

Original Article **OPEN ACCESS**

# ‘I Don’t Know What’s Right and What’s Wrong’: Parent Perceptions of Support and Progress of Their Children With Handwriting Difficulties

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**Received:** 18 October 2025 | **Revised:** 1 April 2026 | **Accepted:** 9 April 2026

## ABSTRACT

For some students, handwriting difficulties persist from primary to secondary school. The aim of this study was to understand parents’ perceptions of their child’s experience with handwriting and typing. Fifteen parents of children attending secondary schools in England participated in semistructured interviews. These focused on parents’ perceptions of the child’s handwriting difficulties, their responses to support received for handwriting/typing and their views on the child’s use of and progress in handwriting and typing. Audio recordings of the interviews were transcribed to provide data for reflexive thematic analysis. Four main themes were extracted: ‘factors impacting the nature and extent of support’, ‘the impact of handwriting difficulties on their child’, ‘parents’ efforts to ensure their child receives appropriate support’ and ‘uncertainty and concern about their child’s future’. Parents’ perceptions of their child’s experience with handwriting/typing provide a new perspective on previously reported views of professionals. Several practical implications arise from the findings including the need for (1) evidence-based guidance for individualised support for young people with handwriting difficulties, (2) increased resourcing and multidisciplinary collaboration to support children, (3) staff training around handwriting difficulties and (4) a commitment to family-centred practice in decision-making around support.

## 1 | Introduction

Literacy involves a set of interrelated skills, and teaching them together can achieve the best outcomes. Handwriting is a critical component of literacy; learning to write letters and words can benefit learning to spell and read (Ray et al. 2022; Wiley and Rapp 2021). The perceptual-motor aspects of handwriting take time to master, initially learning to control a pen accurately to form letters and then to build speed while maintaining legibility (Gosse et al. 2021). With adequate teaching and sufficient time to practice, most children will develop fluent handwriting that can be produced without much conscious effort. Speed of

handwriting reflects the degree of ‘automaticity’ and is linked to the compositional content of texts (Feng et al. 2019). If handwriting requires less cognitive resource, this can be dedicated instead to other aspects of text composition (including grammar, vocabulary, sentence structure and development of ideas).

As children progress through education, writing demands increase. Schools may provide laptops (including ‘chromebooks’) for some class activities, but in secondary schools in England (from age 11/12 years), handwriting is still common in classrooms (e.g., for handwritten notes and writing down homework requirements). Handwriting is also required for many statutory

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tests and examinations, including GCSEs (General Certificate of Secondary Education), where students aged 15/16 years may be required to write for an extended time (1–2 h).

Some children struggle with handwriting from an early age. This may be for a variety of reasons, as handwriting involves the coordination of cognitive, perceptual, linguistic and motor skills. Difficulties within any of these areas and/or insufficient teaching or practice opportunities may impact the development of handwriting skills. For some children, their handwriting difficulties appear to be isolated, within an otherwise typical pattern of development. For others, handwriting difficulties occur alongside formally diagnosed conditions such as dyslexia (Hebert et al. 2018), developmental coordination disorder (DCD)/dyspraxia (Barnett and Prunty 2021) or ADHD (Graham et al. 2016). In England, if a child is recognised to have a learning difficulty that requires special educational provision (regardless of any formal diagnosis), they will be included on a school Special Educational Needs (SEN) register and receive additional support. For some, a legal document called an Education, Health and Care Plan (EHCP) provides a formal basis for further support, if needed (Department for Education [DfE] and Department of Health [DoH] 2015).

In England, as in other countries, handwriting is included in the primary national curriculum. Although the importance of developing fluent handwriting is recognised (e.g., DfE 2025), teaching practices vary considerably (Dockrell et al. 2016). In primary school, the teaching of individual letter formation ('print') is usually encouraged, but there is no prescribed font/style of handwriting. Joined handwriting is not usually taught until pupils have mastered print handwriting. Some schools teach 'lead in' strokes for each letter, to encourage later joining. A few schools teach 'fully cursive' from the start, where all letters are joined, although in the national curriculum there is no expectation for students to write fully cursive (DfE 2025). Schools differ in their adherence to a certain form, and many pupils develop their own handwriting style (Bara and Morin 2013).

As children transition from primary to secondary school (at 11/12 years of age in England), expectations of the volume of writing increase. At the current time, handwriting is not included in the English secondary curriculum, as students are expected to have developed accurate and fluent handwriting by this stage. However, for some students, handwriting difficulties experienced in earlier years will continue to secondary school (Marquardt et al. 2016). Teachers will only be aware of earlier difficulties if relevant information is passed on at the school transition. Other children may have coped adequately in the primary stage but have insufficiently consolidated skills to meet secondary school demands.

Children with handwriting difficulties may receive extra support to develop their handwriting skills, sometimes with input from an occupational therapist (OT), although the nature of this support is variable (Nightingale et al. 2022; Swinth 2025). Alternative methods for recording work, such as typing/keyboarding, may also be taught in school, either to all students or specifically as an accommodation for those with handwriting difficulties (Donica et al. 2019). However, teachers express mixed views regarding the relative merits of support for handwriting

versus typing (Sumner et al. 2024). Although typing can provide a valuable alternative for recording work for those with handwriting difficulties, practitioners report that some students find in-class laptop use stigmatising when others are handwriting (Nightingale et al. 2022; Sumner et al. 2024).

Interviews with teachers in England have highlighted varied practice around handwriting and typing support in secondary schools (Sumner et al. 2024). Some children will have been previously identified as struggling with handwriting; others may be identified through screening on school entry, allowing for support to be put in place to help them cope with the handwriting demands (e.g., interventions to teach handwriting/typing skills and/or permission to use a computer for typing in class). In some countries, students with SEN, including handwriting difficulties, are permitted to type rather than handwrite in formal examinations (e.g., in England, Joint Council for Qualifications [JCQ] 2024; in Ireland, State Examinations Commission [SEC] Coimisiún na Scrúduithe Stáit 2025). This is most beneficial if students have had the opportunity to develop effective typing/keyboarding skills, allowing them to type faster than they can handwrite (Weigelt-Marom and Weintraub 2018).

Both education and allied health professionals (AHPs) report difficulty in making decisions around how best to support individual students at secondary school (Nightingale et al. 2022; Sumner et al. 2024). The nature and extent of handwriting difficulties vary between individuals, and evidence is lacking on what interventions are most effective. Some schools have access to an OT, who can work with teachers and offer expertise around some aspects of support, but there is variation in the approaches taken, and a lack of resources is often reported as limiting the support provided in secondary school.

