HUMAN, TECHNOLOGIES AND QUALITY OF EDUCATION, 2026
https://doi.org/10.22364/htqe.2026.02

CLASSROOM MANAGEMENT PRACTICES OF NOVICE TEACHERS AND STUDENT BEHAVIOUR: A SYSTEMATIC LITERATURE REVIEW

Vitnija Kokoreviča[1], Dita Nīmante[1]

[1] University of Latvia, Latvia

ABSTRACT

Contemporary education emphasises student-centred learning, respectful relationships, and dialogue-based interaction in the classroom. However, novice teachers often struggle to manage complex classroom situations and may rely on reactive or corrective strategies when responding to student behaviour. This creates a gap between the principles emphasised in teacher education and practices implemented by novice teachers. The aim of this systematic literature review was to examine how novice teachers' classroom management practices relate to student behaviour and to identify the factors that influence these practices.

The review was conducted using the Scopus database. Publications were selected according to predefined inclusion and exclusion criteria. The final sample comprised 53 publications from 2015 to 2025. The extracted data were analysed using thematic analysis. The analysis revealed three main themes: novice teachers' classroom management practices, the factors influencing these practices, and students' behavioural responses.

The results show that novice teachers' classroom management practices and student behaviour are closely interconnected. Reactive and corrective strategies may curb disruptive behaviour in the short term, but they are less likely to foster sustained student self-regulation. Preventive and supportive strategies are more closely linked to student engagement, behavioural stability, and the development of responsibility for one's own actions. The results also show that novice teachers' practices are influenced by professional preparation, practical experience, self-efficacy, emotional regulation, professional vision, school support, and classroom context.

The review concludes that the gap between theory and practice can be reduced through more practice-oriented teacher education, structured feedback, mentoring, video-based learning, simulations, and early-career support. The findings are significant for improving novice teacher preparation and supporting more sustainable classroom management practices.

Keywords: *systematic literature review, novice teachers, classroom management, student behaviour, differences between novice and experienced teachers*

Introduction

Novice teachers are understood as newly qualified or early-career teachers in the first years of professional practice. In the reviewed literature, this group is defined in slightly different ways. Karasova and Nehyba (2025) and Farrell (2012) refer to novice teachers as those within their first three years of teaching; Hằng et al. (2022) describe them as licensed teachers with no more than five years of experience; Aus et al. (2017) focus on teachers who had recently completed their pre-service education and were mostly in their first year of full-time teaching, while Sezer (2017) uses the criterion of two years or less. Previous research shows that novice teachers often feel inadequately prepared to manage complex and changing classroom environments. Novice teachers' classroom management difficulties are also closely linked to their sense of professional effectiveness, as classroom management is widely regarded as a key condition for effective teaching (Lacy, 2024). They frequently adopt reactive approaches to school rule violations, focusing on immediate incidents rather than the broader conditions that shape classroom behaviour (Shank, 2023; Woodcock, 2024; Coen et al., 2024). Pierson (2023) similarly notes that, although novice teachers receive professional preparation, many still feel unprepared for real classroom situations. This can lead to the suggestion that practical experience, reflection, and structured feedback may be needed to help them connect theoretical knowledge with everyday classroom management practice. The transition from university to everyday classroom practice has also been described in previous literature through the concept of "reality shock", which refers to the cognitive and emotional challenges beginning teachers may experience when entering complex classroom settings (Caspersen & Raaen, 2014; Dicke et al., 2015).

Evidence from the US also shows that teachers and school leaders identify gaps in behaviour management training, while many educators report limited effective preparation and a lack of dedicated classroom management courses with practical learning (Perera & Diliberti, 2023; Whalen, 2025).

Classroom management knowledge is an important part of teachers' professional competencies and is complex, linked to student behaviour, teachers' professional well-being, work effectiveness, and long-term sustainability in the profession. Psychologically oriented support, including emotional skills, behavioural stress management, and supportive practices, may strengthen teachers' resilience and help them respond more effectively to student behavioural challenges in the classrooms (Cervellione et al., 2025). Emotional regulation and teacher self-efficacy are also important in this context. Wang et al. (2025) found that effective emotional regulation improves teachers' well-being and job satisfaction. Slater and Main (2020) found that novice teachers' classroom management self-efficacy affects their readiness to address students' behavioural challenges. Authors have developed the Classroom Management Self-Efficacy Instrument (CMSEI) to assess novice teachers' confidence in maintaining order and managing the learning process. Their results show that teachers with higher self-efficacy experience less stress and are better able to respond appropriately to challenging student behaviour.

In Latvia, several studies have examined novice teachers' working conditions, emotional well-being, and professional needs. Notably, the Organisation for Economic Co-operation and Development (OECD) Teaching and Learning International Survey (TALIS) in 2024 included 216 Latvian schools and more than 4,200 teachers, including novice teachers, examining school resources, teaching methods, and teachers' professional development as aspects of teachers' professional work (Ministry of Education and Science [MoES], 2024). While such reports provide valuable data on teachers' professional development and working conditions, they do not examine the specific classroom management methods used by novice teachers or how these methods are connected with student behaviour. In Latvia, a theoretical and practical framework on classroom management for novice teachers has been developed (Nīmante, 2007; Daniela, 2009; Daniela, 2008; Nīmante & Daniela, 2014a, 2014b; Martinsone et al., 2013; Žydžiūnaitė & Martinsone, 2024). In Latvia, research has addressed particular novice teachers' early professional development, mentoring, integration into the school setting, and preparation for pedagogical work (Davidova & Zariņa, 2022; Margeviča-Grinberga & Šūmane, 2024; Paula & Grīnfelde, 2018; Zhukova et al., 2018). These studies show that novice teachers face challenges in practical classroom work, including classroom management, discipline, teacher authority, student engagement, and adaptation to real classroom situations. However, they mainly examine teachers' entry into the profession, early professional development, mentoring, integration into the school setting, preparation for pedagogical work, or work-based learning, rather than the relationship between novice teachers' classroom management practices and student behaviour. A further check in Web of Science using the keyword combination "novice teachers" AND "classroom management" AND "student behaviour" AND "Latvia" did not identify studies with this specific thematic focus. Although previous international reviews have addressed related issues, such as novice teachers' professional learning and behaviour management preparation, the specific relationship between novice teachers' classroom management methods, the factors shaping these practices, and student behaviour still requires synthesis (Hirsch et al., 2021; Paramita et al., 2020).

Therefore, this systematic literature review synthesises empirical evidence on novice teachers' classroom management practices, the factors that influence these practices, and their relationship with student behaviour. By analysing these relationships, this review seeks to identify patterns in the literature on novice teachers' use of reactive and corrective practices, rather than preventive and relationship-based approaches. Thus, the central research problem is novice teachers' readiness to use effective classroom management methods that can address student behavioural challenges while maintaining respectful classroom relationships.

The research aims to investigate how the methods and techniques used in novice teachers' classroom management practices relate to student behaviour in the classroom and to examine the interrelated factors that influence this relationship.

The study addresses the following research questions: 1. What is the relationship between novice teachers' classroom management practices and student behaviour in the classroom? 2. What factors influence novice teachers' classroom management practices?

Methodology

To address the research questions and examine the relationship between novice teachers' classroom management practices and student behaviour, a systematic literature review (SLR) was conducted. The review's methodology and reporting followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines (Page et al., 2021) to support transparency, reproducibility, and methodological rigour. No review protocol was registered before conducting the review. The review process comprised four sequential phases: identification, screening, eligibility assessment, and inclusion. After the selection process, the included publications were analysed to synthesise what is currently known about novice teachers' classroom management and its relationship with student behaviour.

Information sources and search strategy

The systematic literature search was conducted in the Scopus database (Scopus.com). Scopus was selected because it is one of the most extensive and internationally recognised databases of peer-reviewed scientific literature. In addition, Scopus indexes a large number of international journals and provides broader coverage than several other specialised databases, especially in the fields of social sciences and educational research, such as Web of Science and ERIH PLUS. Furthermore, using a single database allows for a consistent search strategy, reduces the amount of duplicate processing, and increases the reproducibility of the study. These features supported a structured and transparent selection process. The Scopus search yielded a sufficiently large and thematically relevant corpus of studies, including publications from different national contexts. Therefore, the review was designed as a Scopus-based systematic literature review, reflecting the evidence available in this database rather than all possible publications indexed across education-specific databases. The search strategy was carried out in two stages. First, the field's overall scope was mapped by searching for four primary keywords (novice teachers, classroom management, student behaviour, expert novice teachers' differences) separately. The individual keyword searches produced the following results: "novice teachers" (n = 5,714), "classroom management" (n = 23,696), "student behaviour" (n = 222,842), and "expert novice teachers' differences" (n = 198). The phrase "expert novice teachers' differences" is reported as the exact search term used in Scopus, whereas the article discusses the concept as differences between novice and more experienced teachers. This stage was used to estimate the scope of the literature available for each keyword. Second, targeted keyword combinations (see Table 1) were created using the AND operator. These combinations were used to identify publications that addressed the relationships among novice teachers, classroom management, student behaviour, and differences in novice and more experienced teachers' classroom management practices. The combined search produced 342 initial records, distributed across three distinct search strings as detailed in Table 1.

