list of such teachers who have AMBDA/APC international qualifications which recognise the holder's ability to undertake the assessment of dyslexia.

What are the core features that identify dyslexia?

- Most researchers agree that the core difficulty in dyslexia is caused by a phonological deficit. This results in students having difficulty in identifying the separate sounds in a word and later not being able to match sounds with patterns of spelling. They may not process the sound accurately, may become confused trying to sequence the sounds in the correct order or may not remember the common

letter patterns that sound out/spell out syllables. They may end up guessing at written words.

- It takes learners with dyslexia longer than average to acquire a knowledge of letter-sound patterns to the point that they can recognize them automatically.
- They may also have difficulty with word recall and with the speed of word recognition. Thus, while it appears that the core difficulty is at the level of phonological awareness, individuals with dyslexia often show difficulties with working memory, becoming automatic in tasks and rapid naming.
- They may have difficulty with co-ordination, fine motor movement, time management, organization/sequencing, space, direction and laterality.

Students with dyslexia may experience difficulties with some of the following:

- Reading inaccurately, losing their place on the page, becoming stressed when reading aloud.
- Learning and memorizing and, in particular, rote learning such as learning poetry, Maths tables and formulae.
- Copying from the board or taking notes from dictation.
- Spelling.
- Understanding complex instructions.
- Planning and writing essays.
- Written answers are too short and points are underdeveloped.
- Handwriting may be disjointed, illegible at times or have many cross-outs.
- Finishing work on time.
- Confusion about places, times and dates leading to problems of organization.
- Wide discrepancy between oral and written work.
- Slow at answering questions and retrieving information that they know.
- May not be able to listen and take notes at the same time.

Youtube videos

There are two Youtube videos that help to understand how dyslexia can affect the student.

Factcity: How difficult can this be

www.youtube.com/watch?v=Q3UNdbxk3xs

See Dyslexia Differently

www.youtube.com/watch?v=11r7CFIK2sc

Dyslexia Association of Ireland Statement and update on definition of Dyslexia 2022

‘Over recent months, we have been reviewing and updating our working definition of dyslexia. We are promoting this understanding of dyslexia to better reflect the range of presentations that occur in dyslexic people, and the preferences of people with dyslexia.

Defining Dyslexia

Dyslexia is a learning difference that can cause difficulties with learning and work. It affects approximately 1 in 10. It occurs on a spectrum with some people mildly affected and others more severely. With the right understanding, accommodations and support people with dyslexia can achieve success in education, the workplace and in wider society. Everyone with dyslexia is different but there is a commonality of difficulties with reading, spelling and writing and related cognitive/processing difficulties. Dyslexia is not a general difficulty with learning, it impacts specific skill areas. The impact of dyslexia can change according to the environment (i.e. what a dyslexic person is being asked to do and under what circumstances). While people with dyslexia may develop strengths due to their dyslexia such as determination, problem solving and resilience, dyslexia does not automatically bring specific gifts or talents. The Dyslexia Association of Ireland recognises and respects the individual variation that all human beings display, including those with dyslexia.

Language, Recognition and Rights

Some people prefer the wording ‘a person with dyslexia’, while others prefer the term ‘a dyslexic person’. When working with individuals it is important to use the terminology that the person is most comfortable with. When communicating with a wider audience the terms may be used interchangeably to reflect the variation of preference that exists. Dyslexia is a recognised disability under Irish and EU law (such as under equalities, accessibility and disability legislation). However, many dyslexic people do not consider themselves ‘disabled’ and the individual’s view should be respected. DAI welcomes feedback from all stakeholders on this definition.

<https://dyslexia.ie/info.../about-dyslexia/what-is-dyslexia/>

How does dyslexia affect the student’s self-esteem?

Students, who see dyslexia as being a part of who they are and whose family, friends and educators are supportive, encouraging and accommodating, will develop confidence, a strong self-image and will have the ability to solve and circumvent the challenges that dyslexia presents.

Students, who have to struggle too much and who feel that their difficulties are not understood, may be at risk of giving up, particularly in secondary school. Because literacy is such a major accomplishment in modern culture and essential for navigating school, failure to become literate can have significant negative effect on self-esteem. The result can be acting out, evasion, depression and risk of being bullied or of being a bully.

How are these risks avoided?

Dyslexia is life-long but can be greatly helped by appropriate interventions which teach students strategies for dealing with its effects through knowing their strengths as well as their weaknesses and using their abilities to problem-solve around the difficulties. The onus is not all on the student. Schools and teachers need to make the environment learning-friendly for these students.

Neurodiversity

Neurodiversity is a term increasingly used to describe the idea that people experience the world in different ways and there is no one ‘right’ way of thinking, learning and behaving and differences are just that and not deficits. It refers to the diversity of all people including ASD, ADHD, Dyspraxia, Dyslexia and Dyscalculia as well of neurological conditions.

Different people think differently, not just because of differences in culture or life experiences, but because their brain is wired differently.

Neurodiversity is broadly defined as an approach to learning and disability that suggests neurological conditions appear as normal variations in the human genome. More details are in an article on neurodiversity by Dr. Keith Murphy at

<https://sway.office.com/HRAYsENEMbandeEL?ref=Link&loc=play&fbclid=IwAR1nH6-fVI24dMF5HXduTCcQicCNKn1Ap0ygydM8Yj3DWhU3OSSNW4p-IN8>

FACTSHEET 2: SCREENING AND IDENTIFICATION

Concerns about a student may arise from the results of standardised tests or from observations and/or concerns from parents, teachers or the students themselves.

The results of standardised tests such as those used at entrance assessment or prior to senior cycle may show an uneven profile of ability. The Cognitive Abilities Test (CAT) is used in many schools for entrance assessment. It tests verbal, quantitative, spatial and non-verbal reasoning. A significantly lower result in verbal reasoning in relation to the other three, and in particular the non-verbal reasoning, should prompt some further investigation. The Differential Aptitude Tests (DATS), which are often used prior to senior cycle, also have verbal, numeric and abstract reasoning sections where such a pattern also may be apparent. Is there a routine analysis of tests results such as CAT or DATS to check if such anomalies are present?

Concerns often arise from reports and observations from parents, teachers or even students themselves. Parents often voice concerns about particular difficulties a student may have. Teachers, noticing inconsistencies in the work of students, may suggest further investigation. Students may ask for help in understanding the unpredictability in their own performance.

If concerns arise, what is the next step?

Is there a clearly defined referral system in the school where such concerns can be addressed? Does the referral go to the Guidance Counsellor or to the Special Education Teacher? As a first step the teacher investigating such concerns could use the list of indicators published by the Department of Education and Skills (DES) to guide their action.

There are four lists of indicators, one of which is for students of 12 years plus. This is a checklist only. It is not likely that any student will have all the indicators on the list.

Indicators of a possible learning difficulty arising from dyslexia (ages 12 Years+)

- Slow, dysfluent and/or illegible handwriting.
 - An inadequate store of knowledge due to lack of reading experience.
 - Better oral skills than written skills.
 - Difficulty planning, sequencing and organising written text.
 - Difficulty with written syntax or punctuation.
 - Difficulty skimming, scanning and/or proofreading written text.
 - Trouble summarising or outlining.
 - Problems in taking notes and copying from the board.
 - Procrastinates and/or avoids reading and writing tasks.
 - Does not complete assignments or class work or does not hand them in.
 - Slow in answering questions, especially open-ended ones.
 - Poor memorisation skills.
 - Still mispronounces/misuses some words.
 - Problems recalling the names of some words or objects.
 - Poor planning and organisation skills.
 - Poor time management skills.
 - More difficulty in language-based subjects (e.g. English, Irish, history) than in non-language based subjects (e.g. mathematics, technical graphics).
 - Lacks self-confidence and has poor self-image.
- Still reading slowly and without fluency, with many inaccuracies.
 - Misreads words (e.g. *hysterical* for *historical*) or information.
 - Difficulty modifying reading rate.
 - Has serious spelling difficulties.

DAI Course on Dyslexia and Literacy Assessment

DAI offers this course which has been designed to provide information and training teachers on the various screening tests for Dyslexia as well as the different literacy attainment tests used for RACE, DARE, and Irish exemption applications. Details from www.dyslexia.ie. The course covers:

- A brief introduction to dyslexia and literacy difficulties
- Test theory and psychometric terminology
- Dyslexia Screeners
- Administration and scoring of Literacy attainment tests (incl. WIAT and WRAT)
- Test analysis and interpretation
- Important issues for applications for RACE, DARE and Irish exemption.

Dyslexia screening tests

Further investigation by the teacher could include the use of dyslexia screening tests which are instruments used to identify the possible cause of the reading delay. The British Dyslexia Association says 'There are many different types of screening tests; in an education setting some are delivered by computer, others need to be administered by a teacher/SENCO. Some just give an estimate as to whether the child/person is likely to have dyslexic difficulties. A few offer a more detailed profile of strengths and weaknesses, which help inform an appropriate teaching strategy. Where any screening test indicates a moderate or high probability of dyslexic difficulties, the best course of action is to follow up with a full diagnostic assessment. This would determine the precise nature of dyslexic and related difficulties'. The following are appropriate for use at second level are:

Lass 11 – 15, developed by Lucid Research, is a computer programme which is a series of assessments in the form of games that test literacy, reasoning and cognitive skills including memory and phonics in the age range 11 - 15 years. Any difficulties of a dyslexic nature such as those caused by underlying problems in phonology or memory can be easily identified. Also available from Lucid are the following: **LADS** which is a computerised screening test for identifying dyslexia in those aged 16+. **LADS Plus** (valid for the age of 15+) is a version of LADS developed to provide improved screening accuracy in wider populations that may include individuals who have non-standard educational backgrounds, low general ability, and/or poor English language skills. **Lucid Rapid** takes 15 minutes and is the solution for quick group screening for dyslexia in the 4 to 15 age range. It is calibrated to maximise accuracy in detection of dyslexia and prevent dyslexic children 'slipping through the net'. More information is available at www.gl-assessment.ie.

The **Dyslexia Screening Test – Secondary** is used to identify students who are experiencing difficulties at second level. Subtests include rapid naming, verbal fluency, non-verbal reasoning, reading and spelling. It takes about 30 minutes to administer on an individual basis. More information is available at <https://www.otb.ie/shop/dst-s-dyslexia-screening-test-secondary/>

Referral for an educational psychological assessment

The screening test and/or the checklist may strengthen the suspicion that the student may have dyslexia. They also help when discussing possible referral for an assessment with parents.

An assessment is carried out in most cases by an educational psychologist. This may involve a test of cognitive ability (possibly including such abilities as range of vocabulary, non-verbal reasoning, visual-spatial abilities and working memory) as well as in-depth assessment of reading and writing skills.

A recent development is that there are specialist teachers trained in assessment. They have completed the Master of Education in Specific Learning Difficulties (Dyslexia) from St. Patrick's College, Dublin City University and have set up Dyslexia Specialists Ireland (www.dysi.ie). This group maintains a list of such teachers who have AMBDA/APC international qualifications which recognise the holder's ability to undertake the assessment of dyslexia.

National Educational Psychological Service (NEPS) provides a number of assessments to schools. Otherwise parents may opt for a private assessment. There is usually a waiting list for private assessments. Private assessments can be costly. It is possible to claim tax back on the cost on the MED. 1 form.

Is an educational psychological assessment necessary?

Changes to RACE, exemptions from Irish and the system to allocate resources hours have made it easier to access supports without an assessment.

The student will still need an assessment to access some supports such as DARE where an assessment report of any age is still required.

The assessment is also a very useful tool for parents and teachers as it provides a profile of learning strengths and weaknesses as well as guidance on the most appropriate teaching strategies and educational choices for the student.

FACT SHEET 3: UNDERSTANDING THE EDUCATIONAL PSYCHOLOGICAL ASSESSMENT REPORT

The educational psychological assessment is a means of assessing how one learns. It is most frequently used to identify a student's learning difficulty. The information gained can be used as the basis for individual interventions and programmes of learning.

What does an assessment involve?

An assessment may consist of a test of cognitive ability and tests of attainments in literacy and numeracy.

Cognitive ability means how the brain takes in, retains and makes use of information. The speed with which information is processed is also assessed. There are a number of ability tests used by psychologists. Currently the test most frequently used is the Wechsler Intelligence Scale for Children, Version 5 known as the WISC-V. The adult version is known as the WAIS. Other tests sometimes used include the British Ability Scales (BAS), the Woodcock Johnson Test of Cognitive Ability and the Stanford Binet Intelligence Scales.

Attainments tests refer to tests of reading, spelling and numeracy. The results are derived from standardised tests of word recognition, reading comprehension, spelling, word attack skills, arithmetical knowledge and understanding of mathematical concepts.

The policy of the Dyslexia Association of Ireland (DAI) is that the assessment will cover a range of literacy skills including reading of single words (both real and non-words), phonological awareness, reading fluency/speed, reading accuracy, comprehension and spelling. Related cognitive skills including memory, rapid naming, and other language skills are also investigated. Cognitive testing such as the WISC-V will be included if the educational psychologist deems it necessary and in the best interests of the client.

What information is in the report?

The report contains background information, observations on how a student approaches a task during assessment, tests results, descriptions of what the tests mean and where the scores place the student in relation to other students of similar age. The findings are summarised, a conclusion is stated and recommendations for future action are given. All sections are important to read to understand the student's learning profile.

Is there a way to get relevant information quickly, subject to a detailed study of the report later?

Yes. It can be done by:

- Checking the child's background history especially if earlier assessments and identification of difficulties have taken place.
- Looking at the table of results.
- Reading the conclusions drawn by the psychologist.
- Examining the recommendations.

Key elements in planning teaching interventions are the strengths and weaknesses on both the cognitive and the attainment tests.

Understanding scores

Scores used in the assessment may be given as composite/standard scores, percentiles or scaled scores.

Composite/standard scores are based on the Normal Distribution Curve and range from approximately 70 to 130. A score of 100 is the mid-point of the curve. 50% of the population will score between 90 and 109. This is designated as the 'Average' range.

Percentile scores range from 1 to 99. They calculate where, in a typical group of 100 students of the same age, the student would be placed in terms of achievement on a particular task, group of tasks and ability. Thus the student placed at the 90th percentile achieved as well or better than 90 students out of the 100.

The table below sets out the standard score range, percentiles, the percentage of the population who would achieve such scores and the descriptive categories relating to these scores.

Composite/ Standard Score	Percentile Score	% of population	Descriptive Range
130 and above	98-99	2%	Exceptionally high, very superior
120-129	91-97	7%	High, superior
110-119	75-90	16%	High average Above average
90-109	25-74	50%	Average
80-89	9-24	16%	Low Average
70-79	3-8	7%	Low
Below 70	1-2	2%	Exceptionally low

Can a student's profile change?

Yes. As a student learns to use as many different abilities as possible to problem-solve, one may expect that a profile will change. Work that is presented and learned through multiple channels is more likely to be effective than work presented or learned through one channel only. In addition, structure, repetition and making associations are strategies that need to be taught. Constant monitoring by the teacher enables students to stretch beyond their present level of attainment.

Scaled scores may also be quoted in the report. They use a scale of 1 to 19. The mid-point is 10. The average range is 8 -12. Any score above 12 is above average and the closer the score is to 19 indicates increasing ability. Any score below 8 is below average and the closer the score is to 1 indicates increasing difficulty.

Attainment testing in literacy and numeracy

The results in the attainment testing section of the report may be given as standard scores and/or percentiles.

Many students with dyslexia have a wide discrepancy between their levels of numeracy and literacy and their cognitive ability. A discrepancy may also be apparent between their ability to read and write in comparison to their peers. It can be relatively easy to see where they need support. However, some students with dyslexia will get average scores on their literacy attainments. It is a mistake to assume that they are coping as tests do not assess every aspect of their learning.

FACTSHEET 4: THE ASSESSMENT REPORT AND ITS IMPLICATIONS FOR LEARNING

Traditionally the assessment includes testing of both cognitive abilities and literacy /numeracy skills. The test which has been most frequently used for cognitive testing is the Wechsler Intelligence Scale for Children, Version 5 and referred to as the WISC-V.

WISC-V recognises there are distinct abilities in cognitive functioning that can be grouped together and measured. It generates a Full Scale IQ (formerly known as an intelligence quotient or IQ score) that represents a child's general intellectual ability. It also provides five primary index scores: Verbal Comprehension Index, Visual Spatial Index, Fluid Reasoning Index, Working Memory Index, and Processing Speed Index. These indices represent a child's abilities in discrete cognitive domains. The score for each of the five headings is based on the aggregate of scores from a number of subtests. For example, the score for Processing Speed is based on three sub-tests which are Coding, Symbol Search and Cancellation.

Terms used in WISC-V results

- The **General Ability Index (GAI)** score is used instead of the IQ score when there is an exceptionally large discrepancy between the highest and lowest Index scores. The GAI provides an estimate of intellectual ability that is less reliant on Working Memory and Processing Speed than the Full Scale IQ.
- The **confidence interval** means that it is likely that the candidate's real ability is best described as lying between the two scores given, rather than being described by a single score.

An example of a WISC-V summary sheet

An example of the summary sheet showing the profile of results of the WISC-V for a student with dyslexia is shown on the next page.

Key points in this profile are:

- The overall ability is in the middle of the average range (composite score CS 100).
- Processing Speed (CS 83) and Working Memory (CS 88) are below average.
- Verbal comprehension (CS 111) and Visual Spatial (CS 117) are High Average.
- Fluid Reasoning (CS 97) is in the average range.

