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Efficacy and efficacy beliefs of Singaporean educational therapists (EdTs) in supporting school children with dyslexia presenting problem behaviours (PBs).

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Abstract

Drawing on Bandura's (1977, 1993) social cognitive theory, this study explores Singaporean Educational Therapists' (EdTs) perceptions of their competence and confidence in addressing literacy and behavioural challenges among students with dyslexia. Using a qualitative design comprising surveys and semi-structured interviews, the research examines the range of problem behaviours (PBs) presented by students as encountered by EdTs, their self-efficacy in managing them, and the factors influencing these beliefs. Findings indicate that students exhibit both externalising and internalising behaviours, and EdTs report differing confidence levels in managing such behaviours. Efficacy beliefs were shaped by mastery experiences, vicarious learning, social persuasion, emotional states, and contextual factors such as therapist–student rapport and parental involvement. The study underscores the need for targeted professional-development frameworks to strengthen behavioural-management competencies, thereby promoting holistic remediation outcomes and contributing to a currently limited body of local research on special-education efficacy.

Keywords: educational therapists, dyslexia, efficacy, efficacy beliefs, problem behaviours, social cognitive theory

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INTRODUCTION

Dyslexia, a neurodevelopmental disorder affecting 4–10 percent of Singapore's school-age population (Sandhu, 2017), is marked by persistent difficulties in phonological awareness, verbal memory, and processing speed that hinder reading and spelling (MOE, 2011). Secondary consequences include poor comprehension, reduced motivation, and low self-esteem (Rose, 2009). Studies have suggested that students with dyslexia frequently present co-occurring problem behaviours—externalising (e.g., hyperactivity, defiance) and internalising (e.g., anxiety, withdrawal)—which further disrupt learning (Amstad & Muller, 2020; Oliver & Reschly, 2010). Managing such behaviours often consumes instructional time and increases teacher stress (Wettstein et al., 2021).

To support diverse learners, Singapore's Ministry of Education (MOE) introduced Allied Educators to assist mainstream teachers (Thaver et al., 2014). Additionally, students with dyslexia may attend the MOE-Aided Literacy Programme (MLP) at the Dyslexia Association of Singapore (DAS), receiving small-group, evidence-based instruction delivered by trained EdTs (Ram & Samsudin, 2019). Each EdT conducts two hours of remediation weekly, supported through continuous professional development and mentoring.

Research Problem

While EdTs undergo extensive pedagogical and behavioural-management training, their two-hour weekly sessions must address both literacy and socio-emotional needs within complex, unpredictable class dynamics. Problem behaviours can hinder lesson flow, reduce effective teaching time, and negatively affect teacher well-being (Ashton & Webb, 1986).

Research suggests that interventions are most effective when academic and social-emotional support are integrated (Chen et al., 2022; Mattison & Blader, 2013). However, little is known about how Singaporean EdTs perceive their efficacy in managing dyslexia co-occurring with PBs. Existing local studies focus mainly on mainstream settings (Yeo et al., 2008).

According to Bandura's (1977, 1993) social cognitive theory, teachers' self-efficacy—their belief in their ability to influence learning—affects persistence and instructional quality. In this context, an EdT's confidence in managing PBs determines their response to challenging behaviours (Tschannen-Moran et al., 1998). High efficacy predicts greater effort and better outcomes, whereas low efficacy correlates with stress and reduced instructional effectiveness.

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Research Purpose

This study investigates:

(a) the prevalence and types of PBs displayed by students with dyslexia in DAS classes;

(b) EdTs' perceptions of their own efficacy in managing these behaviours; and

(c) EdTs' views of what factors may influence their efficacy beliefs. Insights aim to inform training programmes and organisational support systems that can potentially enhance EdTs' capacity to address both behavioural and literacy challenges.

Research Aims

The research seeks to fill a local gap by examining Singaporean EdTs' efficacy beliefs when supporting learners with dyslexia and PBs and to identify contributing factors that EdTs perceive to be able to strengthen or weaken these beliefs. Results may guide policy and professional-development initiatives to promote holistic learner outcomes.

Significance

Understanding EdTs' efficacy in behavioural management is crucial amid growing concern about learners with multiple challenges. Findings will provide empirical insight into the interplay between teacher efficacy, student behaviour, and intervention success, supporting enhancements to DAS training frameworks and contributing to limited regional literature on efficacy in SEN settings. The study may also highlight the importance of teacher–student relationships and family collaboration in achieving positive behavioural and literacy outcomes.

Research Questions

1. What kinds of problem behaviours are presented by students with dyslexia in EdTs' remediation classes?

2. How do EdTs perceive their efficacy and efficacy beliefs in supporting such students?

3. What, in EdTs' views, are the factors contributing to their enhanced efficacy and efficacy beliefs in addressing PBs in students with dyslexia?

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Disclaimer

This research was conducted under the ethical approval of the University of South Wales and the DAS Research Committee, following institutional ethics guidelines. All information is original and appropriately referenced; reproduction or commercial circulation of this work requires prior authorisation from the researcher and DAS.

LITERATURE REVIEW

Dyslexia and Problem Behaviours

Dyslexia is recognised as one of several neurodevelopmental disorders characterised by persistent difficulties in accurate and/or fluent word recognition and spelling despite adequate instruction and intelligence (APA, 2013; BDA, 2010; IDA, 2002; MOE, 2011). In Singapore, its prevalence mirrors international estimates of 3 – 10 per cent (MOE, 2021). The disorder originates mainly from deficits in phonological processing, though research indicates that phonology alone cannot explain the full spectrum of difficulties observed (Carroll, Solity & Shapiro, 2016; Fletcher & Grigorenko, 2017; Pennington, 2006). Affected learners often experience co-occurring weaknesses in executive-function domains such as working memory, inhibition, planning, and emotional regulation (Akyurek & Bumin, 2019). These cognitive challenges impede goal-directed behaviour and self-control, occasionally manifesting as behavioural or emotional dysregulation in the classroom (Craig et al., 2016).

The social and emotional sequelae of dyslexia have been well documented. Repeated academic failure can lead to frustration, anxiety, and diminished motivation (Rose, 2009; Snowling, Hulme & Nation, 2020). Studies show that students with dyslexia are more likely than their peers to exhibit both externalising behaviours (e.g., inattention, defiance, hyperactivity) and internalising tendencies (e.g., withdrawal, depression, anxiety) (Novita, 2016; Lee, 2017; Dahle, Knivsberg & Andreassen, 2011; Mugnaini et al., 2009). These behaviours, often responses to chronic academic stress, can further disrupt learning and teacher–student relationships.

Within Singapore's inclusive educational framework, the Dyslexia Association of Singapore (DAS) provides specialised intervention through its MOE-Aided Literacy Programme. Educational Therapists (EdTs) deliver structured literacy instruction using principles grounded in the Orton-Gillingham approach. However, EdTs frequently report encountering a subset of students who display significant problem behaviours (PBs) that challenge classroom management and lesson continuity (Yeo et al., 2008). PBs in this context refer to recurring inappropriate or disruptive actions that interfere with teaching, learning, or social adjustment (Oliver & Reschly, 2010). These include non-compliance, inattentiveness, impulsivity, aggression, and emotional outbursts, often co-occurring with attentional or executive-function deficits (Lulla et al., 2019).