One aspect not considered in previous reports from secondary schools is the view of parents in relation to support for their children with handwriting difficulties. In England, the statutory Special Educational Needs and Disability (SEND): Code of Practice (DfE and DoH 2015) includes a requirement to consult with children and young people with SEN, as well as their parents, in carrying out all duties relating to SEN (House of Commons Library 2025). Local authorities must consider the views, wishes and feelings of the child and their parents and encourage participation in decisions, including providing the information and support necessary to enable such participation. Evidence-based guidance on planning support in collaboration with parents/carers is available (Education Endowment Fund [EEF] 2021).

The overall aim of the current study was therefore to understand parents' perceptions of their secondary-school child's experience with handwriting and typing. This included how parents view their child's difficulties and the support provided for handwriting and typing.

## 2 | Methods

Ethical approval was obtained from Brunel University of London University Research Ethics Committee (Registration No. 160994).

## 2.1 | Recruitment

This study was part of a larger project on handwriting and typing in secondary-school students. Links to an online questionnaire about secondary-school children with handwriting difficulties were circulated to parents/carers via schools and contacts of the research team in the South East of England. Parents were invited to complete the online questionnaire if they had a secondary-school-aged child whom they considered to have a handwriting difficulty. This included sections for completion by the parent/carer plus sections for the student to complete. Information was requested on background demographics, the nature of any handwriting or typing support in or out of school, and there was a section for students to complete on their use of handwriting and typing.

Participants could indicate interest in taking part in an online interview, in which case they were sent a participant information sheet and consent form about the interview study. They were then contacted by the research team to arrange a convenient time for an online interview. Some of the children of participating parents also completed handwriting assessments in school as part of the larger project.

## 2.2 | Participants

Fifteen parents completed the questionnaire and also took part in an interview between March 2022 and December 2024.

Eleven interviews were with mothers, two with a father, one with a foster father and one with both the mother and father together. The 15 children (13 males) who were the focus of the interviews were aged 12–16 years and attended seven different schools in school years 7–11. Table 1 shows ethnicity (as described by the parent) and reported diagnoses. Seven had no reported diagnoses or EHCP. Eight had at least one diagnosis reported by the parent (four of these had an EHCP), including dyslexia, dyspraxia, dysgraphia, ADHD, autism and global developmental delay. Two parents who completed the questionnaire omitted some background data. For 11/13 who completed the sections on languages spoken, English was the only language spoken at home and the language spoken from birth. One also spoke Hindi at home but had spoken English from birth, and one had English as an additional language to Punjabi. Twelve of the 13 children wrote only in English; one child wrote a little Punjabi.

Further questionnaire data results are presented in Supporting Information S1. Parents reported various supports for handwriting including occupational therapy, extra help and tuition. Some had also received help with typing in primary school or at home. Most students reported handwriting as their usual way of working in lessons and for recording work, yet nine reported being allowed to type their written examinations. Eleven students had also completed handwriting assessments in school (see Supporting Information S2). For 10 students, the results confirmed that performance was below age expectations for speed and/or legibility.

**TABLE 1** | Details of participating parents and their child with handwriting difficulties.

ID	Parent interviewed	Child age	Child sex	Child ethnicity <sup>a</sup>	School year	EHCP	Diagnoses
1	Mother	12	M	White British	7	No	Dyspraxia, possible ADHD
2	Mother	14	M	White British	10	No	Dyslexia
3	Mother	16	F	White British	11	No	None
4	Mother	13	M	White British	8	No	Autism
5	Mother	13	M	White British	8	Yes	Dyspraxia
6	Mother	12	F	White British	8	Yes	Autism, DCD/dyspraxia
7	Mother	12	M	Mixed Indian/ British	8	Yes	Autism, global developmental delay
8	Father	13	M	Black African	10	No	None
9	Father	12	M	Asian-Indian	8	No	None
10	Mother	13	M	Asian-Indian	9	No	None
11	Mother	13	M	White British	10	No	None
12	Mother and father	13	M	White British	8	No	None
13	Mother	13	M	White British	9	Yes	Autism, ADHD, dyslexia, dysgraphia
14	Foster father	13	M	Mixed Indian/British	9	No	None
15	Mother	13	M	Mixed Black British	9	No	ADHD, autism

Abbreviations: ADHD – attention deficit hyperactivity disorder; DCD – developmental coordination disorder; EHCP – Education, Health and Care Plan.

<sup>a</sup>Ethnicity as described by the parent.

## 2.3 | Interviews

Online semistructured interviews on Zoom were conducted by ALB and lasted 15–38 min (mean = 26 min). Audio was automatically transcribed, and transcriptions were edited for accuracy against the original audio recording.

The interviews focused on parents' perceptions of the child's handwriting difficulties, their responses to the nature of any support received for handwriting and typing and their views on the child's use of and progress in handwriting and typing. The interview transcriptions provided the data for reflexive thematic analysis.

## 2.4 | Qualitative Data Analysis

Qualitative data analysis followed Braun and Clarke's reflexive thematic analysis (2006, 2019). This involved familiarisation with, then coding data, grouping codes into initial themes, reviewing, then defining and naming themes, followed by writing up. A semantic, inductive approach with no theoretical framework was taken to prioritise participants' surface-level meanings. The four members of the research team were involved in aspects of the data analysis. FT kept a reflexive journal to capture researchers' responses throughout the analytical process (see Supporting Information S3 for reflexivity statement). To enhance rigour, team discussions throughout coding, theme construction and write-up stages of the analysis enabled crystallisation—the use of multiple researcher perspectives to deepen analysis (Tracy 2010).

FT initially read, re-read and summarised each transcribed interview as part of initial familiarisation. Initial coding of the transcripts was carried out by FT with the research questions in mind and then discussed with ALB, who had carried out and transcribed the interviews. ES and MP read four transcripts in full and were fully involved in analytical decision-making from the second iteration of coding onwards. Interrater coding checks were not carried out as the study followed a reflexive thematic approach in which meaning is understood as interpretive and situated (Braun and Clarke 2022). However, analytical rigour was supported by reflexive team-based discussions and iterative analysis, which deepened the interpretation of the data. FT carried out a second iteration of coding, excluding codes capturing information already covered in the parent and child questionnaires (see Section 2.2). Codes were then discussed by the wider team before FT grouped them into initial themes.

FT constructed themes iteratively with regular discussion with the wider team. Writing up themes involved ongoing review and discussion between the research team to further refine themes and theme names. Although discussions of school support focused on secondary school, experiences from primary school were incorporated where these continued to impact experiences at secondary school.

Illustrative quotations from all participants are included, with participant numbers in brackets. Square brackets were used to insert relevant contextual information for clarification, for

example, adding '[hand]' to 'writing' where a participant was talking about handwriting. Filler words, such as 'you know', were replaced with ellipses. All results are the participants' perceptions and should be interpreted as such.

## 3 | Results

Four main themes, two with associated subthemes, represented parents' perceptions of their child's experience with handwriting and typing (see Table 2).