Table 1. Search Strings and Initial Document Yield in Scopus

Search string ID	Scopus search syntax	Initial records (*n*)
String 1	TITLE-ABS-KEY (“novice teachers” AND “classroom management” AND “student behaviour”)	43
String 2	TITLE-ABS-KEY (“novice teachers” AND “classroom management” AND “expert novice differences”)	15
String 3	TITLE-ABS-KEY (“novice teachers” AND “student behaviour”)	284
Total		**342**

The British spelling “student behaviour” was used in the reported search syntax. A subsequent check using the American spelling “student behavior” produced identical results in Scopus and did not change the final set of records. Therefore, the British spelling was retained.

Inclusion and exclusion criteria

To ensure the relevance and currency of the selected literature, predefined inclusion and exclusion criteria were applied. Publications were included if they were published between 2015 and 2025, written in English, and published as articles, conference papers, or reviews. These filters in the Scopus database helped to select current publications. They also had to address novice teachers, classroom management, student behaviour, and differences in classroom management practices between novice and more experienced teachers, and be relevant to the research aim. The full text of each publication had to be accessible, and it could not be overly specific, for example, by focusing on a particular case of special education. If the publications did not meet the specified criteria, they were not included in further analysis.

Screening and selection procedure

The study selection followed a multi-stage screening procedure. A total of 342 records were initially identified in Scopus. Before formal screening, 17 duplicate records were removed. These duplicates arose from overlapping chronologies and themes among the three independent keyword search strings in the database. Automated database filters excluded an additional 172 records based on publication year, language, and document type. This left 153 records for the formal screening stage. The first author conducted the title and abstract screening and the full-text eligibility assessment, and made the initial inclusion decisions. Ambiguous cases and methodological decisions were discussed with the second author, and final decisions were reached by consensus. The second author also reviewed and edited the selection rationale and methodological reporting to enhance the clarity and transparency of the review process.

The screening and eligibility assessment were then conducted in two phases:

Title and Abstract Screening: The titles and abstracts of the 153 records were reviewed. During this stage, 69 records were excluded because they did not demonstrate a clear relationship with the research focus.

Full-Text Eligibility Assessment: Following the title and abstract screening, 84 reports were sought for full-text retrieval. Four reports were excluded because full-text access was unavailable. The remaining 80 full-text reports were assessed for eligibility. Of these, 27 were excluded because they did not meet the specific research focus or did not evaluate the relationship between novice teachers' classroom management practices and student behaviour.

Following this process, 53 publications met all eligibility criteria and were included in the systematic literature review. The final sample comprised 18 publications focusing on novice teachers' classroom management and student behaviour, 3 publications comparing novice and more experienced teachers' classroom management practices, and 32 publications focusing on novice teachers and student behaviour. The selection process is illustrated in the PRISMA flow diagram (see Figure 1).

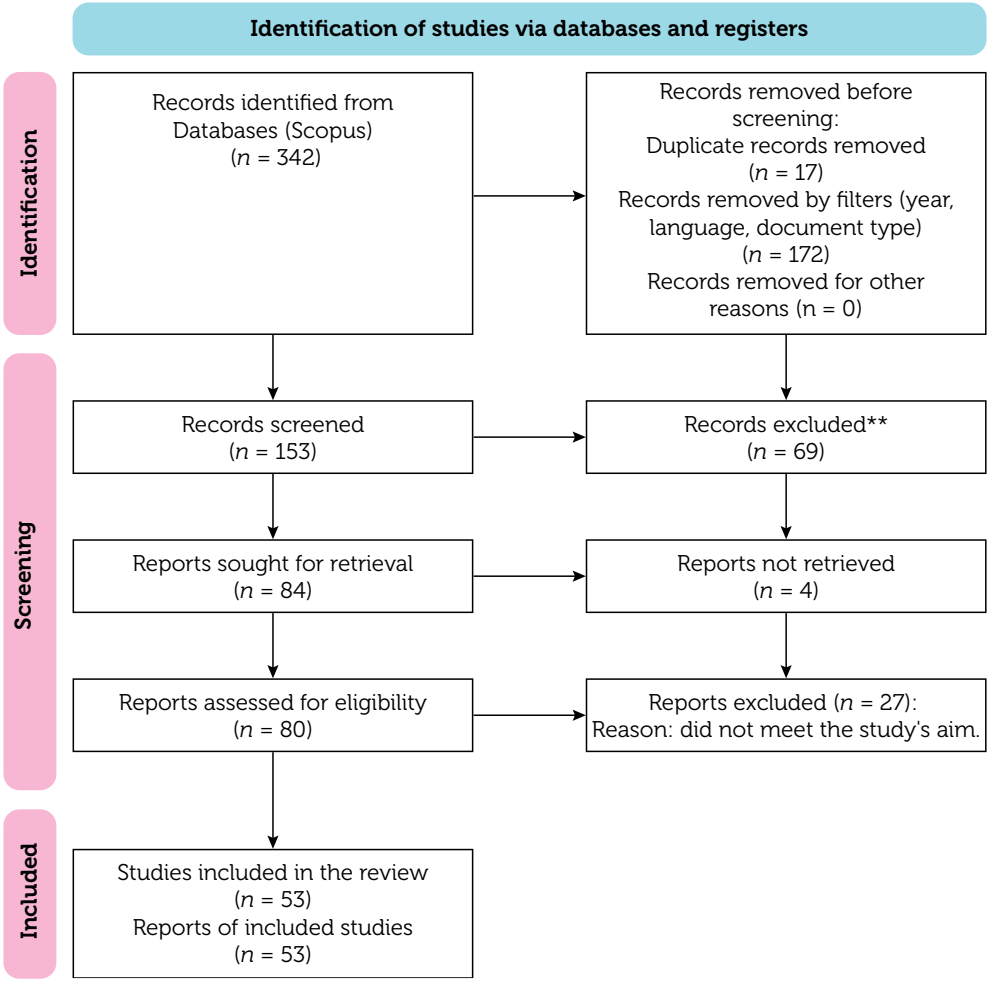


Figure 1. PRISMA 2020 flow diagram for new systematic reviews, which included searches of databases and registers only

Data extraction

A standardised data extraction table (see Table 2) was developed to organise information from the 53 publications included in the review. The first author conducted data extraction and initial coding using this table. The second author reviewed the extracted categories, thematic structure, and interpretation of the findings, and edited the manuscript to improve the clarity and consistency of the analytical reporting. Revisions were made through discussion. This table promoted consistency, transparency, and traceability throughout the process. Each publication was given a unique document identification code. The data extracted from each source included: bibliographic and identification data: author(s), publication year, article title, keywords, and DOI; contextual and geographical data: country of the study, research duration, and the theoretical definitions used by the authors; methodological data: research type, design, targeted research units, sample details, and educational setting; content and analytical variables: research goal, problem identified, classroom management methods, and main findings.

These categories allowed systematic comparison across the publications and helped identify common patterns in the literature.

Data analysis and synthesis

The extracted data were analysed using thematic analysis (Braun & Clarke, 2021) of the information compiled in the data extraction table from the 53 included publications. The aim was to identify the main themes and relationships relevant to the research question.

The analysis focused on three themes: how novice teachers' classroom management practices were described in the selected studies, what factors were reported to influence these practices, and how these practices were related to student behaviour in the classroom. These factors included professional preparation, self-efficacy, emotional regulation, and teaching experience.

The findings from the selected studies were synthesised to provide an overall understanding of the relationship between novice teachers' classroom management practices, the factors that influence them, and student behaviour. This synthesis enabled the reviewed evidence to be considered not as separate findings but as interconnected elements within the classroom context. Together, these findings summarise what is already known about novice teachers' classroom management.

Results

General and methodological description of the included research

A comprehensive mapping was carried out of all included publications (n = 53) covering general, chronological, geographical, and methodological parameters. This characterisation provides a structural overview of the selected publications, including the article number, authors, institutions, year, study type, design, and research methods that currently dominate the scientific literature on novice teachers' classroom management. See Table 2.

