

Position Statement on Dysgraphia



The Dyslexia Association of Ireland is increasingly asked about the issue of Dysgraphia.

The below is the current position of the Dyslexia Association of Ireland.

1. The underlying cognitive indicators of 'Dysgraphia' are currently unknown. When assessing for dyslexia, psychologists can look at the behavioural level (reading, spelling) but they also look at three cognitive indicators of dyslexia (phonological awareness, rapid automatic naming, working memory). These indicators can differentiate dyslexia from other possible causes of reading and spelling difficulty. In the case of dysgraphia, little is known about potential cognitive indicators, so an assessment can be undertaken at the behavioural level only.
2. The behavioural-level symptoms of 'Dysgraphia' have significant overlap with those of dyslexia and dysgraphia. Poor spelling is one of the often-cited symptoms of dysgraphia and this is evident in individuals with dyslexia as well. Similarly, someone with dyslexia may find writing challenging and might make grammar and punctuation errors as a secondary symptom of their reading/spelling difficulty, because they are focusing so much on the encoding process that there are little cognitive resources remaining. Consequently, assessing for dysgraphia at the behavioural level only (the cognitive level cannot be currently assessed, as outlined in issue 1) does not allow for reliable and valid differential diagnosis between dyslexia and dysgraphia.
3. There is a lack of clarity regarding many of the symptoms. The hallmark symptom of dysgraphia – “poor writing” – is extremely vague. Poor writing can refer to errors in spelling, grammar and/or punctuation, difficulty structuring writing tasks, poor legibility of handwriting, et cetera. Some of these difficulties are motor in nature (e.g. legibility) and some are cognitive (e.g. spelling). Spelling is a particularly poorly-described symptom, as it is not specified whether spelling is poor in writing only, or whether children with dysgraphia should have difficulty spelling in general. If dysgraphia is a writing difficulty, one would expect that spelling is affected in this domain only, whereas oral spelling, or spelling using tiles or a keyboard, is unaffected*. Once again, this comes back to issue 1: without knowing underlying cognitive causes, it is difficult to determine what behavioural symptoms could be expected in cases of dysgraphia.

*If a child has poor writing skills, they have less chance to practice spelling, and as a result, their spelling ability may be lower than that of their peers across different domains. However, this would be a secondary symptom of dysgraphia (as opposed to a primary symptom, as in the case of dyslexia).
4. Motor skills may or may not be implicated. This is an extension of issue 3, but is more problematic for two reasons. Firstly, if motor skills are implicated, these are best assessed by an occupational therapist, rather than an educational psychologist. More research is needed to determine whether an occupational therapist should be involved in the assessment and diagnosis of dysgraphia, either instead of, or in addition to, an educational psychologist. Further, symptoms such as poor writing legibility and fatigue when writing may overlap to some extent with dyspraxia. In some instances, this may not affect the accuracy of a diagnosis – an individual whose only affected motor skill is writing is likely to have dysgraphia and not dyspraxia, which involves difficulty with motor skills more generally. However, if

someone displays a general difficulty with gross and fine motor skills, including poor motor skills specific to writing, there is currently no way to determine whether this is dyspraxia only or dyspraxia comorbid with dysgraphia.

5. Are there really three types of 'Dysgraphia'? There is some research that suggested there are three types of dysgraphia: dyslexia dysgraphia, spatial dysgraphia and motor dysgraphia. These three variations are cited at times and not referred to in other instances (both in the research, and on relevant websites). When these sub-types are mentioned, there is rarely a reference made to the initial researcher who suggested they exist; one website has referenced R. K. Deuel.
6. Exclusionary vs. inclusionary criteria. Because of the issues described above, assessing dysgraphia is currently more of an exclusionary than an inclusionary process (as was once the case with dyslexia). Rather than looking for cognitive indicators that manifest in varied but fairly predictable ways at the behavioural level, assessing for dysgraphia would necessarily involve ruling out both dyslexia (making sure the child has no difficulty reading, and can spell in other domains aside from handwriting) and dyspraxia (ensuring the child's general motor skills are as expected for their age). This is problematic for two reasons. Firstly, any disorder should be described for what it is, rather than what it is not. Secondly, specific learning difficulties are known to be comorbid, so if assessment is based on ruling out other SLDs, how can dysgraphia be diagnosed when it is comorbid with dyslexia or dyspraxia? Even if a psychologist were to look at the cognitive indicators of dyslexia in an attempt to determine whether a child exhibiting symptoms of dysgraphia might also have dyslexia, it is currently unknown whether any of the three cognitive indicators of dyslexia might also be implicated in dysgraphia.

In conclusion, 'Dysgraphia' is currently described at the behavioural level only; the cognitive indicators are unknown. Further, the hallmark behavioural symptom, "poor writing", is vague and poorly-specified (does it mean poor spelling, poor legibility, fatigue when writing, et cetera?). This makes it difficult to accurately identify and diagnose dysgraphia, because the same behavioural symptoms can often be attributed to several different underlying cognitive causes. Poor writing can also be attributed to dyslexia (poor spelling, and the effort spent on encoding is at the result of grammar, punctuation, et cetera) and dyspraxia (poor motor skills affected legibility). As a result, dysgraphia can only be identified according to exclusionary criteria (ruling out dyslexia and dyspraxia), and without knowing cognitive indicators of dysgraphia, even this is likely to be inaccurate, and even impossible to do in cases of comorbidity between learning difficulties. Two additional complications include: (1) the question of whether there are different sub-types of dysgraphia; and (2) the extent to which motor skills are implicated (and consequently, the suitability of an occupational therapist compared to an educational psychologist for the assessment process).

We are seeking ongoing collaboration around the issue of 'Dysgraphia' with colleagues from the Association of Occupational Therapists Ireland, and the Department of Education and Skills.

The aim of this partnership would be to publish joint guidance on the issue of Dysgraphia to guide policy and professional practice as well as to provide clarity for our members and the general public. More information will follow when it is available.

August 2017