

ORIGINAL ARTICLE

'That's Not Something That's Necessarily on the Radar': Educators' Perspectives on Dysgraphia[†]

Elvira Kalenjuk[®], Pearl Subban[®], Stella Laletas[®] and Sue Wilson[®]

Monash University Melbourne, Australia

Corresponding author: Elvira Kalenjuk; Email: Elvira.Kalenjuk@monash.edu

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Abstract

This qualitative study focused on educators' perspectives of teaching students with dysgraphia. Dysgraphia can be referred to as a specific learning disorder (SLD) in writing and includes difficulties with handwriting, spelling, and/or composition skills. To explore the educators' experiences, an interpretative phenomenological analysis method was implemented. This involved generating semistructured interviews and locating key concepts from these interviews, in tandem with researcher reflections. The results indicated that educators developed their self-efficacy in supporting students with dysgraphia on the job, augmented by self-guided and external searches for information about dysgraphia. The participants described their colleagues as generally unable to provide them with dysgraphia-specific knowledge due to a lack of awareness of dysgraphia within schools. Two of the three educators pursued Multisensory Structured Language training, departing the classroom to work in private tuition. Three teachers offered strategies for supporting students with dysgraphia, such as explicit, systematic, scaffolded, and repetitive instruction coupled with assistive technologies or lined paper and slant boards. The study concluded that dysgraphia-specific professional learning, coupled with collective efficacy, could proactively build teachers' capacity and self-efficacy in supporting dysgraphia within an inclusive education context. These measures would more aptly support students with dysgraphia to reach their potential.

Keywords: dysgraphia; specific learning disorder; writing disability; teachers; educators; inclusive education

Writing is a fundamental, involved, and versatile language and literacy skill utilised within and beyond schooling for a range of purposes (Finlayson & McCrudden, 2020; Graham, 2019). For example, writing is used as a vehicle for learning, recording information, arguing or persuading, entertaining, or expressing feelings (Graham, 2019). Moreover, scholars have asserted that learning to write requires years to master as writing is a complex activity (Hertzberg, 2012). Concomitantly for Australian educators, writing instruction is considered *core business* as teachers adhere to the Australian Curriculum guidelines (Australian Curriculum, Assessment and Reporting Authority, 2023).

Yet teachers vary in their capacity for writing instruction. Numerous teachers feel inadequately prepared to teach writing (Finlayson & McCrudden, 2020; Graham & Harris, 2009), with often limited preparation during preservice teacher training (Carter et al., 2022). Compounding low teacher efficacy is an inadequate propensity for recognising and responding to significant writing difficulties (Yakut, 2021), including dysgraphia (Kalenjuk, Laletas, et al., 2022). In this study, dysgraphia refers to a specific

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learning disorder (SLD) in written expression (American Psychiatric Association, 2013). This includes significant difficulties with handwriting, spelling, grammar, planning, or composition (Buğday & Sarı, 2022; Chung et al., 2020). Supporting students with dysgraphia requires teachers to engage in inclusive practices (Nationally Consistent Collection of Data on School Students with Disability, 2021a).

Australian teachers face increasing pressures and expectations to support learners with diverse needs and capacities due to education policies and teaching standards, which are largely framed by an inclusive agenda (cf. Australian Curriculum, Assessment and Reporting Authority, 2022, 2023; Education Council, 2019; Nationally Consistent Collection of Data on School Students with Disability, 2021b). An agenda for *inclusion* refers to the rights of *all* children to participate in and be supported to learn at school (Australian Institute for Teaching and School Leadership, 2020), contextualised as *inclusive education* (IE). National policies have emerged from global shifts towards IE as a consequence of international collaborations and actions, such as the Salamanca Statement (United Nations Educational, Scientific and Cultural Organization, 1994) and the United Nations Convention on the Rights of Persons With Disabilities (2006).

Teachers require specific skill sets and training to identify and accommodate students with learning diversity (Subban et al., 2023), including learning profiles with dysgraphia. Graham et al. (1991) offered a series of guiding principles about best instructional practices for writing to suit learners with varying capacities. These guiding principles included (a) engaging exemplary, consistent, and high-quality writing instruction; (b) tailoring writing to meet the learning needs of individuals; (c) explicitly teaching handwriting, spelling, and sentence construction; (d) increasing student knowledge of the writing topic and genre; (e) supporting writing motivation; and (f) taking advantage of technology (Graham et al., 1991).