Possible classroom difficulties

Poor working memory and processing speed may present in some of the following ways:

- Forgetting verbal instructions.
- Difficulties with rote learning, mental arithmetic and memorising tables.

- Problem-solving due to difficulties holding topics in the mind while working on them.
- Reading delay and poor reading comprehension.
- Disorganisation in written work and forgetting books, equipment and homework.

Possible interventions

The profile indicates strengths in verbal comprehension and visual spatial skills. The student should use these strengths to overcome the weakness in working memory. Strategies that would help include:

- Mindmaps, visual planners and organisers.
- Making clear notes using colour, numbering headings and diagrams.
- Use of homework journal to help with organisation. Colour coding files for notes.
- Using a single diary for all activities.
- Reducing rote learning by ensuring material to be learnt is understood.

Maths Related Processes in WISC-V

Difficulties in maths can result from various cognitive processes which are measured in the WISC-V:

- Attention
- Visual Spatial Processing
- Working Memory
- Language Comprehension
- Executive Functions

An example of a WISC-V summary sheet for a student with dyslexia

	Sum of Scaled Scores	Composite Score	Percentile	95% confidence interval	Qualitative description
Verbal Comprehension VCI	24	111	77	102-118	High Average
Visual Spatial VSI	26	117	87	107-124	High Average
Fluid Reasoning FRI	19	97	42	90-104	Average
Working Memory WMI	16	88	21	81-98	Low average
Processing Speed	14	83	13	76-94	Low average
Full Scale IQ FSIQ	70	100	50	94-106	Average

Sub Score Summary

	Subtest name	Total raw score	Scaled Score	Percentile Rank
Verbal Comprehension	Similarities SI	25	13	84
	Vocabulary VC	21	11	63
	(Information) IN	15	10	50
	(Comprehension) CO	19	14	91
Visual Spatial	Block Design BD	30	13	84
	Visual Puzzles VP	16	13	84
Fluid Reasoning	Matrix Reasoning MR	14	9	37
	Figure Weights FW	17	10	50
	(Picture Concepts) PC	13	12	75
	(Arithmetic) AR	14	9	37
Working Memory	Digit Span DS	18	8	25
	Picture Span PS	18	8	25
	(Letter-Number Sequence) LN	11	7	16
Processing Speed	Coding CD	26	8	9
	Symbol Search SS	23	8	25
	(Cancellation) CA	43	8	25

There are 10 subtests and six additional ones which may be used. These are in brackets. The sum of scaled scores in the summary sheet above is based on the 10 subtests.

FACTSHEET 5: SUPPORTS FOR STUDENTS WITH DYSLLEXIA IN IRISH EDUCATION

The key supports for students with dyslexia in Irish education include additional teaching support, language exemptions, RACE (Reasonable Accommodations in Certificate Examinations), DARE (Disability Access Route to Education) which is the supplementary admissions scheme for entry to CAO courses and financial assistance for the purchase of equipment or the cost of assessment.

Extra teaching support

The special education teaching allocation model introduced in Circular No 0014/2017 provides a single unified allocation for special education teaching needs to each school, based on that school's educational profile. This allocation allows schools to provide special education teaching support to all students who require such support. This is updated in circulars such as circulars 008/2019 and 0021/2022.

It is the school who will manage and deploy the special education teaching support allocated to the school.

In the case of students who need additional teaching support, the classroom teacher will be supported by special education teachers. This support can be provided by team teaching, small group teaching and, where necessary, individualised teaching to address specific learning needs.

The DES document *Guidelines for Post-Primary Schools: Supporting Students with Special Educational Needs in Mainstream Schools* (2017) <https://www.sess.ie/sites/default/files/inline-files/Guidelines-for-Post-Primary-Schools-Supporting-Students-with-Special-Educational-Needs-in-Mainstream-Schools.pdf> provides guidance to schools on the use, organisation and deployment of additional teaching resources for students.

Language exemption: Irish

A circular from DES in September 2019 sets out that an exemption from the study of Irish may be granted where the student present with significant learning difficulties that are persistent despite having had access to a differentiated approach to language and literacy over time. At the time of application for the exemption the student should present with a standardised score on a discrete test in word reading or reading comprehension or spelling at/below the 10th percentile. The decision

to grant an exemption is made by the school principal.

This replaces the previous circulars. Psychological assessments are no longer necessary to process applications. Average or above average IQ is no longer used as a diagnostic specifier.

There is an appeals procedure set up when a school refuses to grant an exemption.

Language exemption: National University of Ireland (NUI) Irish and third language requirement

The study of a third language is not compulsory at post primary level. However the entry requirements for most NUI faculties state that a student must pass six subjects in the Leaving Certificate (two at higher level) and that English, Irish and a third language must be included. **The faculties of Agriculture, Architecture, Engineering, Food Science, Nursing and Science do not now have the entry requirement of a 3rd language.** NUI recognises the Department of Education and Skills (DES) exemption from Irish. Students with the Irish exemption are eligible for an exemption from the NUI Irish and 3rd language requirements.

Where a student is diagnosed late as having dyslexia and has not come to the attention of the National Educational Psychological Service Agency (see Section E of Exemption Application Form), NUI will consider an Irish / language exemption. In these cases the Exemption Application Form must be accompanied by a recent report from a professional psychologist and a Certification Form completed by the psychologist. This should be no more than 3 years old. Application forms are available at www.nui.ie/college/entry-requirements.asp.

Language exemptions: Trinity College and University of Limerick

Both these colleges have a two language entry requirement. Students with dyslexia can apply for

an exemption from this requirement by making a direct application to the college.

It is the responsibility of the student to ensure the CAO is informed of the existence of these language exemptions. If they do not, they risk losing the offer a place in college.

RACE (Reasonable Accommodation in Certificate Examinations)

Reasonable accommodation describes the various supports provided for students in the Junior and Leaving Certificate exams. These include:

- ☐ Help with reading either with an individual reader or reading assistant.
- ☐ Use of the Exam Reader Pen. See Factsheet 15.
- ☐ Use of tape recorder.
- ☐ Use of a computer/word processor.
- ☐ A scribe. When applying for a scribe, reasons must be provided why the student cannot use a computer or tape.
- ☐ A waiver from the spelling and grammar elements of the exam in languages.

An explanatory note stating that accommodations were in place for the exam is attached to the statement of results.

In addition the State Examinations Commission provides Digital Coursework Booklets for completion by students eligible to use a word processor in the subjects listed below. The Leaving Certificate subjects with such a booklet are History, Geography, Home Economics and Religious Education. At Junior Cycle the subjects include English, Science, Irish, Business, French, German, Spanish and Italian.

The Application Process for Leaving Certificate

The form RA1 is used for students who want to have the same accommodations carried over from the Junior Certificate. On the form the school will confirm that the need that led to the granting of supports still persists. The SEC (State Examinations Commission) considers the school authority's judgement as the appropriate evidence that these supports are still required.

The form RA2 is for students who did not have accommodations at Junior Certificate or who are seeking to have different or additional accommodations.

The school should assess eligibility using the criteria set out by SEC. The school is required to retain all evidence used in this assessment (test results, samples of work used to calculate error rates, medical and other reports).

Both the RA1 and the RA2 have to be submitted by the closing date set. If not, the late application process should be used.

The Application Process for Junior Certificate

Since the accommodations for Junior Certificate can be reactivated at Leaving Certificate level, the SEC emphasises that schools must be sure that each candidate is eligible for RACE and that the accommodation recommended is required for the student to access the examination. The school should gather and retain appropriate evidence of need including results of testing, samples of work with error rates, medical and other reports etc.

Eligibility Criteria for RACE for students with dyslexia and other learning difficulties

- There is no need to have tests of cognitive ability from 2016 onwards. As a result, an educational psychological assessment is not required for the RACE process.
- All the testing can be carried out by the school.
- DES Circular 0067/2020 gives guidance on appropriate standardised tests to be used.
- The tests used by teachers to establish a candidate's standard score on reading or spelling and writing speed must be administered on an individual basis.
- Results of any attainment tests must be obtained with 12 months prior to the date of application.
- The required error rates in reading and spelling may only be obtained from assessments carried out by the school. Error rates from non-school sources must not be allowed to override the school's count of error rates.
- All records of the evidence used to assess eligibility must be available to SEC during and following the application process.

The SEC sets out very detailed criteria for each accommodation which can be found at www.examinations.ie/misc-doc/BI-CA-68723624.pdf. The tests may be of handwriting speed, word reading, spelling, grammar, punctuation depending on the accommodation being sought. A standard score of 85+ is not likely to be eligible. A standard score of 85 is the equivalent of the 16th percentile.

If the student needs accommodations in state exams, it follows that they benefit from receiving similar accommodations in house exams.

DARE (Disability Access Route to Education)

DARE www.accesscollege.ie is the third level alternative admissions scheme for school-leavers whose disabilities have had a negative impact on their second level education. Students may be admitted on their course of choice with lower Leaving Certificate points than those set by the CAO. The reduction in points for DARE places can vary every year and is dependent on a number of factors, such as:

- The number of places on the course
- The number of reserved DARE places on the course
- The number of DARE eligible applicants competing for these reserved places.

Colleges use different ways to allocate places. Information on this and on the number of DARE places of individual courses in a college is available under the tab 'participating colleges' at www.accesscollege.ie/dare.

Priority in the DARE system will be given to two groups of applicants. One group are those students who qualify under both DARE and HEAR. HEAR is for socio-economic disadvantage. The second group are those DARE applicants who have physical and sensory disabilities.

The application has three stages. Firstly the student applies to the CAO by February 1st. By March 1st students indicate they wish to be considered for DARE by ticking YES to Q1 and completing section A of the Supplementary Information Form (SIF). By 15th March students should ensure that *Educational Impact Statement* (EIS) and *Evidence of Disability* are completed, signed, stamped and returned to the CAO.

Evidence of Disability for students with dyslexia is an educational psychological assessment of any age that clearly states the applicant has a Specific Learning Difficulty. The criterion that the General Ability had to be within or higher than the average range no longer applies.

The Educational Impact Statement (EIS) is completed by the school. The statement should be signed by the School Principal or Deputy Principal and have the school stamp. There are six

indicators on the Statement. Students with dyslexia must meet Indicator 6 and at least one other indicator. The indicators are:

1. Intervention and support
2. Attendance and disruption
3. School experience and well-being
4. Learning and exam results
5. Other educational impact
6. Attainment scores in 2 literacy scores at or below 10th percentile or 81st Standard Score. This testing must be carried out within the two years prior to the DARE application. These attainment scores can be from one (or a combination) of the following sources:
 - 1) Scores from school-based attainment testing.
 - 2) Scores from attainment tests carried out by a psychologist.

If the student does not qualify for DARE, they are still eligible for help while at college and should contact the Access/Disability Officer of the college they will be attending.

Financial Assistance

VAT can be claimed back on the purchase of computers/assistive technology for home/personal use using Form VAT 61A from the VAT Repayments Section.

It is possible to claim tax back on the cost of a private assessment on the MED 1 form which is available from the Revenue Commissioners.

FACTSHEET 6: THE DYSPLEXIA FRIENDLY SCHOOL

There are many ways in which schools can support the student with dyslexia. Some may be whole-school policies on topics such as the readability of textbooks, the use of a dyslexia-friendly style for handouts and exam papers or ensuring that teachers are aware of the learning difficulties of any student whom they teach. The great advantage of such policies is that they benefit all students. The British Dyslexia Association has published *The Dyslexia Friendly School – Good Practice Guide 2nd Ed.*

www.bdadyslexia.org.uk/shop/books/dyslexia-friendly-schools-good-practice-guide-2nd-edition It contains ideas, resources, checklists and questionnaires, all aimed at making schools more dyslexia-friendly. N. MacKay says the following in the book *Dyslexia, Successful Inclusion in the Secondary School*.

‘Dyslexia-friendly policies also enable schools become more effective and improves performance of all pupils. This is the power of the dyslexia friendly approach that changes made on behalf of dyslexic pupils can benefit all.’

N. MacKay

School organisation

Which member of staff is responsible for providing support for the student with dyslexia? Who should teachers go to get help if they have concerns that a student may have a learning difficulty?

Circular No 0014/2017 on the Special Education Teaching Allocation makes the following points:

‘The classroom teacher has primary responsibility for educating all the students in his/her class including students with SEN.’

Schools should establish and maintain a core team of teachers for special educational needs who should have the necessary experience and ongoing access to professional development to support students. Some students with dyslexia, while their scores may not be low enough to access additional teaching support, may need help with option choice, study skills, exam accommodations or DARE applications. There needs to be a school policy where it is clear whom they can approach for help.

Subject choice

- Is there support for students and their parents when deciding on the most appropriate options to choose in first year and for senior cycle? Due to the uneven pattern of ability there are some

subjects in which students with dyslexia may do well and others in which they will find difficult to make progress.

- Does the option structure allow for the study of a third language to be optional?
- The British Dyslexia Association website www.bdadyslexia.org.uk/educator/modern-foreign-languages discusses modern language learning for the student with dyslexia. It looks at which languages are more suitable, suggesting Spanish, Italian and German are more transparent with a clear letter-sound structure. French, like English, is a relatively opaque language. This means it does not have clear letter-sound correspondence and has more irregularities. It then looks at study strategies which can help the student when learning languages.
- The Department of Education and Skills does not require students to take a language other than English and Irish. Some students with dyslexia find the study of languages very difficult and will achieve better results in other subjects. Students who are exempt Irish due to dyslexia, will get the National University of Ireland (NUI) exemption from the entry requirement to have a third language. However since 2012 the eligibility criteria for the 3rd language exemption for students

without an Irish exemption state that the student should be at or below the 10th percentile in two literacy areas. Many students with dyslexia may have scores above these criteria. Parents need to be aware that they may be limiting some college and course choices at third level if the student does not do a language.

- If the student is exempt from the study of Irish, is it possible to arrange for another subject or activity to take place during this time? The provision of a subject is of particular benefit in senior cycle since a student who is exempt Irish could be reduced to taking six subjects in the Leaving Certificate. Given the competitive nature of the points system, this may prove to be a disadvantage.

Class placement

- Are standardised tests used at entrance assessment? Are the limitations of such tests appreciated by the school? The **Post-primary Guidelines on Inclusion** state 'standardised tests are often unsuitable for use with student with Special Educational Needs, because the language register inherent in many tests makes them inaccessibletherefore caution should be exercised in using and interpreting the results.'

Communication with staff

- The **Report of the Task Force on Dyslexia** and the **Guidelines on Inclusion** state that mainstream teachers have the key responsibility for the progress of students in their class with special education teachers assuming supporting roles. Are all teachers informed of a student's difficulties? Information could include a profile of the student's strengths/weaknesses and suggestions about effective teaching strategies based on the assessment. Such information is highly confidential and there should be a policy and procedures for keeping it safe.
- Any teacher who has contact with the student also needs such information. These include the principal, deputy principal, year head, tutors, guidance counsellor and teachers involved in extra-curricular activities.
- Has in-service training being provided for the whole staff on the topic of learning difficulties including dyslexia? Such training may be available from the National Council for Special Education, www.ncse.ie/school-support-portal, the Teacher Education Centres www.esci.ie, the Dyslexia Association of Ireland www.dyslexia.ie or Dyslexia Courses Ireland www.dyslexiacourses.ie. There are also on-line courses on dyslexia provided by ICEP –

Europe www.icepe.ie. There is Master of Education in Specific Learning Difficulties (Dyslexia) available in St. Patrick's College, DCU, Drumcondra.

Communication and teaching

- For students with dyslexia, the ability to read and understand text can be affected by the way the text has been written and produced. The font style, type of paper and layout of the page can affect how easy it is to read handouts and exam papers. Factsheet 14 gives guidelines on how to improve readability of text and could become the basis for a whole-school policy. An example of this would be that the school decide all documents would use Comic Sans or Calibri fonts with line and half spacing and size 14 font.
- School policies which promote dyslexia-friendly teaching and learning strategies could be adopted such as:
 - Encouraging the use of multi-sensory teaching methods as much as possible.
 - Accepting alternative formats for homework such as typed work or mindmaps.
 - Don't ask a student to read aloud without first checking the student is comfortable doing so.
 - Providing notes if the student has difficulty taking notes from the board or dictation.
 - The use of graphic organisers.
 - All teachers could use the same corrections symbols when correcting homework. The JCSP book *Between the Lines* has suggestions. See page 73 www.pdst.ie/sites/default/files/Between%20the%20Lines_0.pdf
- Subject departments should consider readability levels when deciding on texts. An analysis of some commonly used texts books for the Junior Certificate using internationally recognised readability tests showed some with reading age equivalents of fifteen or sixteen. See Factsheet 14 for more on calculating readability statistics.
- The language departments could co-ordinate the teaching of aspects of grammar such as parts of speech, verb tenses or punctuation to happen at the same time which would reinforce the learning taking place.
- The **Understanding Dyslexia** CD/DVD published by the Department of Education and Skills provides a form which helps students analyse where they are having difficulty in class and enables them to ask teachers for help. This Asking for Help form is included in Factsheet 18.

The Report of the Task Force on Dyslexia states that mainstream teachers have the major responsibility for the progress of each student in their classes including those who have learning difficulties arising from dyslexia. Special education teachers and other professionals have supporting roles. Therefore the mainstream teacher needs to be familiar with a student's profile of strengths and weaknesses as it may give guidance on the most appropriate strategies to help a student's learning. There needs to be a system to impart such information to mainstream teachers on an on-going basis. This is highly confidential information and must be held securely.