Table 2. Overview of the General and Methodological Characteristics of the Included Literature

Article	Authors	Country	Year	Type	Design	Research methods
1.	**Karasova & Nehyba**	Czech Republic	2025	Mixed	Observational study	Non-participant observation, video recording, QCA analysis
2.	**Lutz et al.**	Germany	2024	Quant.	Instrument validation study	Online survey (InClass), CFA, SEM modelling
3.	**Franco et al.**	Belgium	2023	Qualit.	Model development study	Thematic analysis, expert panel triangulation
4.	**Hằng et al.**	Vietnam	2022	Mixed	Descriptive study	Surveys, in-depth interviews
5.	**Estaji & Fatalaki**	Iran	2022	Qualit.	Phenomenological study	Perception analysis, interviews
6.	**Criss**	USA	2025	Quant.	Single case experimental	Behaviour recording, BST training, feedback
7.	**Criss & Carreon**	USA	2025	Quant.	Single case experimental	360-degree video, IVVR, direct observation, email feedback
8.	**Shank**	USA	2023	Qualit.	Qualitative descriptive study	Systematic text condensation, interviews
9.	**Hirsch et al.**	USA	2021	Mixed	Systematic review	Systematic search, coding, quality indicator analysis
10.	**Tanase**	USA	2023	Qualit.	Case study	Semi-structured interviews, thematic coding, triangulation
11.	**Cohen et al.**	USA	2020	Quant.	Randomised controlled trial Experimental (RCT)	Simulations, observation, regression analysis, surveys
12.	**Mikulec & Hamann**	USA	2020	Qualit.	Action research	Microteaching, reflective reports, qualitative coding
13.	**Tolan et al.**	USA	2020	Quant.	Randomised controlled trial Experimental (RCT)	ASSIST observation, multilevel modelling
14.	**Mouw et al.**	Netherlands	2020	Qualit.	Grounded theory study	Interviews, thematic analysis
15.	**Wolff et al.**	Netherlands	2017	Mixed	Comparative experimental study	Eye-tracking, think-aloud, ANOVA
16.	**Sezer**	Turkey	2017	Qualit.	Case study	Structured interviews, descriptive analysis

Article	Authors	Country	Year	Type	Design	Research methods
17.	**Aus et al.**	Estonia	2017	Quant.	Longitudinal study	Surveys, statistical analysis (SPSS, Mplus)
18.	**Cortina et al.**	USA	2015	Mixed	Comparative validation study	Mobile eye-tracking (MET), CLASS system, regression
19.	**Grub et al.**	Germany	2022	Quant.	Quasi-experimental study	Eye-tracking (Tobii), questionnaires, ANOVA, G*Power
20.	**Wolff et al.**	Iceland	2021	Qualit.	Conceptual review	Literature analysis, theoretical model synthesis
21.	**König & Kramer**	Germany	2015	Quant.	Comparative study	Knowledge tests, student surveys, multilevel analysis
22.	**Hou & Alibakhshi**	Iran	2025	Mixed	Descriptive study	Chi-square tests, pedagogical knowledge analysis
23.	**Song et al.**	China	2025	Mixed	Video-based interaction analysis study	Video analysis, epistemic network analysis (ENA), coding
24.	**Whewell et al.**	UK	2025	Qualit.	Ethnographic study	Video collaboration, thematic analysis of transcriptions
25.	**Weinberg et al.**	USA	2025	Qualit.	Document analysis study	MAXQDA plan analysis, thematic coding
26.	**Zach & Sindiani**	Israel	2025	Quant.	Instrument development and validation study	Factor analysis (PCA), ANOVA, survey
27.	**Lin**	Taiwan	2025	Qualit.	Collaborative research	Interviews, video observation, open coding
28.	**Karim et al.**	Bangladesh	2024	Qualit.	Phenomenological study	Open-ended questions, Facebook group data analysis
29.	**McGuire et al.**	USA	2024	Quant.	Randomised controlled trial	Online training, BASC-3 tests, ANOVA
30.	**Kosel et al.**	Germany	2024	Mixed	Comparative experimental study	Video observation, ANOVA, ENA analysis
31.	**Morady Moghaddam & Tirnaz**	Iran	2024	Qualit.	Descriptive study	Stimulated recall, video recording, transcriptions
32.	**Miller et al.**	USA	2024	Mixed	Case study	Mobile eye-tracking, think-aloud, transcriptions
33.	**Heinsen**	USA	2024	Mixed	Autoethnography study	Eye-tracking (Pupil Labs), video analysis, statistics

Article	Authors	Country	Year	Type	Design	Research methods
34.	**Lindström & Roberts**	USA	2023	Quant.	Observational study	Behaviour recording, direct observation
35.	**Canterbury**	USA	2023	Quant.	Comparative observational study	Video observation, summative evaluations (TEEF)
36.	**Courtney et al.**	Kazakhstan	2023	Quant.	Secondary data analysis	TALIS data, SEM, CFA, multilevel analysis
37.	**Huang et al.**	Hong Kong	2022	Quant.	Correlational study	SEM, mediation analysis, surveys. Model testing
38.	**Çukur**	Turkey	2022	Qualit.	Case study	Reflective journals, focus groups, NVivo
39.	**Gürel et al.**	Turkey	2022	Qualit.	Multiple case study	Interviews, observation, document analysis
40.	**Ghasemi**	Iran	2022	Qualit.	Phenomenological study	In-depth interviews, phenomenological analysis
41.	**Silva et al.**	Portugal	2021	Qualit.	Action research	Thematic analysis, interviews, triangulation
42.	**Yang et al.**	Ger./ China	2021	Quant.	Comparative measurement study	Video tests, Rasch model, Cronbach's alpha
43.	**Nückles**	Germany	2021	Theoret.	Theoretical paper	Literature analysis, research review
44.	**Kosel et al.**	Germany	2021	Quant.	Comparative experimental study	Eye-tracking (SMI), sequence analysis, and entropy
45.	**Goldberg et al.**	Germany	2021	Quant.	Observational study	Mobile eye-tracking, multinomial regression
46.	**Sun et al.**	China	2020	Quant.	Experimental study	fNIRS hyperscanning, behavioural data analysis
47.	**Sela & Harel**	Israel	2019	Qualit.	Descriptive study	Independent thematic coding, triangulation
48.	**Gage et al.**	USA	2018	Quant.	Multiple-baseline design	Visual analysis, ES calculations, SCOA application
49.	**Hunter et al.**	USA	2017	Quant.	Case study	Behaviour recording, case study
50.	**Dawson & Lignugaris/ Kraft**	USA	2017	Quant.	Single-case study	TeachLivE simulations, behaviour recording
51.	**Goh et al.**	Malaysia	2017	Qualit.	Phenomenographic study	Phenomenographic analysis
52.	**Amara et al.**	Tunisia	2015	Quant.	Experimental study	Video observation, Chi-square, PCA analysis
53.	**Barmaki & Hughes**	USA	2015	Mixed	Case study	Video material analysis, expert annotations

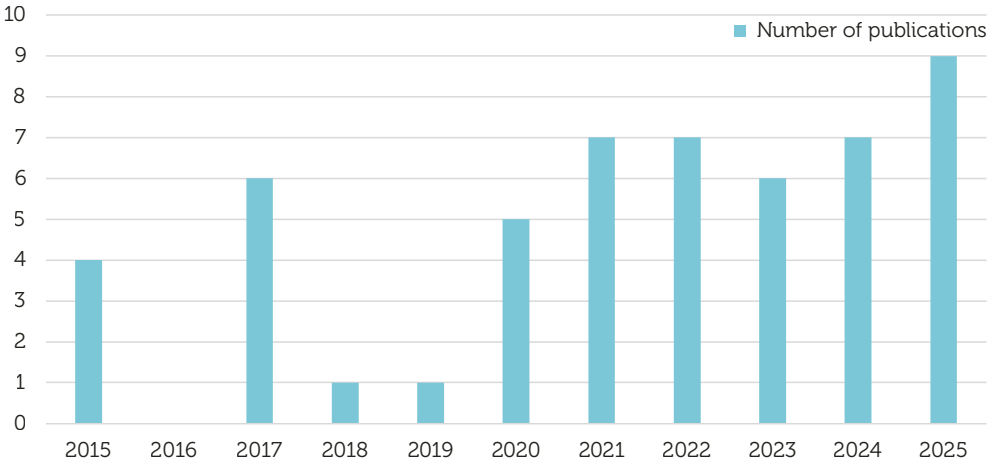


Figure 2. Distribution of Included Publications by Year

Table 3. Types of Studies Included in the Systematic Literature Review

Type of publication	Number of publications	Percentage
Quantitative	22	41.5%
Qualitative	19	35.8%
Mixed methods	11	20.8%
Theoretical	1	1.9%
Total	**53**	**100%**

As shown in Figure 2, the included publications cover the period from 2015 to 2025, with a noticeable increase in publications in the most recent years, indicating sustained and growing international interest in novice teachers' classroom management practices.

The geographical distribution of the research suggests international interest in novice teachers' classroom management, with 21 countries represented. The publications are predominantly from the USA and Germany, which together account for almost half of the included studies. Overall, the distribution is most prominent in research from North America and Europe, complemented by individual studies from Asia and the Middle East.

As shown in Table 3, quantitative studies comprised the largest group of included publications, followed by qualitative and mixed-methods studies. Only one publication was theoretical.

The range of research designs includes studies that examine associations, intervention effects, and classroom processes. Experimental, case studies, and phenomenological approaches were most frequently used. The methodological spectrum shows a growing use of technology-supported approaches, including eye-tracking, immersive virtual reality, TeachLivE™ simulations, and classroom video analysis. Eye-tracking studies show how teachers' gaze behaviour can be used to examine attention allocation and the development of professional vision in teaching situations (Heinsen, 2024; Nückles, 2021).

Authentic or simulated classroom videos were often combined with analytical techniques such as CAQDAS tools, including NVivo and MAXQDA, while quantitative studies frequently used structural equation modelling, confirmatory factor analysis, and latent profile analysis. Overall, the included studies show methodological diversity, with a growing use of video-based, technology-supported, and statistically advanced approaches.

Novice teachers' classroom management practices

The analysed publications reveal three main categories of classroom management strategies used by novice teachers: preventive, supportive, and corrective. Table 4 summarises these categories, the specific methods within each category, and examples of sources that describe them.

