



Mild and circumscribed reading difficulties (MCRD) in children: A descriptive framework for understanding restricted reading profiles

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Abstract

Mild and circumscribed reading difficulties (MCRD) refer to relatively mild, limited, or restricted weaknesses in one or more components of reading. MCRD is used here as a descriptive, process-oriented term rather than as a diagnostic category. Contemporary classification systems do not recognize MCRD as an independent disorder; therefore, it should be differentiated from developmental dyslexia, alexia, and developmental learning disorder with impairment in reading. This paper on developmental reading difficulties has placed MCRD within the contemporary understanding of reading development, assessment, neurobiology, and intervention. The narrative literature review was based on the current as well as additional (grey) literature available on reading disorders, neurobiology, assessment, and intervention. The review suggests that MCRD may describe relatively restricted difficulties involving phonological processing, decoding, word recognition, reading automaticity, fluency, and/or comprehension, without implying a distinct diagnostic entity. This paper therefore argues that reading difficulties should be conceptualized as heterogeneous and process-driven rather than primarily through diagnostic labels. Evidence supports explicit, systematic, structured, and multi-component reading intervention, with intervention intensity and instructional targets matched to a reader's/learner's developmental and functional reader profile. MCRD is proposed as a descriptive educational-therapeutic formulation that directs assessment towards the specific components of reading requiring support.

Keywords: Educational therapy, mild and circumscribed reading difficulties (MCRD), reading development, reader profiles

Introduction

What is reading? This question has been frequently and repeatedly asked through the decades since the 1960s. Reading is a complex developmental process involving visual-orthographic processing, phonological processing, word recognition, language comprehension, attention, memory and executive processes (Jennings, 1965^[18]; Lee, 1969^[20]). For most developing readers, identification of familiar written words gradually becomes more and more automatic and cognitive resources are allocated to sentence integration, inference and construction of meaning (Buehl, 2017^[5]; Sloan, 1988^[32]). If word identification is too laborious, reading will be slow, inaccurate and cognitively demanding, which will have a negative impact on comprehension and academic learning (Perfetti, 2007^[27]; Snowling & Hulme, 2012^[33]).

The term *Mild and Circumscribed Reading Difficulties* (MCRD) may be understood as relatively mild or restricted weaknesses in reading that affect one or more components of the reading process. The term is intentionally descriptive and does not imply a recognized clinical or neurodevelopmental disorder. The present paper draws on the historical discussion associated with Yap (2011)^[39], who used the term *oligolexia*, while reframing the phenomenon using contemporary terminology that is more consistent with process-oriented approaches to developmental reading difficulties. The current literature remains insufficient to establish clear boundaries, prevalence, developmental trajectories, or neurocognitive characteristics for MCRD as a distinct subgroup.

This distinction is important because contemporary diagnostic systems conceptualize developmental reading difficulties in broader categories. The fifth edition, text

revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR; American Psychiatric Association [APA], 2013^[1], 2022^[2], 2025^[3]) describes specific learning disorder with impairment in reading in terms of difficulties involving word reading accuracy, reading rate or fluency, and reading comprehension. Similarly, the current International Classification of Diseases-11th Revision (ICD-11; World Health Organization [WHO], 2022)^[37] framework places persistent academic skill difficulties in developmental learning disorders rather than recognizing MCRD as an independent disorder (also see World Health Organization [WHO], 2024)^[38].

Thus, the main question in this paper is not whether MCRD should be added to existing diagnostic classifications, but whether a descriptive formulation of *mild and circumscribed reading difficulties* can be useful in educational and therapeutic practice. This paper therefore reviews the literature, analyzes the reading processes that may be affected, considers possible contributors, investigates the implications of intervention, and proposes a process-oriented approach to assessment and educational therapy.

Literature Review

1. Conceptual and Diagnostic Status of Mild and Circumscribed Reading Difficulties (MCRD)

The literature specifically addressing mild and circumscribed reading difficulties (MCRD) is limited. The source paper by Yap (2011)^[39] provides historical discussion of a term *oligolexia* intended to describe a mild form of reading difficulty. Rather than retaining that historical terminology, the present paper uses MCRD to describe the functional profile of relatively mild, restricted,

or circumscribed reading weakness. This reframing avoids implying that this particular reader profile represents an established diagnostic category. In addition, it also avoids confusion with acquired alexia, which is associated with neurological injury or disease.