FAIRNESS

'To successfully manage the inclusive classroom, teachers should re-examine the notion of what is 'fair'. Fairness does not mean every student gets the same treatment but that every student gets what he or she needs.'

Understanding Dyslexia Department of Education and Skills

Tips to help with communication

- Write clearly on the board giving plenty of time to take down information and homework tasks. Cursive handwriting may be difficult to read. Don't write too much on the board, as a board with a lot of information is harder to read. Erase before more is written. Check the student has copied it correctly.
- Divide the board into segments: one for homework, one for new vocabulary, one for class work. This helps the student navigate the board better.
- Students with dyslexia can face huge difficulties getting homework tasks set by teachers into their homework journal. It may be incomplete or illegible. There are a number of computer programmes or Apps that allow the teacher to make homework accessible on-line. This can also include class notes and worksheets. The website www.classdojo.com offers such a service to schools. The apps **Edmodo**, **Schoolcircle** and **Remind** also offer similar services. If allowed to have smart phones, could they take a picture or read their homework into the phone to record it. Could the teacher take a picture of the completed board and send it to students through on the above apps?
- The student, who has difficulty with sequences or who has to listen and then process information, may become confused unless instructions are kept

simple. Break down the directions into simple steps. Repeat key points. It is helpful to give written notices of events.

- If students are slow in retrieving facts or words, give extra time for them to answer so they can get their thoughts together. They can spend time anxiously worrying about being asked questions rather than listening to the teacher. Have a private arrangement that they will only be asked a question in particular circumstances such as when the teacher approaches their desk.

Talk to the student and ask what would help. The DES **Understanding Dyslexia DVD** has an *Asking for Help* form which helps students to identify what supports might help. It is included in FACTSHEET 18.

Tips on classroom organisation

- The notes of the student may be inaccurate, illegible or incomplete. Often the task of taking notes is so demanding and takes total concentration that the student is not listening and does not understand what is in the notes. Help them by showing how to take notes, giving them templates for notes, providing notes for them or photocopying the notes of another student. Homework Apps such as **Edmodo**, **Classdojo**, **Schoolcircle** and **Remind** can make teacher notes available on-line. Could they take a picture of the

board or could the teacher take one and send it to students.

- Clear routines and directions make the classroom more secure. Put up classroom lists of the routine for the day or week. A calendar showing key dates for the term is useful. Have a wall chart with classroom rules. Wall charts of key terminology also help. Bookmarks with key symbols and vocabulary can help.

Dont's

- Minimise the use of cursive handwriting whether it is on the board, in notes or on exam papers. Students may find it difficult to decipher. Teacher notes and test papers should be typed preferably in a dyslexia-friendly style (See Factsheet 14).
- When disciplining, think about the amount of written work given as a punishment as it can be far more demanding for a student with dyslexia than for others.
- After explaining what the mistake/misbehaviour was and what the student can do to remedy the situation, ask them to repeat what has been said. This verbalisation can help the student process what is said and increases understanding.
- Don't ask the student to read aloud in class unless it has been checked that the student is willing to do so. MacKay in *Removing Dyslexia as a Barrier to Achievement* suggests the student has a card called a Reading Pass which they use to opt out of reading aloud.

Teaching approaches

- Foster self-esteem by giving genuine praise whenever possible and promoting activities that yield success.
- Multi-sensory teaching can help learning. If lessons include oral, written and visual elements, these provide more 'hooks' for the student to remember the content. Choosing texts which are available on DVD or tape can be helpful.
- Co-operative learning strategies which promote peer tutoring, active learning and discovery learning can help. The **Post-primary Guidelines on Inclusion** has a section on the topic. The NCSE has an eLearning course and a DVD as well as resources on differentiation in the classroom. www.sess.ie/resources/differentiation-post-primary

Homework and exams

- Some students may answer off the point because they do not understand the question. The English Language Support Service www.elsp.ie have worksheets and activities on the language used in exams. Students may need to be taught how questions are structured and the meanings of words used in questions.
- Use positive correction techniques when correcting. Not all mistakes need to be marked. Take one particular category of error and correct it. Comment positively on what was done well. One method could be to correct with two stars for what was done well and one wish for what could be improved. N. MacKay in his book *Removing Dyslexia as a Barrier to Achievement* suggest the strategy of making points under the headings of *Tip*, *Success* and *Think* as a positive way to help students learn from homework corrections.
- Ensure they know how to enter homework and other commitments into the homework journal. They should have one diary for all commitments such as social life, sports, and school. This is a life skill which will help them when they leave school.
- Adapt class and homework goals when necessary. This may mean accepting shorter answers, typed homework or shortening lists of quotes or poetry to be learnt. Set a maximum amount of time to be spent on a task.
- Before an exam, students benefit from being given lists of key material to be revised, with sections of work allocated to particular weeks.
- Modify test formats to reduce the use of long written answers by using formats such as multiple choice, true and false questions, labelling diagrams and oral tests.
- Leave three lines between questions on an exam paper.

FACTSHEET 8: DEVELOPING READING, COMPREHENSION AND LEARNING/MEMORY SKILLS ACROSS THE CURRICULUM

Reading and learning/memory are essential skills across the curriculum. Students with dyslexia frequently underachieve owing to weaker verbal abilities. Dyslexia affects reading in different ways. Some students may have to decode the words they are reading and as a result cannot remember the content of what they have read. Others may read slowly and have to reread several times, while some may misread words when tired or stressed. Many students, who attend Dyslexia Courses Ireland Study Skills Workshops, report that their key difficulty is memory and learning. However, if they can find a logical approach and apply their strengths to the task, they can make rapid progress.

The National Behaviour Support Service has an extensive range of resources, worksheets, summary maps /organisers and classroom posters on comprehension and learning strategies for before, during and after reading in the publications and resources section of the website <https://www.nbss.ie/publications-categories/literacy-language-learning-resources-publications>

Developing reading skills

- The most effective way to develop reading skills is to read. The school could encourage this by having a library with books at different reading levels. The NBSS website has a comprehensive listing of such books called **READ – Engaging students with high interest and low readability books**.
- Parents should be encouraged to see the benefits of the student reading at home on a consistent basis. For weaker readers, introduce parents to the practice of paired reading. They should be encouraged to maintain reading throughout the summer as progress made in school can be lost over the holiday period. NEPS have a leaflet *Shared/Paired Reading at Home*. <https://assets.gov.ie/41263/b5a89df5ab58412e8a01a2fedc8a9cd1.pdf>
- Dyslexia Action has published a book *Dive in – a book guide for the reluctant and dyslexic readers* which gives guidance on books that might engage the reluctant reader. Website: <http://www.dyslexiaoutreach.co.uk/wp-content/uploads/2015/02/Dive-In-A-guide-to-choosing-childrens-books-for-reluctant-readers-and-readers-with-dyslexia.pdf>
- An active reading method such as the SQ3R, (Survey, Question, Read, Recite and Review) could be adopted as a whole school policy. The NBSS have a booklet on it. https://www.nbss.ie/sites/default/files/publication/s/mm_sq3r_student_booklet.pdf Once it has been explained, all teachers could ask students to use the method in their own subjects. Homework journals could include an article on SQ3R.
- Good readers retain a lot of what they read. Students with dyslexia, who may struggle with decoding the words, need to develop a way to make the information more real. Visualisation is a technique which turns the text into images making it easier to remember. See Cogan and Flecker's strategies and worksheets on visualisation in their book **Dyslexia in Secondary School**.
- The Junior Certificate Schools Programme has resources to support literacy development across the curriculum including keyword initiatives, reading challenges, classroom posters to promote reading and a teacher resource book. Some are available from www.becpublishing.com. Some literacy and numeracy workbooks can be downloaded at <https://jcsplibraries.com/jcsp-workbooks/>
- Some students find the glare on white paper causes visual stress. www.abcschoolsupplies.ie provide aids to help including reading rulers and page overlays. Tinted A4 pads and notebooks are available in Easons and Mr Price.
- The increasing availability of textbooks as e-books or PDFs where students can listen and see the words at the same time helps with understanding the text. See Factsheet 15.
- For students who do not read fluently, the use of a scanning pen which reads the text aloud or through headphones is a useful aid. See www.scanningpens.co.uk.
- Some students may have poor skills in phonics. The book *Toe by Toe* could help. Toe by Toe is a highly structured phonics-based reading manual to help anyone who finds reading difficult. It requires

only 20 minutes of coaching a day and you'll see immediate improvements. It can lead to rapid progress. It can be used by parents or by teachers. Also the game TRUGS could be helpful. TRUGS comes from *Teach Reading by Using Games*. It is a system of sets of card games and follows a phonics structure so the children are learning through having fun and competition. It comes in 3 levels. Level 3 would be recommended for second level. It is available from www.otb.ie.

- Sites such as www.loyalbooks.com, www.openculture.com and www.epubbooks.com allow for free download of audiobooks including Shakespearian plays, poetry and novels.
- The Thinking Shakespeare photocopiable series is a collection of learning activities that encourage understanding of the plays through a logical progression of thinking skills from remembering where, who and when to knowing how and why. Using Bloom's Taxonomy, students are presented with exercises and activities beginning with events and becoming increasingly more challenging. 13 plays are covered including Macbeth, Merchant of Venice, King Lear, Romeo and Juliet etc. They are very useful for differentiation in the classroom as well as making students very familiar with the texts. Available from Outside the Box www.otb.ie.

Developing reading skills in the classroom

- Bookmarks or rulers help them keep their eyes focused on the text when reading.
- When choosing textbooks consider the readability level of the text. There are several readability tests available such as the Flesch-Kincaid Grade Level Readability Test. Some Junior Certificate texts had a reading age of 15 when checked. Most students in first year would have difficulty accessing such content. Factsheet 14 has information on readability tests including how to use Microsoft Word to calculate readability statistics.
- Check if the student is willing to read aloud in class. Some are very conscious of poor reading skills and anxiety makes their reading worse.
- If it is necessary for the student to read aloud, discreetly let them know the previous day the section they will be asked to read, so they can prepare it.
- By introducing texts and giving cues about their content, teachers make them more accessible. If a science teacher shows that the chapter structure of the book divides the course into 3 sections of Biology, Physics and Chemistry, that key

information is marked in bold print, that there is a revision section at the end of each chapter and how to use the index, it makes the book more approachable.

Comprehension and learning strategies

- When reading a chapter in a textbook, introduce the content, so the student becomes tuned in to the gist of the material and the keywords. This helps with comprehension.
- The websites www.nala.ie/resources/131 and www.englishforeveryone.org have extensive comprehension worksheets. A teacher could have sets of worksheets of different reading abilities so each student is working at an appropriate level.
- Effective summarising using summary maps, mindmaps and other graphic organisers helps the student to learn. The information is represented in a clear, logical manner, with key ideas highlighted. This helps with the recall of information and in structuring written answers.
- A note-taking strategy such as the Cornell method helps students to organise information. The page is divided into two columns. The left one is used for main ideas and key concepts. The right column is used for supporting detail. <https://medium.goodnotes.com/study-with-ease-the-best-way-to-take-notes-2749a3e8297b>
- Show students how to file notes using strategies such as colour coded files for different subjects, numbering pages, putting a heading on each page and having an index in the front of the file.
- Some students with dyslexia may find it difficult to make their own notes. Teacher notes or revision books/notes give them access to the keypoints for learning. Oaka Books www.oakabooks.co.uk have revision packs in a number of subjects which set out to make revision easier for students with dyslexia by presenting key facts visually. In particular, their packs in Science, French and Geography could be relevant to Irish students. Oaka also have board games in Science and Map reading.
- Reduce the amount to be learnt by rote learning such as shortening lists of quotations in higher level English.
- The Little Book is a way to get students to learn bits of information by teaching one another. Full instructions on creating and using Little Books are on the PDST website, www.pdst.ie/node/2833.

- Colour code questions in a comprehension text. An example could be that Question A is pink and Question B is blue. Then, when reading the text, use the same colours to indicate relevant material in the text for that question.
- The website www.worksheetworks.com has 100's of worksheets that can be adapted to whatever the teacher wants. It has materials for Maths, English, Geography and puzzles. It is possible to make up Word Searches. It has blank Graphic Organisers that can filled in as required.

Developing memory

Many students, when asked how they learn a topic, say 'I read over the chapter'. The student with dyslexia must make the material 'their own' to get it into long term memory. Multi-sensory learning helps with the processing of the information. The more senses that are involved, the more likely the learning is to stick. Triple strength learning involves seeing, saying and hearing. Quadruple strength learning involves the addition of writing.

Therefore they should say, hear, see and write as much as possible. The student should talk, listen, debate, use lists of questions, draw timelines or mind-maps, visualise, create mnemonics, or make up cards with key facts. The hard work involved in the active transfer of information sharpens the students' understanding and it is a reliable route to successful learning. Once learnt, frequent revision of material is recommended.

The National Educational Psychological Service (NEPS) have produced handouts and tips for teachers and parents. They include a handout on *Working Memory in the Classroom*.
<https://assets.gov.ie/41303/64411cb9abed429cb775d5aefb459bed.pdf>

Here is a game to improve memory. Put up to 20 items on a tray. Give students one minute to look at the items. Then cover the tray and ask them to make a list of the items they can remember. Then compare the results. Some students will be able to list more items than others. In class discussion ask them to say what strategies they used to remember. These strategies might be

- Finding links between items
- Visualising the positions or shapes
- Making a rhyme or association of words.

Repeat the game within a few weeks. Remind the students of the strategies that had been helpful prior to repeating it.

Keywords, definitions, facts, key quotations etc. could be put on small cards and used as flashcards or in games such as Memory or Snap.

Here are some websites which help with learning.

Study Stack www.studystack.com This site allows the student use existing sets of flashcards or the teacher or student can prepare their own. The flashcards can be used for learning and then there are games. **Quizlet** and **Kahoot** can also be used for games/flashcards to help with learning.

The following websites have been recommended for making information more accessible. They are useful for making presentations or for learning material visually. All have a free access option. The student and/or teacher can use templates, icons, graphs, charts to visually display and communicate key points. **Canva** and **Vennage** add visual interest through shapes, frames, graphics, colour etc., and can be customised with personal images. **Spark.adobe** can be used to create web pages and video stories. **Powtoon** allows the addition of images and sound to make animated videos. **Tellegami** is a mobile app that lets one create and share a quick animate Gami video.

FACTSHEET 9: DEVELOPING VOCABULARY AND WRITING SKILLS ACROSS THE CURRICULUM

A key difficulty for students with dyslexia is getting information down on paper. Teachers often say 'Answers are too short' or 'Points are not developed'. There is a mismatch between oral and written ability. Their writing skills are not as automatic as they are for other students. Their writing is slower than their thinking, so good ideas and connections may be lost as they struggle with spelling and writing. Due to the fact that many do not read for pleasure, their vocabulary may be limited.

Developing Vocabulary

- Choose dictionaries which have large print, preferably in dyslexia friendly fonts with plenty of space between entries. A bookmark with the alphabet is also a good aid. Increasingly dictionaries are being produced with the alphabet printed on each page.
- If an unfamiliar word appears in a text, show them how to pronounce it, explain its meaning and ask them to put it into a sentence so they become familiar with it. It could then be put into a subject-specific vocabulary notebook. **The National Behaviour Support Service** www.nbss.ie/publications-categories/literacy-language-learning-resources-publications has excellent resources on teaching vocabulary.
- **The English Language Support Programme** www.elsp.ie, while designed primarily for students whose first language is not English, has resources which equally well suit the needs of all students. In particular it has lists of key words and worksheets in many subjects such as maths, science, business and wood technology.
- **The Special Needs Information Press** has a literacy intervention programme which uses specific secondary curriculum words together with high frequency words to support word recognition and spelling. It can be used on a one-to-one basis or with groups. It is a free download at www.snip-newsletter.co.uk/pdfs/downloads/precision_words.pdf
- **The Florida Center for Reading Research** site has a huge treasure trove of class activities and games on phonics, reading fluency, comprehension and vocabulary. It provides the instructions and materials for each class activity. Website: <https://www.fcrr.org/student-center-activities/fourth-and-fifth-grade>
- **English for Everyone** www.englishforeveryone.org has extensive printable English worksheets on

comprehension, writing, grammar, phonics, spelling etc.

- Show how a word can be broken up into its base word, and suffix and/or prefix and how these change the meaning of the word, e.g. **helpful, helpless, unhelpful**.
- Up to 75% of English words come from Latin and Greek roots. Knowing these roots is especially valuable for the student with dyslexia for two reasons.
 - ❓ These students learn best when they can see patterns and understand what they are learning.
 - ❓ Many do not read for pleasure and as a result may not have an extensive vocabulary. As a result, they often come across words they do not recognise.

Giving them an understanding of the Latin and Greek roots helps them to see how the word is constructed, how to pronounce it, how to guess its meaning and a tool to help in spelling it. For example, the use of the ending '**cide**' means killing, so it is easier to find the meaning of words such as **homicide, infanticide, herbicide**, etc.

Developing Spelling

- Check how the student says the word. Many, for example, say '**I should of**' or '**persific gravity**' instead of '**I should have**' or '**specific gravity**' and therefore spell it the same way.
- Write new words on the board, divide them into syllables and show how to pronounce the word, e.g. **com/pre/hen/sive, cor/on/a/vir/us**.
- Students will find it difficult to learn new spellings by simply copying words. A multi-sensory approach
LOOK-PICTURE-COVER-PICTURE-WRITE-CHECK is a proven method for learning spelling.
- Mnemonics help them to have a rule in their head. Examples include: **A piece of pie** or **Never believe a lie** or **Emma has a dilemma**.