Table 4. Classroom Management Strategy Categories Identified in the Reviewed Literature

Strategy category	Main methods identified in the reviewed literature	Examples of sources
Preventive strategies	Clear rules and routines; seating arrangements; organisation of the physical environment and learning materials; time management; timers and visual schedules; meaningful task design; differentiated tasks; lesson objectives; explanations and justifications for rules; welcoming students at the door; visual and linguistic aids; modelling expected behaviour; active supervision; early warning signal detection; eye contact; gestures; proximity	Hằng et al., 2022; Hunter et al., 2017; Karasova & Nehyba, 2025; Lindström & Roberts, 2023; Lutz et al., 2024; McGuire et al., 2024; Shank, 2023; Tanase, 2023; Wolff et al., 2021
Supportive strategies	Positive teacher-student relationships; emotional accessibility; empathy and care; behaviour-specific praise; withitness; gaze and proximity control; subtle cues; eye contact; gestures; smiles; facial expressions; token system; one-to-one conversations; personalised encouragement; humour; positive tone of voice; multimodal feedback; teacher sensitivity	Aus et al., 2017; Barmaki & Hughes, 2015; Criss, 2025; Estaji & Fatalaki, 2022; Gage et al., 2018; Hằng et al., 2022; Karasova & Nehyba, 2025; Lindström & Roberts, 2023; Lutz et al., 2024; Miller et al., 2024; Song et al., 2025; Tanase, 2023; Tolan et al., 2020; Whewell et al., 2025; Wolff et al., 2017
Corrective strategies	Vocal commands; auditory signals; calling students by name; non-verbal responses; facial expressions; deliberate pauses; unexpected interruptions; withdrawal of positive reinforcement; confiscation of distracting objects; formal sanctions; referral to administration; reporting to disciplinary committee; removal from classroom; additional homework; temporary suspension; verbal warnings; response cost; planned ignoring; praise around; post-incident individual discussions; reactive seat changes; corrective redirection; task modification; de-escalation and crisis protocols; post-incident reflection and consultation	Cohen et al., 2020; Çukur, 2022; Dawson & Lignugaris/Kraft, 2017; Franco et al., 2023; Goh et al., 2017; Hằng et al., 2022; Karasova & Nehyba, 2025; König & Kramer, 2015; Sezer, 2017; Tanase, 2023; Wolff et al., 2017

Preventive classroom management strategies

Preventive strategies are described as practices aimed at establishing a structured learning environment and reducing the likelihood of behavioural issues. One of the main preventive actions is establishing clear rules and routines, which involves systematically defining, outlining, and teaching behavioural expectations at the beginning of the school year (Hằng et al., 2022; McGuire et al., 2024; Tanase, 2023; Wolff et al., 2021). The organisation of the physical environment and materials plays a crucial role, which teachers implement through strategic seating arrangements for visibility and zone setup, thereby ensuring immediate access to learning resources and minimising downtime (Hằng et al., 2022; Hunter et al., 2017; Tanase, 2023; Wolff et al., 2021). Effective preventive planning also includes time management (explicit Timing), using timers to control activity durations and visual schedules, which promote student self-regulation and facilitate transitions between lesson segments (Hunter et al., 2017; Lindström & Roberts, 2023).

The analysed studies also identified other significant preventive strategies employed by novice teachers. These include meaningful task design that balances student responsibility, cognitive challenge, and relevance to their cultural and personal experiences, thereby reducing the likelihood of off-task behaviour (Karasova & Nehyba, 2025). This approach involves differentiating tasks and employing student-centred methods (Hằng et al., 2022). Silva et al. (2021) examined how a novice PE teacher implemented cooperative learning and shared responsibility for the teaching-learning process with students. Their findings show that implementing cooperative learning effectively required time, and that developing cooperative relationships enabled students to assume greater responsibility in lessons. Additionally, clear articulation of lesson objectives and expected outcomes at the start of the lesson is implemented, providing students with an understanding of the purpose and goals of their work, along with meaningful explanations and justifications (rationale) for rules, making them personally relevant to students (Hằng et al., 2022; Karasova & Nehyba, 2025).

A key component of preventive strategies is the welcoming of students at the door, which helps establish immediate contact and a positive atmosphere even before the lesson begins (Karasova & Nehyba, 2025). All students are supported through visual and linguistic aids such as pictograms, symbols, and posters (Lutz et al., 2024; Lindström & Roberts, 2023). Teachers also model targeted behaviour by providing cues about desired actions just before potentially challenging situations (Hunter et al., 2017; Lindström & Roberts, 2023).

Within preventive measures, active supervision plays an important role, which can be systematised by dividing the classroom into quadrants and purposefully reviewing the space to detect potential rule violations early (Hunter et al., 2017). This supervision is closely linked to early warning signal detection, where teachers use their professional vision to identify nuanced contextual cues before escalation (Franco et al., 2023; Grub et al., 2022; Hằng et al., 2022). Finally, novice teachers incorporate non-verbal strategies, including eye contact, gestures, and strategic movement within the classroom (proximity), to maintain student attention without interrupting the verbal teaching

process (Karasova & Nehyba, 2025; Shank, 2023). In a higher education EMI context, Lin (2025) also shows that novice lecturers' classroom interaction can be supported through verbal and non-verbal resources, including teacher-student discourse, turn-taking, eye contact, and spatial positioning. The school-based studies cited above suggest that these proactive strategies are associated with improved student self-regulation and lower stress levels within the classroom environment (Karasova & Nehyba, 2025; Lindström & Roberts, 2023).

Supporting classroom management strategies

Supporting strategies in the literature are characterised as an immediate support framework or scaffolding during lessons. They aim to help students maintain self-regulation and return to task completion without resorting to strict discipline or punishment. These approaches are based on maintaining positive relationships, emotional accessibility, empathy, and care, which foster a psychologically safe classroom climate (Aus et al., 2017; Estaji & Fatalaki, 2022; Tolan et al., 2020). Behaviour-specific praise (BSP) is recognised in the literature as a direct support tool, defined as targeted positive reinforcement delivered immediately after the desired student behaviour (Criss, 2025; Gage et al., 2018; Hirsch et al., 2021).

An essential element of supporting strategies is the teacher's situational awareness in the classroom (withitness). This involves continuous monitoring of the class through gaze and proximity control to discreetly direct students' attention and engagement in learning (Hằng et al., 2022; Karasova & Nehyba, 2025; Lindström & Roberts, 2023; Tolan et al., 2020). It is complemented by subtle cues such as eye contact, gestures, smiles, and facial expressions. These cues enable the teacher to show interest and keep students engaged in learning without resorting to verbal reprimands, thereby avoiding interruptions during the lesson (Barmaki & Hughes, 2015; Song et al., 2025). When necessary, a token system is also used to promote student progress and self-regulation (Lindström & Roberts, 2023). The support process includes one-to-one conversations and personalised encouragement, which help preserve the student's dignity, prevent public reprimands or shaming in front of the whole class, and foster positive teacher-student relationships following challenging interactions (Tanase, 2023; Wolff et al., 2017).

Humour and a positive tone of voice may help reduce tension during lessons when used appropriately and respectfully (Whewell et al., 2025). A positive classroom climate is further supported through multimodal feedback, which combines verbal encouragement with supportive body language (Song et al., 2025). Teacher sensitivity, understood as the ability to respond consistently and empathetically to students' signals and emotional needs, is also identified as an important element of supportive classroom management (Lutz et al., 2024; Miller et al., 2024).

Corrective classroom management strategies

Corrective classroom management strategies are used after disruptive behaviour has occurred or while it is taking place. Their purpose is to intervene directly in student

behaviour, stop or reduce the disruption, and re-establish expected classroom conduct (Tanase, 2023; Wolff et al., 2017). These strategies include direct verbal interventions, such as vocal commands, specific auditory signals, and calling students by name to interrupt side conversations or redirect inappropriate behaviour (Karasova & Nehyba, 2025; König & Kramer, 2015).

At the micro-interaction level, teachers may also use corrective non-verbal signals, including facial expressions and deliberate pauses, to signal that behaviour is inappropriate and should change (Karasova & Nehyba, 2025; Franco et al., 2023). In some cases, teachers employ the element of surprise, such as sudden singing, to interrupt escalating classroom disorder (Franco et al., 2023). Other direct corrective actions include withdrawing positive reinforcement, most often by confiscating mobile phones or other distracting objects during the lesson (Karasova & Nehyba, 2025).

In more serious cases, teachers use formal sanctions, including referral to school administration, reporting to the disciplinary committee, removal from the classroom, additional homework, or temporary suspension (Cohen et al., 2020; Sezer, 2017; Tanase, 2023). Before these measures, teachers issue verbal warnings and explain the consequences if the misconduct continues (Karasova & Nehyba, 2025; Sezer, 2017). A specific behaviour modification technique in the literature is response cost, in which previously earned points or visual tokens are revoked for inappropriate behaviour (Tanase, 2023).

In cases of minor infractions, teachers may ignore low-level disruptive behaviour to avoid interrupting the lesson (Sezer, 2017). This method is often combined with the "praise around" strategy in studies, in which the teacher ignores the disruptive behaviour but emphasises and rewards the desired behaviour of the surrounding students, thereby indirectly and non-verbally correcting disruptive behaviour (Dawson & Lignugaris/Kraft, 2017; Hằng et al., 2022).