Therefore, MCRD should not be considered synonymous with dyslexia. Dyslexia has a much larger body of historical as well as current scientific evidence (Modak *et al.*, 2026^[22]; Roitsch & Watson, 2019^[29]; Snowling *et al.*, 2020^[34]), and is characterized by persistent problems with accurate and/or fluent word recognition, decoding, and spelling (Chia, 2010^[6], 2016^[7]; Roitsch & Watson, 2019^[29]; Snowling *et al.*, 2020^[34]). Neurobiologically, developmental dyslexia has been associated with distributed neural systems involved in reading, including left temporoparietal, inferior frontal, and occipitotemporal regions (Niu *et al.*, 2025^[24]; Norton *et al.*, 2015^[25]). Recent neuroimaging studies continue to investigate structural, connectivity, and white-matter differences in the reading network, including pathways involving the arcuate fasciculus and other white-matter tracts (Martins *et al.*, 2024^[21]; Gallagher *et al.*, 2025^[10]).

The absence of established diagnostic criteria means that MCRD should be used cautiously. Rather than treating it as a disorder with a fixed set of clinical symptoms, it is more appropriate to use MCRD as a descriptive formulation indicating that a relatively mild, restricted, or circumscribed reading problem is present and that the specific reading processes involved should be identified through assessment.

2. Reading as a Multi-Component Process

The simple model of reading shows that reading comprehension as an interaction between decoding and linguistic comprehension (Gough & Tunmer, 1986^[12]; Hoover & Gough, 1990^[15]). Although these broad components are influential, recent research shows that they involve many interacting processes.

At the word level, reading requires efficient phonological processing, grapheme-phoneme correspondence, decoding and orthographic learning (Karageorgos *et al.*, 2020)^[19]. As language develops, the number of successful readings with written words increases and more and more automatic lexical representations emerge. If these processes still become inefficient, the reader will still be dependent on conscious decoding. The author of this paper suggests the following useful hierarchy: visual/orthographic recognition → phonological processing → decoding → word recognition → fluency → vocabulary/language integration → reading comprehension. This process-oriented conceptualization is particularly relevant to MCRD because two children with seemingly similar mild reading difficulties may have very different underlying profiles. One might have difficulty with phonological awareness and decoding, whereas another might have adequate decoding but reduced automaticity and fluency.

3. Manifestations of MCRD

If MCRD is used descriptively, manifestations may include slow or effortful word recognition, difficulty decoding unfamiliar or multisyllabic words, omission or substitution of sounds, confusion between visually or phonologically similar words, poor spelling, and reduced reading fluency.

These features overlap with recognized developmental reading difficulties.

An important distinction is that reading comprehension may sometimes appear weaker than expected not because of a primary comprehension disorder but because excessive cognitive resources are spent on decoding. A child who is very good at sorting out word-by-word information may have little to no resources for processing information across a sentence or paragraph and combining it into a coherent representation of meaning (Perfetti, 2007)^[27].

Thus, the presentation of MCRD may vary according to the stage of development. A younger child may show basic decoding difficulties, whereas an adolescent may demonstrate accurate but slow reading, particularly when dealing with complex academic vocabulary and dense texts.

4. Possible Contributing Factors

There is no established causal model for MCRD. If the term is used to describe a developmental reading profile, contributing factors should be understood through the wider literature on reading disorders and reading development.

Developmental reading difficulties are linked with neurodevelopmental and genetic background, while environmental and educational experiences are also key components of reading development (Hulme & Snowling, 2016)^[16]. Reading involves the interaction of visual, language and cognitive processes through a distributed neural network. Neuroimaging studies have indicated that left-hemisphere temporoparietal, inferior frontal and occipitotemporal regions play an important role in reading (Norton *et al.*, 2015)^[25]. There have also been diffusion-tensor imaging studies to indicate a relationship between dyslexia and white matter pathways involved in reading (Martins *et al.*, 2024)^[21].

However, reading difficulties should not be a result of poor motivation, inadequate intelligence and poor teaching. At the same time, assessment should look at how hearing is developed, attention, educational opportunity and other developmental factors that affect reading performance.