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Research further suggests that dyslexia rarely exists in isolation. Comorbidities such as ADHD, developmental coordination disorder, or language impairment are common (Moll, Snowling & Hulme, 2020; Gilger & Pennington, 2006). Such overlap complicates behavioural presentation and increases the cognitive load on teachers who must balance literacy intervention with behavioural support. Neurobiological and psychosocial factors often interact to create a cycle where academic difficulty fuels negative affect, which in turn reinforces maladaptive behaviour (Morte-Soriano, Begeny & Soriano-Ferrer, 2021). This suggests that intervention would require both pedagogical precision and socio-emotional sensitivity.

Empirical findings have highlighted the teacher's pivotal role in moderating this cycle. Supportive adult relationships and structured routines are known to be able to buffer the emotional consequences of failure, thus improving motivation and engagement (Humphrey & Mullins, 2002). Conversely, inconsistent or punitive responses tend to heighten oppositional behaviour. For EdTs, understanding the behavioural manifestations of dyslexia is essential not only for remediation but also for maintaining classroom harmony and safeguarding learner well-being. These challenges underscore the relevance of investigating EdTs' self-efficacy in behavioural management, since their perceived competence influences both instructional choices and emotional resilience.

Efficacy and Efficacy Beliefs

Bandura's (1977, 1993, 1997) social cognitive theory positions self-efficacy as a central determinant of human agency — the belief in one's capabilities to organise and execute actions required to attain desired outcomes. Within educational contexts, teacher self-efficacy refers to teachers' beliefs in their ability to affect student learning, motivation, and behaviour (Tschannen-Moran & Hoy, 2001). High efficacy is associated with greater persistence, flexibility, and adoption of innovative instructional strategies (Zimmerman, 2000; Gibson & Dembo, 1984). Conversely, low efficacy often correlates with avoidance, burnout, and negative classroom climates (Skaalvik & Skaalvik, 2010).

Efficacy beliefs are distinct from general confidence or self-esteem; they are task- and context-specific. Bandura identified four sources that shape efficacy beliefs:

1. mastery experiences,
2. vicarious experiences,
3. social persuasion, and
4. physiological and emotional states.

These determine how individuals interpret successes and failures, which in turn guide future behaviour and motivation. Teachers with strong self-efficacy view challenges as surmountable, whereas those with low efficacy interpret difficulty as personal inadequacy (Bandura, 1997).

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Teacher efficacy has been empirically linked to student achievement and classroom management (Asthon & Webb, 1986; Ross, 1998). Tschannen-Moran and Hoy (2007) demonstrated that efficacious teachers create more supportive environments and exhibit higher resilience when facing problem behaviours. In special-education settings, self-efficacy is particularly salient because educators confront complex learning and behavioural needs daily (Emam & Mohamed, 2020). For EdTs, efficacy encompasses two interrelated domains: instructional efficacy (the belief in one's ability to teach reading and spelling effectively) and behavioural management efficacy (the belief in one's capacity to maintain positive classroom conduct). Both dimensions are vital for enabling the achievement of progress in students with dyslexia presenting PBs.

International research has consistently shown that teachers with high efficacy invest more time in instructional planning, set higher goals for their students, and display greater commitment to inclusive education (Mojavezi & Tamiz, 2012; Emam & Al-Mahdy, 2020). Within the Singaporean context, however, studies examining teacher efficacy among specialists such as EdTs remain limited. Most existing work addresses general educators in mainstream classrooms (Yeo et al., 2008; Thaver et al., 2014). This gap warrants further exploration into how EdTs construct their sense of efficacy in balancing academic and behavioural intervention within short, intensive remediation sessions.

Additionally, efficacy beliefs also interact with institutional and cultural expectations. In collectivist contexts such as Singapore, where educational outcomes still very much remain to be a highly valued attainment, teachers may feel heightened pressure to produce measurable results (Wong, 2018). Their self-efficacy is therefore, influenced not only by personal mastery but also by external demands and validation from supervisors and parents. Understanding these contextual dimensions is essential for interpreting EdTs' beliefs about their own effectiveness in remediating students with dyslexia and PBs.

Factors Influencing Teacher Efficacy and Efficacy Beliefs

- **Mastery Experiences**

  Bandura (1997) identified mastery experience as the most influential source of self-efficacy. When teachers perceive their efforts as successful, their belief in their ability strengthens. For EdTs, successful management of challenging behaviours — for example, de-escalating an outburst or helping a student re-engage — builds confidence to handle future incidents. Repeated failures without support, however, can erode self-efficacy and lead to avoidance behaviours (Pajares, 2002). Structured mentoring and collaborative reflection within the DAS context provide EdTs with opportunities to reinterpret difficult experiences as learning rather than failure events, thus preserving efficacy.

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- **Vicarious Experiences**

  Observing competent colleagues or mentors manage students successfully can enhance a therapist's belief that they too can succeed (Ashton & Webb, 1986). Professional learning communities and peer observations serve as valuable vicarious platforms. Within the DAS, EdTs often engage in lesson sharing and case discussions that exemplify effective strategies for balancing literacy instruction and behaviour support. Such modelling reduces isolation and reinforces collective efficacy, the shared belief that staff as a team can promote student change (Goddard, Hoy & Woolfolk Hoy, 2000).

- **Social Persuasion**

  Constructive feedback from supervisors, colleagues, and parents plays a crucial role in shaping efficacy beliefs. Encouragement and recognition can motivate EdTs to persevere with challenging students, while criticism without support undermines confidence. Effective leadership that provides clear expectations and affirmation of professional competence is positively associated with teacher efficacy (Tschannen-Moran & Hoy, 2001). Regular feedback, professional dialogue or network sharing sessions within the DAS framework can make EdTs feel less isolated in their experience of challenging student behaviours, thus normalising the difficulties inherent in behaviour management and encouraging them to reframe them as growth opportunities.

- **Physiological and Emotional States**

  Teachers' emotional well-being influences how they interpret success and failure. Stress, fatigue, or anxiety can lower perceived competence, whereas positive affect enhances resilience and problem-solving ability (Skaalvik & Skaalvik, 2010). For EdTs managing students with dyslexia and PBs, the emotional demands can be intense due to time constraints and high expectations from parents and institutions. Workplace initiatives such as peer support, supervision, and training in self-care strategies are therefore vital for maintaining healthy emotional states and sustained efficacy.

- **Contextual and Relational Factors**

  Beyond Bandura's four core sources, recent literature emphasises the impact of contextual and relational elements on teacher efficacy. Positive teacher–student rapport has been known to promote trust and reduces behavioural incidents (Murray & Farrington, 2010). In special-education settings, this relationship is central to student engagement and self-esteem (Cooper & Jacobs, 2011). Parental involvement is another critical variable; collaborative communication between

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home and school has been linked to better behavioural and academic outcomes (Desforges & Abouchaar, 2003). For EdTs, working with parents who understand and reinforce therapeutic strategies enhances consistency and builds confidence in intervention efficacy.