- Knowing the rules of Latin and Greek plurals can help them make sense of the spelling, e.g. why **curriculum** changes to **curricula** or **fungus** changes to **fungi**. There are only nine Latin and Greek plurals. See www.biomedicaleditor.com/spelling-tip-latin.html. This is particularly helpful for Biology and Health Sciences.
- Don't ask them to correct and copy all the misspellings. It will not help. Explain one or two categories of error and ask them to do examples showing they understand what was wrong.
- **Keda Publications** www.kedapublications.co.uk. have a book *Stareway to Spelling*. Often the students can remember spelling test lists in the short term, but cannot write effectively because they soon forget the correct spelling. The carefully constructed methods within *Stareway to Spelling* ensure that the 300 most used words can be committed to long-term memory and recalled at will by the student.
- **Analyse the question:** They do not have to include all they know on a topic but have to select relevant material to answer the question asked. Check they understand the meanings of words used in questions. www.elsp.ie have a good handout on the English used in exams questions. Take class time to practise deconstructing questions and identifying what they have been asked.
- **Brainstorm** a topic. Headings should be brief and no attempt at structure at this stage so the mind is free to make associations. When brainstorming, use Post-its for points. They help when organising ideas and also reduce the amount of rewriting.
- **Plan:** The next stage is to plan the structure of the essay using the brainstorm. Common problems include lack of structure, haphazard planning or an uneven amount of writing on different aspects of the answer.
- Some ideas to help with planning
 - Making mindmaps or outline plans mean they can see the structure of the essay spatially arranged.
 - Give class assignments that require them just to hand in the planning for an answer.
 - Ask the student to plan an essay by writing the topic sentence for each paragraph.
 - In some subjects it is helpful to give writing frames/formats which show the structure of the answer required.
 - The software Inspiration has templates for answers in a number of subjects.
 - Lists of points to be included in an answer can prompt them to write at greater length.
 - Get them to make up three characters in great detail such as how they look, clothes, hobbies, family, school, jobs, friends, opinions etc. They could get pictures from magazines or the internet which will help them visualise the individuals. When asked to write a short story, they already have the characters in their head.

Developing Writing (Presentation)

- Check the basics. How does the student sit and hold the pen. A pen grip might help.
- Handwriting can be quite difficult to read. The teacher might put a note on an exercise 'Improve handwriting' but the student does not know how to do this. The reasons for the poor handwriting can include:
 - Letters too large or too small.
 - Spaces between letters/words uneven.
 - Slope of the handwriting inconsistent.
 - Writing does not stay on the line.
 - Not closing letters such as 'a' or 'd'.

The teacher could ask the student to concentrate on correcting one of these difficulties at a time.

- Poor presentation of work can come from a lack of perception of space on the page. The student may need to be taught how to lay out work in steps and how necessary it is to use tools such as rulers/margins to improve layout.

Developing Writing (Content)

Key problems in written work of students with dyslexia are either they write off the point or do not write enough when answering. Train them to tackle writing essay-type answers in 5 stages: analyse the question, brainstorm, plan, write and check.

- **Write:** When they start to write, their thinking has been done. Now they concentrate on writing skills to express their ideas.
- **Check:** Students are more likely to pick up errors if they proofread aloud or by saying each word quietly. They can hear the mismatch between what they have written and what they meant to have

said. They will pick up more errors if they proofread three times, once for content, once for spelling and once for grammar/punctuation. They should proofread sometime later rather than immediately after writing.

Essay Writing Kit from Oaka Books

Oaka Books was set up as a specialist publishing company by two parents who found there were no text books that their dyslexic daughter could work with. They have created a range of topic packs that, quite simply, make learning easier and more memorable for pupils. Now they have produced an Essay Writing Kit.

<https://www.oakabooks.co.uk/products/write-a-good-essay-colour-coded-essay-planner> Whether

pupils are producing coursework or essays, they need to be able to write in an organised, coherent style and this can be a difficulty for some students with dyslexia. This kit sets out to help these students.

The Essay Writing Kit booklet is packed with great 'sentence starters' to help pupils get going and improve their sentence structures (especially handy when they are staring at a blank piece of paper!). A colour coded planning sheet will remind them to make sure each point is covered, explained and linked to the next, creating an easy to read, logical answer.

FACTSHEET 10: MATHEMATICS: DYSLEXIA AND DYSCALCULIA

Some students find mathematics difficult to understand. It may be the result of dyslexia or dyscalculia. One can have dyscalculia with or without having dyslexia and vice versa.

Difficulties in Maths due to Dyslexia

Students with dyslexia may have some of the following difficulties:

- Poor memory and, in particular, working memory. Rote learning of tables, rules and formulae is problematic. They perform badly at mental arithmetic as they may need time to process the question before thinking about the answer.
- Their working memory often can hold only a small number of items at a time. As a consequence, they cannot automatically perform mental calculations or may have difficulty remembering the steps in a complicated procedure such as long division or quadratic equations.
- Information may not have been well stored in long term memory and this may mean that they have not a solid grasp of basic facts which affects future learning.
- Confusion about direction or left and right can result in difficulties in many aspects of maths such as co-ordinate geometry, the number line with positive and negative numbers, decimals and division. Students may reverse words, numbers or symbols. Left to right confusion in maths is not helped by the fact that the usual way to work in maths is the opposite direction to that when reading.
- Where several operations are required in an arithmetic calculation, the student may have difficulty with sequencing and direction e.g. 'Which number do you take from which', or 'Which procedure must be done first'. The student may have difficulty in remembering accurately the meaning of the symbols used in maths such as **bigger than (>)** or **less than (<)**.
- One of the most stress-inducing situations is performing under pressure of time. The student with dyslexia may have a processing speed difficulty, which may affect mental calculations, the processing of verbal instructions and writing down answers.

Difficulties with the language of maths

- Procedures may have more than one way of being explained. Teachers may differ in their approaches. This can be confusing.
- Vocabulary is not always used consistently. **Subtraction**, for example, can also be indicated by

the words **take away**, **minus**, **decrease**, **less than** or **difference**.

- Terms used in ordinary speech take on a different meaning in maths. **Mean** in English denotes **unkind**, **to represent** or **miserly** while in maths it has a precise and very different meaning.
- A student with dyslexia may have difficulty taking in instructions, particularly if these are long and complex and if specialist vocabulary is used inconsistently.
- Reading may be inaccurate. Words with similar prefixes such as '**concave/convex**' are easily confused. Students may have difficulty understanding and interpreting what is being asked because of the language in which the problem is presented.
- Students with visual difficulties such as visual stress and tracking may lose their place when working across a line of symbols and numbers, often skipping to the next line or place. They may find the page too crowded or too distracting to be read easily.

Difficulties specific to Dyscalculia

Students with dyscalculia have no natural understanding of number. They find it difficult to comprehend the relative size of number, for example, to know if 345 is more than or less than 543. There is an inability to conceptualise and execute maths processes. The student may be able to complete the calculation correctly but does not understand why it works. This means knowledge is not transferred to new problems. A student may experience some of the following difficulties:

- Not seeing patterns within numbers. They do not easily see that **7 = 2 + 2 + 2 + 1** and also **3+4** or **3 +3+1**.
- Finds it hard to visualise the overall ten structure of the number system e.g. **27** is **twenty seven ones, two tens and seven ones** or **seven more than twenty**.
- Generally counts in ones, often using fingers. Find it hard to count backwards.
- Poor working memory leading to difficulties remembering formulae and procedures.
- Does not remember number facts such as tables, or everyday applications of numbers in budgets or financial information.

- Does not easily generalise knowledge from one topic to the next topic in number work.
- **Will experience considerable anxiety around maths. This intense fear and avoidance can affect their ability to learn maths skills and concepts.**

Dyscalculia Assessment

Here are possible ways to assess for Dyscalculia.

1. **The Dyslexia Association of Ireland** offer dyscalculia assessments. www.dyslexia.ie/assessment/
2. **Dyscalculia Assessment** is a tool for investigating pupils' numeracy abilities. It is designed to inform a personalised teaching programme for individuals or small groups of pupils who have difficulties with numbers. The book, written by Jane Emerson and Patricia Babbie, was the winner of the ERA Best Special Educational Needs Resource 2011. Available from Demac Education.
3. **The Dyscalculia Screener and Dyscalculia Advice**, which is available from www.gl-assessment.ie, helps identify pupils with dyscalculic tendencies and recommends intervention strategies. It is suitable for specialist and non-specialist teachers to screen entire year groups or individual pupils who show difficulty with numbers and arithmetic calculation. This screener distinguishes between those who have poor maths ability and those with dyscalculic tendencies.

The Dyscalculia Guidance Handbook contains advice as well as intervention strategies to help dyscalculic pupils – from pre-school to university age – achieve their potential. It has activities (with photocopiable resources) grouped into specific areas of mathematics to help structure teaching plans, building knowledge vital for dyscalculic pupils' progress.

Can students make progress in maths?

Progress in number work is often slow and students can regress. Nevertheless basic number work needs to be worked at to lessen as much as possible the difficulties experienced by students with dyslexia and dyscalculia. There are other areas in maths where students may not have the same level of difficulty such as algebra and geometry. Progress is possible if one adopts certain

principles of teaching and learning strategies that have shown good returns.

There are a range of practical programs and apps that students may find useful for practising their techniques with numbers and for learning patterns, thus gaining confidence in using mathematical procedures.

Specific help for Dyscalculia or Dyslexia

The *Power of 2* by D.J. Sharp is a book which provides a highly structured one-to-one maths coaching system which is particularly suited to dyslexic and dyscalculia students who require extra support to bond the basic maths facts into their long-term memory. The books are for a student and coach to work through together. The 'coach' can be anyone: teaching assistance, mentor, teacher, parent or friend. It is very similar in approach to *Toe by Toe* system for literacy. See www.powerof2.co.uk.

Article on Maths from Yale Centre for Dyslexia and Creativity (YCDC)

<http://dyslexia.yale.edu/math.html>

Since the YCDC website began in 2007, it received many requests about how best to help dyslexic students struggling with Maths. They asked Chris Woodin, the head of the Math Department at Landmark School, a school that specializes in teaching students with language-based learning issues, to help find alternative methods for mitigating common math struggles that seem to accompany dyslexia.

Woodlin offered many helpful and practical strategies for Maths teaching and short videos showing them in action in the above link.

Maths Webinars from the British Dyslexia Association

The British Dyslexia Association

www.bdadyslexia.org.uk/shop/webinars have the following webinars for teachers on Maths and Dyscalculia.

- Understanding, identifying and supporting learners with dyscalculia and Maths learning difficulties £10
- Dyscalculia and Maths Learning Difficulties £6
- What is Dyscalculia £6
- Some Thoughts on Teaching Maths to students who find Maths difficult: Steve Chinn £6.

FACTSHEET 11: TEACHING MATHEMATICS TO STUDENTS WITH DYSLEXIA & DYSCALCULIA

Essential texts are Steve Chinn's books, **Maths Learning Difficulties, Dyslexia and Dyscalculia**, **The Trouble with Maths** and **More Trouble with Maths** and, in particular, the sections dealing with diagnostic assessment and teaching strategies. He states that 'Mathematics appears to be **THE** subject for school anxiety'. Anxiety will be greatly reduced by showing understanding of the difficulties, by building up competence through encouragement, by judicious marking and by assisting the student to set attainable goals. While the student's difficulties present the teacher with a 'problem', the teaching process may present the student with a 'problem'.

How can one best support the student with difficulties in maths?

The programme of remediation should be:

- Structured and cumulative, using multi-sensory methods.
- Individual to the student, based on analysis of their work and learning speed.
- Cyclical, with built-in regular revision of previously learned facts and procedures.
- Based on understanding rather than rote learning.
- The language of instruction should be clear, unambiguous, consistent and concise.
- New concepts should be introduced using simple examples.

General strategies for the classroom

- The use of diagnostic assessment as the basis for effective intervention is needed. This allows teachers to understand the student's unique difficulties and to identify the exact processes that are not being understood or learned. Test scores are less important than identifying where the problems lie.
- Cognitive styles can influence how the student approaches a number task. Some think holistically and intuit the answer to the problem (the Grasshopper), while others prefer to move analytically step-by-step (the Inchworm). Teachers can help by understanding these styles and providing strategies to help.
- Students may be slow in reading questions. Even after decoding the words, they may not comprehend what is required. If explained, they have no problem doing the maths. It is a reading problem. Students may have more difficulty with Project Maths due to the increase in the verbal content of the paper.
- Practice and repetition: Students with dyslexia require more time rehearsing facts and procedures before these can be accessed automatically. This

becomes the rationale for building in recurrent revision to a teaching programme. Progress should be evaluated against the student's own scores, not those of the class.

- Understanding is the key to learning. For students who have poor rote memories and yet need to learn basic number facts, the key to learning is to ensure they understand why a particular procedure is chosen and the purpose of the task.
- The ability to visualise is a skill that many students with dyslexia use to great effect. Visualisation is developed through hands-on learning and the use of concrete materials. When they have internalised the vocabulary, the symbols and the procedures for calculating numbers, they will be able then to automatically access the relevant facts for problem solving.
- Students with dyslexia and/or dyscalculia have an especially hard time learning new math words. Using correct math words can seem like learning a new language. There are two websites that have extensive resources to help.
www.luminouslearning.com/blogs/sped-math/math-vocabulary and
www.luminouslearning.com/blogs/sped-math/teaching-math-vocabulary

Practical Tips

- Teach organisation skills. The student may need to be taught how to lay out work on the page and to use a ruler and margins. Use squared pages. Test papers should be clearly set out, even to the point of one problem per page, to avoid distraction.
- The direction of calculation needs to be regularly reinforced through using concrete materials and colour coding. The student could use arrows to show in which direction the sum goes.
- Use mnemonics when possible. They provide a path through confusion. Examples include 'The old American sat on his car and hiccupped' for Tan, Sin

and Cos or 'FED' (foreign to Euro divide) for currency exchange.

- Put keywords into a vocabulary notebook to be used for reference and revision. Take time to teach maths vocabulary in class using multi-sensory methods. The Junior Certificate Schools programme and the English Language Support Programme www.elsp.ie have lists of key vocabulary in maths along with worksheets and activities to promote learning of the keywords. JCSP resources are available for sale at www.becpublishing.com. Some can be downloaded at <https://jcsplibraries.com/jcsp-workbooks/>.
- Use subvocalising by training students to say numbers quietly as they write them. The mismatch between the eye and ear alerts the student to inaccuracy.
- Allow more time than usual for working out and answering.

Don'ts

- Don't overuse the blackboard. Minimise the amount of copying from the blackboard, possibly by providing photocopies. Don't dictate a problem. It is unlikely information will be taken down accurately.
- Don't overload homework. Set a maximum time for homework.
- Because maths is a progressive subject, it is unwise to move from one topic to the next unless the first has been understood and internalised.

Websites

- Engineers Ireland STEPS programme website (www.steps.ie) has maths revision videos, maths modelling, Project Maths support and real world maths for students. It also has downloadable maths worksheets for second level teachers.
- www.ixl.ie IXL is aligned to the Leaving and Junior Certificate syllabus and provides comprehensive coverage of maths concepts and applications.
- The Nrich programme based in University of Cambridge www.nrich.maths.org aims to enrich research and resources on good practice for the teaching of maths and science which will be updated twice a year.
- www.alison.com Alison, which provides free on-line training, offers 250 Maths tutorial videos aligned to the Leaving and Junior Certificate Project Maths syllabus.
- www.mathsexplained.co.uk. This is a short series of videos for adults and children who experience

difficulty with Maths. It is designed to address many of the barriers to learning students may have met before and allows time to learn. It is designed by Steve Chinn, author of *The Trouble with Maths*. There is a cost for the videos.

Apps

There are endless numbers of free Apps that are excellent for learning the links and patterns between numbers. The benefit for the student is that the mistakes they make are not noticed by anyone else and they have the enjoyment of working towards their personal best.

Some examples of Apps are as follows:

- Maths Tricks
- Maths Workout
- Maths Pieces (Maths puzzle game)

Call Scotland had produced a poster on iPad apps for learners with dyscalculia or numeracy difficulties at

<http://www.callscotland.org.uk/common-assets/cm-files/posters/ipad-apps-for-learners-with-dyscalculianumeracy-difficulties.pdf>

Maths Videos

- www.mashupmath.com
- www.mathantics.com
- www.mrbartonmaths.com
- www.teachthought.com/technology/stunningly-simple-way-explain-pi is a gif animation which does what it says. It is a simple way to explain Pi.

Useful References

Bird, R. *The Dyscalculia Resource Book* Sage Publications 2017

Bird, R. *The Dyscalculia Toolkit* Sage Publications 2017

Chinn, S. *Maths Learning Difficulties, Dyslexia and Dyscalculia* BDA 2018

Chinn, S. *The Trouble with Maths* (2nd Ed. 2012) Routledge

Chinn, S. *More Trouble with Maths – A Complete Guide to identifying and diagnosing mathematical difficulties* (2012) Routledge.

Ollerton, M. *100 Ideas for Teaching Mathematics* Bloomsbury 2007.

Chinn and Ashcroft. *Mathematics for Dyslexics and Dyscalculics : A Teaching Handbook - (4th Ed. 2017)*

FACTSHEET 12: TEACHING LANGUAGES TO STUDENTS WITH DYSLEXIA

The circular from DES in September 2019 sets out that an exemption from the study of Irish may be granted when, at the time of application, the student presents with significant learning difficulties that are persistent despite having had access to a differentiated approach to language and literacy learning over time **and** with a standardised score on a discrete test in word reading or reading comprehension or spelling at/below the 10th percentile. The same criterion of the 10th percentile applies to the granting of the NUI 3rd language exemption. Many students with dyslexia do not qualify for such exemptions and are likely to have to study languages.