5. Reading Fluency, Cognitive Load and Comprehension

Inefficient word recognition is one of the most important consequences of poor reading (Chia, 2010)^[6]. Fluent reading requires word recognition to be automatic enough so that the reader can move on to meaning construction. If decoding takes time, then the reader may just skip over and reread and lose information as he/she goes through sentences and paragraphs.

It has implications for working memory and cognitive load. A reader who must decode words multiple times might not remember the previous info or be able to assimilate the new information as they come into view. So, a child may have stronger oral comprehension than reading comprehension, especially when their texts are long and more linguistically complex.

The developmental consequences may extend beyond immediate reading performance. Persistent reading difficulty can reduce independent reading and therefore affect vocabulary, background knowledge, and increasingly complex language. The connection between reading difficulty and less reading experience might lead to academic disparity over time.

6. Intervention

There is currently no evidence supporting a specific intervention for MCRD as a distinct condition. Appropriate intervention should therefore be based on established evidence concerning developmental reading difficulties.

There is strong evidence for explicit and systematic instruction of foundational reading skills. Hall *et al.* (2023)^[13] conducted a systematic review and meta-analysis of 53 intervention studies involving more than 6,000 students and found that reading instruction had a significant positive impact for students with or at risk for dyslexia. Higher intervention dose was associated with larger effects and interventions targeting word reading and spelling generally had better effects than those targeting comprehension alone. The latest literature also suggests that effective literacy interventions focus on the code and meaning aspects of reading, such as phonological awareness, phonics, word reading, spelling, connected-text reading, vocabulary and comprehension (Al Otaiba *et al.*, 2023)^[4].

More intervention is needed for older students to deal with academic vocabulary, morphological complexity and comprehension of disciplinary texts. Recent meta-analytic findings suggest that interventions can improve reading comprehension of adolescents with reading difficulties while the type of intervention should correspond to the linguistic and academic demands of secondary education (Sohn *et al.*, 2023)^[35].

Research Method

1. Research Design

In this paper, the author used a narrative literature review to examine mild and circumscribed reading difficulties (MCRD) as a descriptive concept within the wider literature on developmental reading difficulties. A narrative approach was chosen because the literature addressing this specific reader profile is narrow and heterogeneous, making a systematic review or meta-analysis of MCRD itself inappropriate.

The review in this paper was based on the following five key questions

1. How have mild and circumscribed reading difficulties (MCRD) been conceptualized?

2. What is its current diagnostic status?
3. What reading processes could be represented by the term?
4. What evidence informs assessment and intervention?
5. What role, if any, can MCRD play in educational therapy?

2. Literature Sources

The review started with exploring the literature and references found in relevant papers (including the source paper by Yap, 2011^[39]), including historical terminology concerning mild reading difficulties, dyslexia, reading disorders, reading comprehension, and reading intervention. The review was strengthened by recent literature on reading intervention, the development of reading disorders, and the neurobiology of dyslexia.

Particular attention was paid to recent systematic reviews and meta-analyses that provide stronger evidence to support educational intervention than descriptive reports. Such recent evidence included Hall *et al.* (2023)^[13], Al Otaiba *et al.* (2023)^[4], Sohn *et al.* (2023)^[35], and Martins *et al.* (2024)^[21]. Contemporary diagnostic information was considered in relation to DSM-5-TR and ICD-11.

3. Analytical approach

The literature was analyzed thematically across five domains: (i) conceptualization, (ii) diagnostic status, (iii) reading processes, (iv) contributing factors, and (v) intervention, in responding to the five main questions raised in Section 3.1. Findings specifically attributable to MCRD were distinguished from evidence concerning developmental reading difficulties more generally. This distinction is essential because the current evidence does not support treating findings from dyslexia research as empirical findings about MCRD itself.