### A. Factors impacting the nature and extent of support

Most parents appreciated the efforts schools made to support their child's recording difficulties, and some acknowledged the challenges in providing appropriate interventions due to limited resources: 'school are doing the best that they can... people are working tremendously hard. But there's not a great deal that you can do without ... the funding' (P4). However, many felt that the lack of adequate support—including no intervention at all for over a third of children—meant their child continued to experience handwriting difficulties at secondary school: 'Now he's [child] gone up to secondary, we've got the same issues coming up again ... he needs to improve his handwriting' (P1).

Inconsistencies in practice and provision across primary and secondary schools affected the support most children received. For example, one mother described the impact of discontinuation of a successful handwriting intervention on transition to secondary school, '[his handwriting has] gone backwards ... we've kind of lost three years' (P15). Variation in school practice also meant beneficial laptop use in primary was discontinued for some in secondary: '[primary school] were encouraging him to start then writing his stories and things in class on the laptop ... secondary school [have] gone back to him [hand] writing' (P12).

**TABLE 2** | Themes and subthemes.

Theme	Subthemes
A. Factors impacting the nature and extent of support	
B. The impact of handwriting difficulties on their child	B.1. Emotional impact of handwriting difficulties on children B.2. Impact on children's learning and/or achievement
C. Parents' efforts to ensure their child receives appropriate support	C.1. Efforts to support their child at home C.2. Efforts to secure the appropriate provision for their child at school
D. Uncertainty and concern about their child's future	

Secondary schools often did not prioritise or assess handwriting, which could impact the support offered. For some, this was positive: 'at secondary school the emphasis goes away from handwriting so I think she felt the pressure was off a bit' (P3). However, for others, the lack of focus on handwriting was seen as problematic: 'it's a shame that they didn't continue with ... handwriting' (P15).

Lack of training in typing in secondary schools also impacted the appropriate provision for some. Although laptop use could be 'a great enabler' (P2), it was sometimes introduced without explicit teaching of touch typing skills, meaning challenges in recording work continued: 'her typing is not fast enough, she can write faster than ... she can type' (P6). Furthermore, some parents and children worried that using laptops in some curriculum areas would cause handwriting to further decline: 'he [child] was very, very reticent to take a chromebook. He said, "it's not going to help my handwriting"' (P13).

Finally, for around half, other individual factors overshadowed their child's handwriting difficulties. For example, some schools prioritised 'social communication issues' (P6) related to other diagnoses over handwriting. Children's difficulties could also be misconstrued as poor behaviour: '[Teachers] think it's a behavioural issue .... And I think that limits the help that he gets' (P5). Being academically able could mean that handwriting difficulties were overlooked: 'because he's so bright ... [his grades] haven't slipped as much to get the attention' (P4).

## B. The impact of handwriting difficulties on their child

Most parents saw the negative impact of handwriting difficulties as their children struggled to meet expectations at primary and secondary schools. For example, at secondary school, assumptions about handwriting ability brought challenges: 'he found it incredibly difficult to make the transition ... he has trouble organizing his thoughts, he has trouble handwriting, he has trouble doing both of those things fast. And that was what was being expected' (P1).

The emotional impact on parents from observing their child's struggles could be 'frustrating' (P5) and 'heartbreaking' (P3). Some felt guilt and regret looking back on their child's difficulties: 'I said look I'm really sorry [child's name] that you've been struggling all these years with no recognition of how much effort and hard work you've been putting into this' (P1).

Two subthemes represented the main parent-perceived impacts on children.

### B.1. Emotional impact of handwriting difficulties on children

Most parents reported that they witnessed their children experiencing distress, embarrassment or feeling different from peers due to their handwriting difficulties. Inability to meet primary school expectations around their handwriting style also seemed to cause stress and, when emphasised publicly via a 'pen licence',<sup>1</sup> could be 'quite devastating' (P15). Some parents reported that their children had faced crushing criticism

from teachers, with effects that lasted into secondary education: 'because he got put down, he ... gave up ... those 2 years destroyed him' (P12). Some felt that their children benefited from more flexible expectations around handwriting at secondary school: 'the whole thing completely shifted' (P3). However, others saw their children continue to struggle emotionally due to 'hours in the evening' (P5) spent on excessively time-consuming work that had not been appropriately differentiated for them. Around half perceived that their children felt discouragement and distress due to their handwriting difficulties: 'he gets frustrated when he can't get it right, it upsets him' (P11).

The majority of parents reported that their children were embarrassed and 'self-conscious' (P13) about their handwriting, knowing that it was 'not as good as everyone else' (P7). Negative self-comparison with peers could affect children's self-esteem and view of themselves as learners: 'other children comment like "oh my gosh, you can't write properly." So that only knocks a person's confidence' (P6). These feelings seemed to cause some children to avoid writing at school: 'he writes as little as possible, and it's not because he doesn't know .... It's because I don't think he feels very confident when he is [hand]writing' (P14). Some felt that their children refused supportive strategies to avoid looking different: 'if everyone uses it [laptop], it's fine. But ... he doesn't want to be the odd one out' (P7).

### B.2. Impact on children's learning and/or achievement

Secondary school brought increased demands for speed and extended writing, which over half reported that their children struggled with: 'he'd be able to ... relay exactly what he needs to say but he would not be able to replicate that in [hand]writing, anywhere near, within the time that they've got' (P5). Legibility also seemed to become more important both for external examinations and for children's own note-taking for revision purposes: 'the work you do in class, you're going to need to read back in order to study it' (P6). A minority felt their child was not held back academically, due to parental efforts to support handwriting, 'outstanding' academic ability (P10) or appropriate laptop provision. However, around half felt that their children were not currently achieving their academic potential due to difficulties with reflecting their true abilities through written answers across the curriculum: 'if he's asked to write anything or write about something, he writes as little as possible, and it's not because he [knows] little. It's because I don't think he feels very confident when he is writing, so he just wants to write as little as possible' (P14). Timed assessments were thought to be particularly challenging: 'he doesn't get to finish his tests or his work. And then that impinges on the marks and ... he gets upset' (P11).

### C. Parents' efforts to ensure their child receives appropriate support

All parents felt responsible for supporting their children so that their handwriting difficulties did not hold them back: 'I will do my utmost to make sure that he gets ... everything that he needs. I'll make sure that he gets ... as much of my time to be and do what he needs [gets quite emotional]' (P11).

Two subthemes captured the main strategies parents used to support their children.

### C.1. Efforts to support their child at home

All parents had tried to support their child with their handwriting and/or typing at home while they were at primary and secondary schools, although only one felt that this had been successful. When in primary school, strategies included providing resources such as private tutoring and workbooks; guiding handwriting by 'holding his hand' (P11); and various activities to develop fine motor abilities. At secondary school age, parents reported monitoring children's handwriting with specific targets, laptop provision and teaching typing skills. Parents also provided emotional support, for example, by 'encouraging, sitting close to him to write' (P8).