Researchers also recommend self-regulated strategy development, or SRSD, as a possible intervention for students with learning difficulties (Harris & Graham, 2009). This approach emphasises the effectiveness of modelled, explicit, scaffolded, and tailored instruction for writing (Mason et al., 2011). SRSD is delivered by responsive teachers who work collaboratively with students on writing strategies, memorisation, and goal setting (Graham & Harris, 1993; Mason et al., 2011). Additional approaches used in classrooms that have gained popularity have included Multisensory Structured Language, or MSL, especially to support learners with dyslexia (Australian Dyslexia Association; https://dyslexiaassociation.org.au/). Although MSL may be effective in supporting learners with writing difficulties, researchers have also cautioned that it may fall short if underlying motor and language deficits are not identified (Berninger et al., 2019). Berninger et al. (2019) recommended that teachers adapt writing programs according to individual students once comprehensive psychology-based assessments have been undertaken to identify and address underlying difficulties.

To aptly address dysgraphia, a strong sense of teacher *self-efficacy* (Bandura, 1977) may be a prerequisite: 'Teacher self-efficacy refers to teachers' beliefs about and confidence in their ability to successfully perform a task' (Chunta & DuPaul, 2022, p. 299). Self-efficacy has been identified as an important element for the effective implementation of IE (Wray et al., 2022). Significantly, there is a strong relationship between teacher self-efficacy, student academic achievement, and student motivation (Wray et al., 2022). Teachers who welcome IE appreciate social equity and the value of diversity, and view a range of social conditions as disablers rather than *disablement* attributed to individual student differences (Woodcock et al., 2022).

There are several studies that show teachers generally adopt positive attitudes towards IE to varying degrees while conceding there are challenges (Finkelstein et al., 2021; Sharma et al., 2023; Subban & Mahlo, 2017). Teachers' concerns have largely focused on feeling underprepared (Serry et al., 2022; Sharma & Sokal, 2015) with limited resources, increased workloads, as well as contemplating the challenges or the appropriateness of IE (Jury et al., 2023). Modern studies have emphasised that collective efficacy may be a key tenet of successful IE implementation, meaning the way in which a school might communally support students requiring additional care (Chong & Ong, 2016; Sharma et al., 2023; Subban et al., 2023). However, there is no research to support this approach specifically in the context of dysgraphia.

A recent scoping review has revealed limited research on dysgraphia, including educator-specific perspectives (Kalenjuk, Laletas, et al., 2022). Thus, this study explores the experiences of Australian educators who have worked directly with students with dysgraphia. Within this context, *educator* refers to *qualified* teachers who offer writing instruction to students diagnosed with dysgraphia, including, but not limited to, classroom teachers or tutors. Consequently, the study asks, *What are Australian educators' lived experiences of dysgraphia?*

Materials and Methods

This study is primarily concerned with the *experiences of* dysgraphia (rather than dysgraphia as such) in its phenomenological and ontological pursuits. Phenomenology is the study of phenomena (experiences of dysgraphia) through an interrogation of lived experience (an educator's perspective). Interpretative phenomenological analysis (IPA; Smith et al., 1999) was the preferred methodology of this inquiry as it generates qualitative data to elicit in-depth and rich accounts of subjective experiences. Alase (2017) defines IPA as 'a tradition (or approach) that interprets and amplifies the "lived experience" stories of research participants' (p. 12), permitting the data to *speak for itself*. This type of hermeneutic approach is participatory by nature in its subjectivity, indicating that the researcher is actively visible and involved in the process (Finlay, 2002).

The spotlighting of subjectivity enables the participants to voice or express their views in comprehensive ways (Finlay, 2014). It involves generating *idiographic* accounts through semistructured interviews with researcher reflexivity (Biggerstaff & Thompson, 2008; Pietkiewicz & Smith, 2014). Idiographic can be defined as extensive and nuanced analysis of personal experience, which includes context or circumstances (Pietkiewicz & Smith, 2014). For this study, IPA can be considered appropriate and ethical given the complexity and sensitivity that often enshroud research on disability (Shosha, 2012). IPA also invites the researcher to engage in reflexive ways throughout the process (Finlay, 2002). To do this well, the researcher must be conscious of their own biases, learn to articulate these and, to the extent this is possible, set them aside (Vagle, 2009), a process known as *bridling* (Dahlberg, 2006). A detailed overview of the IPA method of data generation and analysis will ensue later in this paper.

This study is an important component in the context of a larger research project undertaken to understand the experiences of dysgraphia that involved five children (aged 10–12; Kalenjuk et al., 2023) and their parents (Kalenjuk et al., in press). Thus, this study is tangential in its proximity to the main participants (children) whose voices have been central to understanding the experiences of dysgraphia (Kalenjuk et al., 2023). To undertake each of these studies (children, carers, educators), formal ethical approval was granted by the Monash University Human Research Ethics Committee (Project ID 30317). Written assent was obtained from participants, including permission to use transcriptions and visual data sources within publications.