Findings

The current review has produced the following five main findings in answering the five key questions raised in Section 3.1 as shown in Table 1:

Finding	Description
Finding 1: MCRD is not supported as an independent disorder.	The strongest finding is that mild and circumscribed reading difficulties are not currently established as a distinct developmental reading disorder. There are no sufficiently robust diagnostic criteria, prevalence estimates, developmental trajectories, or validated assessment methods for MCRD as an independent entity.
Finding 2: MCRD can be descriptive.	Although it is not a diagnostic category, MCRD can describe a child who has basic reading ability but relatively limited weaknesses in particular areas of reading. Such a descriptive formulation should always be accompanied by an explanation of the specific processes involved.
Finding 3: Reading difficulty is process-specific.	The review supports a hierarchical conceptualization of reading. Difficulties may be related to phonological awareness, grapheme-phoneme correspondence, decoding, orthographic recognition, automaticity, fluency, vocabulary, language integration, or comprehension.
Finding 4: Reading inefficiency can lead to secondary comprehension problems when word recognition is slow and laborious, and cognitive resources are shifted away from meaning construction.	As a result, perceived comprehension weaknesses might be at least partly due to inefficient decoding or fluency.
Finding 5: Evidence supports structured, multicomponent intervention.	The intervention literature supports explicit and systematic instruction that targets basic reading skills and meaning-based processes. Recent studies (e.g., Hall <i>et al.</i> , 2023 ^[13]) demonstrate the importance of reading intervention for students with and at risk of reading difficulties (including dyslexia), with word-reading interventions and adequate dosage.

Discussion of Findings

The findings from the literature review suggest that MCRD occupies a useful position as a descriptive, process-oriented formulation within contemporary understanding of reading difficulties. It should not be treated as an independent diagnostic entity, but it may help communicate a relatively mild and restricted reading profile when the specific components of difficulty are clearly identified.

The most reasonable position to take is to use MCRD as a descriptive formulation rather than as a diagnosis. This distinction prevents an observation such as “relatively mild reading impairment” from being confused with a neurodevelopmental disorder. This is an important distinction for educational therapists. A diagnostic label alone does not tell us which process to teach. For example, two children might have mild reading difficulties, but one needs a very intensive phonological-awareness and phonics program, and the other needs a program that will focus on fluency, morphology, vocabulary, and comprehension.

The findings also support a developmental model of reading difficulty. Early literacy difficulties will be more visible in phonological awareness, grapheme-phoneme correspondence, and decoding. As the child grows, persistent difficulty may become increasingly visible through poor automaticity and fluency. During adolescence, the main difficulty may be to rapidly process long, linguistically complicated, and discipline-specific texts.

Case Studies of Mild and Circumscribed Reading Difficulties (MCRD)

Below are two illustrative cases to demonstrate this developmental distinction. The younger child displayed difficulty with phonological decoding and word recognition, whereas the adolescent had acquired basic decoding but continued to experience slow reading and difficulty with complex academic texts. These cases should not be interpreted as evidence validating MCRD as a disorder; rather, they illustrate why a process-based formulation is more informative than a label alone.

Case Study 1: Young Child - Early Reading Difficulty

A 7-year-old child in Primary 1 was referred because he could identify most letters and also knew many common letter sounds, but he had trouble reading simple words independently. On assessment, he could read familiar CVC words (e.g., cat and sun), but when words contained consonant blends, digraphs, or less familiar spelling patterns, he read slowly and inaccurately. He often attempted to identify words from their initial letters, confused similar words, and struggled to sound out words that his classmates could recognize automatically. His language and general classroom participation were appropriate, and his difficulties were concentrated in phonological decoding, word recognition, and reading fluency. This reader profile type could be descriptively characterized as MCRD rather than assumed to represent a specific diagnostic disorder.

Support would be explicit, systematic and cumulative in phonics instruction. The educational therapist working with the child would first develop phonological awareness through rhyme, syllable segmentation, phoneme identification, blending and phoneme manipulation, and then systematically teach grapheme-phoneme correspondences, blending and segmenting (from simple

CVC words to consonant clusters, digraphs, vowel patterns and multisyllabic words). The child would be given very brief and frequent guided reading and repeated reading to develop accuracy and automaticity, with immediate feedback rather than guessing from pictures or context. Vocabulary and comprehension would be incorporated with decoding activities so that reading will not be limited to phonics alone. Such an approach is consistent with evidence supporting explicit phonics and structured reading intervention for children with reading difficulties (Galuschka *et al.*, 2014 ^[11]; National Reading Panel, 2000 ^[23]).