Some parents perceived that these interventions meant that some children, already 'exhausted' (P4) by their efforts in school, had 'no downtime' (P5). Most parents felt unsure about the best strategies: 'I don't know what will be helpful because I don't know how to teach a child how to write ... I had all of those ... trace over books and then I read ... those are not the best thing to do ... I don't know what's right and what's wrong' (P10). Some parents felt unsupported in their efforts, particularly by secondary schools: 'I'm picking him up on his handwriting but I'm not sure anybody else is within the school' (P2).

Around half of parents found it difficult to be both teacher and parent, feeling that children did not want to learn from them: 'every time I try and correct him he'll fight ... rebel .... Until somebody tells him it's not, other than me or his dad, I don't think he'll listen' (P7). Some parents reported emotional challenges for themselves in trying to help their children with handwriting: 'because ... he hates [hand]writing, that's [practising handwriting] not a very fun thing for us to be like, go and do it, and we have tried ... and I feel so guilty' (P12).

### C.2. Efforts to secure the appropriate provision for their child at school

Most parents had experienced challenges in communicating with both primary and secondary schools around support for their child's handwriting difficulties. Some reported being dismissed outright: 'we did say at the very beginning [of secondary school], can he type and the answer was no' (P1). Around half had either pressured schools to obtain specialist assessment or sought it privately. However, assessment did not necessarily guarantee the required support: 'I think that I forced the school to refer me to OT ... they said he needed a desk that was on an incline, but it never got implemented' (P7).

At secondary school, it was difficult to obtain precise information on children's handwriting and/or typing progress: 'Secondary school's a totally different system ... we don't get that feedback' (P9). Agreed actions were not always put into place: 'nothing happened' (P10). Even with formal documentation, parents could find that they needed to continually intervene for adjustments to be put into place. One parent described how her son could manage well in maths on an online platform but could not engage when work was presented in a way that required him to write: 'I know sometimes they get worksheets in the class, it's never modified for him

at all and they seem to, even though he's got a plan [EHCP] and it says on there he has limited handwriting capabilities, it still gets put in front of him and he doesn't perform anything and then I get feedback saying that he didn't attempt any work, and I have to remind them, no ... you can't assess him like that' (P5).

A few parents appreciated the open communication between themselves and their child's secondary school; however, they remained unclear about their children's progress: 'they don't come to us and say ... he's made this much progress in his touch typing. His speed has increased by this much or ... we're looking at handwriting or whatever it is, we don't get that level of detail' (P2).

### D. Uncertainty and concern about their child's future

All parents expressed worry, concern, doubt or sadness about their child's future prospects due to their handwriting difficulties. One mother expressed the weight of responsibility she felt: 'when it comes to GCSE assessments ... I know my son can get nines [highest grades], but I don't want to ... fail him ... in terms of his handwriting' (P10).

Most parents felt 'worried' (P12) or uncertain about how handwriting speed and legibility would affect their child's ability to reach their potential in future examinations: 'if he doesn't either learn to type and have a concession to type those GCSEs, for instance, or his handwriting doesn't improve, then there is just no way that he will get results that are reflective of his abilities' (P4). Parents did not know whether the current provisions (or lack of) around their children's handwriting and typing were enough to support their achievement: 'He's gonna probably need additional time in his exams. And I don't think he has ... got concrete skills in either camp [handwriting or typing] at the moment, and that's my concern' (P15).

On the whole, parents felt that both typing and handwriting were important life skills and were concerned that their child was not sufficiently developing both: 'having a laptop in class, although it would help him with his answers and stuff, it's not gonna help an adult because he still won't be able to [hand]write properly' (P12). Some worried about their child's future employment, believing that handwriting would continue to be relevant in the workplace: 'sometimes you're asked to do things in a work environment, and they will ask you to write something physically and you need to be able to do it' (P14).

Uncertainty around which skills would continue to be relevant in a rapidly changing world was summed up by one mother: 'it's a hybrid world as well at the moment ... I guess it's quite difficult for them [school] to ... understand which skills they need to develop further' (P15).

## 4 | Discussion

This study aimed to explore parents' perceptions of their child's experience with handwriting and typing at secondary school. The focus on this school phase is particularly important as it is a time of preparation for high-stakes examinations. Arguably, parents/caregivers see their child's educational experiences from a unique perspective and can provide valuable information

about their development, experiences and well-being. The present study identified four themes arising from parent interviews: factors impacting the nature and extent of support; the impact of handwriting difficulties on their child; parents' efforts to ensure their child receives appropriate support; and uncertainty and concern about their child's future.

#### 4.1 | Handwriting Difficulties and Access to Support

Parents reported that their children's handwriting difficulties continued from primary into secondary school. This provides new evidence in a UK context and further supports previous accounts from teachers based in Germany (Marquardt et al. 2016). The first theme, *factors impacting the nature and extent of support*, highlighted parents' concerns about limited resources to support recording difficulties in secondary schools, such as time, personnel and funding, for handwriting and/or typing interventions, and laptop provision. OTs and teachers in the UK have been shown to highlight similar issues that impact the support available in UK secondary schools (Nightingale et al. 2022; Sumner et al. 2024).

Beyond the lack of resources, some parents in the present study felt that teachers' knowledge around handwriting difficulties could affect access to appropriate support. Some thought that teachers' perceptions of children's characteristics (e.g., academic ability, motivation and behaviour) had overshadowed their child's handwriting difficulties. Lack of adequate processes for identifying handwriting difficulties and variability in individual teachers' awareness align with previous reports from teachers in the UK (Sumner et al. 2024), parents of primary-school children with dysgraphia (Kalenjuk, Subban, et al. 2024) and 4–18-year-olds with DCD in Australia (Reynolds et al. 2024).

Typing appeared to be only a partial solution to handwriting difficulties. Parents corroborated previous teacher reports that in secondary schools, laptops are often issued without instruction (Sumner et al. 2024). Our finding that some parents perceived that their children struggled with typing fluency aligns with reports of typing difficulties in children with learning disabilities, dyslexia and DCD in other countries (Foxworth et al. 2019; Košir et al. 2024; Zwicker et al. 2017). Typing difficulties persist into adulthood for some students with handwriting difficulties (Rosenberg-Adler and Weintraub 2020) and developmental disorders (Barnett and Stuart 2024). Despite global moves towards digital learning in schools (Gottschalk and Weise 2023), typing instruction is omitted from many curricula internationally (e.g., Košir et al. 2024), including the UK (DfE 2014). However, the present parent perspectives support perceptions of teachers in the United States (Poole and Preciado 2016) and empirical evidence that some children need targeted typing support (Foxworth et al. 2019).