Subsequently, educators volunteered to participate in this study via parent invitation through a snowball referral process set up by the research team. The study sought a minimum sample size of three to five participants, which is permitted in IPA studies (Alase, 2017; Biggerstaff & Thompson, 2008). Further, 'transferability' as relatability was the applicable type of generalisability in this small sample size, rather than a statistical application (Smith, 2018). To this end, a small number (four) of participants expressed initial interest. However, one educator did not follow up, nor provide any details, on several invitations to participate. Accordingly, three qualified teachers were recruited under the guise of pseudonyms: Pippa, Jessica, and Giulia. The educator participants were previously unknown to the research team and lived in or beyond Greater Melbourne into regional Victoria. In proximity to Melbourne, their home locations orientated east and north central, approximately 44 to 209 km away from its central business district.

Each interview was scheduled for at least 1 hour and ended when saturation point was reached, which usually landed shortly after the hour. Each interview was conducted via Zoom videoconferencing, because of the COVID-19 pandemic (Carroll et al., 2022). The first author conducted the

interviews. In the interest of declaring personal bias for research trustworthiness, the first author previously conducted a self-study before embarking on work with participants as she, herself, was an educator and current parent of a child with dysgraphia (see Kalenjuk, Subban, et al., 2022).

IPA Method

IPA can be summarised as a cyclical process with several iterative stages (Biggerstaff & Thompson, 2008). These stages are described as follows:

Stage 1 involved data generation and engagement (Alase, 2017; Biggerstaff & Thompson, 2008). For this study, three transcripts were generated through semistructured interviews, with 20 base prompts and room for follow-up questions tailored to the participant. The semistructured nature allowed the researcher to establish rapport, ask probing questions, and follow the participants' lead to gain further insights, novelty, or interest (Aguinis & Solarino, 2019; Smith & Fieldsend, 2021). In this way, the prompts invited participants to tell, for example, '... your experiences of dysgraphia' or 'what assistive technology [was offered to] students with dysgraphia' or how the educators were '... supported at the school or through professional development'. The interviews were captured through audio and video recording by Zoom, including auto-generated transcripts. These Zoom transcripts were transferred into Word, cross-checked for accuracy, and corrected by the research team.

Stage 2 comprised initial commenting and noting (Alase, 2017). After reading and rereading each transcript, the research team made notes and highlighted salient aspects of each text. For example, Jessica's transcripts mentioned that 'schools are still allowed to decide their own way of teaching', and the researcher has noted, 'intimating desire for greater accountability and consistency across schools'.

Stage 3 marked the explication of descriptive, linguistic, conceptual, or super-ordinate (interpretive) themes (Alase, 2017; Finlay, 2014). During this stage, the research team positioned themselves within the data by noting their own responses, such as thoughts that came to mind, questions that arose, or emotions that were provoked while locating or constructing concepts (Finlay, 2014). This process of 'dwelling' (Finlay, 2014, p. 125) compels a purposeful suspension of judgement (Biggerstaff & Thompson, 2008). The first author's leading role in this process encompassed ongoing reflexivity (Finlay, 2002).

Stage 4 included identifying common threads across each dataset and identifying the diverse, idiographic, and nuanced aspects (Alase, 2017; Biggerstaff & Thompson, 2008; Finlay, 2014). During this stage, the research team used *conceptual* coding to organise the data (Smith, 2018). To do this, a manual process was undertaken of cutting up and sorting the transcripts into logical groupings (clusters) as similarities began to emerge so that the researcher could code them accordingly. This involved directly interacting with the data. To crosscheck the results, the data were imported into NVivo 20 for digital coding. Several concepts emerged, such as *stratagem* (strategies or approaches), *vexation* (puzzled or confused), and *sufferance* (unpleasant feelings), reflecting the essence of the educators' collective experiences (see Table 1).

Stage 5 involved the research team checking for patterns across the data (Alase, 2017) and explicating the phenomenological essence of the experience (Finlay, 2014). The phenomenological essence can 'be understood as a structure of essential meanings that explicates a phenomenon of interest' and that without which the phenomenon would not exist (Dahlberg, 2006, p. 11). This process demanded a deeper analysis focused on unearthing profound meanings related to the *lifeworld* of the participants, and these results have been depicted in Table 2.