Post-incident individual discussions are described as longer-term corrective actions, which involve a private dialogue between the teacher and the student after the lesson to understand the causes of the misconduct, establish new behavioural goals, and select appropriate activities to improve mutual relations (Çukur, 2022; Sezer, 2017; Tanase, 2023). Other pedagogical corrections include reactive seat changes immediately after the incident (Goh et al., 2017; Tanase, 2023) and continuous corrective redirection, which points out the erroneous behaviour and clearly defines the necessary action (Karasova & Nehyba, 2025). The literature also describes modifications to the learning task during the lesson, in which the teacher changes the work format or cognitive difficulty when disruptions are linked to students' difficulty coping with the task independently (Karasova & Nehyba, 2025).

In the reviewed literature, the management of serious incidents and physical fights is described as involving de-escalation and emergency crisis protocols, during which external authority support is sought from school management, support staff, or parents (Franco et al., 2023; Tanase, 2023). In such crises, the literature emphasises the importance of maintaining neutral facial expressions and a neutral tone of voice, respecting the student's personal space, avoiding physical contact, and articulating clear

consequences in line with previously agreed-upon classroom rules (Karasova & Nehyba, 2025). Post-incident reflection and consultation with colleagues are also reported as forms of professional and emotional support.

Factors influencing novice teachers' classroom management practices

The reviewed literature suggests that novice teachers' classroom management is influenced by internal resources, professional readiness, and external support. Therefore, classroom management is not only a collection of techniques but also a process in which teachers integrate theoretical knowledge with practical action in dynamic classroom settings.

Professional preparation and transition to school reality

Novice teachers' classroom management practices are shaped by the extent to which their initial professional preparation enables them to translate theoretical knowledge into practical classroom action. Several studies indicate that novice teachers often feel insufficiently prepared for practical classroom management challenges, as university programmes tend to prioritise subject content and general pedagogical theory over targeted behaviour management skills (Hằng et al., 2022; Shank, 2023). This mismatch may contribute to difficulties in transferring theoretical knowledge into classroom practice and may increase novice teachers' reliance on reactive classroom management responses.

A lack of practical experience is also related to how novice teachers respond to behavioural problems. They more often address problems only after they occur, that is, reactively, and rely on direct instructions, commands, or punishments because they do not yet have sufficient practical skills and experience to anticipate and prevent unwanted behaviour in advance (Karasova & Nehyba, 2025; Wolff et al., 2021).

Self-efficacy, emotional regulation, and teachers' personal resources

A second important group of factors consists of teachers' personal resources: self-efficacy, emotional regulation, professional motivation, and sensitivity to students' needs. Teacher self-efficacy refers to teachers' belief in their ability to influence student behaviour and support learning. Studies indicate that novice teachers' self-efficacy may decline after their first real encounters with challenging student behaviour (McGuire et al., 2024). Low self-efficacy is closely associated with increased stress, anxiety, and early burnout in the profession (Sezer, 2017; Tolan et al., 2020).

Teachers' emotional regulation is also identified as relevant to classroom management practices. The reviewed studies also indicate that novice teachers' classroom management is related to their metacognitive and self-regulatory skills, particularly their ability to monitor their own actions and adjust instruction in response to classroom dynamics (Gürel et al., 2022; Huang et al., 2022). If teachers are unable to manage their emotional responses in stressful situations, they are more likely to react impulsively, which can negatively affect the classroom climate and reduce students' willingness to cooperate (Sezer, 2017).

In contrast, teachers who believe in students' capacity to develop are more likely to use supportive methods and provide emotional support (Aus et al., 2017).

This group of factors also includes teachers' motivation and sensitivity to students' individual needs. Teachers for whom teaching was their first career choice and who were guided by altruistic motives, such as a desire to contribute to society, more often report higher self-efficacy and overall job satisfaction (Courtney et al., 2023; Hou & Alibakhshi, 2025). Teacher sensitivity refers to the ability to recognise students' individual needs and build empathy-based relationships, thereby supporting a positive classroom climate and strengthening teachers' ability to respond accurately to classroom situations (Estaji & Fatalaki, 2022; Lutz et al., 2024).

Professional vision and distribution of attention in the classroom

Classroom management is influenced not only by teachers' attitudes or preparation but also by their ability to notice and interpret classroom events in real time. Professional vision refers to the ability to notice, diagnose, and pedagogically interpret classroom events. More experienced teachers can continuously monitor the whole classroom and identify early signs before a situation escalates. In the literature, this ability is described as withitness, or teachers' situational awareness in the classroom (Grub et al., 2022; Wolff et al., 2021). Recent studies further suggest that this difference is not limited to visual monitoring but also concerns diagnostic reasoning, as more experienced teachers are better able to connect observable classroom cues with students' learning-related characteristics (Kosel et al., 2024).

By contrast, novice teachers' perceptions are often more fragmented and focused on isolated events. They tend to concentrate on the most visible, striking, or loudest student behaviour, while other parts of the classroom may remain insufficiently monitored (Cortina et al., 2015; Goldberg et al., 2021). At the level of interpretation, novice teachers more often describe what they see, focusing on discipline and control issues. More experienced teachers, however, interpret classroom events in relation to students' cognitive engagement in the learning process at that moment (König & Kramer, 2015; Wolff et al., 2017; Yang et al., 2021).

External, school, and classroom context

Novice teachers' classroom management practices do not develop in isolation but within specific school and classroom contexts. High-quality mentoring programmes and cooperating-teacher support are described as important external conditions for novice teachers' professional development. Such support may help novice teachers move from control-oriented responses towards more preventive and supportive classroom management approaches (Sela & Harel, 2019; Tanase, 2023). Zach and Sindiani (2025) show that cooperating teachers' contributions to teacher preparation can be evaluated through dimensions such as modelling teacher behaviour, training and supervision, and involvement in lesson planning and implementation. This highlights the importance

of structured guidance and clearly defined support roles during practical teacher preparation.

The wider school environment also plays an important role. A safe school climate and accessible, supportive school leadership are associated with novice teachers' confidence in their abilities and their willingness to remain in the profession (Courtney et al., 2023). Similarly, purposeful cooperation with parents helps address student behavioural problems preventively (Courtney et al., 2023; Ghasemi, 2022).

The composition and microclimate of the specific classroom further shape the school context. Disruptive student behaviour is identified in the literature as a major cause of stress and attrition among novice teachers (Hằng et al., 2022; Çukur, 2022). In urban settings, classroom management may also be complicated by a cultural mismatch between the teacher and the student community (Tanase, 2023). Instructional design also emerges as an important situational factor. Differentiated tasks and student-centred lesson planning can reduce downtime and help prevent disruptive behaviour (Karasova & Nehyba, 2025). Weinberg et al. (2025), analysing 116 instructional unit plans, show that novice teachers often aim to design student-centred and action-oriented learning, although their plans may still remain teacher-directed and limit students' active participation. This suggests that lesson planning is closely connected with classroom management, as task structure can influence students' engagement, participation, and responsibility.

Synthesis of factors

Overall, novice teachers' classroom management practices are shaped by interrelated factors, including professional preparation, self-efficacy, emotional resilience, professional vision, the school support system, and the specific classroom context. A shift from reactive, discipline-oriented control towards preventive and supportive strategies is facilitated by professional self-efficacy, emotional self-regulation, practical experience, and targeted mentor support (Hirsch et al., 2021; Karasova & Nehyba, 2025; Lindström & Roberts, 2023).

Student behavioural responses to teachers' strategies

A relationship can be identified between novice teachers' classroom management approaches and students' behavioural responses. Preventive and supportive classroom management strategies are more often associated with higher student engagement, prosocial behaviour, and better academic outcomes. Positive teacher–student relationships and targeted autonomy support provide students with a psychological framework that helps them understand classroom rules and gradually develop responsibility for their own behaviour (Ghasemi, 2022).

The duration of the effects of different classroom management strategies also emerges as an important issue. Supportive methods, such as providing meaningful explanations and justifications for rules, may contribute to more sustained behavioural stabilisation, with effects lasting for more than 20 minutes (Karasova & Nehyba, 2025). In contrast, corrective and reactive directives, such as brief commands or warnings, often change

disruptive behaviour only temporarily, with effects lasting less than 5 minutes (Karasova & Nehyba, 2025). In the reviewed literature, proactive and supportive classroom management frameworks are associated with more sustained student self-regulation and more stable classroom functioning.

Overall, the results indicate that novice teachers' classroom management practices, the factors influencing these practices, and student behavioural responses are closely interconnected. Professional preparation, self-efficacy, emotional regulation, professional vision, and school support shape the strategies novice teachers use, which, in turn, are associated with distinct patterns of student engagement, self-regulation, and disruptive behaviour.

Discussion

This systematic literature review examined how novice teachers' classroom management practices relate to student behaviour and which factors influence these practices. The results show that this relationship is neither simple nor one-directional. Rather, novice teachers' classroom management practices are shaped by professional preparation, practical experience, teacher self-efficacy, emotional regulation, professional vision, school support, and classroom context. Therefore, classroom management in this review is interpreted not as a set of isolated techniques, but as a dynamic process in which teachers' actions and students' behavioural responses influence one another.