Institutional support and professional learning also shape efficacy beliefs. Access to ongoing training, manageable student load and capacity, and responsive supervision correlate with higher teacher retention and self-efficacy (Skaalvik & Skaalvik, 2016). Conversely, perceptions of increasingly heavy administrative demands and expectations can also weaken a therapist's sense of agency (Hall & Hord, 2015). In the DAS context, mentorship programmes, structured performance dialogues and professional practice circles act as protective factors by providing meaningful avenues for feedback and affirming professional growth.

Finally, cultural values influence how teachers interpret efficacy. Collectivist cultures prioritise group harmony, thus teachers may evaluate their success not only by individual achievement but by the cohesion and progress of their students as a whole (Wang & Papi, 2019). For Singaporean EdTs, this means balancing personal efficacy with shared responsibility for outcomes. Recognising these interconnected factors is essential for developing training and support systems that sustain high levels of efficacy among EdTs serving students with dyslexia presenting problem behaviours.

METHODOLOGY

The Research Study

Research on Educational Therapists' (EdTs) efficacy in supporting students with both dyslexia and problem behaviours (PBs) remains scarce. While numerous studies have explored teacher efficacy in mainstream or inclusive classrooms, few focus on specialists who work solely with dyslexic learners presenting behavioural difficulties (Kuronja, Cagran & Krajnc, 2019; Yeo et al., 2008). This study addresses that gap by examining the efficacy and efficacy beliefs of full-time Singaporean EdTs employed at the Dyslexia Association of Singapore (DAS) who provide literacy remediation to small groups of primary and secondary students. Some of these learners demonstrate PBs that disrupt instruction.

The research investigates how EdTs perceive their capability to manage such behaviours while delivering literacy intervention, and what factors influence their efficacy beliefs. In particular, it explores how knowledge drawn from established behaviour-support frameworks—Classroom Management, Cognitive Behavioural Therapy, Applied Behaviour Analysis, and Social-Emotional Learning (SEL)—is applied in practice.

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The study addresses three core questions:

1. What kinds of PBs are presented by students with dyslexia in EdTs' remediation classes?

2. How do EdTs perceive their level of efficacy and efficacy beliefs in supporting students with dyslexia and PBs?

3. What, in EdTs' views, are the factors contributing to their enhanced efficacy and efficacy beliefs in addressing PBs in students with dyslexia?

Through these questions, the research seeks insights to inform training and organisational frameworks that strengthen EdTs' behavioural-management competencies and promote holistic student progress.

Research Design

A qualitative research design was adopted because it enables detailed exploration of participants' lived experiences, perceptions, and meanings within their real-world contexts (Creswell, 2009; Denzin & Lincoln, 2017). This approach aligns with the study's interpretivist orientation, focusing on how EdTs construct and interpret their own sense of efficacy. Qualitative inquiry is particularly suited to answering how and what questions concerning complex human interactions that cannot be experimentally controlled (Hunziker & Blankenagel, 2021; Merriam, 2009; Simons, 2009; Stake, 2006; Yin, 2014).

Among qualitative methods, a single case-study approach was selected. Case study research allows in-depth analysis of a phenomenon bounded by context, time, and participants (Creswell & Poth, 2018; Yin, 2018). The bounded case in this study comprised full-time EdTs at the DAS during the years 2021 – 2022, representing a coherent organisational environment with consistent professional training and support structures. The case is thus delimited by both place (the DAS) and time (two academic years), enabling focused investigation of a specific professional group rather than general educators.

The single-case design was deemed most appropriate because it allows the researcher to capture the depth and complexity of one professional community, generating insights that could inform future comparative or multi-site studies (Yin, 2017). It facilitates holistic analysis of multiple variables—teacher beliefs, behaviour management strategies, and institutional support—within the same bounded system (Coombs, 2022). By examining these interconnected factors, the study contributes nuanced understanding of EdTs' self-efficacy in balancing literacy and behavioural demands.

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Data was collected using two complementary instruments: an online survey questionnaire and semi-structured interviews. The combination permitted both breadth and depth: the survey captured patterns across a sample of EdTs, while interviews provided rich narratives revealing individual reasoning and emotional responses (Rubin & Rubin, 2012). The design ensured methodological triangulation, enhancing credibility by corroborating data from multiple sources.

The interpretive stance recognises that knowledge is co-constructed between researcher and participants (Creswell, 2007). Thus, reflexivity was essential throughout design, data collection, and analysis. The researcher's insider status as a practising EdT enabled rapport and contextual insight, yet demanded heightened awareness of potential bias (Berger, 2015). Reflexive journaling, peer debriefing, and transparent documentation of analytic decisions were used to strengthen trustworthiness and ensure that findings reflected participants' authentic perspectives rather than researcher preconceptions.

Overall, the qualitative single-case-study design provided the flexibility and depth required to explore EdTs' efficacy beliefs within their authentic professional environment, aligning with the study's goal of producing contextually relevant and practice-oriented knowledge.

Research Participants

The participants were full-time Educational Therapists (EdTs) employed at the Dyslexia Association of Singapore (DAS) in the years from 2021–2022 during which this research was carried out. All of them possessed recognised qualifications in special-needs or literacy intervention and had completed internal training in structured literacy instruction. They were responsible for delivering two-hour weekly remediation sessions to small groups of primary or secondary students formally diagnosed with dyslexia, some of whom exhibited problem behaviours (PBs) that disrupted learning.

Purposive sampling strategy was used to ensure participants were directly involved in managing students with PBs and could provide rich, experience-based insights (Creswell & Poth, 2018). Participation was voluntary. The initial survey invitation was emailed to all full-time EdTs via internal communication, followed by a consent form outlining the study's purpose, procedures, and confidentiality measures.

A total of 10 EdTs participated in both the survey and semi-structured interviews. Creswell (2007) recommended that 10 participants is a fair sample size when conducting an in-depth exploratory case study. This sample size should enable the researcher to obtain a reasonably good range of responses, opinions and depth of data that is sufficiently representative to answer the research questions (Francis et al., 2010; Guest, Bunce & Johnson, 2006).

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The EdT participants (see Table 1) comprised different age groups, gender, and teaching experience. Their professional backgrounds ranged from one to over ten years of experience, with some holding bachelor's degrees, while others possessed postgraduate qualifications in education or special needs.

Their collective experience offered a comprehensive view of efficacy beliefs across varying career stages and class compositions. Anonymity was preserved through pseudonyms and coded identifiers in transcripts and analysis.