Results

IPA studies offer access to the lifeworld or lived experience of participants through constructing existential ideas, themes, or concepts that feature human predicament (Alase, 2017; Finlay, 2014). Examples of existential stems include what it means 'to be' (notion of being), the significance of relationships, meaningful human experiences, or spatial and temporal concepts (Finlay, 2014).

 Table 1. Conceptual Clusters With Examples of Patterning Across Each Transcript

		Conceptual clusters	
Experiences of	Participant 1: Giulia	Participant 2: Jessica	Participant 3: Pippa
Teacher training	'I am a [qualified] primary school teacher. I always question [how reading and writing were taught] at uni. I was like this is really vague, like, what do you actually do?'	'I actually did an undergrad in psychology back in England. And [I] was really interested in teaching, so I did my Master of Teaching. Throughout my whole 2 years of doing my Master of Teaching, I didn't learn anything about dyslexia or dysgraphia.'	'[I completed a] Bachelor of Arts and then a Post Grad Dip in education and since then a master's in student wellbeing. Teacher training gives you very basic stuff.'
Teaching	'Back in 2012 I went with my husband to Western Australia, and I got a job in a remote Aboriginal school and I was the only teacher [in that school]. [Later in Melbourne], that's when I was introduced to MSL [Multisensory Structured Language].'	'I taught Grade 3 [for 12 months and] the internship was [for] 3 months. I was really out of my depth. I didn't know how to teach [students] how to read or write.'	'I've been teaching for about 20 years now across quite a range of subjects. Most of my knowledge on SLDs [specific learning disorders] has happened on the job through need.'
Inauguration to dysgraphia	'I had my first [student], that I thought "wow what is going on with her handwriting" okay, so this is something that some children really suffer from.'	'I [organised] a pre-assessment with the ADA [Australian Dyslexia Association] for [my daughter] which came back with moderate-to-severe dyslexia and dysgraphia, and that was the first time I'd heard of "dysgraphia" as well.'	'[My current student] has probably been the first student that I've had with ADHD on top of his dysgraphia.'
Stratagem to address dysgraphia	'You don't focus on every letter [or] every skill every time. [For example,] I'll focus on one direction or formation or one similar shape like the C shape and then becomes an O, then it becomes an A just over and over and over.'	'[The students with dysgraphia] just need that constant repetition.'	'Probably the first step was just getting to a poir where he could actually get some sort of focus.'
	'Voice-to-text is not something they use with me, but I know in class a few of them do.'	'[For some students, voice-to-text or] dictating into the computer has [been] difficult because of [their] accent.'	'I didn't realize there were things like the voice-to-text, that technology stuff, [which] has really made a big difference. In the past it's perhaps been seen as a "bit of a cheat" for kids. But these are actually valid things that should be part of curriculum.'
Challenges	'I remember finding it really hard to find any anything that was actually really helpful.'	'It feels so hard to get the information that you need to know.'	'Probably still [the profession is] not where it should be [dysgraphia is] not something that's necessarily on the radar.'

(Continued)

Table 1. (Continued)

	Conceptual clusters					
Experiences of	Participant 1: Giulia	Participant 2: Jessica	Participant 3: Pippa			
	'[Understanding the difference between dysgraphia and dyslexia in terms of spelling difficulties] would be beyond my ability to know.'	'Obviously, there are differences between dyslexia and dysgraphia, but I feel there are also a lot of overlaps. How do you determine whether it's just one or the other or a combination of both?'	'[Do teachers just say] here's the correct spelling and write that above [the word]? I'll look at [such practices] and think is anything useful [or] is it just pointing out that "you've got all this wrong"?'			
Moral purpose	'I'd like to think I have a good relationship with all my students.'	'I think, often, it can take teachers with that personal experience to be able to speak from that and make a bit of a difference.'	'As an educator I'd like more as to the best ways that I can help these kids so that they can have success.'			
	'I say to them, "in life you still have to …" [showed handwriting motion with hands].'	'I wish I had known more [about dysgraphia] and I could have stood up and, you know, [advocated]?'	'For better or worse, the need for written communication is still really high in our society.'			
Vexation	'In terms of [teachers'] understanding dysgraphia, I'm going to say not great, because there's still not that much understanding about dyslexia.'	'I still have so many so many questions [about how to support students with dysgraphia]. I feel [what] I want to do now is still very limited.'	'We didn't have much [information] on either of those [ADHD and dysgraphia diagnosis] you'll get information about a kid, but it won't be a complete story.'			
	'Why can't we just do a bit of a reform at university [to improve dysgraphia awareness]?'	'I feel like kids [with dysgraphia] could probably fall through the cracks — there's still challenges there for them, which often might not be noticed.'	'I get the impression that a lot of the time people just thought, "Oh well, he's not clever", which was really disappointing because he's a super- clever kid.'			
Sufferance	'But I do always go away from [teaching sentence composition] and go, [Big sigh] "That was hard".'	'I was just like, okay [there's not much that can be done with dysgraphia] — that's a bit disappointing, but OK.'	'Even the insistence on things like standard English [can be oppressive for students with dysgraphia].'			
Норе	'Because there's a big push for just all of this sort of stuff now, I do feel like it's getting better.'	'I guess like with the recent announcement of the change of the Australian Curriculum that is great.'	'I just really hope that somewhere along the line we get to the point where there is a little bit more generosity when it comes to assessing these kids. I hope along the way we get better and better at it.'			