#### 4.2 | Impact of Handwriting Difficulties on Children

In the second theme, *the impact of handwriting difficulties on their child*, parents shared their concerns that handwriting

difficulties were limiting their children's academic achievement. This aligns with empirical research showing that handwriting is central to children's performance across school phases (Graham et al. 2000; McMaster and Roberts 2016). Specifically, parents worried that their children could not produce written work in secondary school that reflected their knowledge and understanding due to difficulties generating sufficient text. Indeed, empirical research has shown that fluent handwriting is related to greater productivity and increased quality of written work (Limpo et al. 2017; Prunty et al. 2016).

Most notably, parents emphasised that they witnessed emotional impacts of handwriting difficulties on children, extending prior findings that children with handwriting difficulties experience lower quality of life compared to controls, particularly related to emotional well-being (Hen-Herbst and Rosenblum 2022). Pressure to meet unrealistic handwriting standards in primary school reportedly had lasting negative effects on children's self-perception as learners. Some parents reported consequent reduced motivation and avoidant behaviour around writing in their children. This is concerning as children's lack of self-belief and negative feelings around learning have been linked to lower academic achievement (Wentzel et al. 2021).

Parents reported seeing further emotional distress in their children around handwriting difficulties at secondary school. Undifferentiated classwork and homework, which could not be completed in allocated time frames, seemed to cause stress and frustration. Some teachers reportedly misattributed handwriting difficulties to poor behaviour. The parents' perceptions that handwriting difficulties impacted academic achievement and led to reduced motivation and avoidant behaviour have also been reported by parents of younger children with dysgraphia in Australia (Kalenjuk, Subban, et al. 2024).

However, the present study also found that parents saw their children experiencing embarrassment about being different from their peers and that fear of stigma could lead children to reject support, such as laptops, as OTs and teachers in the UK have reported (Nightingale et al. 2022; Sumner et al. 2024). A concerning novel finding was that children with handwriting difficulties negatively compared their abilities to those of their peers. Such negative self-comparison can lead to negative self-perceptions of academic ability, which in turn impacts academic performance (Wu et al. 2021). Our novel findings suggest that the emotional challenges of handwriting difficulties may increase at secondary school.

These emotional challenges are concerning, particularly given evidence linking academic pressure, challenges acquiring academic skills and stigma with the development of anxiety and depression in children with specific learning disabilities (SLD; Stein et al. 2024). The current study found that parents reported that their children with handwriting difficulties experience these stressors and, therefore, may be vulnerable to mental health conditions. Inadequate support for handwriting difficulties also appeared to undermine positive teacher–child relationships, self-concept and self-efficacy for some children in our study. This is troubling as Stein et al. (2024) found that all of these were protective factors for children's mental health.

### 4.3 | Parental Burden

Parents in the present study bore a substantial burden in supporting their children, providing emotional support, time and money and attempting to access appropriate support for their child. This was captured in the third theme, *parents' efforts to ensure their child receives appropriate support*, and aligns with emotional, financial and practical burdens reported internationally by parents of children with SLD (Anthony et al. 2024; Newbury and Eagle 2025; Wilmot et al. 2023). In the current study, parents reported uncertainty about the best ways to support their secondary-school-aged children, most likely due to the lack of an evidence base and practice guidance around handwriting difficulties in the UK (Nightingale et al. 2022).

A lack of attention to handwriting in secondary schools (also acknowledged by teachers, see Sumner et al. 2024) meant that parents often lacked accurate information about their children's progress. This reported insufficient information increased parents' worry and reduced their ability to secure appropriate provision for their children. Further, some parents felt excluded from school decision-making. Parents of younger children with dysgraphia in Australia (Kalenjuk, Subban, et al. 2024) and language and literacy difficulties in New Zealand (Newbury and Eagle 2025) have similarly reported wanting more detailed teacher feedback, which they needed to judge whether support arrangements were appropriate. Kalenjuk, Subban, et al. (2024) have also reported parental challenges in communicating with schools, as have parents of children with reading difficulties (Wilmot et al. 2023). However, UK statutory guidance requires schools to work in partnership with parents of children with SEND (DfE and DoH 2015). Inconsistent implementation of this statutory requirement identified here highlights the low priority given to handwriting in secondary schools. Yet, because handwriting difficulties alone may not be recognised for formal SEN provision, it is unclear whether family engagement is mandated.

In the final theme, *uncertainty and concern about their child's future*, parents described ongoing worry, aligning with reports of chronic stress and worry from parents of children with SEND and those with reading difficulties (Cheng and Lai 2023; Holland and Pell 2018; Wilmot et al. 2023). Although the focus of the present study was not on parents' own emotions, a considerable burden of worry was reported. Parents were concerned for their children's future and felt guilt and responsibility, feelings shared by parents of younger children with dysgraphia in Australia (Kalenjuk, Subban, et al. 2024).

### 4.4 | Implications

The study findings raise four practical implications. Firstly, schools need evidence-based guidance identifying when and how to assess, support and review handwriting abilities. With practice varying across settings (Sumner et al. 2024), greater clarity around roles and responsibilities in identifying handwriting and typing difficulties is needed. Where typing is being recommended (e.g., the new UK Writing Framework [DfE 2025]), there is a need for detailed guidance around how support should be implemented. This could include if, when and how to introduce typing, across educational phases, with consideration of

possible further handwriting decline due to reduced practice. School policies will need to be responsive to rapid changes in this area, for example, examination assessment modes.

Secondly, schools may wish to reflect on the availability and allocation of resources for handwriting and typing support. Collaboration with multidisciplinary teams, including OTs, may prove helpful. For example, the Canadian Partnering for Change (P4C) model (Missiuna et al. 2012), which involves AHPs working alongside educators, has been shown to support children's inclusion in Canadian (Wilson and Harris 2017), Dutch and Swedish (Meuser et al. 2022) elementary schools. Extending such models of good practice could make screening for handwriting difficulties more relevant due to the existence of appropriate referral pathways.

Thirdly, school staff training is needed around identification of handwriting difficulties, appropriate differentiation (already required by UK Teacher Standards [Department for Education, DfE 2011]) and use of inclusive practices. These can support children's perceptions of their own academic abilities, thereby supporting achievement (Wu et al. 2021). Such training should also address the emotional impacts of handwriting challenges on children and the use of neutral and supportive feedback, rather than value-laden terms. Careful consideration of the potential emotional impact of policies and early experiences that impact children's journey with handwriting (e.g., 'pen licences') is advised.

Finally, as already expected in some countries, including the UK and the United States (DfE and DoH 2015; Individuals With Disabilities Education Improvement Act H.R. 1350, 108th Congress 2004), family-centred practice, which prioritises the views of parents and the voices of children regarding what works best for them, is advised. In particular, communication around educational attainment, examination arrangements and future employability may reduce parental concerns. Schools could helpfully collaborate with parents, for example, by providing workshops on strategies used in school. There is also a need for evidence-based, easily used resources for families to use at home if they wish to support classroom learning.