Table 1: Demographic profile of the Educational Therapists (EdTs)

EdT	Learning Centre	Gender	Age group (years)	Years taught at DAS (years)	Teaching experience prior to DAS (Y/N)	SEN-related training prior to DAS (Y/N)
RS	West	M	> 40	> 10	Y	Y
SS	East	M	> 40	6-10	N	Y
AS	East	M	31-39	> 10	Y	Y
CS	North	F	31-39	> 10	N	Y
HS	East	F	> 40	> 10	Y	Y
ZN	East	F	< 30	1-5	Y	Y
MN	East	F	< 30	1-5	Y	N
AN	Central	F	< 30	1-5	N	Y
HN	West	F	31-39	1-5	Y	Y
PN	North	F	31-39	1-5	Y	N

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Data Collection Instruments

Two complementary instruments were used: an online survey questionnaire and semi-structured interviews.

Survey Questionnaire

The survey served as a preliminary quantitative mapping tool within the qualitative case study. It collected demographic information (e.g., years of service, teaching levels, and prior behavioural-management training) and self-ratings of perceived efficacy in handling PBs. Several items were adapted from existing teacher-efficacy scales (Tschannen-Moran & Hoy, 2001) and modified for relevance to EdTs.

Open-ended questions invited elaboration on experiences managing students with dyslexia and PBs. This design allowed participants to express beliefs in their own words while also providing frequency data that informed interview sampling.

Semi-Structured Interviews

Semi-structured interviews allowed in-depth exploration of personal experiences, beliefs, and contextual influences. The researcher used a flexible interview guide to elicit narratives around classroom challenges, successful strategies, and perceived organisational supports. Interviews were conducted either face-to-face or virtually via secured Zoom video-conferencing platform, each lasting between 60 to 90 minutes. With participants' consent, all sessions were recorded and transcribed verbatim.

Questions were organised under themes linked to Bandura's (1997) four sources of self-efficacy: mastery experiences, vicarious learning, social persuasion, and emotional or physiological states. This ensured alignment between data collected and the theoretical framework underpinning the study. Probes encouraged elaboration and clarification while allowing participants to introduce emergent issues.

Data Collection Procedures

Data collection proceeded in three phases to enable triangulation.

- **Phase 1 – Survey Administration**
  An email invitation containing the participant-information sheet and consent form was distributed to all eligible EdTs via email, after which a total of 10 EdTs responded and consented to participate. They responded to survey questions presented via Google Form that seek to gather information to answer the research questions.

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- **Phase 2 – Interview Selection and Scheduling**
  The 10 EdT participants who responded to the survey questionnaire were then scheduled for individual interviews with the researcher that were conducted either face-to-face or via Zoom video-conferencing platform at their choice. Each of them received a personalised email detailing procedures and rights to withdraw at any time.

- **Phase 3 – Interview and Verification**
  Interviews were conducted over a period of three weeks. Field notes were maintained to capture contextual observations and non-verbal cues. After transcription, participants received their transcripts for member checking, allowing them to confirm accuracy and clarify meaning (Lincoln & Guba, 1985).

Triangulation across survey and interview data enhanced credibility by allowing cross-validation of findings from multiple perspectives. The iterative process of analysis began concurrently with data collection so emerging themes could inform later interviews, where necessary. All digital data were encrypted and stored on password-protected devices accessible only to the researcher.

Ethical Considerations

Ethical approval was obtained from both the University of South Wales Ethics Committee and the DAS Research Committee, ensuring compliance with institutional research guidelines. Participation was entirely voluntary, and written informed consent was required prior to data collection.

Participants were assured of anonymity, confidentiality, and the right to withdraw without penalty. Identifiable details such as names or workplace locations were removed or replaced with codes. Data was used solely for academic purposes and stored securely in accordance with university policy. All electronic files and soft copies of signed consent forms were encrypted with a password.

Given the researcher's dual role as a DAS employee, reflexive precautions were implemented to avoid coercion or perceived conflict of interest. Invitations were disseminated via the organisational email list of EdTs by a neutral administrative officer from the DAS, and responses were returned directly to the researcher via email. This maintained professional boundaries and confidentiality.

During interviews, participants were reminded that their reflections would not influence professional evaluations or employment status. Verbal and written assurances were repeated before recording began. All participants confirmed their understanding and comfort with the process.

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Ethical conduct also extended beyond procedural compliance to include respectful representation of participants' voices. Verbatim quotations were used judiciously in the final report to illustrate perspectives without compromising anonymity. The researcher maintained sensitivity to potential emotional responses when discussing classroom stressors, offering participants the option to pause or discontinue if they felt any discomfort.

Reliability, Validity and Trustworthiness

In qualitative research, trustworthiness replaces the traditional quantitative notions of validity and reliability (Lincoln & Guba, 1985). Credibility, transferability, dependability, and confirmability were pursued through multiple verification strategies.

Credibility was enhanced via methodological triangulation: combining survey and interview data to cross-check themes (Patton, 2015). Member checking allowed participants to review interview transcripts for accuracy, ensuring their views were authentically represented. Peer debriefing sessions with two experienced DAS supervisors provided independent scrutiny of coding and interpretation.

Transferability was promoted through thick description of the research setting, participants, and procedures (Creswell & Poth, 2018). Detailed contextual information enables readers to determine the applicability of findings to comparable special-education contexts.

Dependability was supported by an audit trail documenting analytic decisions, coding iterations, and reflexive notes. These records trace the logic from raw data to thematic conclusions, ensuring replicability of analytic reasoning rather than numerical results (Nowell et al., 2017).

Confirmability was maintained through reflexivity and transparency. The researcher consciously bracketed personal assumptions as a practising EdT by recording reflections immediately after each interview. Triangulated data sources, peer review, and verbatim quotations further demonstrated that interpretations arose from participants' evidence, not researcher bias. These combined measures ensured the study's methodological integrity and strengthened its contribution to the understanding of EdTs' efficacy beliefs in managing PBs.

Data Analysis

A thematic-analysis framework following six stages of the Braun and Clarke's (2006, 2012) cycle of analysis guided interpretation of both survey and interview data. Thematic analysis was chosen for its flexibility and suitability for identifying patterns of meaning within qualitative datasets while remaining grounded in participants' perspectives.

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Table 2: Data was processed using a **six-phase cycle**

Phase	Stage	Description
1	Familiarisation	The researcher repeatedly read transcripts and survey responses to gain a holistic understanding of content and context, annotating initial observations in the reflexive journal.
2	Generating initial codes	Relevant text segments were coded manually to capture recurring ideas related to efficacy, behavioural strategies, emotions, and institutional support.
3	Searching for themes	Codes were collated into broader categories representing potential themes such as mastery experiences, vicarious learning, social persuasion, and emotional states—aligned with Bandura's (1997) theoretical model.
4	Reviewing themes	Candidate themes were compared across all transcripts for consistency, overlap, and coherence. Contradictory evidence was examined rather than discarded to preserve authenticity.
5	Defining and naming themes	Final themes were refined, defined, and substantiated with illustrative quotations. Sub-themes were organised hierarchically to show interrelationships among sources of efficacy and contextual influences.
6	Producing the report	The final analytic narrative integrated descriptive findings with interpretive insights, linking back to the research questions and theoretical framework.

NVivo software was not used; manual analysis was preferred to allow deeper immersion and flexibility in interpreting nuances. However, Microsoft Excel tables were employed to manage codes systematically and ensure traceability.