Case Study 2: Adolescent - Persistent but Compensated Reading Difficulty

A 14-year-old secondary school student presents with a different manifestation of MCRD. She has adequate basic decoding ability and can read most words accurately, but she reads substantially more slowly than her peers. She has difficulty with long, unfamiliar academic vocabulary and dense texts in subjects such as Biology and History. When reading independently, she often rereads sentences, loses information across paragraphs, and takes considerably longer to identify the main ideas. Her written responses improve when she has sufficient processing time, although spelling of unfamiliar words remains inconsistent. Her general reasoning and oral comprehension are considerably stronger than performance on demanding reading tasks. Thus, her reader profile type suggests that reading efficiency and automaticity are the principal areas of difficulty rather than a general intellectual impairment.

At the adolescent level, intervention would move beyond basic phonics into more advanced decoding and morphological awareness, vocabulary, fluency, and comprehension strategies. She could be taught to analyse complex words through prefixes, suffixes, roots and morphological families, e.g., to understand how *biology*, *biological* and *biologist* are structurally related. She would also need explicit instruction in academic vocabulary, text structures, summarising, identifying key ideas, inferencing and monitoring comprehension. For long academic texts, she might need chunking, guided annotation, advance organizers and rereading. Appropriate educational accommodations or examination access arrangements might include more time for reading, access to digital text-to-speech and less copying when the work is done and access to key written information in a more manageable format. These supports should complement - not replace - continued explicit reading intervention. Research indicates that older students with persistent reading difficulties can benefit from interventions targeting decoding, fluency, vocabulary and comprehension (Downing *et al.*, 2026) ^[9]; however, intervention needs to be more aligned with the linguistic and academic demands of adolescence (Hall *et al.*, 2023) ^[13].

Comparison of the Two Cases

The two cases illustrate why MCRD is not a uniform problem. In the younger child, the main difficulty remains at the fundamental word-reading level, requiring focused development of phonological awareness and phonics. In the adolescent, basic decoding is established, but reading remains inefficient and cognitively demanding, particularly when academic vocabulary and complex texts are involved. Thus, intervention should progress from phonological

awareness and decoding to word recognition and fluency, and then to morphological and vocabulary development, strategic comprehension, and academic reading. A thorough assessment is therefore more useful than the descriptive term itself because it identifies the reading processes that require intervention.

The findings were also consistent with recent intervention research. Hall *et al.* (2023) ^[13] reported a significant overall effect of reading instruction and found that intervention dosage moderated outcomes. Al Otaiba *et al.* (2023) ^[4] similarly concluded that explicit and systematic interventions addressing both code-based and meaning-based dimensions of reading are supported by the existing evidence.

Thus, the educational-therapy pathway proposed in this paper, i.e., phonological awareness → grapheme-phoneme correspondence → decoding → automatic word recognition → fluency → vocabulary → comprehension, provides a clinically useful organizing framework, provided that it is viewed as an intervention sequence rather than as an empirically validated diagnostic model of MCRD.

Another implication concerns neurobiology. It would be inappropriate to assume that MCRD has its own neural signature because there is currently no evidence for such a signature. However, where a child's reading profile resembles developmental dyslexia, research on the neurobiology of dyslexia provides a relevant explanatory framework (Norton *et al.*, 2015) ^[25]. Reading depends on a distributed network in which visual-orthographic and language-processing regions in the brain are coupled, and recent research continues to investigate structural connectivity differences associated with developmental reading difficulties (Martins *et al.*, 2024 ^[21]; Norton *et al.*, 2015 ^[25]; Perdue *et al.*, 2022 ^[26]).

Limitations

The author acknowledges several limitations that should be considered. The main limitation is that the literature specifically addressing MCRD is sparse. Its prevalence, diagnostic reliability, developmental course, and neurocognitive mechanisms are not established. Much of the explanatory and intervention evidence is derived from the broader literature on developmental reading difficulties and dyslexia, and, therefore, should not be interpreted as direct empirical validation of MCRD as a distinct entity. The present paper also uses a narrative rather than systematic review methodology. Although recent systematic reviews and meta-analyses were considered, the paper was not designed as a formal systematic review with registered search procedures, independent screening, risk-of-bias assessment, and quantitative synthesis. Moreover, the case examples are illustrative rather than drawn from a research sample. They demonstrate possible reading profiles and are not evidence that MCRD constitutes a disorder. Terminology may also differ across educational, clinical, and linguistic contexts. Accordingly, the descriptive formulation used here should be distinguished from formal diagnostic terminology used by recognized classification systems.