### 4.5 | Strengths and Limitations

To our knowledge, this is the first study to report parents' views of their children's handwriting difficulties and support at secondary school. This is an important extension to previous work on younger, primary-school-aged students. A key strength lies in capturing parents' perceptions of children's handwriting and typing experiences at secondary school, which offer novel insights into the impacts of handwriting difficulties on children and parents' well-being. A further strength is the diversity of participants with a range of ethnicities and varied children's diagnoses, which enhances the transferability of findings to a broad range of families.

Limitations include the small sample size and recruitment from just the South East of England, which could limit the applicability of findings elsewhere. However, parents' reported challenges around children's handwriting difficulties accord with parents'

experiences of children's reading difficulties, dysgraphia, language and literacy difficulties and SLD in other countries (Anthony et al. 2024; Kalenjuk, Subban, et al. 2024; Newbury and Eagle 2025; Wilmot et al. 2023). This suggests that current findings are likely to be applicable beyond the UK. Although the study represents the perception of parents only, the systemic barriers reported around funding, identification, assessment and variation in practice accord with those highlighted by teachers and OTs (Nightingale et al. 2022; Sumner et al. 2024).

#### 4.6 | Future Directions

Children's perspectives are required to add to our understanding of how handwriting difficulties and associated support are experienced. Qualitative research with children is currently underrepresented but needed to understand the individualised experiences of handwriting difficulties experienced by diverse individuals for effective development of educational support (Kalenjuk et al. 2022). One Australian study used arts-based approaches to understand the lived experience of younger children with dysgraphia (Kalenjuk, Wilson, et al. 2024), and future studies with secondary-school-aged children could use a similar approach. Parents' own emotions and well-being related to children's handwriting difficulties also require exploration. Future research is needed from an international perspective to understand whether similar concerns are raised and to identify possible best practices.

#### 5 | Conclusions

Parents report that their children do not receive appropriate handwriting and typing support at secondary school for a range of reasons and that this impacts their children emotionally and academically. Parents experience emotional, financial and time-related burdens in trying to support their children. Evidence-based guidance around appropriate support for children's handwriting difficulties is needed to benefit children's academic achievement, their emotional well-being and that of their families. Training for educators and multidisciplinary working of health and education professionals would benefit children's inclusion. Approaches to supporting handwriting difficulties that acknowledge the challenges children face around handwriting and typing and put families at the heart of decision-making are advised.

#### Acknowledgements

Special thanks go to all participants who took the time to share their views and experiences. The study was funded by a research priority grant awarded by the UK Occupational Therapy Research Foundation to MP (Principal Investigator, Brunel University, London).

#### Funding

This study was supported by the OT Occupational Therapy Research Foundation.

#### Conflicts of Interest

The authors declare no conflicts of interest.

#### Data Availability Statement

The research data will not be shared due to possible identification of participants.

#### Endnotes

<sup>1</sup> In some schools, a 'pen licence' (a certificate or badge) is awarded to pupils who achieve a certain standard in handwriting, allowing them to use a pen rather than a pencil for classwork.

#### References

- Anthony, H., A. Reupert, and L. McLean. 2024. "Parent Experiences of Specific Learning Disorder Diagnosis: A Scoping Review." *Dyslexia* 30, no. 1: e1757. <https://doi.org/10.1002/dys.1757>.
- Bara, F., and M.-F. Morin. 2013. "Does the Handwriting Style Learned in First Grade Determine the Style Used in the Fourth and Fifth Grades and Influence Handwriting Speed and Quality? A Comparison Between French and Quebec Children." *Psychology in the Schools* 50, no. 6: 601–617. <https://doi.org/10.1002/pits.21691>.
- Barnett, A., S. E. Henderson, B. Scheib, and J. Schulz. 2007. *The Detailed Assessment of Speed of Handwriting (DASH)*. Pearson.
- Barnett, A. L., and M. Prunty. 2021. "Handwriting Difficulties in Developmental Coordination Disorder (DCD)." *Current Developmental Disorders Reports* 8: 6–14. <https://doi.org/10.1007/s40474-020-00216-8>.
- Barnett, A. L., M. Prunty, and S. Rosenblum. 2018. "Development of the Handwriting Legibility Scale (HLS): A Preliminary Examination of Reliability and Validity." *Research in Developmental Disabilities* 72: 240–247. <https://doi.org/10.1016/j.ridd.2017.11.013>.
- Barnett, A. L., and N. Stuart. 2024. "Understanding Typing Skill in Students With Developmental Disorders." *Current Developmental Disorders Reports* 11, no. 2: 63–74. <https://doi.org/10.1007/s40474-024-00298-8>.
- Braun, V., and V. Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3, no. 2: 77–101. <https://doi.org/10.1191/1478088706qp0630a>.
- Braun, V., and V. Clarke. 2019. "Reflecting on Reflexive Thematic Analysis." *Qualitative Research in Sport, Exercise and Health* 11, no. 4: 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>.
- Braun, V., and V. Clarke. 2022. *Thematic Analysis: A Practical Guide*. SAGE.
- Cheng, A. W., and C. Y. Lai. 2023. "Parental Stress in Families of Children With Special Educational Needs: A Systematic Review." *Frontiers in Psychiatry* 14: 1198302. <https://doi.org/10.3389/fpsy.2023.1198302>.
- Department for Education (DfE). 2011. "Teachers' Standards: Guidance for School Leaders, School Staff and Governing Bodies." [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/665520/Teachers\\_\\_Standards.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/665520/Teachers__Standards.pdf).
- Department for Education (DfE). 2014. *The National Curriculum in England Framework Document*. [https://assets.publishing.service.gov.uk/media/5a7db9e9e5274a5eaea65f58/Master\\_final\\_national\\_curriculum\\_28\\_Nov.pdf](https://assets.publishing.service.gov.uk/media/5a7db9e9e5274a5eaea65f58/Master_final_national_curriculum_28_Nov.pdf).
- Department for Education (DfE). 2025. *The Writing Framework*. [https://assets.publishing.service.gov.uk/media/686e7890fe1a249e937cbeeb/The\\_writing\\_framework.pdf](https://assets.publishing.service.gov.uk/media/686e7890fe1a249e937cbeeb/The_writing_framework.pdf).
- Department for Education (DfE) and Department of Health (DoH). 2015. *Special Educational Needs and Disability Code of Practice: 0 to 25 Years: Statutory Guidance for Organisations Which Work With and Support Children and Young People Who Have Special Educational Needs or Disabilities*. [https://assets.publishing.service.gov.uk/media/5a7dcb85ed915d2ac884d995/SEND\\_Code\\_of\\_Practice\\_January\\_2015.pdf](https://assets.publishing.service.gov.uk/media/5a7dcb85ed915d2ac884d995/SEND_Code_of_Practice_January_2015.pdf).