Integration of quantitative survey data with qualitative findings followed a convergent parallel approach (Creswell & Plano Clark, 2018) - descriptive statistics provided an overview of perceived efficacy levels, while qualitative narratives elaborated the underlying reasons. Convergence and divergence between the two data strands were analysed to enhance the comprehensiveness and credibility of interpretations.

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Throughout analysis, reflexivity remained central. The researcher documented evolving thoughts, emotional reactions, and emerging patterns in a reflective log.
This transparency ensured decisions were deliberate and theoretically justified rather than intuitive.

The final themes presented in Section 4 thus emerged from an iterative, evidence-based process that combined participant validation, peer feedback, and systematic coding—yielding a credible representation of EdTs' efficacy beliefs.

Role of the Researcher

The researcher's positionality as a practising Educational Therapist within the DAS provided both insider knowledge and potential bias. Awareness of this dual role was critical for maintaining analytic rigour. Insider status facilitated rapport, enabling participants to share candid reflections on sensitive professional experiences. However, it also required vigilant self-monitoring to prevent over-identification or selective interpretation (Berger, 2015).

To address this, a reflexive stance was adopted throughout. The researcher maintained a field journal documenting assumptions, expectations, and emotional responses during each phase of data collection and analysis. These entries were revisited to identify potential bias and its influence on interpretation.

During interviews, neutrality was upheld by using open-ended prompts and withholding evaluative feedback. Questions were phrased to invite elaboration rather than affirmation. Data coding followed participants' language as closely as possible to ensure that emerging themes reflected their meanings, not the researcher's preconceptions.

Ethical sensitivity guided all interactions. Given existing professional relationships, participants were assured that disclosures would remain confidential and would not affect workplace appraisals. This assurance, reinforced through written consent and verbal reminders, encouraged authenticity and reduced power imbalance.

The researcher also engaged in peer consultation with colleagues external to the immediate work unit to obtain alternative perspectives on coding and theme development. These peer discussions functioned as a form of analytic triangulation, helping to surface blind spots and strengthen confirmability (Lincoln & Guba, 1985).

Ultimately, the researcher's insider perspective enriched contextual understanding while reflexive strategies mitigated bias. This dual awareness enhanced the trustworthiness of the findings, ensuring that they reflected the participants' genuine experiences rather than preconceived notions.

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RESULTS, FINDINGS AND DISCUSSION

Overview of Findings

This chapter presents and interprets the results from the survey and semi-structured interviews, organised around the study's three research questions. Quantitative survey patterns provide a descriptive overview, while qualitative interviews yield deeper insights into the meanings behind Educational Therapists' (EdTs) efficacy beliefs. The discussion integrates these findings with the theoretical framework of Bandura (1997) and relevant literature on teacher efficacy, dyslexia, and behaviour management.

Five dominant themes emerged:

1. diversity of problem behaviours (PBs),
2. perceived levels of efficacy,
3. sources of efficacy beliefs,
4. contextual influences, and
5. emotional impact of behaviour management.

Types of Problem Behaviours Observed

Survey results

All survey respondents reported encountering students with PBs in their small-group classes. Each EdT supported between 11 and 50 students (M = 30), with small groups of 1 – 5 learners depending on profile severity (Figure 2).

This research seeks to ascertain the proportion of EdTs' students who demonstrated problem behaviours based on the examples provided in the questionnaire in terms of their externalising and internalising behaviours adapted from Westling (2010). Teachers mentioned that behaviours listed in the survey were comprehensive and no additional extraordinary behaviours outside of the list have been observed in their classes.

The EdTs were first asked to indicate the prevalence of the following externalising behaviours in their groups of students:

- Defiance &/or non-compliance (e.g. refuse to follow instructions &/or rules, argue with / challenges the teacher)
- Physically aggressive (e.g. physically attack others such as hitting, kicking, fighting...)
- Destructive (e.g. vandalise or damage items in the classroom...)

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- Demonstrate socially inappropriate behaviours (e.g. use swear words to challenge or harass classmates &/or teacher, make offensive hand/physical gestures to provoke others, have frequent outbursts of anger & resentment)

Externalising behaviours (Figure 1) were most frequently observed (82 percent of responses) and included inattention, talking out of turn, and defiance.

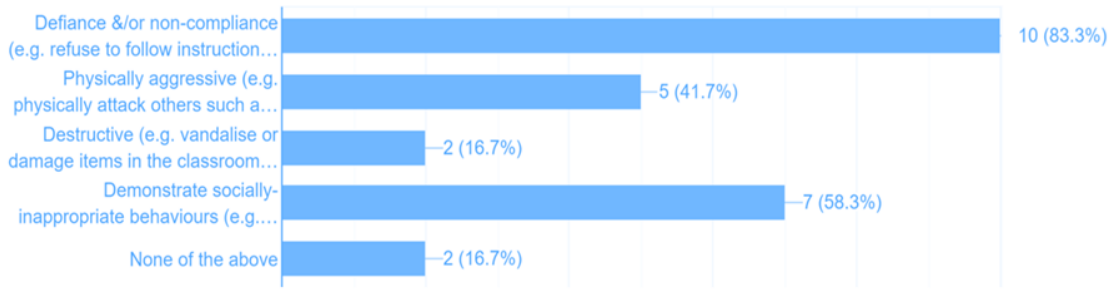

Figure 1: Externalising behaviours demonstrated by students

EdT participants were also asked to identify internalising behaviours demonstrated by their students such as:

- social withdrawal (e.g. refusal to participate in class or group activities or engage in conversations with classmates)
- self-injury or mutilation
- difficulty sustaining focus in class or getting started on tasks
- frequently complaining of feeling unwell, tired or sleepy

Internalising behaviours such as anxiety, withdrawal, and tearfulness accounted for approximately 18 percent (Figure 2). Most students were reported to demonstrate mild-to-moderate in behavioural presentation, though about one-fifth displayed frequent disruptions.

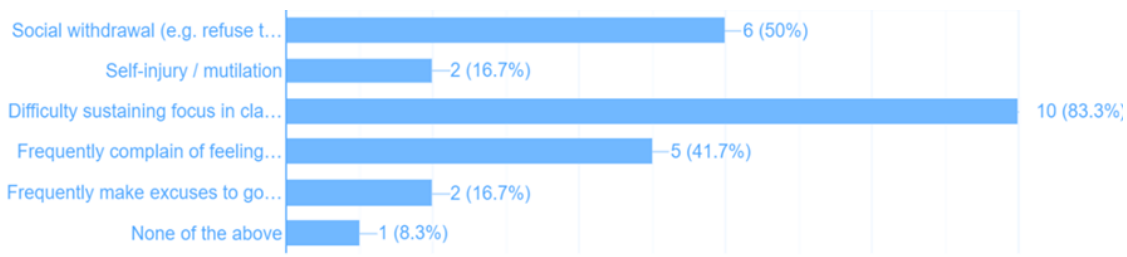

Figure 2: Internalising behaviours demonstrated by students

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Interview findings

Across interviews, participants described three major behavioural clusters:

1. attention and focus difficulties,
2. emotional outbursts and avoidance, and
3. non-compliance or task refusal.