Table 2. The 4Cs Phenomenological Concepts About the Experiences of Dysgraphia in this Study

	Examples from the text			
Phenomenological concepts	Giulia	Jessica	Pippa	
Circumstances	'Okay I can teach these kids to read, so I just became really interested in reading and writing.'	'[I would like to see] more information available to teachers about specific learning difficulties.'	'I've become far more focused on the quality and content of thinking [than the mechanics of writing].'	
Challenges	'[My students] all seem really reluctant to want to work on their touch-typing skills. I think they need to work on their touch-typing [but] there are programs for that [and] I don't feel [it's] a good use of our [tuition] time together.'	'In that [first] year [of teaching], there were so many kids in my class who really struggled with reading [and] struggled with writing.'	'Trying to fairly assess a student when you are tied to the Vic curriculum to be fair to them and still follow the curriculum.'	
Complexities	'[The students] all seem to love having their device, like, iPad or their computer. I guess for them it's more how to use technology to assist them. I feel like it's different for all of them.'	'A lot of it is on an individual basis as well because [students are] different some kids can still have really great handwriting but still struggle with getting those ideas down on paper'.	'Understanding what's going on neurologically so that you know the best way to help them.'	
Compassion	'[My student] could write a sentence that you could read, and it was something on a line, and there was a reasonably consistent size. I was really, really happy with that.'	'[The school has] been really good, like, they've got two support officers in [my son's] class. We don't have any funding for him or anything but we're — he's very lucky to get the help.'	'My [own] children range in age considerably, but watching the youngest, who is now 8, um, [during] home schooling, and she'd go into a meltdown over the writing task [because] she needed all, all of her thinking just to make [the] letters [and] now you've got to use your imagination as well and you've got to come up with stories, and you've got to hold that story in your head to get it down [and] she'd just melt down completely. I imagine, perhaps, for some of these kids with dysgraphia, that never goes away.'	

The study aimed to elicit in-depth perspectives about dysgraphia through an educator lens. The educators' collective and idiographic experiences of dysgraphia involved several interlocked and dynamic qualities that pertained to both their professional and personal spheres of influence. These spheres were orientated by existential and conceptual drivers of morality, hope, and benevolence. Table 2 depicts the findings through four key phenomenological concepts about the collective experiences of dysgraphia for the educator participants in this study:

- 1. **Circumstances:** Lifeworld or lived experiences (professionally and personally), including participants' beliefs and values, both shaped and informed educational priorities, professional identity, as well as self-efficacy.
- 2. **Challenges:** An entanglement of dissonant factors, such as curriculum expectations, student writing capacity and comorbidity, led to emotional responses (vexation, sufferance), as well as professional challenges.
- 3. **Complexities:** The personalised and complex nature of their students' learning profiles created further challenges.
- 4. Compassion: Hope, empathy, and benevolence were drivers for building professional capacity.

Giulia

Giulia's early teaching experience, working as the only teacher in a remote Aboriginal community in Western Australia, fostered a sense of resilience and determination to teach children of all ages to read and write. Giulia's moral purpose became apparent when she noted, 'I'd like to think I have a good relationship with all my students' and thus emphasised the centrality of the teacher–student relationship (Ainsworth & Bowlby, 1991). By focusing on building healthy relationships, Giulia contributed to the creation of a culture of inclusion. Giulia noted how 'literacy was always my number one focus', and her work activated a love of literacy, which subsequently fostered an interest in dysgraphia in her later teaching years in Melbourne.