If students have had difficulty in the study of their own language, they may struggle when learning a new language. Difficulties may include pronunciation, phonics, tenses, spelling, sequencing words in the sentence, vocabulary development and grammar. Cogan and Flecker in their book ***Dyslexia in Secondary School, a Practical Handbook for Teachers, Parents and Students*** explains these difficulties well and has an excellent section on teaching languages with many practical strategies and photocopiable worksheets. Many of the strategies below are based on this book and it is a key resource for language teachers.

The British Dyslexia Association website www.bdadyslexia.org.uk/educator/modern-foreign-languages discusses modern language learning for the student with dyslexia. It looks at which languages are more suitable, suggesting Spanish, Italian and German are more transparent with a clear letter-sound structure. French, like English, is a relatively opaque language. This means it does not have clear letter-sound correspondence and has more irregularities. It then looks at study strategies which can help the student when learning languages.

The University of Lancaster offers a free on-line course for language teachers on teaching languages to students with dyslexia. See www.futurelearn.com/courses/dyslexia.

The TuDOrs Project is for **foreign language teachers** and training **providers**. <https://tudors.academy/>
The Project is aiming to improve the knowledge and skills of foreign language teachers, to enhance how they teach people with learning disabilities, by using innovative methods and practices.

Sounds

Many students face the challenge that vowel and consonants combinations do not make the same sound in the new language as they do in English. They need to practise seeing and saying the sounds until they recognise them automatically. Teaching the phonics of new sound combinations and giving worksheets on sounds is helpful.

Use of Dictionaries

Choose dictionaries that have large print, preferably in dyslexia friendly fonts with plenty of space between entries. As students may have difficulty remembering the alphabet they could tag where the entries for each letter start. A bookmark with the alphabet is a good aid. More publishers

are now printing dictionaries with the alphabet printed on each page.

Learning Vocabulary

Learning vocabulary is crucial to mastery of a new language. Dyslexic students may find the task exceptionally hard. They need structured programmes of vocabulary development and a multisensory approach which makes them see, say, hear and write words.

Suggestions when learning vocabulary include:

- The more connections dyslexic learners can make between their own language and the foreign language, the more confident they become. They are likely to find rote learning hard but may learn

more easily through understanding a pattern. Fig. 6.4 in Cogan and Flecker illustrates connections between French and English spellings.

French	English	Example
X	C	prix = price choix = choice
U	L	faucon = falcon, saumon = salmon
Oire	ory	victoire = victory, gloire = glory

- Linking an action to the word makes it more memorable, such as smiling when saying **sourir** or saying **je tousse** when coughing.
- Using a vocabulary list with space to draw pictures helps with learning.
- When copying vocabulary, they are likely to make mistakes. Also layout could be poor and handwriting difficult to decipher. Give printed vocabulary sheets.
- Vocabulary lists that are topic-based allow students to visualise which helps learning, and are preferable to alphabetical lists with no connections between words. Always place new words in a context and write them in a sentence.
- Highlighting words in pink and blue help students remember the gender of nouns.
- Mnemonics also help in remembering rules in grammar. For example, BANGS (Beauty, Age, Number, Good and Size) can help in when deciding which adjectives come before a noun in French.

Verbs

Students with dyslexia may find learning verbs difficult. They do not easily see or hear the segments within a word due to a deficit in phonological processing. As a result they are not alert to the 'base' word and prefixes/ suffixes.

To help them identify the base word and prefixes/suffixes, give a piece of written material where they use a highlighter to mark each one in different colours.

Another difficulty is that they often have a poor sense of time and this leads to problems with identifying tenses. They can be helped by identifying tenses in their own language. This can

be done with cards with verbs written on them and they have to place them under the headings of the tenses such as past imperfect, present etc. Once they can identify and justify their decision by saying 'This is the imperfect tense because it is a continuous action in the past', they will be able to apply this learning to the new language.

Grammar

Sequencing difficulties may mean the student has difficulty with grammar and syntax. This is particularly true in languages where the grammatical conventions are very different to English such as Irish where the verb comes first.

Cogan & Flecker suggest strategies such as:

- Give a sheet of model sentences, each of which illustrates a rule. This gives students an example against which to test their own work. Putting these on tape allows for multi-sensory learning.
- Use cards games to help build up sentences. Each word in the sentence is on a separate card and they arrange the cards to make sentences. The words could be colour coded for different parts of speech.

Resources

Cogan J. & Flecker M. *Dyslexia in Secondary School, a Practical Handbook for Teachers, Parents and Students* (2004) London: Whurr

Everatt, Prof J. *Dyslexia, Languages and Multilingualism* British Dyslexia Association

Websites

www.duolingo.com

This site provides interactive learning of languages in progressive stages with writing and speaking exercises. Languages include Irish, French, Spanish, German and Italian.

www.memrise.com (iOS and Android)

Memrise focuses on teaching languages to students and uses visual flashcards to help them remember words and phrases for many different languages. Although the app focuses on languages it can be used to learn geography, history and sciences.

FACTSHEET 13: EDUCATIONAL CHOICES FOR STUDENTS WITH DYSLEXIA

Students with dyslexia tend to have an uneven profile of abilities. In order to capitalise on their strengths, it is important that they navigate the school system by making the best educational choices and that schools allow as much flexibility as possible to enable students achieve their best.

Standardised Testing

Standardised tests are often used at entrance and prior to senior cycle. There are limitations to the use of such testing for students with dyslexia. The scores in the educational psychological assessment are more valid and give an indication of potential as well as attainment.

The reasons why it is difficult to get an accurate result on standardised testing for students with dyslexia include:

- Speed of processing may be a weakness. It takes students longer to understand text and complete a test. They may not complete all questions within the time limits and yet, if given more time, they could do much better.
- They may be slower in reading instructions or deciphering the meaning in a sequence of instructions. This can be a big disadvantage in a timed test.
- In a maths test where questions are in a verbal format, it may become a test of their English and not their maths abilities.
- They may lack the vocabulary and have to take time to decode what the words mean or have to reread the questions to ensure understanding. Some students with severe dyslexia may not be able to read the questions, yet if the questions are read to them, they are capable of answering correctly.
- The Public Appointments Service allows applicants with dyslexia additional time when taking standardised testing for recruitment and promotion purposes.

Class placement

What is the most appropriate class placement for the dyslexic student who typically has an uneven profile of ability? Mixed ability allows the student to benefit from the range of ideas and stimulation in the class. At this stage the vast majority of secondary schools have mixed ability classes for Junior Cycle so it is becoming less relevant.

Subject choice

Subject choice is of critical importance for students with dyslexia. Students with no learning difficulties may have individual preferences about subjects but are likely to do equally well in a variety of subjects. Dyslexic students, due to their uneven profile of ability, may do exceptionally well in some subjects and may find others very difficult and face failure in them. Below are some of the issues to consider when choosing subjects particularly for the Leaving Certificate which is such an important gateway to third level courses.

- Many students face similar difficulties in the study of languages as they have had in English. Phonics, spelling, sequencing of words and learning vocabulary all pose problems. If obliged to take a language they may drop to ordinary level whereas they would take higher level in another subject. This affects their points. To be eligible for a NUI exemption from a 3rd language, the student should be at or below the 10th percentile on two literacy scores in an educational psychological assessment. This means more students having to take a third language in order to keep open the option of studying in the NUI colleges. In senior cycle, would it be more strategic for a student to study the 3rd language outside school at ordinary level and take a different subject at higher level in school? Students who have a DES exemption from the study of Irish will be granted a 3rd language exemption. See Factsheet 5 for more information on the NUI language requirement.
- The British Dyslexia Association website www.bdadyslexia.org.uk/educator/modern-foreign-languages looks at which languages are more suitable for students with dyslexia, suggesting Spanish, Italian and German are more transparent with a clear letter-sound structure. French, like English, is a relatively opaque language. This means it does not have clear letter-sound correspondence and has more irregularities.
- Subjects that require answers containing factual information may be easier than subjects in which answers are in essay type format. Therefore

geography, business, or physics may be easier to achieve in than English or History.

- Subjects that require a large amount of rote learning or the learning of many unfamiliar words can pose problems. Therefore home economics or chemistry could prove to be easier than biology.
- The student may have strengths in visual-spatial skills and could do well in subjects such as technical graphics, art, technology and construction studies.
- Continuous assessment is of benefit to students with short term memory difficulties so subjects with marks going for projects/journals/practical work are of benefit.

Choices after second level

DARE provides assistance by way of reduced points to some students when applying to college. A psychological assessment of any age that states the applicant has a Specific Learning Difficulty is acceptable.

The evidence of disability can be either:

- Scores from school-based attainment testing done within two years prior to application.
- Scores from attainment tests carried out by an educational psychologist.

To be eligible for DARE the student must meet both the DARE evidence of disability criteria and DARE educational impact criteria. (See Factsheet 5 for more detail on DARE.) The eligibility criteria for dyslexia state that standard scores in two literacy areas should be at or below a standard score of 81 (10th percentile). For dyscalculia, two mathematics scores should be at or below a standard score of 81.

- Many students will not qualify for DARE. Even so, they are still eligible for the supports in college and should apply to the disability services in their chosen college.
- Students with dyslexia may not do well in the broad-based Leaving Certificate where they may be taking subjects they find difficult to achieve in. Yet when at college when they can specialise in courses that suit their strengths, they can make good progress.
- Continuous assessment, semesters and project/practical elements in the course help the student to achieve when in college.

NCSE Booklet

The National Council for Special Education in association with the National Disability Authority has published an information booklet on the full range of post school education and training options for adults and school leavers with disabilities. It provides summary information on all the main programmes and supports available. It is downloadable at

www.ncse.ie/information-booklets-pamphlets-2

FACT SHEET 14: MAKING INFORMATION ACCESSIBLE – DYSLEXIA FRIENDLY STYLE GUIDE

For people with dyslexia, the ability to read and understand text can be affected by the way in which text has been written and produced. If producing information to be read by others, it is important to remember that up to 10% of readers may have dyslexia. Dyslexia friendly text improves readability and has a better visual impact for all readers, but especially those with dyslexia. **The following are some simple recommendations to help ensure that text is dyslexia friendly:**

Font Style

- Use a sans serif font such as Arial, Comic Sans, Calibri, Verdana or Sassoon.
- Use a minimum of 12pt or 14pt font size.
- Use lower case letters. Avoid unnecessary use of capitals. Using all capital letters can make it harder to read.
- www.opendyslexic.org and www.dyslexiefont.com offer a font designed specifically for people with dyslexia. The opendyslexic font is free for home users. The following piece below has been written

The Dyslexie font is designed for people with dyslexia. In the Dyslexie font, every letter is uniquely shaped, eliminating the common reading errors of dyslexia. Key features are:

- The centre of gravity is placed at the bottom, which avoids turning letters upside down and adds a clear base line.
- Some Dyslexie font letters have longer sticks, which helps to decrease switching letters while reading.
- Capital letters and punctuation are bolder making it clear where sentences begin and end.
- Some 'twin letters' are placed slightly inclined, which makes them easier to distinguish.
- The spaces between words and letters are increased.

The font is available free for home users at www.dyslexiefont.com. When downloaded, it is added to the list of fonts available for use.

A similar font is at www.opendyslexic.com

in Dyslexie font.

Paper

- Use a coloured paper, even cream or off white. Some individuals have specific colour preferences, e.g. yellow or blue. www.abcschoolsupplies.ie in Letterkenny have translucent rulers and overlays. Easons and Mr Price have A4 pads in different colours.
- Use matt paper to reduce glare.
- Don't use flimsy paper which may allow text from the other side to show through. Good quality 80 or 90 gsm is effective.
- Avoid light text on a dark background.

Presentation Style

- Keep sentences and paragraphs short. Try to break text into short readable units.
- Use wide margins and headings.
- Use at least 1.5 line spaces between lines of text, if possible.
- Use bold print to highlight. Italics and underline should be avoided as they can blur text.
- Highlight important text in a box or use colour.
- Use bullet points and numbers rather than long passages of prose.

- Keep text left justified with a ragged right edge.

Writing Style

It is best to keep text as simple and concise as possible, to aid navigation and comprehension.

- Keep sentences short and to the point (15-20 words per sentence).
- Give clear instructions, and avoid lengthy explanations.
- Use short words and terms where possible – avoid unnecessary complex vocabulary.
- Good advice on producing text in 'Plain English' is at www.plainenglish.co.uk/free-guides.html.

Readability Tests

There is a good briefing on readability tests at the following link:

www.snip-newsletter.co.uk/pdfs/downloads/readability_briefing.pdf.

Microsoft Word Version 2010 and later versions have a readability function which could be used to check the readability of handouts or of textbooks by typing in a selection of text from a book. The way to access this feature is as follows:

Go To File, to Options, to Proofing. Tick the Readability Statistics.

Then do a spell check on the document and when it is completed, readability statistics are provided. It provides a Flesch Reading Ease Score and a Flesch-Kincaid Grade level.

Flesch Reading Ease Score

A score between 90 and 100 would be easily read by eleven year olds

A score between 60 and 70 would be easily read by thirteen to fifteen year olds

A score between 0 and 30 would be easily read by university graduates.

Flesch Kincaid Grade Level

This test gives the grade level in USA schools. The SNIP newsletter suggests the following instruction to interpret this. *'Add 5 to the F-K grade and you have an approximate UK readability level.*

Remember that this is a simplistic method but provides a starting place when evaluating text'.

Posters and Leaflets

- Keep design simple.
- Avoid background graphics which can make text harder to read.
- Keep essential information grouped together, such as the time, date and place of an event.

Universal Accessibility

- Include useful pictures and graphics.
- Flow charts can help to explain procedures.
- Lists of "do's and don'ts" can be more useful than long passages of text.
- A glossary will help to explain abbreviations, acronyms and jargon.
- Longer documents should have a contents guide at the beginning and an index at the end.
- It is important to provide documents in a timely manner. Teachers and lecturers should make handouts available before the class begins.

FACTSHEET 15: COMPUTERS AND ASSISTIVE TECHNOLOGY

Developments in computers and assistive technology provide essential and significant help to students with dyslexia.

The Department of Education and Skills circular (circular 0010/2013) outlines a scheme of grants towards the purchase of essential assistive technology equipment for pupils with physical or communication difficulties who could not access the curriculum without such support. An application is made to the National Council for Special Education and should be accompanied by professional reports such as an educational psychological assessment which states how the equipment will be used. See www.ncse.ie/assistive-technology

The circular outlines a staged approach to the provision of assistive technology. As part of this approach it states:

*'Many students now have personal/tablet computers, or smart phones with equivalent capability, which may have been purchased for them by their parents or alternative sources. Where pupils with special educational needs, or with distinct educational requirements, have personal computer with relevant educational software or technological packages, which can assist them in schools, **schools should allow those pupils, subject to agreement and supervision, to use such devices in schools.** It will be a matter for schools to ascertain the relevance of the educational equipment or software being used and to supervise its use in school, in accordance with the schools policies on the use of electronic equipment in schools'.*

This means that parents could approach a school to ask if the pupil could use their own laptop or tablet in the classroom if it helps them in the classroom.

If the computer and/or software are bought by parents for home/personal use, the VAT can be claimed back using Form VAT 61A from the VAT repayments section. The form can be downloaded online from www.revenue.ie/en/vat/documents/form-vat61a.pdf.

Enable Ireland AT Service and the Dyslexia Association of Ireland have collaborated to produce a free learning resource outlining free and low cost apps and software to support literacy. This short eLearning module called Study Smart should be of interest to parents, students, teachers and other professionals working with people with dyslexia. To access the module just follow the link below

<http://atcourse.org/nala-national-forum-for-adult-literacy-tutors-2016/>

Dyslexia Association of Ireland have uploaded webinars onto Youtube at this link:

<https://www.youtube.com/playlist?list=UUbySI72M3zig6qxZRWTNw0w>.

They include webinars on aspects of Assistive Technology such as the C PEN Reader Pen, Text to Speech, Speech to text, My Study Bar, etc.

UrAbility www.urability.com set up by James Northridge who himself has dyslexia is a very useful site. There is *An Essential Guide to Assistive Technology for Learning* which can be downloaded.

It has a blog on the website with relevant articles such as advice for parents and

teacher giving advice on whether to choose a laptop or desktop computer. It also has an article on the 21 Apps every parent should download for children with learning difficulties. UrAbility run a course on Assistive Technology for parents and one for educators.

Kilkenny tech entrepreneur, Brendan Morrissey has launched a specialist smartphone application dedicated to providing support for those living and working with Dyslexia and ADHD. iDyslexic is an easy-to-use digital platform that allows the child, parent, teacher and case worker to log into a secure classroom to aid continuous support and development. It also expands into a social network for anyone at any age living with Dyslexia and/or ADHD. www.idyslexic.com

Some simple low cost technology

- Typed rather than handwritten notes. Font size should be a minimum of 12 or 14, using sans serif fonts such as Arial, Calibri or Comic Sans.
- Photocopy onto coloured paper. This reduces glare for some people. Coloured overlays placed on the text when reading can also help.
- Colour coding key information such as the different parts of speech when learning languages.
- Provision of visual information such as pictures, diagrams, charts or mindmaps.
- Use of tapes, CDs, DVDs
- Some students, who learn best by hearing, benefit from taping lectures or recording their own notes. A MP3 player can be used so they can listen to their own notes. Digital copies of textbooks are available from some of the educational book publishers. (See below).
- **Immersive Reader** is a free learning tool from Microsoft. It allows text to read aloud, breaks it into syllables and can increase the spacing between lines and letters. It can provide a coloured background. It allows one or multiple lines of texts to be seen. It is very easy to use.
- Electronic dictionaries such as the **Franklin Spellmaster**. If the student makes a reasonable phonetic attempt, there is a good likelihood of identifying the correct spelling.