These behaviours often stemmed from task anxiety, low self-esteem, and processing fatigue rather than intentional misconduct. Several EdTs highlighted that students struggling to decode words experienced heightened stress, manifesting in "shutdowns" or "meltdowns." Such responses align with studies by Novita (2016) and Lee (2017), which link academic frustration in dyslexia to both externalising and internalising symptoms.

About 50% of the participants reported students with co-occurring ADHD traits such as impulsivity and hyperactivity. These students required frequent redirection and movement breaks, increasing instructional load. Several EdTs noted that behavioural incidents consumed significant lesson time, reducing literacy practice opportunities—echoing international findings (Wettstein et al., 2021). Nevertheless, EdTs recognised behaviour as a form of communication and sought to understand underlying triggers rather than assign blame. The data thus confirmed that behavioural and academic difficulties are interdependent, requiring integrated support.

EdTs' Efficacy and Efficacy Beliefs

EdTs were asked to rate their confidence levels on a 4-point Likert scale, in implementing four types of common behavioural management approaches on students with problem behaviours, where a score of 1 indicates 'Not confident', a score of 2 indicates 'Quite confident', a score of 3 indicates 'Confident' and a score of 4 indicates 'Very confident.'
They reported varying levels of confidence in managing PBs. The survey showed a mean self-efficacy rating of 3.7 on the scale. Most felt competent in preventing minor disruptions through structure and routine but less confident in handling emotionally charged situations or aggressive outbursts.

Interview findings yielded the following themes:

Theme 1 : Mastery and experience

EdTs with more than five years of practice expressed higher efficacy stemming from accumulated mastery experiences. They had developed repertoires of de-escalation and reinforcement strategies, consistent with Bandura's (1997) assertion that successful

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Table 4 Summary of EdTs' response to questionnaire

EdT	Learning Centre	Gender	Age Group (years	Years taught at DAS (years)	Teaching Experience prior to DAS (Y/N)	SEN-related training prior to DAS (Y/N)	No. of students currently supporting	Confidence in Class Management (Likert: 1-4)	Confidence in CBT (Likert: 1-4)	Confidence in ABA (Likert: 1-4)	Confidence in SEL (Likert: 1-4)
SS	EAST	M	>40	6-10	N	Y	20	3	2	3	3
RS	WEST	M	>40	>10	Y	Y	50	4	3	3	4
AS	EAST	M	31-39	>10	Y	Y	21	4	2	3	3
CS	NORTH	F	31-39	>10	N	Y	20	3	1	1	1
HS	EAST	F	>40	>10	Y	Y	11	4	4	4	3
ZN	EAST	F	<30	1-5	Y	Y	36	3	2	2	2
MN	EAST	F	<30	1-5	Y	N	29	2	2	2	2
AN	CENTRAL	F	<30	1-5	N	Y	38	2	3	3	3
HN	WEST	F	31-39	1-5	Y	Y	33	3	3	3	3
PN	NORTH	F	31-39	1-5	Y	N	43	3	1	1	1

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performance builds efficacy. Less experienced EdTs acknowledged that confidence grew over time as they experimented with approaches such as token economy systems, visual schedules, and co-regulation techniques. As one participant noted,

> *"Once I see that something works for one student, I believe I can replicate it with another."*

Theme 2 : Training and professional support

Formal training in behaviour management was reported as useful but insufficient without ongoing mentoring and support. Many of the participants emphasised that peer sharing, and supervisor feedback were crucial for translating theory into practice. This finding supports Tschannen-Moran and Hoy (2007), who found that collective efficacy within schools enhances individual confidence.

The DAS mentorship structure was cited as a key protective factor, particularly for novice therapists navigating challenging classroom dynamics. Additionally, support from external expertise was also highly valued for its potential in supplementing their growth in knowledge, skills and efficacy beliefs. EdT [SS] mentioned,

> *"I think it would be good if we can have access to external resources who are experts in this area, not as in that they will come in and do the intervention, but as a resource in which we can ...ask questions and see what they think..."*

Findings from a study by Yoo (2016) indicated that teachers' professional development endeavours have a positive effect on their efficacy beliefs. Based on the teachers' response and self-reflection, the prospects of gaining new knowledge from continued formal and informal teacher training related positively to their growing efficacy beliefs.

Theme 3: Perceived boundaries of influence

Several EdTs acknowledged limitations in their control over student behaviour due to external factors such as home environment and parental expectations. They expressed frustration when inconsistent discipline at home undermined progress. Nevertheless, they maintained a sense of efficacy within their professional sphere by focusing on rapport building with their students and classroom predictability.

At least two EdTs mentioned how rapport-building with their students was important in helping them minimise the occurrence of problem behaviours by appealing to their sense of trust in them.

> *"...if you have that rapport, I think I would highly encourage EdTs to have that, because it makes things a lot easier. Most of the time, when they trust you, they feel safe with you. Yeah, I think it helps you to manage it a lot better."*

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> *"I've had the chance to do many trial and error to get to know the child. I think building the relationship with the child helps."*

This mirrors findings by Ross (1998) and Wong (2018) that teachers' efficacy depends partly on perceived autonomy arising out of positive teacher-student relationships, as well as institutional support, especially from mentors.

> *"... I think it's very different when there's a mentor, a constant mentor, with you to know how your own teaching style, and also, I'm not sure, like, in school, there's this buddy system, there's always somebody with you. I think it helps if, like, there's always a senior around with you..."*

Theme 4: Balancing instruction and behaviour

Nearly all participants reported the tension between meeting literacy objectives and addressing behavioural needs within two-hour sessions. Experienced EdTs reported integrating explicit social-emotional learning elements (e.g., goal setting, self-monitoring and reward charts, mindfulness activities) into literacy tasks, which improved engagement and reduced misbehaviour to some extent. This aligns with research by Chen et al. (2022) and Mattison and Blader (2013) emphasising integrated academic and behavioural support.

Theme 5: Emotional Toll of Managing Complex Behaviours

All participants described an emotional dimension to their work. Feelings of stress, frustration, and exhaustion were common, particularly when progress seemed slow. However, many expressed intrinsic motivation rooted in students' small successes and appreciation. This theme underscores the need for systemic support to maintain therapists' emotional resilience and prevent burnout.

Factors Influencing Efficacy Beliefs

Analysis of interviews revealed five interrelated sources shaping EdTs' efficacy beliefs, consistent with Bandura's (1997) framework.

Mastery Experiences

Repeated success in managing specific behaviours emerged as the strongest predictor of confidence. For instance, an EdT who successfully used a structured break system to reduce avoidance behaviour reported increased self-assurance when faced with similar cases. Conversely, prolonged difficulty with a non-responsive student led to temporary dips in efficacy until peer feedback or new strategies were introduced. This finding echoes Pajares (2002), who noted that interpretation of success or failure is crucial for sustained efficacy.