The findings support the problem identified in the introduction: a gap between student-centred educational principles and novice teachers' classroom management practices, in which corrective and reactive strategies often predominate (Shank, 2023). This gap should not be explained solely by novice teachers' individual difficulties. Rather, the results point to a broader issue in teacher preparation and early-career support. Studies show that teacher education programmes often emphasise subject content and general pedagogical models, while practical behaviour management skills remain underdeveloped (Hằng et al., 2022; Karasova & Nehyba, 2025). Under such conditions, novice teachers may rely more on reactive strategies, such as verbal directives, warnings, or punishments, because proactive classroom management techniques are not yet sufficiently developed (Karasova & Nehyba, 2025; Wolff et al., 2021).

The results also indicate that preventive, supportive and corrective strategies differ in the durability of their effects. In the literature, reactive and corrective responses, such as brief directives and warnings, are described as techniques that can interrupt disruptive behaviour at a specific moment, although their effect is often short-lived (Karasova & Nehyba, 2025). By contrast, preventive and supportive strategies, such as clear routines, meaningful explanations, justification of rules, and behaviour-specific praise, are associated with more sustained stabilisation of student behaviour and self-regulation (Karasova & Nehyba, 2025; Lindström & Roberts, 2023). This difference suggests that excessive reliance on reactive and corrective methods may contribute to a repeated cycle of reactive action, in which lessons are regularly interrupted by brief

corrections. The specific time-related findings on the duration of strategy effects should be interpreted with caution, as they are based on Karasova and Nehyba's (2025) study rather than on a broader set of comparable quantitative studies.

Therefore, effective classroom management is not limited to stopping unwanted behaviour; it also involves creating a safe and predictable environment in which students understand expectations and gradually develop responsibility for their own actions. This interpretation aligns with Cook et al.'s (2018) relationship-based approach to classroom management, which is used here as contextual literature rather than as part of the review synthesis.

Self-efficacy and emotional regulation also warrant careful consideration. In the included studies, lower teacher self-efficacy is associated with stress, anxiety, and a higher risk of burnout, while higher stress may increase the likelihood of impulsive and controlling responses (Sezer, 2017; Tolan et al., 2020). This interpretation is also consistent with previous review literature on teachers' preparation for behaviour management (Paramita et al., 2020), which is used here as contextual literature rather than as part of the review synthesis. However, these factors should not be interpreted only as individual teacher characteristics. They are also shaped by the professional environment, including the availability of support, feedback, and opportunities to analyse complex classroom management situations.

Differences between novice and more experienced teachers are particularly evident in professional vision and situational awareness. More experienced teachers are described as being able to monitor the classroom more broadly, notice early signs of disruption, and respond before situations escalate; this ability is captured by the concept of withitness (Cortina et al., 2015; Grub et al., 2022; Wolff et al., 2021).

By contrast, novice teachers' perceptions are often more fragmented and focused on visible or loud incidents, while wider classroom dynamics may remain unnoticed (Goldberg et al., 2021; Wolff et al., 2017). This difference is important because it shows that classroom management among novice and more experienced teachers may differ not only in the techniques used but also in how teachers perceive, interpret, and anticipate the development of classroom situations. Therefore, classroom management development involves not only learning specific methods but also developing professional vision, attention distribution, and situational interpretation.

The results address the research question by demonstrating how novice teachers' classroom management practices relate to student behaviour. The literature analysed shows that this relationship is reciprocal and context-dependent. The strategies used by teachers are associated with student engagement, self-regulation, and behavioural stability. At the same time, students' behavioural responses may influence teachers' subsequent actions, emotional state, and confidence in their professional abilities. This interpretation highlights the need to consider not only individual classroom management methods but also the conditions under which these methods are selected and implemented.

These results have practical implications for teacher education programmes and early-career support, though they should be interpreted with caution. Analyses of video examples, microteaching, simulations, virtual reality tools, and eye-tracking may support

the development of professional vision and attentional skills by enabling novice teachers to practise classroom management decisions in structured, lower-risk environments (Criss & Carreon, 2025; Kosel et al., 2021; Mikulec & Hamann, 2020; Mouw et al., 2020). Reflective work on critical incidents may also support novice teachers' professional awareness by helping them analyse challenging classroom situations and reconsider their pedagogical responses (Karim et al., 2024). However, these tools should be viewed as support mechanisms rather than independent solutions. Their value depends on feedback, reflection, and opportunities to connect simulated or video-based learning with authentic classroom practice. It should also be recognised that not all teacher education programmes have equal opportunities to implement such technological solutions.

The literature indicates that mentor support, accessible school leadership, and a professionally safe school climate may help novice teachers move from control-oriented responses towards more preventive and supportive approaches (Courtney et al., 2023; Sela & Harel, 2019; Tanase, 2023). In this context, both the presence of support and its practical quality are important. The results point to the need for targeted support that gives novice teachers specific feedback on classroom management situations, student responses, and their own professional choices. Such feedback may be especially valuable when supported by visualisations that make classroom interactions easier to analyse.

Several methodological limitations should be considered. The literature search was conducted in the Scopus database. It should be noted that using only Scopus may limit the scope of the study, as the analysis does not include sources indexed only in other databases, such as Web of Science, ERIC and PubMed. The search was also limited to English, which means that some relevant national-level publications may not have been included in the analysis. Another methodological limitation is that a formal quality appraisal or risk-of-bias assessment of the included studies was not conducted. The main aim of this review was to thematically analyse how novice teachers' classroom management, student behaviour, and the factors influencing these processes are described in the literature. Because the included studies were methodologically diverse, they were analysed at the thematic level rather than compared using a single methodological quality appraisal scale. Therefore, the findings should be interpreted as thematic patterns identified in the reviewed literature rather than as conclusions weighted by the methodological quality or risk of bias of individual studies. Future reviews could use a similar systematic search and thematic analysis approach in other databases, such as Web of Science and ERIC, to examine whether the literature indexed in these databases reveals similar thematic patterns. The review covered publications from 2015 to 2025, and four initially identified reports were excluded from the full-text analysis because their full texts were unavailable. The interpretation of the results is also affected by the use of teacher self-report surveys in some studies, as teachers' perceptions may not fully correspond to their actual classroom practice. Several qualitative studies also had small sample sizes. Although the review includes studies from different countries, cultural and educational differences should be considered when relating the findings to other contexts, including Latvian schools.

Future research should examine novice teachers' classroom management practices in specific national and school contexts, including Latvia. Longitudinal studies would be particularly valuable for tracking how these practices develop during the first years of teaching and under what conditions teachers move from reactive control towards preventive and supportive strategies. In the Latvian context, further research should examine which factors influence novice teachers' classroom management practices, how students respond to these strategies, and how novice teachers' practices differ from those of more experienced teachers. Further empirical research is also needed on how mentoring, reflective practices, video analysis, real-time feedback, and technology-based approaches influence teachers' self-efficacy, professional vision, and ability to manage student behaviour in authentic classroom situations.

Conclusions

This systematic literature review shows that novice teachers' classroom management practices and students' classroom behaviour are closely interrelated. In response to the first research question, the findings indicate that teachers' approaches are associated with student engagement, self-regulation, and behavioural stability, while students' responses may influence teachers' actions, emotions, and self-efficacy. Preventive and supportive classroom management approaches are more closely linked to sustained engagement and behavioural regulation, whereas corrective strategies may be necessary in specific situations but are more often associated with short-term responses to disruptive behaviour. This shows that the relationship between novice teachers' classroom management practices and student behaviour is reciprocal rather than one-directional. The Scopus-based review identified studies across diverse educational contexts; however, it did not identify studies specifically examining the relationship between novice teachers' classroom management practices and student behaviour in Latvia, indicating the need for further empirical research in Latvian schools.

In response to the second research question, the review shows that novice teachers' practices are shaped by professional preparation, practical experience, self-efficacy, emotional regulation, professional vision, and school support. Limited practical experience may lead to reliance on reactive strategies, whereas preventive and supportive approaches are more closely linked to engagement and behavioural regulation. Overall, effective classroom management requires planning, respectful teacher-student relationships, awareness of classroom dynamics, and professional responses to complex situations. Practice-oriented teacher education, mentoring, structured reflection, targeted feedback, and early-career support are important for helping novice teachers develop these skills.

AUTHOR NOTE

Generative AI statement

Generative AI (ChatGPT) was used only to support language editing, improve clarity, and refine academic wording. It was not used to generate the original ideas, design the methodology, conduct the analysis, interpret the results, or formulate the scientific conclusions. All methodological decisions,

analytical procedures, interpretations, and conclusions were developed, critically reviewed, and validated by the authors. The authors take full responsibility for the final version of the article.