Developing literacy and numeracy skills

There are hundreds of excellent programmes available which support the development of skills in reading, phonics, spelling and maths. Examples of some of the programmes include:

- **Workshark** based on the **Alpha to Omega** programme which uses games to develop reading and spelling skills.
- The **Lexia** reading series helps students in areas such as phonemic awareness, decoding skills and comprehension.
- The **Gamz Player CD** is based on popular swap games and supports reading, phonics and spelling.
- **Numbershark, Mathmania, BBC Maths Workshop Series, IntelliMathics** are all useful programmes for numeracy difficulties. See Factsheet 10 for more websites to help with numeracy.

Reading support/accessing text

Accessing curriculum textbooks can be challenging for students with reading difficulties. **The Reader pen**, which is white in colour, enables text to be scanned and read either aloud or through headphones. It also has a dictionary feature. The scanned text can be transferred later to a computer which is very handy for taking notes

from textbooks. Also available is the Exam Reader Pen, which is orange, and is now allowed as a reasonable accommodation in State Exams. It does not have a dictionary or the facility to scan. These are available at www.scanningpens.co.uk. who give schools a 30 day free trial.

Screen reading software reads any text on the computer screen, whether it is text the student has typed in, emails, webpages or the pages of a textbook which has been scanned in. The reading voice and speed can be adjusted. Text scanned in can be converted to an audio file and downloaded to an MP3 player. Examples of such software are **ClaroRead, Kurzweil, Read and Write Gold** and **TextHelp**. Mobile versions of this software are available (on a USB drive) allowing the student to use it on any compatible computer.

Prizmo is an app which allows a picture of text to be taken with a smart phone and then Prizmo will read it aloud.

WordTalk is a free plug-in for Microsoft Word that reads out text and also has a talking dictionary feature. Many PDFs have an in-built screen reader, which can be activated by going to 'View' and then selecting 'Read Out Loud'.

Writing support

Students with dyslexia are more likely to produce better work on a computer than if they are writing by hand. The computer produces clear legible text. Spelling can be checked using a spellchecker. Software such as **Grammarly** or **Ginger** can be of more help than a spellchecker. **Grammarly** corrects over 250 types of grammatical mistakes while also catching contextual spelling errors and poor vocabulary usage. Grammarly spots erroneous use of *lose/loose, affect/effect, lie/lay, there/their/they're*, and many other commonly confused words which a spellchecker won't.

TTRS Touchtype, Read and Spell

www.readspell.com

TTRS is a multisensory programme that teaches touch typing, reading and spelling. The contest is based on the 'Alpha to Omega' phonic system. Students learn to type but they also benefit from improved spelling ability and a boost in reading fluency thanks to an underlying phonics program that informs core content. **It is available free in most libraries now.** The student has a user name and passcode and can access the programme at home or in school.

Typing Club www.typingclub.com is a free online program that helps students learn and improving their typing speed. It includes 650 typing games, typing tests and videos. It provides instant feedback as well as summarized speed and accuracy assessments at the end of each lesson. Teachers can access all the same data that students see, and they can monitor students' real-time and overall progress.

The **AutoCorrect** feature in Microsoft Word can be customised so that the individual can build up their own bank of commonly misspelled words.

Editing and rearranging text is easy, which is of particular help to students who have sequencing difficulties.

Screen readers, which read what is typed in on the screen, are a useful tool to support writing. They allow the student to hear any errors such as a misspelling or an incomplete sentence. **ClaroRead** and **TextHelp** have a homophone checker. Possible homonyms are identified in the text and guidance is given to help choose the correct word. Both programmes have word prediction.

Software such as **Textease**, **Co-Writer** and **Penfriend** support writing with features such as talking spellcheckers and word prediction which can increase the speed of written production. **Clicker** is another useful programme where the student can write with whole words and even pictures.

Office Lens uses the camera on the phone to scan documents which can be saved to cloud storage accounts. **Cogi** captures audio highlights of a lecture. It uses 15 sec buffer so when the students realise an important part of the lecture and tap 'Rec' it starts recording from 15 sec previously. It is designed to assist people who already take reasonably good paper notes.

Voice recognition software is ideally suited to older students who have to produce longer pieces of written work. All instructions can be given verbally. The computer types as the student speaks. **Dragon Dictate Naturally Speaking** is the most commonly used programme of this type. Accuracy does increase with usage. To get the best from these programmes, a powerful modern computer with a good soundcard and microphone is essential.

Organisational and Study Skills

A very common feature of dyslexia is poor organisation skills, which affects many areas such as timekeeping, planning study timetables and especially organisation of information.

Mind-mapping software programmes such as **Inspiration** are very useful tools for students with good visual spatial ability. Students use it to make visual revision aids, brainstorming, concept mapping and planning essays. **Coggle** is another mindmapping app.

Mind Genius is another good programme for older students and adults in the workplace. There are lots of mind-mapping apps for tablets and smartphones – **Popplet** is one example.

MyStudyBar is a set of portable open source and freeware applications to help dyslexic students with studying, assembled into one package. It includes tools for mind-mapping, customising fonts and background colours, a talking dictionary and text-to-speech features. It is completely free to use.

Study Stack www.studystack.com This site allows the student use existing sets of flashcards or the teacher or student can prepare their own. The flashcards can be used for learning and then there are games. **Quizlet** and **Kahoot** can also be used for games/flashcards to help with learning.

The following websites have been recommended for making information more accessible. They are useful for making presentations or for learning material visually. All have a free access option. The student and/or teacher can use templates, icons, graphs, charts to visually display and communicate key points. **Canva** and **Vennage** add visual interest through shapes, frames, graphics, colour etc., and can be customised with personal images. **Spark.adobe** can be used to create web pages and video stories. **Powtoon** allows the addition of images and sound to make animated videos. **Tellegami** is a mobile app that lets one create and share a quick animate Gami video.

Wordswork is a multi-sensory programme on study skills. While designed primarily for undergraduate students with dyslexia, it is relevant for students at second level. Topics covered include essay writing, memory strategies, exam revision and time management, with sections on reading, spelling and grammar.

Students may find a PDA (Personal Digital Assistant) or electronic organiser helpful to keep

track of course requirements and to-do lists, study timetables, and sports/social commitments. **Trello** is a task management app with 'to do' lists, reminders, task completion status and several other project planning functions.

iPad/Android tablets

While Apps cannot provide the full range of facilities found on computers and laptops, they can be very helpful and have had a major impact in the last few years and are used increasingly in teaching and learning. With over one million Apps in the App Store for the iPad alone, it can be bewildering to identify what might be most appropriate for an individual student. The following websites provide guidance and help for teachers and parents.

The British Dyslexia Association (BDA)

The BDA website www.bdatech.org is updated regularly. It provides advice on choosing technology and looks at Apps under the following headings

- Reading options for the device.
- Apps to support reading and study.
- Writing with Text to Speech Options.
- Speech to Text.
- Writing and Writing with Stylus.
- Planning.
- Drawing.
- Scanning and OCR.
- Internet Searches.
- Organisation.
- Creating interactive texts.
- Calculators and Maths.
- Revision
- Other useful links.

CALL Scotland

CALL Scotland (Communication, Access, Literacy and Learning), which is based in the University of Edinburgh, provides information on communication and assistive technology for people with disabilities. It has two very useful resources.

iPads for Communication, Access, Literacy and Learning (iCall) (2nd Ed.) is a guide to helpful information and resources for iPads which is a free download at www.callscotland.org.uk/downloads.

Topics addressed are:

- Getting to grips with the iPad.
- Apps to support teaching and learning.
- Accessibility options.

- iPad accessories.
- iPad resources.
- Managing and implementing the iPad.
- Glossary of terms.
- Managing curriculum materials between Windows and the iPad.
- iPad management using iTunes – some useful tips.

iPad Apps for learners with Dyslexia/Reading and Writing Difficulties is a visual guide to Apps and is downloadable as a poster or a A4 page. This 'Wheel of Apps' is not comprehensive but attempts to identify relevant Apps and to categorise them according to the difficulties faced by the pupil with dyslexia. There is also a similar guide for Android Apps. Dyslexia indicator Apps do not fit within the Wheel, but links to them are given on the page. They are not formal screening tests, but give an indication that a learner may have dyslexia and that this should be investigated. Available for download at www.callscotland.org.uk/downloads/posters-and-leafllets/ipad-apps-for-learners-with-dyslexia.

There is also a wheel of iPad apps for learners with dyscalculia or numeracy difficulties at <http://www.callscotland.org.uk/common-assets/cm-files/posters/ipad-apps-for-learners-with-dyscalculianumeracy-difficulties.pdf>

Dyslexia, Supporting Students by Jeanette Davies is a free download for the MAC or iPad in the iTunes Store. The information in this multi-touch book is designed to demonstrate how the teacher or parent can utilize the built-in accessibility features of the Mac and iPad to support the student with dyslexia.

Making the Most of Microsoft Word 2016 to support literacy

This is a guide published by CALL Scotland which shows in a very practical and clear way how to make the most of Microsoft Word to support literacy. For some learners, Word's 'Ribbon' with its multitude of Tabs and features can be overwhelming and difficult to navigate. But with a bit of creative thought and some 'know how' Word can be customised to make it more user friendly and support a range of literacy difficulties. The many suggestions include:

- How to customise fonts and background colour.
- Allows the use of different layouts.
- Personalised auto-correct spelling lists.

- Customise Word's ribbon to reduce the number of tabs.

www.callscotland.org.uk/common-assets/cm-files/files/Making%20the%20most%20of%20Microsoft%20Word%202016%20to%20support%20literacy.pdf

Digital versions of textbooks

Digital copies of books are very useful for students with dyslexia as it enables them to see and hear the text. The educational publishers make digital copies of textbooks available. It may be the PDF file of the book with images and graphics stripped out or the eBook version.

There is a problem with the integration of iPad assistive technology software with some eBook versions of textbooks. This may mean the book cannot be read aloud on the device. However the educational publishers are working to overcome this incompatibility. This describes the situation as of January 2022.

Bookshare Ireland is the largest accessible library in the country available for all people with visual impairment or print disabilities. **The service is available to students with dyslexia.** Launched in November 2019, it is a partnership between the National Council of the Blind and the Department of Education and Skills. It is a free service for those who qualify with over half a million books, which are available in a range of formats including audio, digital Braille, Word, and PDF. For the student with dyslexia, the EasyReaderApp facilitates dyslexia friendly fonts, increased size of font, highlighting text etc. it is also possible to access audio recordings of books. **CJ Fallon and Edco have their books available on Bookshare and Folens and Gill are in the processing of making them available. The other publishers are likely to follow.**

If the student would benefit from having the book read aloud, an alternative solution is the use of a scanning pen/reading pen. There are two types of reading pen, the C Pen and the Exam Reader. The C Pen Reader reads text aloud or through headphones. It can also scan and store text and has a dictionary feature. The Exam Reader is a reading pen with only the scan and read facility. The Exam Reader has been accepted by the SEC as a reasonable accommodation in State exams in 2018. Both are available from Ed Tech in Ireland <https://www.edtech.ie/product/c-pen-reader>. Schools can request a 30 day free trial of the pens from Scanningpens www.scanningpens.co.uk.

The Irish Educational Publishers Association (IEPA) have a Special Needs Access Request Form (SNAR) for students who require access to digital versions of textbooks. This form must be submitted to IEPA members via the following email addresses:

- Edco – support@edcolearning.ie
- Educate.ie – support@educate.ie
- Fallons – support@cifallon.ie
- Folens – support@folens.ie
- Forum – info@forum-publications.com
- Foras na Gaeilge – angum@forasnagaeilge.ie
- Gill Education – snr@gill.ie
- Mentor – admin@mentorbooks.ie
- Prim-Ed – sara@prim-ed.com
- Veritas – growinlove@veritas.ie

This form lists the book titles and the format requested, for example, eBook or PDF. It needs to be signed by the school principal and parent/guardian. Some publishers also send an educational agreement to be signed.

CJ Fallon

The process for accessing digital copies of textbooks is outlined below. Their books are also available through Bookshare Ireland.

- If contacted by teacher or parent, CJ Fallon will create and assign an eBook account free of charge for textbooks used in the classroom. If they feel it is being abused, they can revoke the access. The books are same as the printed version.
- The full range of books is accessible, so it is possible to buy revision eBooks.
- They are working on integration with the iPad assistive technology. Access presently is as follows:

*On iPad, go to Setting
>General>Accessibility>Speech>
Turn on Speak Selection. Next
open a title in your
CJFallonReader app, go to a page
you want to read, next click the
settings icon on the top right of
screen and click on 'Text Only',
select the text you want read
aloud and from the menu
provided click speak.*

EDCO

Edco offers students a free eBook with their printed textbooks. It comes with a bank of free digital resources allows students to access their e-book both at school or at home. Ebooks

must first be redeemed on www.edcolearning.ie/code using the code on the inside of the physical book before they can be downloaded into the Edco Learning app. Full instructions are located above the code in the physical textbook and additional support can be found on www.edcolearning.ie/support. Books can be accessed through the Edco Learning app which is available to download free of charge download from the App Store for iPad, Google Playstore for Android and Windows Store for Windows 8 and Windows 10. Users who want to access the books on a different operating system can do so through the Edco Learning web app which is available at www.edcolearning.ie. Both the Edco Learning iPad app and the Edco Learning Web App include text-to-speech functionality within the platform itself, a first for any Irish educational publisher's platform.

Educate.ie

Free eBooks are supplied with the printed version of their books but these do not read the text aloud.

Educate.ie does provide PDF versions of textbooks via download for the benefit of pupils with reading difficulties. The format of the PDF is a full text copy of the book, in the same layout as printed book. Due to copyright, these files are solely for use by the pupil for whom they are authorised. The pupil should have an original printed copy of the book being used in this way.

There is an application form (SNAR) to be completed, which can be returned to Educate.ie via email. There is no additional charge for this service.

Folens

Folens are more than happy to assist students that have special educational requirements, and are very proud to be working with Bookshare Ireland in providing this service.

This is available for all students with special educational requirements. This includes visual impairments, learning difficulties or a physical disability that limits a person's ability to read standard print, and is compatible with smartphones, tablets, Chromebooks computers, and assistive technologies devices.

For **Post-Primary** books, contact Folens at <https://support.folens.ie/hc/en-ie>. We are still working with NCBI in making post-primary content

available via Bookshare Ireland, and we are hoping to have this ready soon.

Gill

Gill ask that a "**Gill Education Agreement and SNAR Form**" be filled up and signed. They will then make the PDF versions or eBook versions of their textbooks available.

PROCESS FOR REQUESTING A PDF

If a student is using read-aloud software or other assistive technologies, a PDF copy is provided free of charge. PDFs are compatible with most read-aloud software including ReadWriteGold, Dragon Naturally Speaking and Claroread. A link to the PDF files for the books requested will be emailed or the PDF's will be posted out. To arrange a free PDF, please complete and sign the "**Gill Education Agreement and SNAR Form**" and send the completed forms to **Anne Sophie Blytmann** by email or by post:

- **Email:** snr@gill.ie
- **Post:** Anne Sophie Blytmann, Production Department, Gill Education, Hume Avenue, Park West, D12 YV96

PROCESS FOR REQUESTING AN EBOOK

Our eBooks are compatible with PC, Android and iOS devices. Please note these are not read-aloud and cannot be used with read-aloud software (unlike the PDF version).

To arrange a free eBook, please complete and sign the "**Gill Education Agreement and SNAR Form**" and send the completed forms to the Digital Support Team at digitalsupport@gill.ie. Instructions on how to access your eBook will be emailed to you.

Mentor

There is an application form (SNAR) to be completed, which can be returned to Mentor Books.ie (Educate.ie via email). There is no additional charge for this service.

At present the eBooks cannot be read aloud on iPad/Tablet unless the student has installed such software themselves. To access reading aloud, Mentor will provide a pdf and, if the student has software on their laptop, it can be read back.

FACTSHEET 16: HOW PARENTS CAN HELP THE STUDENT WITH DYSLEXIA

Consistent parental understanding, support and interest are vital components for the student's progress. They have a major contribution to make in achieving effective outcomes. However the most important contribution which parents make is to provide a safe and reassuring home. This Factsheet outlines some specific ideas on how parents may help the student with dyslexia. Select the most appropriate as the student's needs will change over time. Also parents have a limited amount of energy and so they should put the available time into the supports that help the student most.

Tips on organisation of homework

- Negotiate a homework timetable that takes into account any sports or other commitments. Once agreed, put it up in the study area and expect that it will be kept to. Student Enrichment www.studentenrichment.ie has templates for timetables and goal setting.
- No distractions such as television or mobile phone.
- Homework should be done at a desk/table, with good light.
- Plenty of space with shelves to organise books and files.
- All necessary equipment that help with good filing and multisensory learning such as pens, pencils, crayons, staplers, punches, highlighters, plastic wallets, index cards, etc.
- Show the student how to colour code their timetable with different colours for different subjects.
- Colour coded files/copies, e.g. red for English, yellow for Maths etc. This could be with a tag or colour stripe. Use the same colour for the subject that they have used on the timetable.
- Calendar or planner on the wall with key dates marked in such as deadlines for assignments, exams, projects, as well as sports and other commitments.