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Mastery experience was also perceived to encompass factors beyond knowledge and skills in curriculum implementation and subject matter expertise. According to EdT [RS], the real test of an EdT's mastery or competency lies in his or her responsiveness to student behaviours and misbehaviours and the various classroom situations that may arise.

> *"Mastery experience is much more important than executing their lesson just like a cookbook recipe… the real test of your experience and competency lies in your ability to handle a classroom situation when you least expect it…. a good teacher is one who uses his ingenuity, discretion, to get to the students…."*

Vicarious Learning

Observation of colleagues handling PBs effectively strengthened EdTs' belief in their own abilities. In-class and video lesson observations, and case discussions were identified as valuable learning platforms. This corresponds to Goddard, Hoy and Woolfolk Hoy (2000), who found that collective efficacy within collaborative cultures predicts positive classroom outcomes. Participants suggested that expanding peer-mentoring opportunities could further boost confidence and reduce isolation.

> *'...I learned how to handle meltdowns by observing their physical and verbal interventions. I inherited classes from experienced teachers, who prepared them well for managing students with different abilities and behaviours."*

Social Persuasion

Feedback from supervisors and parents was a powerful motivator. Encouragement following successful behavioural turnarounds increased morale, whereas critical comments without constructive guidance undermined confidence. Several EdTs commended leaders (e.g. Educational Advisors and Learning Centre Managers) who balanced accountability with empathy, reinforcing findings from Tschannen-Moran and Hoy (2001) on the role of supportive leadership in efficacy development.

> *'… I think it's very different when there's a mentor, a constant mentor, with you to know how your own teaching style, and also, I'm not sure, like, in school, there's this buddy system, there's always somebody with you. I think it helps if, like, there's always a senior around with you,..'*

> *".. Once I get that assurance from my colleagues, … it gives me the confidence as well. So, I think building the confidence also come from them. Yeah, like to tell me that, oh, I'm doing okay."*

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Physiological and Emotional States

Managing behaviour proved emotionally taxing. Interviewees acknowledged feeling stressed after difficult sessions, particularly when student outbursts triggered self-doubt. Negative feelings can lead to diminished performance, efficacy beliefs and inner motivation, hence resulting in burnout. One EdT shared how her negative experience with student misbehaviour weakened her confidence.

> *"...one to one, right, my confidence level is quite high. But then when it comes to a group, right, I think my confidence will dip down to negative. I cannot seem to control his behaviour, even if there are rules set in place. He doesn't care. I don't know why.. I am traumatized throughout the process."*

However, positive emotional regulation and collegial support mitigated this impact. Therapists who engaged in self-care or peer debriefing reported faster recovery from stress. This supports Skaalvik and Skaalvik (2010), who linked teacher well-being to sustained efficacy.

Contextual and Relational Factors

Organisational and relational contexts were reported to have shaped efficacy beliefs significantly. Strong therapist-student rapport fostered trust and engagement, reducing behavioural incidents. This finding echoes Cooper and Jacobs (2011) and Murray and Farrington (2010) on the importance of teacher-student relationships in SEN settings. Parental involvement was another salient factor – regular communication between parents and the DAS EdTs reinforced behavioural boundaries, encouraged positive behaviours and boosted their confidence. Conversely, minimal parent engagement or contradictory expectations led to discouragement and reduced efficacy.

At the organisational level, manageable student numbers and teacher-student capacity, targeted training, and affirming supervision were identified as protective factors sustaining high efficacy (Skaalvik & Skaalvik, 2016).

Summary of Key Themes

The data paints a composite portrait of Singaporean EdTs as committed specialist educators negotiating complex academic and behavioural demands within limited time frames. Their efficacy beliefs are dynamic and context-dependent, shaped by mastery experience, peer modelling, social feedback, emotional well-being, and organisational structure. While most EdTs demonstrated moderate-to-high self-efficacy, sustainability relies on ongoing professional learning and psychological support. Findings reinforce Bandura's (1997) assertion that efficacy is neither static nor innate but constructed through experience and social interaction.

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This study contributes empirical evidence to the under-researched area of EdTs' efficacy beliefs in specialist settings. It extends international literature on teacher efficacy to Singapore's context and identifies specific professional supports that bolster therapists' capacity to manage students with dyslexia presenting problem behaviours. The themes identified lay the foundation for subsequent discussion on training and policy implications.

SUMMARY AND CONCLUSION

Overview of the Study

This research examined the efficacy and efficacy beliefs of Singaporean Educational Therapists (EdTs) in supporting students with dyslexia who also present problem behaviours (PBs). Drawing on Bandura's (1997) social cognitive theory, it explored the dynamic interaction between professional experience, contextual factors, and therapists' self-beliefs in managing both academic and behavioural needs. A qualitative, single case-study design was adopted, combining survey data and semi-structured interviews from 10 EdT participants.

The study sought to

a. identify types of PBs observed,
b. examine EdTs' self-perceived efficacy in managing them, and
c. identify factors that, in their views, influence their efficacy beliefs.

Summary of Key Findings

Nature of Problem Behaviours

Findings confirmed the prevalence of both externalising and internalising behaviours among students attending literacy remediation at the Dyslexia Association of Singapore (DAS). Externalising behaviours—such as inattention, impulsivity, defiance, and verbal outbursts—occurred most frequently, whereas internalising behaviours (anxiety, withdrawal, or avoidance) were less visible but equally disruptive to learning. EdTs attributed these behaviours largely to underlying academic frustration, processing fatigue, and low self-esteem rather than wilful misconduct, aligning with Novita (2016) and Lee (2017).

Comorbidity with ADHD traits was also common, contributing to attentional and self-regulation challenges that further complicated and disrupted instruction. These findings mirror international evidence linking dyslexia with executive-function weaknesses (Craig et al., 2016; Boyes et al., 2020).

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Perceived Efficacy Levels

Survey ratings reflected moderate-to-high confidence (M = 3.7/4). EdTs felt most competent maintaining structure and preventing minor disruptions but less confident in managing emotional meltdowns or oppositional behaviour. Interview data suggested that confidence was strongly related to teaching experience, consistent with Bandura's mastery principle. Experienced EdTs described a repertoire of de-escalation, reinforcement, and relationship-building techniques; novices relied more heavily on peer support and structured routines.

Sources of Efficacy Beliefs

Thematic analysis aligned closely with Bandura's (1997) four sources of efficacy:

- **Mastery experiences**
  Repeated success managing PBs increased confidence, while prolonged difficulties temporarily eroded it.

- **Vicarious learning**
  Observing colleagues handle behaviours effectively boosted belief in one's own ability.

- **Social persuasion**
  Constructive supervisor, mentor and parent feedback strengthened motivation.
- **Physiological and emotional states**
  Stress and exhaustion reduced confidence unless mitigated by self-care and collegial support.

A fifth, **contextual source**, emerged—reflecting organisational structure, manageable student load and teacher-student capacity, and mentorship systems that shape daily practice (Skaalvik & Skaalvik, 2016).