A collection of professional experiences led Giulia to private tuition, appreciating the intense and personalised effort involved in intervention. According to Witzel and Mize (2018), 'educators must be apprised of the needs of students who struggle with literacy ... without awareness, concerns may not lead to targeted instructional changes' (p. 36). Of the three educators, Giulia spoke in depth about an array of interventions she used within her practice, including, but not limited to, suitable types of erasable or gel pens and pencil grips, types of lined paper, slant boards, teaching explicit handwriting, use of dry-erase boards, dictation, planning for writing, scribing, touch-typing, speech-to-text features, and sentence starters. Giulia's eclectic and vast experiences in supporting diverse learners have promoted her own levels of self-confidence and self-efficacy for writing instruction.

Jessica

Jessica advocated for a parental voice in shaping the dysgraphia conversation. For example, Jessica noted, 'I'm on a Dyslexia Support ... Facebook' page and navigated dysgraphia exchanges through this portal. Thus, Jessica's experience of travelling in parental circles has informed some of her professional views. Jessica says, 'Dysgraphia hasn't been picked up at school — it's something that [the parents] found out themselves [and] they've noticed themselves that something's not right'. Jessica studied psychology before transitioning into the field of education and teaching, and although Jessica had limited classroom experience, she demonstrated the power of multiple perspectives in building empathy for diverse learners by contributing a parental lens. In this way, Jessica maintained liminal positionality by straddling 'insider' (teacher) and 'outsider' (parent) dichotomies (Ellis et al., 2011; Thomson & Gunter, 2011).

Jessica's vexation about limited dysgraphia awareness may have contributed to her own experience of sufferance. Jessica was restricted in her capacity to adequately support students with complex

learning profiles due to a range of external factors. For example, when reflecting on her initial teacher training, Jessica shared how she

can't remember any [subjects] where we did neurodiversity. You could have chosen to do disability as a stream, which I didn't do. I did one seminar on autism, which was from a parent who came in ... [well] she's not just a parent but that's where her, I guess, her point of view was coming from ... and that was an 'opt-in' thing.

Thus, Jessica's self-efficacy may have been more aptly nurtured through MSL formal training, which has led to her experiencing direct encounters of children with dysgraphia as well as offering her a toolkit for supporting them.

Pippa

Pippa was an expert teacher of 20 years who became awakened to dysgraphia when she encountered her first student with a comorbidity of ADHD and dysgraphia in her latest teaching role. As a master-level trained educator, Pippa explained how

literacy had more of a focus on students that were coming from non-English speaking backgrounds but more looking at diversity and that probably had more of a focus on literacy but more looking at diversity and that probably [did not include SLDs].

Pippa reiterated, '[Dysgraphia is] not something that probably comes up ... until a teacher's got a student in front of them'.

Pippa also touched on her own daughter's experience of writing frustration (not dysgraphia) during the home learning situation created by the COVID-19 pandemic, which gave her insight into the world of dysgraphia. Once again, this empathetic engagement with personal experience opened a possibility for Pippa to reconsider the case of her student (with dysgraphia), which has presented as a genuinely perplexing and complex situation. Pippa accepted that dysgraphia 'can be quite disheartening for students ... [my student] needs a lot of encouragement'. Pippa's softening of her views towards writing disabilities might be attributed to a disruption in previous notions held about dysgraphia. She stated, 'When I started teaching, dyslexia/dysgraphia was such a broad term and ... it'd almost become [the term] we give kids when we don't know what else to call [it]'.

Figure 1 summarises the teachers' support mechanisms used in responses to students with dysgraphia.

Discussion

This study, as the first of its kind, was guided by the following research question: What are Australian educators' lived experiences of dysgraphia? The findings indicated that although each participants' academic, professional, and personal experiences were nuanced and diverse, each were inaugurated to the world of dysgraphia on the job, leading to learning about and addressing dysgraphia in self-directed ways, creating reactive rather than proactive processes.

Once aware of dysgraphia, the educator participants developed a suit of intuitive and responsive practices for individual students with dysgraphia, such as building positive student-teacher relationships, applying explicit instruction, scaffolding tasks, enforcing repetition, co-planning, and setting writing goals. However, supporting students with dysgraphia had not been without challenges, vexation, and sufferance, which were juxtaposed against their own moral compasses orientated towards benevolence and optimism.

Interlocking spheres have been developed to characterise the essential experiences of dysgraphia, as depicted by the participants (see Figure 2).

Observable challenges

- · Difficulties transferring ideas from head to paper
- · Gaining student focus or attention
- · Benefits or value in teaching touch-typing skills
- · Changing (pencil) grip

Support mechanisms

- · Remaining positive, offering praise for effort
- Setting writing goals, involving students (co-planning)
- · Tutoring or external support services
- · Scaffolding tasks
- · Emphasising repetition and routine
- · Using keywords and sentence starters

Equipment or assistive technology

- · Slant boards
- · Pencil grips
- · Lined paper, coloured paper, raised lines
- · Special or erasable pens
- · Whiteboards
- · iPad, keyboard, voice to text

Reflections

- · Building positive relationships
- Changing expectations from curriculum to child centred
- · Focusing on strengths and interests
- · Maintaining high expectations in writing
- · Engaging in self-reflection

Figure 1. Summary of Support Mechanisms Included in Educator Study.