- Dockrell, J. E., C. R. Marshall, and D. Wyse. 2016. "Teachers' Reported Practices for Teaching Writing in England." *Reading and Writing* 29, no. 3: 409–434. <https://doi.org/10.1007/s11145-015-9605-9>.
- Donica, D. K., P. Giroux, and Y. J. Kim. 2019. "Effectiveness of Two Keyboarding Instructional Approaches on the Keyboarding Speed, Accuracy, and Technique of Elementary Students." *Open Journal of Occupational Therapy* 7, no. 4: 1–15. <https://doi.org/10.15453/2168-6408.1599>.
- Education Endowment Fund (EEF). 2021. *Working With Parents to Support Children's Learning. Guidance Report*. Education Endowment Fund. <https://educationendowmentfoundation.org.uk/education-evidence/guidance-reports/supporting-parents>.
- Feng, L., A. Lindner, X. R. Ji, and R. Malatesha Joshi. 2019. "The Roles of Handwriting and Keyboarding in Writing: A Meta-Analytic Review." *Reading and Writing* 32, no. 1: 33–63. <https://doi.org/10.1007/s11145-017-9749-x>.
- Foxworth, L. L., A. Hashey, and D. P. Sukhram. 2019. "Writing in the Digital Age: An Investigation of Digital Writing Proficiency Among Students With and Without LD." *Reading & Writing Quarterly* 35, no. 5: 445–457. <https://doi.org/10.1080/10573569.2019.1579011>.
- Gosse, C., M. Parmentier, and M. Van Reybroeck. 2021. "How Do Spelling, Handwriting Speed, and Handwriting Quality Develop During Primary School? Cross-Classified Growth Curve Analysis of Children's Writing Development." *Frontiers in Psychology* 12: 685681. <https://doi.org/10.3389/fpsyg.2021.685681>.
- Gottschalk, F., and C. Weise. 2023. "Digital Equity and Inclusion in Education: An Overview of Practice and Policy in OECD Countries." In *OECD Education Working Papers*, 299. OECD Publishing. [https://www.oecd.org/en/publications/digital-equity-and-inclusion-in-education\\_7cb15030-en.html](https://www.oecd.org/en/publications/digital-equity-and-inclusion-in-education_7cb15030-en.html) Digital equity and inclusion in education | OECD.
- Graham, S., E. J. Fishman, R. Reid, and M. Hebert. 2016. "Writing Characteristics of Students With Attention Deficit Hyperactive Disorder: A Meta-Analysis." *Learning Disabilities Research & Practice* 31, no. 2: 75–89. <https://doi.org/10.1111/ldrp.12099>.
- Graham, S., K. R. Harris, and B. Fink. 2000. "Is Handwriting Causally Related to Learning to Write? Treatment of Handwriting Problems in Beginning Writers." *Journal of Educational Psychology* 92, no. 4: 620–633. <https://doi.org/10.1037/0022-0663.92.4.620>.
- Hebert, M., D. M. Kearns, J. B. Hayes, P. Bazis, and S. Cooper. 2018. "Why Children With Dyslexia Struggle With Writing and How to Help Them." *Language, Speech, and Hearing Services in Schools* 49, no. 4: 843–863. [https://doi.org/10.1044/2018\\_LSHSS-DYSLC-18-0024](https://doi.org/10.1044/2018_LSHSS-DYSLC-18-0024).
- Hen-Herbst, L., and S. Rosenblum. 2022. "Handwriting and Motor-Related Daily Performance Among Adolescents With Dysgraphia and Their Impact on Physical Health-Related Quality of Life." *Children (Basel)* 9, no. 10: 1437. <https://doi.org/10.3390/children9101437>.
- Holland, J., and G. Pell. 2018. "Children With SEND and the Emotional Impact on Parents." *British Journal of Special Education* 45, no. 4: 392–411. <https://doi.org/10.1111/1467-8578.12240>.
- House of Commons Library. 2025. *Special Educational Needs: Support in England. Research Briefing*. <https://commonslibrary.parliament.uk/research-briefings/sn07020/>.
- Individuals With Disabilities Education Improvement Act H.R. 1350, 108th Congress. 2004.
- Joint Council for Qualifications (JCQ). 2024. *Adjustments for Candidates With Disabilities and Learning Difficulties. Access Arrangements and Reasonable Adjustments*. [https://www.jcq.org.uk/wp-content/uploads/2024/11/JCQ-AARA-24-25\\_FINAL\\_accessible.pdf](https://www.jcq.org.uk/wp-content/uploads/2024/11/JCQ-AARA-24-25_FINAL_accessible.pdf).
- Kalenjuk, E., S. Laletas, P. Subban, and S. Wilson. 2022. "A Scoping Review to Map Research on Children With Dysgraphia, Their Carers, and Educators." *Australian Journal of Learning Difficulties* 27, no. 1: 19–63. <https://doi.org/10.1080/19404158.2021.1999997>.
- Kalenjuk, E., P. Subban, S. Laletas, and S. Wilson. 2024. "It's the 'Generic School System That Is Expected on All the Kids': Dysgraphia Through the Lens of Australian Mothers." *International Journal of Disability, Development and Education* 73, no. 1: 25–45. <https://doi.org/10.1080/1034912X.2024.2361287>.
- Kalenjuk, E., S. Wilson, P. Subban, and S. Laletas. 2024. "Art-Based Research to Explore Children's Lived Experiences of Dysgraphia." *Children & Society* 38, no. 2: 381–403. <https://doi.org/10.1111/chso.12709>.
- Košir, J., A. Košir, A. Podlesek, and M. Košak Babuder. 2024. "Typing Fluencies of 12–13-Year-Old Students With Dyslexia and Peers With Typical Development." *Reading & Writing Quarterly* 40, no. 6: 600–618. <https://doi.org/10.1080/10573569.2024.2304758>.
- Limpo, T., R. A. Alves, and V. Connelly. 2017. "Examining the Transcription-Writing Link: Effects of Handwriting Fluency and Spelling Accuracy on Writing Performance via Planning and Translating in Middle Grades." *Learning and Individual Differences* 53: 26–36. <https://doi.org/10.1016/j.lindif.2016.11.004>.
- Marquardt, C., M. D. Meyer, M. Schneider, and R. Hilgemann. 2016. "Learning Handwriting at School—A Teachers' Survey on Actual Problems and Future Options." *Trends in Neuroscience and Education* 5, no. 3: 82–89. <https://doi.org/10.1016/j.tine.2016.07.001>.
- McMaster, E., and T. Roberts. 2016. "Handwriting in 2015: A Main Occupation for Primary School-Aged Children in the Classroom?" *Journal of Occupational Therapy, Schools & Early Intervention* 9, no. 1: 38–50. <https://doi.org/10.1080/19411243.2016.1141084>.
- Meuser, S., M. Borgestig, H. Lidström, P. Hennissen, D. Dolmans, and B. Piskur. 2022. "Experiences of Dutch and Swedish Occupational Therapists and Teachers of Their Context-Based Collaboration in Elementary Education." *Journal of Occupational Therapy, Schools & Early Intervention* 17, no. 1: 37–53. <https://doi.org/10.1080/19411243.2022.2143465>.
- Missiuna, C. A., N. A. Pollock, D. E. Levac, et al. 2012. "Partnering for Change: An Innovative School-Based Occupational Therapy Service Delivery Model for Children With Developmental Coordination Disorder." *Canadian Journal of Occupational Therapy* 79, no. 1: 41–50. <https://doi.org/10.1016/j.ridd.2012.03.018>.
- Newbury, J., and J. Eagle. 2025. "The Complexities of Diagnosis: New Zealand Parents' Knowledge, Perceptions, and Experiences of Identification of Their Children's Language and Literacy Difficulties." *International Journal of Speech-Language Pathology* 27, no. 1: 129–143. <https://doi.org/10.1080/17549507.2023.2272587>.
- Nightingale, R., E. Sumner, M. Prunty, and A. L. Barnett. 2022. "Handwriting and Typing: Occupational Therapy Practice When Supporting Adolescents With Handwriting Difficulties." *British Journal of Occupational Therapy* 85, no. 11: 891–899. <https://doi.org/10.1177/03080226221097314>.
- Poole, D. M., and M. K. Preciado. 2016. "Touch Typing Instruction: Elementary Teachers' Beliefs and Practices." *Computers & Education* 102: 1–14. <https://doi.org/10.1016/j.compedu.2016.06.008>.
- Prunty, M. M., A. L. Barnett, K. Wilmut, and M. S. Plumb. 2016. "The Impact of Handwriting Difficulties on Compositional Quality in Children With Developmental Coordination Disorder." *British Journal of Occupational Therapy* 79, no. 10: 591–597. <https://doi.org/10.1177/0308022616650903>.
- Ray, K., K. Dally, L. Rowlandson, K. I. Tam, and A. E. Lane. 2022. "The Relationship of Handwriting Ability and Literacy in Kindergarten: A Systematic Review." *Reading and Writing* 35, no. 5: 1119–1155. <https://doi.org/10.1007/s11145-021-10224-8>.