Tips on routines

- Ensure that the homework journal is used to take down homework in each class of the day.
- If necessary, the student could write in the names of subjects in the journal the night before to make it quicker to take down homework.
- Get the student to use the homework journal to pack the school bag for the next day.
- If homework has not been entered accurately, does the student have the phone numbers/emails of reliable students who could be contacted.
- Is there a school network which might have homework tasks listed on it?
- Negotiate that the student does a weekly 'housekeeping' session where the bag is checked and notes are filed.

Communication with the school

Good communication between the school and parents is an invaluable support and can be fostered by the following:

- Ensure each teacher is aware of the difficulties the student may face. This could be done by sending the summary of the report or key points from it.
- If a teacher is absent for a period of time, send the summary into the substitute teacher.
- If the student does not read fluently aloud, make sure teachers are aware of this before the student enters the school in September in 1st year.
- Monitor the homework journal for teacher comments and use it to communicate with teachers.
- Ask teachers for written notices of events.
- Inform yourself about who is the key teacher to contact about supports such as accommodations in exams or subject choice.
- Inform the school if the student is stressed or homework is taking an excessive amount of time.
- Ask if the student could sit in the front of the class if it helps with concentration.
- Be informed about educational choices such as subject choice at school, types of Leaving Certificate programmes such as the LCA, exemptions from the study of Irish or a third language, reasonable accommodations in state and school examinations and be ready to act as an advocate for the student to access appropriate supports.
- Suggest through the Parents Association that the school organise an in-service for teachers on dyslexia and/or a talk for parents on how to help students with dyslexia.

Tips to help with reading

- Reading is a key skill at second level. Parents can foster it by encouraging the student to read for about 20 minutes every day.
- Could parents or TY students be trained to help with paired reading? NEPS have a guide to paired reading at

<https://assets.gov.ie/41263/b5a89df5ab58412e8a01a2fedc8a9cd1.pdf>

- The school library or local library may have literacy reading schemes with books with content suitable for teenagers but which have been abridged and vocabulary simplified.
- Reading should continue through the summer, otherwise reading is likely to regress.
- Listen to tapes of books on long car journeys so they are not missing out on the stories their peers are accessing through reading.

Tips for helping learning

- Be in the background when homework is being done to monitor that it is done effectively and to help sort any difficulties out. This should reduce as routines become established. Is the homework of good quality? Is the layout and writing clear?
- Help them develop memory strategies. Students with dyslexia must make the material 'their own' to get it into long term memory. Receiving information in one channel such as language and expressing it in another such as a mindmap helps information transfer from working to long-term memory. Possible learning activities include talking, listening, debating, answering questions, drawing timelines or mind-maps, visualising, creating mnemonics or making up cards with key facts.
- If there are difficulties, don't do the homework for the student. Teachers need to be aware if students cannot cope.
- If teenagers are not feeling confident, they may be defensive and reluctant to accept help. Ask them for their ideas on how you can help. Possible strategies to help include:
 - o Test new vocabulary which has been learnt.
 - o Listen to the student explain a new topic which has been learnt.
 - o Ask questions based on the textbook or revision book.
 - o Help with the planning of an essay.
 - o Show them how to make clear concise notes with bullet points, colour, numbering of points and headings. Then make sure the notes are filed.
 - o Get tapes of texts for English, so that they can hear and read the text at the same time. The educational publishers make digital copies of textbooks available. (See Factsheet 15).
 - o Revision books can help by giving access to keypoints for learning. There are also websites that have on-line tutorials and revision notes available in different subjects. They are listed on Factsheet 17 for students.

Tips for home life

- Help the student be organised in the house. Have consistent routines. Make lists of jobs and chores to be done.
- Keep a masterfile where all the school reports and assessments are held. The assessment report is an important document and may be needed in future years.
- Be informed about dyslexia, read books, attend lectures or courses and talk to professionals so you are aware of what is available and can help.
- Encourage the development of keyboarding skills.

Assistive Technology

Assistive Technology (AT) gives invaluable support. See Factsheet 15. There is so much hardware and software available that it is easy to be overwhelmed by the choice.

Enable Ireland AT Service and the Dyslexia Association of Ireland have collaborated to produce a free learning resource called Study Smart outlining free and low cost apps and software to support literacy. To access the module just follow the link below
<http://atcourse.org/nala-national-forum-for-adult-literacy-tutors-2016/>.

UrAbility www.urability.com set up by James Northridge who himself has dyslexia is a very useful site. There is an *Essential Guide to Assistive Technology for Learning* which can be downloaded. It has a blog on the website with relevant articles such as advice for parents and teacher giving advice on whether to choose a laptop or desktop computer. It also has an article on the 21 Apps every parent should download for children with learning difficulties. UrAbility run a course on Assistive Technology for parents and one for educators.

Dyslexia Association of Ireland uploaded webinars onto Youtube at this link
<https://www.youtube.com/playlist?list=UUbySI72M3zig6qxZRWTNw0w>.

They include:

- 6 webinars on Study Skills students with dyslexia.
- Self Esteem and Well Being in our Young People with Dyslexia.
- Transition to Secondary School.
- Preparing and Writing assignments.
- Webinars on Assistive Technology

Tips for developing self esteem

Self-esteem means young people feel competent and, when faced with new challenges, they feel that they can achieve. It is fostered by taking interest in their activities and giving genuine praise for achievement.

- Encourage them to partake in activities that will yield success. Focus on their strengths. It might be in sports, drama, music, art, scouts, or voluntary social activities.
- Spend family time together where they contribute and are listened to. Family discussions over meals or on outings can promote social skills and verbal expression. Watch TV programmes, films or the News together and give them an opportunity to express their opinions. Board or interactive games will help develop communication skills, problem solving and decision making.
- Ask them to contribute to decisions about planning holidays or home decoration.
- Be open about the fact the student has learning difficulties. Reassure them that they can talk to you and you will listen and try to help.
- Discuss the assessment with them, judging the amount of information that is appropriate for their stage of development and how much they will understand. By the end of second level they should know how the dyslexia affects their learning and their learning strengths and weaknesses. They will need this information to be able to make appropriate decisions and to maximise learning.

Key dates

Beginning for First Year

- Give all teachers a profile of the student's abilities, strengths and weaknesses along with the recommendations on the report. Do this every year. Also send it in to the replacement teacher if a teacher is going to be absent for any length.
- Discuss with the school in 1st Year if reasonable accommodations are an appropriate support for the student. If they are, check they are in place for house examinations.

Third Year

- Applications for reasonable accommodations (RACE) in Junior Certificate examination will be made in the first term of 3rd year.

- If the student has been granted accommodations for the Junior Certificate, check that they are in place for the Mocks in February.

Third Year or Transition Year

- Apply to NUI (National University of Ireland) for 3rd language exemption if appropriate. If the student is exempt from the study of Irish because of a specific learning difficulty, the third language exemption will be granted. If not exempt from the study of Irish, the criteria for the 3rd language exemption are that the student is at or below the 10th percentile (standard score 81) in two literacy areas.

www.nui.ie/college/docs/ExemptionsApplform092010.pdf

Sixth Year

Students may be admitted on their course of choice with lower Leaving Certificate points than those set by the CAO through the DARE system. Full information on the system is available at www.accesscollege.ie. The reduction in points can vary every year and is dependent on a number of factors, such as:

- The number of places on the course
 - The number of reserved DARE places on the course
 - The number of DARE eligible applicants competing for these reserved places.
- Colleges use different ways to allocate places. Information on this and on the number of DARE places of individual courses in a college is available at www.accesscollege.ie/dare/participating-colleges/.

It is the student's responsibility to ensure that the CAO are aware of the existence of language exemptions.

Applications for RACE should be made in the first term of 6th year.

FACTSHEET 17: STUDY TIPS FOR STUDENTS WITH DYSLEXIA

Dyslexia may mean that you learn in a different way. While dyslexia may affect your reading, writing and spelling, it may also be hard to remember new information or to be organised. Even when you work harder than others in the class, it may be a struggle to get good results. You may know more than you can put down on paper. The assessment report shows learning strengths and weaknesses. Using your strengths, it is possible to find alternative ways to learn. Pick out what will work for you from the tips below. Your teachers are there to support you. Ask them for help and advice. There is a form called 'Asking for Help' which is included in Factsheet 18. This helps you pinpoint exactly what supports would help in the classroom so you can ask the teacher for them. Dyslexia Association of Ireland have 6 Study Skills Webinars for students which could be of help at the following link:

<https://www.youtube.com/playlist?list=UUbySI72M3zig6qxZRWTNw0w>.

Organisation.

- Study at a desk/table with plenty of room, shelves for files and books and with all necessary equipment present, such as staplers, highlighters, colour pens, etc.
- Take small breaks during the study period.
- Colour code the subjects in your timetable.
- Use the same colours for your files/copies, e.g. yellow for English, red for Maths.
- Have a 'housekeeping' day once a week where bags are cleared and notes are filed. If necessary, include the organisation of your locker in school.
- Always put the subject, date and topic as a heading on notes. Don't fold them.
- Have no distractions in study area such as TV or mobile phone.
- A calendar on the wall, with key dates for exams, school work, sports and social life.
- Study/revision timetable on the wall. This should be one that you **can** keep to. The website www.studentenrichment.ie has templates with blank timetables.
- Use the homework journal to take down homework and to pack the bag for the next day.

Motivation

- Study at the same time and in the same place so a routine is established.
- A tidy and organised study area helps you settle. It also avoids wasted time looking for items.
- Have a 'to do' list on the wall, so if you think of something, you can write it down. Have a revision plan detailing all topics for revision for an exam. Mark them off as you revise and see your progress.
- Motivation grows on success, so planning and meeting targets will encourage you.
- Use multi-sensory methods to learn. This means activities such as writing, highlighting, talking or making mindmaps. It is harder to be distracted if learning is activity based.
- Build in rewards for meeting goals, such as small treats like a small break or cup of coffee.
- Set clear goals. Long term goals are key life objectives such as getting the points for your chosen course in college. Medium term goals are the stages in getting to that point such as results in house exams. Short term goals are for this evening's study period. SMART goals help use study time in the most effective way. Again the website www.studentenrichment.ie has templates for long, medium and short term goal setting.

SMART Goals

SMART goals are:

Specified: Sets out exactly what is to do and when.

Measurable: Criteria for knowing you have achieved the goal.

Action based: What are the actions you need to do?

Realistic: It is possible for you to achieve the result within the time.

Time-based: Sets the time frame to achieve the goal.

Instead of a goal such as 'To read over the chapter on the Reformation three times', examples of SMART goals are statements such as:

- To learn 15 new words in French, their gender and spelling. (20 minutes)
- To learn 5 reasons for the Reformation, 6 key facts about Luther's life and 5 key beliefs he had. (25 minutes)
- To draw a picture of a microscope and label the ten key parts of it. (25 minutes)

Reading

Reading is a key skill for second level and for college.

- Reading improves, the more you read. Reading regularly will develop reading stamina, speed and comprehension. Read for 20 minutes a day as a routine. Find reading material that you are interested in whether it is newspapers, magazines or books.
- If it helps, use a ruler to keep your eye on the line of text. Have a pen or highlighter in your hand.
- It reduces errors in reading if you say the words quietly to yourself. This way you see and hear the words on the page. Particularly useful in the stress of the exam.
- Ask for advice if you are given lengthy reading lists so you can identify the key texts to read.
- Get tapes of English texts so you can listen as well as read the text. Look at the websites listed at the end of this Factsheet. There are video summaries of Shakespearean plays and No Fear Guides which have the original text and a modern English translation side by side. There are revision notes and on-line tutorials in lots of subjects.
- Use a reading method for texts such as SQ3R. SQ3R stands for Survey, Question, Read, Recite and Review and is a reading method to improve comprehension. It involves the following steps.
 - ☐ **Survey** the text by looking at title, headings, pictures, opening and closing paragraph.
 - ☐ **Question** what you expect to know after reading the text.
 - ☐ **Read** actively looking for answers to your questions.
 - ☐ **Recite**. See if you can answer the questions raised. The more senses involved in reciting, the more likely the learning is stick. Triple strength learning involves seeing, saying and hearing. Quadruple strength learning involves the addition of writing.
 - ☐ **Review**. In the following days and weeks check you can still answer the questions.

Spelling/Vocabulary

- Have a dictionary to help with new vocabulary. Put a tab for each section beginning with a new letter and have a bookmark with an alphabet on it so you can find words easily. Newer dictionaries have the alphabet printed on each page.
- Develop mnemonics for spelling words you confuse and need to spell correctly.
 - ☐ Dilemma: Emma has a **dilemma**.
 - ☐ Separate: There is a **rat** in **separate**.
- Keep a vocabulary notebook for each subject as words can have different meanings in different subjects.
- Become a word detective. Lots of longer words come from Latin and Greek. If you understand their meanings, you may be able to understand new words you might come across. For example, if *aqua* = *water*, *phobia* = *fear*, *hydro* = *water*, *bi* = *two*, *lateral* = *side*, *-cide* = *killing*, you might be able to guess the meaning of the following:
 - ☐ Aquaphobia, hydrophobia,
 - ☐ Hydrotherapy,
 - ☐ Bilateral, multilateral,
 - ☐ Herbicide, infanticide, insecticide.

This is particularly relevant to Science subjects such as Biology.

- Knowing the rules of Latin and Greek plurals can help make sense of the spelling, e.g. why **curriculum** changes to **curricula** or **fungus** changes to **fungi**. There are ten Latin and Greek plurals. See www.biomedicaleditor.com/spelling-tip-latin.html. This is particularly helpful for Biology and Health Sciences.

Notetaking

- Revision books can help if you find it difficult to summarise textbooks.
- Can you bypass taking notes in class so you can concentrate on understanding what is being said. This can be done by photocopying the notes of another student or asking the teacher for notes.
- When taking notes, mark words you cannot spell and move on. Ask the teacher later.
- Go over the notes that night, and redo them if legibility is a problem.

- Ask for time to take notes/diagrams in class. Any possibility of taking a photo with your phone?
- Use plenty of space, headings, colour and bullet points when making notes.
- Take time to make good notes/mindmaps as they can help in structuring answers.
- Graphic Organisers and Mindmaps help organise your thinking, help when learning/memorising material and then help in structuring written answers.

Learning

- Facts/notes need to go from short term into long term memory. This involves hard work to make the material your own. This does not happen by reading alone. It means changing the channel the information comes in by talking, listening, debating, drawing, visualising, writing or making mindmaps or flashcards.
- You need to understand what you are learning as rote learning is not likely to work for you.
- If there are specific facts, dates, definitions or words to be learnt, make study cards with the new word on one side and the explanation on the other side. Keep them in a box and test yourself often.
- Both Study Stack www.studystack.com and Quizlet www.quizlet.com allow you make flashcards or provide sets of flashcards.
- Mnemonics are devices for helping to memorise key facts. An example is **FATDAD** (Fermanagh, Antrim, Tyrone, Derry, Armagh, Down) for the 6 counties of Northern Ireland or **Richard of York gave battle in vain** (Red, Orange, Yellow, Green, Blue, Indigo and Violet) for the colours of the rainbow.
- Visualisation means making a mental image of a text, making pictures in your mind's eye. Here is an example. *The colours in the wires in the electric plug are blue, green/yellow, and brown. See the image of a Teddybear (brown for the live wire,) on green grass (green for the earth wire) and a blue sky (blue for the neutral).*
- It is only possible to memorise a limited number of unrelated facts, so organising a list of facts into groups help.

Writing

Writing involves so many tasks, which the student with dyslexia finds difficult, that there is often a mismatch between oral and written work. Written answers may be too short, lack fluency or do not answer the question asked. When you concentrate on the writing rules such as spelling, handwriting and punctuation, ideas suffer. When you are thinking and making interesting connections, the writing skills suffer. Divide the task into five stages.

1. **Understanding the question.** Take time to analysis the question and understand what is being asked. This is important. Very often students with dyslexia will start to write everything they know about a subject down, rather than using their information to answer the question being asked.
2. **Brainstorm.** With an empty sheet of paper, put down all ideas that come into your head with your mind running free and making associations.
3. **Planning.** Using the brainstorm, select and connect ideas. Plan and structure the answer. The plan will display pattern of the essay as a whole, and where different points are linked. It is easy to see the balance and sequence of the essay. Include references and points to be made. Templates which show how to structure an answer help with planning. Examples are available with Inspiration Software.
4. See www.dyslexiacourses.ie under downloads for tips on Leaving Certificate English Paper 1.
5. **Write.** Now that thinking has been done, the task is to write. The comprehensive plan keeps your writing to the point. Use signposts for the reader to understand the structure such as words like '**however**', '**next**', '**finally**'. Don't stop for spelling at this stage. Get your ideas down.
6. **Check.** Proofread three times, once for spelling, once for punctuation and paragraphing, and once to check the content is to the point and well structured.

Here are some ideas which might help with writing.

- o Make up one key character and two other people in his/her life. Imagine the person in great detail such as how they look, clothes, hobbies, family, school, jobs, good and bad habits, friends, opinions etc. Even collect photos of what they might look like. It makes it easier to compose a short story if you have the characters already in your head.
- o Write a sentence about each of your five senses when writing a description of a scene.
- o When answering questions think of 3 points to support your answer, then 2 references /quotes to back up each point.