Implications

From the findings of this review, the author has identified four important implications for assessment, educational therapy practice, intervention planning, and the provision of

appropriate educational support for children with reading challenges. Each of them is briefly described as follows:

- **Implications for assessment (e.g., Daniel *et al.*, 2025 ^[8]; Holden *et al.*, 2025 ^[14]):** Assessment should go beyond asking whether a child has MCRD and instead, it should identify where the reading process breaks down. A thorough assessment should consider phonological awareness, rapid naming or processing efficiency when appropriate, letter-sound knowledge, decoding, word recognition, reading fluency and spelling, vocabulary, and reading comprehension. Cognitive, language, sensory, and attentional factors should also be considered.
- **Implications of practice in educational therapy (e.g., Javed *et al.*, 2024 ^[17]; Rahul & Ponniah, 2021 ^[28]):** For educational therapists, the most useful application of the concept is as a formulation of reading difficulty rather than a diagnostic endpoint. Intervention should be individualized and sequenced based on the child's developmental profile. For instance, a young learner may need intensive phonological-awareness and systematic phonics instruction. As for older learners, they may need morphological analysis, academic vocabulary, fluency development and strategic comprehension instruction.
- **Implications for intervention planning (e.g., Sinha & Rajesh, 2024 ^[30]; Skočić Milić *et al.*, 2022 ^[31]):** Intervention should be explicit, systematic, cumulative, sufficiently intensive, developmentally appropriate, closely matched to the learner's profile, supported by frequent guided practice and corrective feedback, and regularly monitored through measurable reading outcomes. Recent work has shown that intervention effects are influenced by dosage and by the reading outcome being targeted (Hall *et al.*, 2023) ^[13].
- **Educational accommodations (e.g., Tops *et al.*, 2023 ^[36]):** In cases where reading inefficiency significantly affects academic productivity, appropriate accommodations could involve extra reading time, text-to-speech (if allowed), reduced copying, digital text access and use of chunking or guided annotation. This kind of accommodation should complement rather than replace targeted intervention. The adolescent case in this paper illustrates this distinction.

Therefore, the four key implications highlight the importance of moving beyond broad labels and adopting a process-oriented approach that identifies the specific components of reading requiring support.

Future studies should examine whether the descriptive construct of MCRD has sufficient conceptual coherence and clinical or educational utility to warrant continued use. Research could investigate whether children with MCRD form a distinct subgroup or are better understood as representing the lower end of a continuous distribution of reading ability. Studies should also examine whether particular patterns of phonological processing, orthographic learning, fluency, and comprehension are associated with relatively mild and circumscribed reading profiles. Such

work would require robust operational definitions and standardized assessment criteria.

Conclusion

The condition of mild and circumscribed reading difficulties (MCRD) describes a relatively mild, restricted, or circumscribed reading profile rather than a recognized developmental reading disorder. The available evidence does not support MCRD as an independent diagnostic category, and contemporary diagnostic frameworks instead conceptualize persistent reading difficulties in terms of impairment in word recognition, decoding, fluency, and/or comprehension (APA, 2013^[1], 2022^[2]; WHO, 2024^[38]).

Nevertheless, the term may have little value in educational therapy if used cautiously as a descriptive formulation for relatively mild, restricted or circumscribed reading difficulty (MCRD). Its use is not in terms of naming a disorder but in telling practitioners when the reading process becomes inefficient.

The main point from this review is that the reading profile must take precedence over the label. The assessment should tell if phonological awareness, grapheme-phoneme correspondence, decoding, orthographic recognition, automaticity, fluency, vocabulary or comprehension is the main problem. Then, interventions should be targeted at that weakness. This is consistent with evidence that explicit, systematic and multicomponent reading intervention is a very effective method (Al Otaiba *et al.*, 2023^[4]; Hall *et al.*, 2023^[13]).

Thus, MCRD may be considered a provisional educational-therapeutic descriptive formulation, but not an independently tested diagnostic entity. Its potential value lies in serving as a bridge between observation and functional understanding: from observing that a child has a relatively mild reading difficulty to identifying which component of reading requires intervention.

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