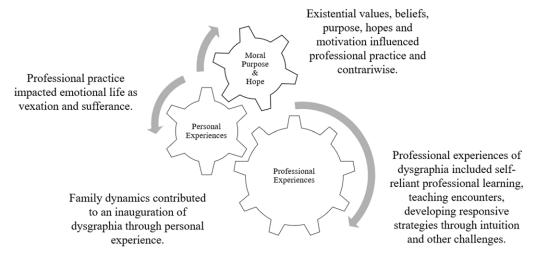


Figure 2. Depiction of Interlocking Spheres of Influence of the Participants' Experiences of Dysgraphia.

The complexity of the participants' experiences underscores the need to provide professional guidance on writing interventions and the value of collective efficacy through establishing a school-based or systems-approach to SLDs (Sharma et al., 2023). Whole-school approaches to dysgraphia can optimise the effectiveness of teachers who play a central role in writing development (Graham, 2019).

Researchers continue to emphasise the importance of teacher self-efficacy in driving students' learning (Chong & Ong, 2016; Chunta & DuPaul, 2022; Woodcock et al., 2022; Wray et al., 2022). Bandura (1977) stated that 'an efficacy expectation is the conviction that one can successfully execute the behavior required to produce the outcomes and capacity to cope with a situation' (p. 193). All three participants experienced varying levels of self-efficacy due to a range of factors that limited their capacity to aptly address dysgraphia. Moreover, high levels of teacher self-efficacy and empathy are

paramount for creating an inclusive culture (Sharma et al., 2023; Woodcock et al., 2022; Wray et al., 2022). According to Woodcock et al. (2022), an inclusive culture is 'one in which teachers recognise their ability to facilitate learning and reduce barriers to learning and participation for *all* students in their classrooms' (p. 2).

Research also suggests that 'evoking empathic care and emotions related to compassion may result in positive changes in attitudes' (Parchomiuk, 2019, p. 58). Jessica's and Pippa's levels of empathy for students with dysgraphia were derived from compassion for their own offspring's challenges with writing. These levels were matched by Giulia, who described deep empathy for her students with writing challenges. In these instances, the dual role of parent/educator supported empathetic classroom responses, yet was not a mandatory criterion for empathy. In the broader context of disability, Parchomiuk (2019) suggests that empathy can be acquired through knowledge acquisition and teacher education. Thus, dysgraphia-specific professional learning may enhance teachers' levels of empathy, as well as self-efficacy in supporting students with dysgraphia. Teacher education would include appropriate types of interventions for responding to dysgraphia.

One aspect of the data that was not obvious was whether the teachers adopted a response-to-intervention (RTI) model (McKeown et al., 2016) for developing student capacities in whole-class settings. RTI is one example of a school-based system and involves three tiers of support focused on explicit instruction: Tier 1, as whole-class learning; Tier 2, for smaller groups who require supplemental instruction; and Tier 3, for intensive support (one or two students; Ardoin et al., 2005; McKeown et al., 2016; Serry et al., 2022). In a recent literature review on writing interventions, Finlayson and McCrudden (2020) highlighted the effectiveness of explicit instruction in driving improvement in writing, regardless of the time period of the intervention (i.e., 6 weeks or 12 months; Finlayson & McCrudden, 2020).

Importantly, when students receive additional classroom time and resources at increasing levels of intensity and do not make learning gains, it suggests the presence of a disability (Ardoin et al., 2005). Thus, RTI can assist teachers to identify students at risk or those who may require specialised services beyond the classroom (Ardoin et al., 2005). In these scenarios, classroom educators can subsequently activate a referral process and garner expert collaboration in best support for classroom-level intervention in ways that are specific to the individual student (Ardoin et al., 2005). A more refined yet comprehensive version of the RTI model, the multi-tiered system of supports (MTSS) espouses a broader view, which includes behavioural and social-emotional supports and invites multiple stakeholders in decision-making processes (Chunta & DuPaul, 2022).