Interrelationship of Literacy and Behaviour

A key finding was the interdependence of literacy difficulties and PBs. Students who struggled with decoding often exhibited avoidance or defiance; successful behavioural management was therefore tied to effective literacy instruction. EdTs who embedded social-emotional learning (SEL) elements—goal-setting, self-monitoring, reflection—reported improved engagement and fewer disruptions, echoing Mattison & Blader (2013) and Chen et al. (2022).

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Emotional Impact on Therapists

Managing PBs was emotionally demanding. Participants described frustration and fatigue yet derived fulfilment from students' progress. Intrinsic motivation and peer camaraderie were crucial in maintaining persistence—underscoring the need for organisational support to protect therapist well-being (Skaalvik & Skaalvik, 2010).

IMPLICATIONS FOR PRACTICE AND TRAINING

Professional Learning and Mentorship

The findings highlight the importance of sustained professional learning beyond initial training. While EdTs possessed strong literacy-teaching expertise, they expressed the need for targeted training in behaviour support, particularly in emotional regulation and trauma-informed practices. Mentoring and peer support were identified as effective vehicles for transferring such skills.

Embedding reflective supervision within organisational culture—where challenges can be openly discussed without judgement—would reinforce social persuasion and vicarious learning sources of efficacy. This reflects recommendations by Tschannen-Moran and Hoy (2007) on collective efficacy as a buffer against occupational stress.

In addition, mentoring efforts could also focus on helping EdTs modify their perception of and approach towards problem behaviours. This may entail changing their views of the attributions of student problem behaviours from one that is intentional to a manifestation of frustration and unmet needs. Without adequate training, EdTs may view students' problem behaviours as wilful acts of disobedience rather than as expressions of frustration, anxiety, or trauma. This perception can hinder the development of empathetic, productive relationships.

Integration of Literacy and Behavioural Support

Interventions should adopt a dual-focus model combining explicit literacy instruction with SEL. Structured visual routines, positive reinforcement, and collaborative goal-setting help students self-regulate and reduce task avoidance. Such integration ensures that behavioural management is not isolated from academic goals, supporting the holistic development advocated in Singapore's inclusive education framework (MOE, 2019).

Integrated Professional Development

Professional pre- and in-service training, development and evaluation of teaching practice should move beyond a narrow focus on literacy and procedural teaching to include rapport-building and soft skills that work on nurturing quality relationships with

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students and their parents, as well as evidence-based approaches to behavioural intervention. Additionally, awareness of neurodevelopmental co-existence of other conditions and executive function weaknesses should lead to enhanced collaboration among different expertise. Engaging with external professionals in the process of identifying and addressing a child's specific functional difficulties has been identified as a potential contributor to the development of greater resilience in EdTs. Much like building a muscle, EdTs' would benefit from continued reassurance that efficacy beliefs in handling students' PBs takes time and practice to grow.

Some suggestions for training and development could include:

- **Workshops, coaching sessions, and hands-on case studies**
  These can help EdTs integrate recommended approaches to student behavioural management into their practice.

- **Reflective Practice and Supervision**
  EdTs benefit greatly from opportunities to reflect on their experiences, examine emotional responses, and refine their strategies. Reflective supervision—structured sessions with a more experienced EdT —can promote self-awareness, reduce stress, and improve clinical decision-making, more so for novice EdTs.

- **Regular case review meetings, peer debriefing groups, or journaling practices**
  These support reflective learning and growth.

- **Cross-Disciplinary Collaboration**
  Working collaboratively with school psychologists, special educators, speech-language therapists, and behaviour specialists enables EdTs to design holistic, coordinated intervention plans. These partnerships provide access to a wider range of strategies and perspectives, ensuring that behavioural and academic needs are addressed in tandem.

Organisational Support and Workload Management

Student load, teacher-student capacity and centre resources were identified as critical determinants of efficacy. When EdTs manage large numbers of students with diverse profiles, their capacity to provide individualised attention diminished, leading to lower self-efficacy beliefs. Organisational leaders should therefore ensure equitable EdT-student ratios and adequate time for planning and collaboration. Recognition of emotional labour through wellness programmes could also further sustain motivation and retention.

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Collaboration with Parents and Mainstream school teachers

Effective management of PBs extends beyond the learning centre. EdTs who maintained regular communication with parents and mainstream school teachers reported greater consistency in behaviour expectations and reinforcement across contexts.

Parent training in positive behaviour support could strengthen home–school partnerships, while professional dialogue with mainstream school teachers ensures continuity of strategies. This collaborative approach reflects the multi-systemic model of intervention advocated by Bronfenbrenner (1979).

LIMITATIONS OF THE STUDY

As with many small-scale studies, the findings cannot be generalised to all SEN settings. The sample was limited to 10 EdT participants from a single organisation, potentially introducing response bias. Data was self-reported and thus subject to social desirability effects. Future research could incorporate observational data or student outcome measures to triangulate self-perceptions.

Students' problem behaviours mentioned in this study were limited to feedback received from EdT participants. None of them mentioned if the behaviours were symptomatic of any other officially diagnosed conditions. Perceptions of severity of problem behaviours also vary from one EdT to another, whether they are new or experienced. For example, some behaviours which EdTs believe are manageable are not construed as 'problematic.' The same behaviours, however, may be perceived differently by a novice EdT.

Additionally, the study focused solely on EdTs; it did not capture perspectives of students or parents, whose voices might enrich understanding of behavioural dynamics in literacy intervention. Nonetheless, the depth of qualitative data provided a rich portrait of practitioner experience in a specialised Singapore context.

RECOMMENDATIONS FOR FUTURE RESEARCH

Future research could focus on the following areas.

- **Longitudinal Studies**
  Investigate how efficacy beliefs evolve across career stages and how training and mentorship sustain them over time.

- **Comparative Designs**
  Examine differences in efficacy between EdTs and SEN officers supporting similar student profiles.

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- **Intervention Evaluation**
  Assess the impact of integrated literacy-behaviour programmes on student outcomes and therapist confidence.

- **Cross-Cultural Research**
  Extend investigation to regional contexts (ASEAN countries) to identify systemic factors that influence SEN teachers' efficacy.

- **Emotional Resilience and Well-Being**
  Explore coping mechanisms and organisational supports that protect educational therapists from burnout.

CONCLUSION

This study has shed light on an under-explored professional group—Educational Therapists working with students with dyslexia who exhibit problem behaviours. Findings affirm that EdTs' sense of efficacy is multi-dimensional and shaped by interacting personal, relational, and contextual factors. When therapists experience success, observe competent colleague receive affirming feedback, and work in supportive environments, their confidence and resilience grow. Conversely, heavy student loads, teacher-student capacities with a large diversity of profiles, and emotional stress can diminish efficacy if unaddressed.

By integrating Bandura's theoretical model with the practical realities of specialist intervention, this study extends understanding of teacher efficacy within Singapore's SEN landscape. Its implications point toward systemic approaches that value ongoing mentorship, collegial collaboration, and well-being as much as pedagogical competence. Ultimately, enhancing EdTs' efficacy beliefs benefits not only the therapists themselves but also the students whose academic and emotional growth they nurture.

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