REFERENCES

Amara, S., Hammoudi Nassib, S., & Mkaouer, B. (2015). Teaching process of future Tunisian physical education' teachers during a professional training. *Journal of Physical Education and Sport, 15*(4), 736–743. https://doi.org/10.7752/jpes.2015.04112

Aus, K., Jõgi, A.-L., Poom-Valickis, K., Eisenschmidt, E., & Kikas, E. (2017). Associations of newly qualified teachers' beliefs with classroom management practices and approaches to instruction over one school year. *European Journal of Teacher Education, 40*(1), 28–45. https://doi.org/10.1080/02619768.2016.1251897

Barmaki, R., & Hughes, C. E. (2015). A case study to track teacher gestures and performance in a virtual learning environment. In *Proceedings of the Fifth International Conference on Learning Analytics and Knowledge* (p. 420). Association for Computing Machinery. https://doi.org/10.1145/2723576.2723650

Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. SAGE Publications Ltd.

Canterbury, A. (2023). Measures of music teacher expertise in three early career levels in America. *International Journal of Music Education, 41*(1), 141–156. https://doi.org/10.1177/02557614221087478

Cervellione, B., Lombardo, E. M. C., & Iacolino, C. (2025). Psychological resources and interventions for teachers' emotional competence and well-being: A systematic review. *Frontiers in Psychology, 16*, 1640968. https://doi.org/10.3389/fpsyg.2025.1640968

Caspersen, J., & Raaen, F. D. (2014). Novice teachers and how they cope. *Teachers and Teaching: Theory and Practice, 20*(2), 189–211. https://doi.org/10.1080/13540602.2013.848570

Coen, C., Bocquillon, M., Baco, C., Vargas, E. G., & Delbart, L. (2024). What are the reported classroom management strategies of a sample of novice teachers in French-speaking Belgium, and what do they base their choices on? *European Journal of Education, 60*(1), e12857. https://doi.org/10.1111/ejed.12857

Cohen, J., Wong, V., Krishnamachari, A., & Berlin, R. (2020). Teacher coaching in a simulated environment. *Educational Evaluation and Policy Analysis, 42*(2), 208–231. https://doi.org/10.3102/0162373720906217

Cook, C. R., Coco, S., Zhang, Y., Fiat, A. E., Duong, M. T., Renshaw, T. L., Long, A. C., & Frank, S. (2018). Cultivating positive teacher–student relationships: Preliminary evaluation of the Establish–Maintain–Restore (EMR) method. *School Psychology Review, 47*(3), 226–243. https://doi.org/10.17105/SPR-2017-0025.V47-3

Cortina, K. S., Miller, K. F., McKenzie, R., & Epstein, A. (2015). Where low and high inference data converge: Validation of CLASS assessment of mathematics instruction using mobile eye tracking with expert and novice teachers. *International Journal of Science and Mathematics Education, 13*, 389–403. https://doi.org/10.1007/s10763-014-9610-5

Courtney, M., Karakus, M., Sharplin, E., Hernández-Torrano, D., Helmer, J., & Jumakulov, Z. (2023). The role of teacher selection criteria and preparation on teacher self-efficacy, satisfaction, and commitment: An analysis of Kazakhstani TALIS data. *Teacher Development, 27*(3), 394–414. https://doi.org/10.1080/13664530.2023.2176354

Criss, C. J. (2025). The effects of temporal timing of performance feedback on novice teachers' use of behavior-specific praise. *Education and Treatment of Children, 48*, 107–124. https://doi.org/10.1007/s43494-024-00135-y

Criss, C. J., & Carreon, A. C. (2025). Enhancing novice teacher practice through email performance feedback and immersive video within virtual reality. *Education and Treatment of Children, 48*, 173–190. https://doi.org/10.1007/s43494-025-00162-3

Çukur, H. S. (2022). Dealing with critical incidents: Experiences of Turkish novice EFL teachers. *LLT Journal: A Journal on Language and Language Teaching, 25*(2), 691–708. https://doi.org/10.24071/llt.v25i2.4946

Daniela, L. (2008). *Mācību disciplīna kā pusaudžu attieksmes izpausme pret mācībām.* [Classroom Discipline as Manifestation of Adolscents Attitude to Learning] [Doctoral dissertation, University of Latvia]. University of Latvia Repository.

Daniela, L. (2009). *Skolēni un mācību disciplīna*. [Students and academic discipline] Raka.

Davidova, J., & Zariņa, S. (2022). Perceptions by teachers-beginners of their preparation for pedagogical work at primary school during study at high education establishment in Latvia. In L. Gómez Chova, A. López Martínez, & J. Lees (Eds.), *ICERI2022 Proceedings* (pp. 2809–2815). IATED Academy. https://doi.org/10.21125/iceri.2022.0692

Dawson, M. R., & Lignugaris/Kraft, B. (2017). Meaningful practice: Generalizing foundation teaching skills from TLE TeachLivE™ to the classroom. *Teacher Education and Special Education, 40*(1), 26–50. https://doi.org/10.1177/0888406416664184

Dicke, T., Elling, J., Schmeck, A., & Leutner, D. (2015). Reducing reality shock: The effects of classroom management skills training on beginning teachers. *Teaching and Teacher Education, 48*, 1–12. https://doi.org/10.1016/j.tate.2015.01.013

Estaji, M., & Fatalaki, J. A. (2022). Teacher educators' perceptions of critical incidents in teaching practice: The case of novice EFL teachers. *East European Journal of Psycholinguistics, 9*(1), 30–47. https://doi.org/10.29038/eejpl.2022.9.1.est

Farrell, T. S. C. (2012). Novice-service language teacher development: Bridging the gap between preservice and in-service education and development. *TESOL Quarterly*, *46*(3), 435–449. https://doi.org/10.1002/tesq.36

Franco, D., Vanderlinde, R., & Valcke, M. (2023). Empowering novice teachers: The design and validation of a competence model to manage verbal aggressive behaviour in the classroom. *Education Sciences, 13*(10), 971. https://doi.org/10.3390/educsci13100971

Gage, N. A., Grasley-Boy, N. M., & MacSuga-Gage, A. S. (2018). Professional development to increase teacher behavior-specific praise: A single-case design replication. *Psychology in the Schools, 55*(3), 264–277. https://doi.org/10.1002/pits.22106

Ghasemi, F. (2022). Exploring middle school teachers' perceptions of factors affecting the teacher–student relationships. *Educational Research for Policy and Practice, 21*, 201–216. https://doi.org/10.1007/s10671-021-09300-1

Goh, P. S. C., Yusuf, Q., & Wong, K. T. (2017). Lived experience: Perceptions of competency of novice teachers. *International Journal of Instruction, 10*(1), 21–36. https://doi.org/10.12973/iji.2017.1012a

Goldberg, P., Schwerter, J., Seidel, T., Müller, K., & Stürmer, K. (2021). How does learners' behavior attract preservice teachers' attention during teaching? *Teaching and Teacher Education, 97*, 103213. https://doi.org/10.1016/j.tate.2020.103213

Grub, A.-S., Biermann, A., Lewalter, D., & Brünken, R. (2022). Professional vision and the compensatory effect of a minimal instructional intervention: A quasi-experimental eye-tracking study with novice and expert teachers. *Frontiers in Education, 7*, 890690. https://doi.org/10.3389/feduc.2022.890690

Gürel, R., Bozkurt, E., Yıldız, P., & Yetkin Özdemir, İ. E. (2022). An investigation on self-regulation activities of novice middle school mathematics teachers. *Journal of Pedagogical Research, 6*(4), 168–189. https://doi.org/10.33902/JPR.202213433

Hằng, N. V. T., Hằng, N. T., & Liên, N. T. (2022). Classroom management competence of novice teachers in Vietnam. *Cogent Education, 9*(1), 2124042. https://doi.org/10.1080/2331186X.2022.2124042

Heinsen, R. S. (2024). Gaze behavior reveals automaticity and attention allocation during music teaching vs. observing. *Journal of Eye Movement Research, 17*(2), 3. https://doi.org/10.16910/jemr.17.2.3

Hirsch, S. E., Randall, K., Bradshaw, C., & Lloyd, J. W. (2021). Professional learning and development in classroom management for novice teachers: A systematic review. *Education and Treatment of Children, 44*, 291–307. https://doi.org/10.1007/s43494-021-00042-6

Hou, N., & Alibakhshi, G. (2025). Career choice motivations as determinants of novice L2 teachers' pedagogical cognitions. *Current Psychology, 44*, 11540–11552. https://doi.org/10.1007/s12144-025-07938-1

Huang, X., Lin, C.-H., Sun, M., & Xu, P. (2022). Metacognitive skills and self-regulated learning and teaching among primary school teachers: The mediating effect of enthusiasm. *Metacognition and Learning, 17*, 897–919. https://doi.org/10.1007/s11409-022-09297-9

Hunter, W. C., Barton-Arwood, S., Jasper, A., Murley, R., & Clements, T. (2017). Utilizing the PPET mnemonic to guide classroom-level PBIS for students with or at risk for EBD across classroom settings. *Beyond Behavior, 26*(2), 81–88. https://doi.org/10.1177/1074295617711398

Karasova, J., & Nehyba, J. (2025). Novice teachers' classroom behaviour management: Situations, responses and impact on student behaviour. *British Educational Research Journal, 51*, 2116–2141. https://doi.org/10.1002/berj.4166

Karim, A., Amin, F., Kabilan, M. K., Reshmin, L., & Amin, E. U. (2024). Pre-service TESOL teachers' professional-awareness building through reflecting on reflections of critical incidents. *Asian-Pacific Journal of Second and Foreign Language Education, 9*, 52. https://doi.org/10.1186/s40862-024-00254-4