- o Use the question to start your answer. So if you are asked *What the key causes of climate change?* begin your answer *The key causes of climate change are...*
- o Have checklists of points to prompt you to write more. For example when writing about a person in history, think about clothes, food, farming, houses, rulers, religion, schools, beliefs, death. If the question asks if a piece of a text is humorous, here is a list of points that could act as a checklist.
 - ☐ Exaggeration
 - ☐ Puns
 - ☐ Making fun of one's self
 - ☐ Double meanings
 - ☐ Irony
 - ☐ Black Comedy: making fun of serious issues
 - ☐ Misdirection/surprises

Revision

- Students with dyslexia do not cram for exams well. A good revision programme avoids the feeling of being overwhelmed.
- The first step in preparation is to know what is coming up in the exam. Ask teachers for the topics which are to be examined. Check you have the necessary sets of notes, text books and revision books. Make out a master sheet of what has to be done in each subject. Mark off topics as you revise and you see the progress you are making.
- Make out a revision timetable showing each day of the week and the time allocated to study. Then allocate subjects to these times. Ensure that you have time for all your subjects over the week.
- Get up early the morning of an exam and revise. It means the information is fresh in your mind.
- Revision is an active process and involves hard work. The multi-sensory methods of seeing, hearing, listening and writing all help the retention of material learnt.
- Be familiar with past examination papers and how questions are framed. Practise answering questions. When examiners correct papers, they have a marking scheme which shows them what to look for and award marks on the paper. These schemes are available for students to look at on website www.examinations.ie under Examination Material Archive.

Key dates for students

Third Year

- Applications for reasonable accommodations (RACE) in Junior Certificate examination are made in the first term of 3rd year. If you have been granted RACE for the Junior Certificate, check that the school will provide the same accommodation in the Mocks.

Third Year or Transition Year

- Apply to NUI (National University of Ireland) for 3rd language exemption if appropriate. If you are exempt from the study of Irish on the grounds of dyslexia, the 3rd language exemption will be granted. If you are not exempt from Irish, the criteria for the 3rd language exemption are that scores in the assessment report should be at or below the 10th percentile (standard score 81) in two literacy areas.

Sixth Year

- If interested in applying for DARE, make a CAO application by 1st Feb. By March 1st students indicate they wish to be considered for DARE by ticking YES to Q1 and completing section A of the Supplementary Information Form (SIF). By 15th March students should ensure that *Educational Impact Statement* (EIS) and *Evidence of Disability* are completed, signed, stamped and returned to the CAO.
- It is your responsibility to ensure that the CAO are aware if you have language exemptions.

Useful websites for students on study skills, revision notes and exam preparation.

General sites

www.litcharts.com from the creators of Spark notes, have a library of 1,156 literature guides, 130 poetry guides, 136 literary devices and terms, and modern English translations of every Shakespeare play.

www.sparknotes.com

- A range of literature study guides including a wide range of Shakespearian plays and many novels.
- A number of animated video guides to some of the plays (Hamlet, Macbeth, Othello, Romeo and Juliet, etc.) and some novels (To Kill a Mockingbird, The Adventures of Huckleberry Finn, 1984 etc.).
- There are also No Fear Guides for some of the plays (Merchant of Venice, King Lear, Macbeth, Hamlet, etc.) and some novels. These provide the original text on one half of the page, with modern English language version on the other half of the page.
- There are study notes on subjects such as Biology, Chemistry, Economics, Physics, History and Maths. It includes a section on poetry with specific poets such as Dickinson, Donne, Eliot, Frost, and Yeats.

www.shmoop.com Shmoop is an American site whose slogan is 'We speak student'. This refers to a relaxed form of English which is easy to understand. There is a free version which gives access to learning guides in English, Maths and Science. In the Maths section it covers Algebra, Geometry and Calculus. In Science Physics, Biology and Chemistry are covered. The English section covers Grammar, Poetry, well-known novels and bestsellers, and Shakespeare. There is a premium subscription costing \$24.68 a month.

www.studynotes.ie

Includes revision notes, flashcards for key vocabulary, lists of key quotations, videos for JC and LC in a wide range of subjects. There are short animated video summaries based on Spark notes of Hamlet, Macbeth and Romeo and Juliet. Poems in the Irish syllabus are read aloud.

www.studentenrichment.ie

Study tips, templates for goals setting and timetables, links to revision sites.

www.studyclix.ie

This site provides an analysis of past papers in the LC and JC by topic as well as the marking schemes. It also has notes and videos on different topics. However basic access to 2 questions and 2 marking schemes is free. Otherwise it is €35 or €55 depending on the package bought.

Subject specific websites

Business, Accounting, Economics

www.thebusinessguys.ie Free Leaving Certificate notes in business, accounting and economics. Signing up to their mailing list means the student will receive a monthly newsletter during term-time, focusing on one key topic in each of the three Business subjects.

English

www.connemarafe.com/education-programmes/ Connemara FE has podcasts under the heading The West Wind Blows for Leaving Certificate subjects such as English, Chemistry and French. There are pod casts on key poets and some Shakespearian plays.

www.sccenglish.ie

Website for St. Columba's English Department. Look for podcasts in the menu. It covers poetry, drama, essays and includes podcasts on key texts for the LC such as Hamlet, King Lear and MacBeth. An example is Podcast 21 which is the third in a series of 6 podcasts on King Lear which are about 10 minutes each. This Podcast

features 10 quotations and examines the quotations as key moments in the play, linking them to the rest of the text and prompting fresh reflection on the themes and characters. Podcast 24 is about patterns in poetry.

History

www.historymatters365.com

This website has been created as a resource for Irish secondary school history students and teachers. The site is a mix of videos, images, notes, links, inter-activities, a blog, etc.

Languages

www.duolingo.com

This site provides interactive learning of languages in progressive stages with writing and speaking exercises. Languages include Irish, French, Spanish, German and Italian.

www.memrise.com (iOS and Android)

Memrise focuses on teaching languages to students and uses visual flashcards to help them remember words and phrases for many different languages. Although the app focuses on languages it can be used to learn geography, history and sciences.

Maths

www.alison.com

Free on-line course in Project Maths with video tutorials of lessons at JC and LC levels in both ordinary and higher levels. The site also covers topics in Physics and Chemistry.

Science

www.biodigital.com (iOS and Android) The Biodigital Human allows thousands of 3D visualisations of the anatomy of the human body. Available free or with additional features at a premium rate.

www.theconicalflask.ie. This site offers video lessons, notes and model questions and solutions in the subjects of Agricultural Science, JC science, Biology and Chemistry.

www.periodicvideos.com Interactive website for the Periodic Table.

www.thephysicsteacher.ie Study notes in JC Science, LC Physics and Applied Maths with some material on Biology.

www.sciencequiznet.weebly.com/ This site offers quizzes to help with revision in Junior Biology, Physics and Chemistry and Senior Physics and Chemistry.

FACTSHEET 18: USEFUL RESOURCES

These resources are grouped under the following headings:

- Recommended books for every staffroom.
- Subject specific resources on dyslexia for mainstream teachers.
- Resources for teachers and students in Irish medium schools
- Government publications.
- Dyslexia Association of Ireland publications.
- Youtube videos.
- NCSE book borrowing service
- Bookshare Ireland
- Asking for Help Form

Recommended books for every staffroom

British Dyslexia Association *Dyslexia Friendly Schools, Good Practice Guide* 2nd Ed.

Cogan, J. & Flecker, M. (2004) *Dyslexia in Secondary School, a Practical Handbook for Teachers, Parents & Students* London: Whurr

Crombie, M. (2018) *Dyslexia: A Practical Guide for Teachers* SEN Books.

MacKay, N. (2012) *Removing Dyslexia as a Barrier to Achievement* (3rd Ed.) Lancaster; SEN Marketing

McPhillips, T. (2011) *Supporting Teaching and Learning in the Second Level School: a Teacher's Resource* Dublin: Blackrock Education Centre

Reid, G. (2020) *Dyslexia and Inclusion: Classroom approaches for Assessment, Teaching and Learning* Routledge

Reid, G., Guise N., Guise J., (2018) *The Big Book of Dyslexia Activities for Kids and Teens: 100+ Creative, Fun, Multi-sensory and Inclusive Ideas for Successful Learning* Jessica Kingsley; London

Subject specific resources on Dyslexia for mainstream teachers

NCCA Guidelines for Teachers of Students with Mild General Learning Disabilities: Post-primary

While the Guidelines are for teachers of students with mild general learning difficulties, there are strategies that might be helpful for other learning difficulties. Available at

<https://www.sess.ie/resources/curricular-material>. The subjects covered include:

CSPE	Irish	History	Home Economics	Maths
Music	P.E.	Religion	Science	SPHE
Visual Arts				

Supporting Students with Dyslexia: 100 Ideas for Secondary School Teachers Reid G. & Green S. (2016 London: Bloomsbury). Designed for busy secondary school teachers, this book is packed with tried-and-tested activities to be integrated into lessons plans. There are ideas specific to subject areas including:

English	History	Geography	Maths	Music, Drama, Art
Science	Biology	Languages	P.E.	Food Technology

Design and Technology

Dyslexia and Design & Technology Frances Rinaldi: British Dyslexia Association (out of print but available on Amazon)

Languages

Free online course on dyslexia for language teachers. Provided by Futurelearn by Lancaster University. Details: www.futurelearn.com/courses/dyslexia

Dyslexia, languages and Multilingualism Prof. J. Everatt British Dyslexia Association £5

Dyslexia in Secondary School, a Practical Handbook for Teachers, Parents & Students Cogan, J. & Flecker, M. (2004) London: Whurr. Includes extensive strategies/resources on teaching languages.

Maths

Bird, R. *The Dyscalculia Resource Book* Sage Publications 2017

Bird, R. *The Dyscalculia Toolkit* Sage Publications 2017

Chinn, S. *Maths Learning Difficulties, Dyslexia and Dyscalculia* British Dyslexia Association £5 available through BDA website

Chinn, S. (2011) *The Trouble with Maths* 2nd Edition London: D. Fulton

Chinn, S. (2012) *More Trouble with Maths* London: D. Fulton

Chinn & Ashcroft; *Mathematics for Dyslexics and Dyscalculics: A Teaching Handbook* 4th Ed. 2017

Henderson, A. *Dyslexia, Dyscalculia and Mathematics – a Practical Guide* (2012) Routledge

Music

Music, Other Performing Arts and Dyslexia Ed. S. Daunt British Dyslexia Association £5 available through BDA website

Physical Education

Dyslexia and Physical Education M. Portwood: British Dyslexia Association (available on Amazon)

Science

Science Differentiation in Action: Practical Strategies for Adapting Learning and Teaching in Science for Students with Diverse Needs and Abilities. Available at www.sess.ie/ncsesupport.

Hudson D. *Exploring Science with Dyslexic Children and Teens.* Jessica Kingsley Publishers (2021)

Resources for teachers and students in Irish medium schools

Websites

www.cogg.ie/wp-content/uploads/iarbhunscoil-2016.pdf

www.pdst.ie/sites/default/files/Graphic%20Organiser%20Gaeilge%20Final.pdf

www.mccgaeilge.com

<https://www.seideansi.ie/>

<https://www.maradearfa.ie/>

<https://ccea.org.uk/learning-resources/cod-na-gaeilge>

https://www.stmarys-belfast.ac.uk/.../fonaic_na_gaeilge.html

<https://ccea.org.uk/lear.../clar-luathleitheoireachta-cleite>

<https://www.comhairle.org/eng.../teachers/teacher-resources/>

Celtic Press Essential Unfolded Guides Key notes for Students

Leaving Cert

Ceimic ****

Bitheolaíocht ****

Fisic ****

Junior Cert

Eolaíocht ****

Gaeloideachas Webinar and booklet for parents of students in Irish Medium Schools

Gaeloideachas in collaboration with the Dyslexia Association of Ireland published a booklet giving advice to the parents of students with dyslexia in Irish medium schools in June 2020. They held a webinar when the booklet was published. The webinar and a free download of the booklet are available at <https://gaeloideachas.ie/launch-of-new-dyslexia-booklet/>

Text to Speech software for Irish NVDA

Deirdre Madden from UCC Assistive Technology Outreach sent on information on NVDA, a free program to read Irish text aloud. Please be aware it is a screen reader aimed at users who are visually impaired so it tries to read everything as you move the mouse. To download the software and set Irish as the default voice:

- Download from abair.ie <http://www.abair.tcd.ie/nvda/download.html>
- Download the chosen voice for example the Munster Irish voice synthesiser “Dingle Pen” - NVDA Addon (voices representing other provinces are also available)
- Follow instruction on website to start NVDA and select the Irish voice as the default reader.

Government Publications

Report of the Task Force on Dyslexia (2001)

Understanding Dyslexia (2005) video/CD ROM/DVD DES (2005)

Guidelines for teachers of students with General Learning Difficulties NCCA (2007)

Inclusion of Students with Special Educational Needs, Post Primary Guidelines (2007)

Signposts SESS (2008)

A Continuum of Support for Post-primary Schools, Guidelines for Teachers NEPS (2010)

A Continuum of Support for Post-primary Schools, Resource Pack for Teachers NEPS (2010)

Inclusive Education Framework, a Guide for Schools on the Inclusion of Pupils with SEN NCSE (2011)

Delivery for Students with Special Educational Needs, a better and more equitable way NCSE (2014)

Effective Interventions for Struggling Readers, a Good Practice Guide for Teachers NEPS (2012)

NEPS Guidelines, Handouts and Tips for Teachers and Parents NEPS (2015). This publication includes sections on visual perception, working memory, thinking skills and metacognition.

Guidelines for Post-Primary Schools: Supporting Students with Special Educational Needs in Mainstream Schools DES (2017)

Dyslexia Association of Ireland Publications

All Children Learn Differently: A Parent's Guide to Dyslexia

Living with Dyslexia: Information for Adults on Dyslexia

What's Good for Dyslexia is Good for All: Guidelines for those working in the Further Education sector in Ireland (2016)

Ball M, Hughes A, McCormack W. (2011) *Dyslexia, An Irish Perspective* 2nd Ed.

McCormack, W. (2007) *Lost for Words, Dyslexia at Second Level* 3rd Ed.

Youtube Videos

- *Dyslexia explained – what it is like to be dyslexic* (7 Mins) good for primary school.
- *Hidden Potential* – Short (11 minute) video from the Dyslexia Association of Ireland.
- *How difficult can this be? Or FATCITY-Dyslexia*. This puts the viewer in the situation of experiencing difficulties similar to those the student with dyslexia faces.
- *Left from Write* (2014) which shows the experience of people with dyslexia in Ireland.
- *See Dyslexia Differently* – Short (3 minute) video from the British Dyslexia Association which could be used with class groups to explain dyslexia.

NCSE Support Service Book Borrowing

The NCSE Support Service continues to develop its Book Borrowing Facility for teachers in order to support their continuing professional development in the learning and teaching of students with special educational needs. There are over 1,200 resources available for borrowing during school term. Up to three books can be borrowed at a time for a period of up to three weeks. There is no charge for this service. www.sess.ie/ncse-support-service-book-borrowing

Bookshare Ireland www.bookshare.ie

Bookshare Ireland is the largest accessible library in the country available for all people with visual impairment or print disabilities. **The service is available to students with dyslexia.** Launched in November 2019, it is a partnership between the National Council of the Blind and the Department of Education and Skills. It is a free service for those who qualify with over half a million books, which are available in a range of formats including audio, digital Braille, Word, and PDF. For the student with dyslexia, the EasyReaderApp facilitates dyslexia friendly fonts, increased size of font, highlighting text etc. It is also possible to access audio recordings of books. If a book is not available, the student can request it and Bookshare will do their best to source an electronic file.

ASKING FOR HELP FORM

Asking for Help Form	
To _____	(teacher's name)
From _____	(pupil's name)
1. I think I could do better in your class if you ☐ Let me work with a 'support buddy'. ☐ Let me sit in the front nearer to your desk. ☐ Gave me more time to answer questions and do my work. ☐ Gave me more help in the classroom when I don't know what to do. ☐ Showed me how to do things rather than just telling me. ☐ Let me photocopy the overheads or lecture notes. ☐ Gave more information on handouts. ☐ Used more visual information like illustrations, graphs, maps charts, videos, photographs and posters. ☐ Used simpler words when explaining things. ☐ Spoke slower. ☐ Would give instructions one at a time and repeat them. ☐ Let me use a coloured overlay in class when I read. ☐ Told me I didn't have to read out aloud in front of the class. ☐ Gave me more time to read. ☐ Let me tape record the class lesson. ☐ Let me use a computer to help me do my work. ☐ Let me use a dictaphone or tape recorder. 2. I think I could do better if, when you made worksheets, you ☐ Used a bigger and clearer font like Arial, Comic Sans MS or Sassoon Primary in size 12 -16 with double spacing. ☐ Used words that were easier for me to read. ☐ Printed on light coloured paper. 3. I think I could do better if, when you use the board or overhead projector, you ☐ Printed rather than used joined/cursive writing.	

- o Used colour chalk or markers.
- o Read slowly or repeated whatever you write.
- o Wrote less for me to copy.

4. I think I could do better with your homework if you

- o Let me hand in work as mindmaps.
- o Let me write less than the others.
- o Let me just write the answers and not the questions.
- o Let me memorise less.
- o Let me check with you to see if I wrote down the homework right.
- o Let me do my homework on my computer.
- o Let me do my homework on my tape recorder.

5. I think I could do better in your tests if you

- o Read the test questions aloud before the test.
- o Gave me more time to do tests.
- o Let me do the test orally.

Taken from *Understanding Dyslexia* CD (Department of Education and Science) 2005