For students with SLDs engaged in MTSS (Tier 3), or in private tuition, teachers and tutors might implement an MSL (Institute for Multisensory Structured Language Education; https://www.multisensoryeducation.net.au/) intervention program, the preferred approach for both Giulia and Jessica. Schlesinger and Gray (2017) caution that 'scientific evidence is lacking' (p. 220) and thus MSL does not yet qualify as an evidence-based practice. MSL comprises teaching methods that focus on sequential, explicit, systematic, and cumulative instruction across multiple layers of language (Birsh, 2019). MSL targets phonological, orthographical, morphological, or syntactical information, as well as semantics. MSL also uses a range of sensory stimulations to support learning (Lim et al., 2022). To better support learners with writing difficulties, Graham (2019) suggests addressing the structured characteristics of language rather than the multisensory aspects.

To do this, teachers might implement SRSD, an evidence-based process to address aspects of executive function, such as planning, analysing, revising, and orchestrating complex skills required for text composition (Graham et al., 2007; McKeown et al., 2023). Scholars have identified executive function or 'mental governance', as well as working memory, or 'mental workspace', as the primary sources of weakness for students with SLDs (Berninger et al., 2017, 2019). Weakness in executive function was described by educator participants as, for example, difficulties in translating thoughts to paper or gaining focus, similarly reported in previous research (Berninger et al., 2017). These writing challenges can impact student motivation, resulting in behavioural and emotional changes when faced with writing tasks, impacting mental health (Berninger et al., 2019).

The Australian Curriculum has included provisions for students with disabilities that offer flexibility for teachers as each can adapt the content, pedagogy, and environment to suit individuals (Price & Slee, 2021). These provisions, for example, encourage the use of Universal Design for Learning principles in classroom teaching, such as incorporating multiple modes in lesson delivery (i.e., using a combination of spoken language and visual or moving images; CAST, 2022). Universal Design for Learning aims to maximise access and engagement in preferred ways for all students (Foxworth et al., 2022). Other provisions emphasise personalised learning focused on individual student strengths and interests, as well as reasonable adjustments (Price & Slee, 2021). The use of assistive technologies constitutes types of reasonable adjustments and can boost writing motivation (Chelkowski et al., 2019; Cumming & Draper Rodríguez, 2017). As mentioned by all participants, voice-to-text apps, keyboarding, laptops, and other digital tools can significantly support students with writing difficulties (Graham, 2019).

A whole-school assessment approach is also an essential feature of quality planning for writing success for students with learning difficulties. However, scholars of inclusion have conceded that appropriate assessment practices were a 'recurring issue . . . [and one] that focused on fitting students with a disability into a mainstream learning area content and general capabilities, rather than having a curriculum that was inclusive of their specific needs' (Price & Slee, 2021, p. 73). The Australian Curriculum has addressed these issues in recent iterations (Price & Slee, 2021). Pippa's compassion for her 'super-clever' student created mental dissonance when negotiating assessment practices. Pippa may have been better supported with professional learning in the Australian Curriculum's disability and inclusion provisions in the context of dysgraphia.

Limitations

Researcher involvement is a hallmark of hermeneutic studies and attracts a degree of bias and limited replicability. The research team aimed for transparency for replicability and practised specific tactics such as bridling and reflexivity to reduce researcher influence and lift trustworthiness. A small study size also limits the range of diverse perspectives, including gender, class, or race identity markers. The research team strived for 'conceptual' and 'transferable' rather than 'statistical generalisability' in this smaller study, which may, at least, reach a diverse audience in its relatability (Smith, 2018). Large-scale, dysgraphia-specific future research may be warranted to explore several of the concerns raised by the educators of this study, such as the level of dysgraphia awareness, lack of teacher training, or use of appropriate intervention measures. Ideally, future research will garner a wider and more diverse demographic and perspectives.

Conclusion

Using an IPA methodology, three educators were interviewed about their experiences of dysgraphia in relation to their students diagnosed with dysgraphia to offer deep insights and nuanced accounts. The results unveiled how educators developed their professional capacity and levels of self-efficacy in supporting students with dysgraphia through direct encounters. With a strong moral purpose, hope, and benevolence, all three educators persisted in customising the learning for their students, appreciating the complexity of the dysgraphia learning profile. Two of the educators were self-driven to learn more about supporting diverse learners in literacy and, consequently, trained as MSL tutors. However, these same educators asserted that teacher training in dysgraphia would have better prepared them to adequately support and accommodate their students with writing difficulties. Dysgraphia-specific training and collective efficacy coupled with further research may be warranted to support teachers' efforts to address dysgraphia more effectively in the classroom.

Data availability statement. Raw data relating to this project are protected by confidentiality because of the sensitive nature of the topic. As a result, the full dataset is not available. Queries regarding deidentified data or research methods employed to examine the data should be addressed to the authors.

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