Reynolds, J. E., G. A. Alvares, J. Williams, et al. 2024. "Investigating the Impact of Developmental Coordination Difficulties Across Home, School, and Community Settings: Findings From the Australian Impact for DCD Survey." *Research in Developmental Disabilities* 147: 104712. <https://doi.org/10.1016/j.ridd.2024.104712>.

Rosenberg-Adler, T., and N. Weintraub. 2020. "Keyboarding Difficulties: Frequency and Characteristics Among Higher Education Students With Handwriting Difficulties." *Learning Disabilities Research & Practice* 35, no. 2: 82–88. <https://doi.org/10.1111/ldrpr.12220>.

State Examinations Commission (SEC) Coimisiún na Scrúduithe Stáit. 2025. *Reasonable Accommodations at the 2025 Certificate Examinations*. <https://www.examinations.ie/docs/schoolscirculars/EN-1013-59202006.pdf>.

Stein, B., F. Hoeft, and C. G. Richter. 2024. "Stress, Resilience, and Emotional Well-Being in Children and Adolescents With Specific Learning Disabilities." *Current Opinion in Behavioral Sciences* 58: 101410. <https://doi.org/10.1016/j.cobeha.2024.101410>.

Sumner, E., R. Nightingale, K. Gurney, M. Prunty, and A. L. Barnett. 2024. "Doing the 'Write' Thing: Handwriting and Typing Support in Secondary Schools in England." *Literacy* 58, no. 1: 25–36. <https://doi.org/10.1111/lit.12333>.

Swinth, Y. 2025. "Handwriting and Occupational Therapy." *Journal of Occupational Therapy, Schools & Early Intervention* 18, no. 1: 1–3. <https://doi.org/10.1080/19411243.2025.2488168>.

Tracy, S. J. 2010. "Qualitative Quality: Eight "Big-Tent" Criteria for Excellent Qualitative Research." *Qualitative Inquiry* 16, no. 10: 837–851. <https://doi.org/10.1111/j.1469-8749.2010.03895.x>.

Weigelt-Marom, H. W., and N. Weintraub. 2018. "Keyboarding Versus Handwriting Speed of Higher-Education Students With and Without Learning Disabilities: Does Touch-Typing Assist in Narrowing the Gap?" *Computers & Education* 117: 132–140. <https://doi.org/10.1016/j.compedu.2017.10.008>.

Wentzel, K. R., S. Jablansky, and N. R. Scalise. 2021. "Peer Social Acceptance and Academic Achievement: A Meta-Analytic Study." *Journal of Educational Psychology* 113, no. 1: 157–180. <https://doi.org/10.1037/edu0000468>.

Wiley, R. W., and B. Rapp. 2021. "The Effects of Handwriting Experience on Literacy Learning." *Psychological Science* 32, no. 7: 1086–1103. <https://doi.org/10.1177/0956797621993111>.

Wilmot, A., H. Pizzey, S. Leitao, P. Hasking, and M. Boyes. 2023. "'I Struggle at Times to See Her Struggle': Mothers' Perspectives on Dyslexia-Related School Struggles and the Inter-Connected Nature of Mother and Child Well-Being." *Dyslexia* 29, no. 2: 136–150. <https://doi.org/10.1002/dys.1733>.

Wilson, A. L., and S. R. Harris. 2017. "Collaborative Occupational Therapy: Teachers' Impressions of the Partnering for Change (P4C) Model." *Physical & Occupational Therapy in Pediatrics* 38, no. 2: 130–142. <https://doi.org/10.1080/01942638.2017.1297988>.

Wu, H., Y. Guo, Y. Yang, L. Zhao, and C. Guo. 2021. "A Meta-Analysis of the Longitudinal Relationship Between Academic Self-Concept and Academic Achievement." *Educational Psychology Review* 33: 1749–1778. <https://doi.org/10.1007/s10648-021-09600-1>.

Zwicker, J. G., M. Suto, S. R. Harris, N. Vlasakova, and C. Missiuna. 2017. "Developmental Coordination Disorder Is More Than a Motor Problem: Children Describe the Impact of Daily Struggles on Their Quality of Life." *British Journal of Occupational Therapy* 81, no. 2: 65–73. <https://doi.org/10.1177/0308022617735046>.

### Supporting Information

Additional supporting information can be found online in the Supporting Information section. **Supporting Information S1:** Information from the questionnaire. **Table S1a:** Parent report of

support received for handwriting and typing, showing the number of students with different types of support. **Table S1b:** Students' reported normal way of working and recording using handwriting, typing or both. **Supporting Information S2:** Information from school handwriting assessments. **Table S2:** Handwriting speed and legibility results from students who participated in/completed assessments in school. **Supporting Information S3:** Rigour and reflexivity.