König, J., & Kramer, C. (2015). Teacher professional knowledge and classroom management: On the relation of general pedagogical knowledge and classroom management expertise. *ZDM Mathematics Education, 48*, 139–151. https://doi.org/10.1007/s11858-015-0705-4

Kosel, C., Bauer, E., & Seidel, T. (2024). Where experience makes a difference: Teachers' judgment accuracy and diagnostic reasoning regarding student learning characteristics. *Frontiers in Psychology, 15*, 1278472. https://doi.org/10.3389/fpsyg.2024.1278472

Kosel, C., Holzberger, D., & Seidel, T. (2021). Identifying expert and novice visual scanpath patterns and their relationship to assessing learning-relevant student characteristics. *Frontiers in Education, 5*, 612175. https://doi.org/10.3389/feduc.2020.612175

Lacy, C. P. (2024). *Novice middle school teachers' perceptions of classroom management and its impact on teaching effectiveness* [Doctoral dissertation, University of North Carolina at Charlotte]. University of North Carolina at Charlotte Digital Repository. https://ninercommons.charlotte.edu/record/3012/files/Lacy_uncc_0694D_13958.pdf

Lin, Y.-L. E. (2025). Multimodal interaction in EMI classrooms: How does ESP-EMI teacher collaboration make a difference? *Innovation in Language Learning and Teaching*. Advance online publication. https://doi.org/10.1080/17501229.2025.2574475

Lindström, E. R., & Roberts, G. J. (2023). Preparing teachers to facilitate engagement in reading intervention through embedded behavioral supports. *Intervention in School and Clinic, 59*(1), 29–39. https://doi.org/10.1177/10534512221130067

Lutz, S., Frey, A., Rank, A., & Gebhardt, M. (2024). InClass – an instrument to assess classroom management in inclusive and special education with a focus on heterogeneous learning groups. *Frontiers in Education, 9*, 1316059. https://doi.org/10.3389/feduc.2024.1316059

Martinsone, B., Nīmante, D. & Daniela, L. (2013). *Atbalsts pozitīvai uzvedībai (APU)*. Rokasgrāmata [Positive Behavior Support (PBS). Handbook]. Rīga, LU.

Margeviča-Grinberga, I., & Šūmane, I. (2024). Prospective teachers' perspectives on pedagogical challenges experienced during work-based learning. *Society. Integration. Education. Proceedings of the International Scientific Conference*, *1*, 194–207. https://doi.org/10.17770/sie2024vol1.7796

McGuire, S. N., Xia, Y., Guzy, A., Akoto, T. S., & Meadan, H. (2024). Behavior management training for teachers in the induction phase. *Psychology in the Schools, 61*, 2489–2507. https://doi.org/10.1002/pits.23176

Mikulec, E., & Hamann, K. (2020). "My eyes have been opened": Pre-service secondary teachers exploring behavior management through a microteaching project. *Action in Teacher Education, 42*(2), 102–119. https://doi.org/10.1080/01626620.2019.1612297

Miller, K. F., Correa, C., Cortina, K., Phelps, L., & Chamberlain, L. (2024). Learning from (re) experience: What mobile eye-tracking video can help us learn about the cognitive processes of teaching. *Frontiers in Education, 9*, 1299896. https://doi.org/10.3389/feduc.2024.1299896

Ministry of Education and Science. (2024, February 15). *OECD TALIS pētījumā izzinās skolotāju darba apstākļus un mācību vidi skolās* [OECD TALIS study to examine teachers' working conditions and learning environment in schools]. https://www.izm.gov.lv/lv/jaunums/oecd-talis-petijuma-izzinas-skolotaju-darba-apstaklus-un-macibu-vidi-skolas

Morady Moghaddam, M., & Tirnaz, M. H. (2024). Enhancing pedagogical practices: Insights from novice and experienced English language teachers. *Australian Journal of Applied Linguistics, 7*(1). https://doi.org/10.29140/ajal.v7n1.1177

Mouw, J. M., Fokkens-Bruinsma, M., & Verheij, G.-J. (2020). Using virtual reality to promote pre-service teachers' classroom management skills and teacher resilience: A qualitative evaluation. In *Proceedings of the 6th International Conference on Higher Education Advances* (pp. 325–333). Editorial Universitat Politècnica de València. https://doi.org/10.4995/HEAd20.2020.11049

Nīmante, D. (2007). *Klasvadība* [Classroom management]. Zvaigzne ABC.

Nīmante, D., & Daniela, L. (2014a). Evaluation methodology of the implementation of the program: "Positive Behaviour Support." In I. Nowosad (Ed.), *International Forum for Education*: Vol. 7. School quality and culture (pp. 162–183). Wydawnictwo Adam Marszałek.

Nīmante, D., & Daniela, L. (2014b). Programmas "Atbalsts pozitīvai uzvedībai" (APU) aprobācija Latvijas skolās [Approbation of the program "Support for Positive Behavior" (APU) in Latvian schools]. In D. Nīmante (Ed.), *Atbalsts iekļaujošai izglītībai: ESF projekta "Atbalsta programmu izstrāde un īstenošana sociālās atstumtības riskam pakļauto jauniešu atbalsta sistēmas izveidei" zinātnisko rakstu krājums* [Support for Inclusive Education: Collection of scientific papers of the ESF project "Development and implementation of support programs for the establishment of a support system for young people at risk of social exclusion"]. Latvijas Universitāte; Latgales druka (189.-215.lpp).

Nückles, M. (2021). Investigating visual perception in teaching and learning with advanced eye-tracking methodologies: Rewards and challenges of an innovative research paradigm. *Educational Psychology Review, 33*, 149–167. https://doi.org/10.1007/s10648-020-09567-5

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ, 372*, n71. https://doi.org/10.1136/bmj.n71

Paramita, P. P., Anderson, A., & Sharma, U. (2020). Effective teacher professional learning on classroom behaviour management: A review of literature. *Australian Journal of Teacher Education, 45*(1), 61–81. https://doi.org/10.14221/ajte.2020v45n1.5

Paula, L., & Grīnfelde, A. (2018). The role of mentoring in professional socialization of novice teachers. *Problems of Education in the 21st Century, 76*(3), 364–379. https://doi.org/10.33225/pec/18.76.364

Perera, R. M., & Diliberti, M. K. (2023, June 8). *Survey: Principals say they need better-trained teachers and more resources to address student misbehavior.* Brookings Institution. https://www.brookings.edu/articles/survey-principals-say-they-need-better-trained-teachers-and-more-resources-to-address-student-misbehavior/

Pierson, E. M. (2023). Preservice teacher education programs, novice teachers, and classroom management preparation. *International Journal of Undergraduate Research and Creative Activities, 13*(1). https://digitalcommons.cwu.edu/ijurca/vol13/iss1/2

Sela, O., & Harel, M. M. (2019). "You have to prove yourself, initiate projects, be active": The role of novice teachers in their own induction process. *Professional Development in Education, 45*(2), 190–204. https://doi.org/10.1080/19415257.2018.1441173

Sezer, Ş. (2017). Novice teachers' opinions on students' disruptive behaviours: A case study. *Eurasian Journal of Educational Research, 69*, 199–219. https://doi.org/10.14689/ejer.2017.69.11

Shank, M. K. (2023). Novice teachers' training and support needs in evidence-based classroom management. *Preventing School Failure: Alternative Education for Children and Youth, 67*(4), 197–208. https://doi.org/10.1080/1045988X.2023.2195361

Silva, R., Farias, C., & Mesquita, I. (2021). Cooperative learning contribution to student social learning and active role in the class. *Sustainability, 13*(15), 8644. https://doi.org/10.3390/su13158644

Slater, E. V., & Main, S. (2020). A measure of classroom management: Validation of a pre-service teacher self-efficacy scale. *Journal of Education for Teaching, 46*(5), 616–630. https://doi.org/10.1080/02607476.2020.1770579

Song, Q., Zheng, Y., Mao, X., Wang, Y., & Zhou, Q. (2025). Epistemic network analysis of novice and expert chemistry teachers' multimodal questioning and feedback behaviours. *International Journal of Science Education*. Advance online publication. https://doi.org/10.1080/09500693.2025.2586456

Sun, B., Xiao, W., Feng, X., Shao, Y., Zhang, W., & Li, W. (2020). Behavioral and brain synchronization differences between expert and novice teachers when collaborating with students. *Brain and Cognition, 139*, 105513. https://doi.org/10.1016/j.bandc.2019.105513

Tanase, M. F. (2023). First-year urban secondary teachers' responses to problematic behavior. *Preventing School Failure: Alternative Education for Children and Youth, 67*(4), 209–220. https://doi.org/10.1080/1045988X.2023.2177981

Tolan, P., Molloy Elreda, L., Bradshaw, C. P., Downer, J. T., & Ialongo, N. (2020). Randomized trial testing the integration of the Good Behavior Game and MyTeachingPartner™: The moderating role of distress among new teachers on student outcomes. *Journal of School Psychology, 78*, 75–95. https://doi.org/10.1016/j.jsp.2019.12.002

Wang, Y., Zai, F., & Zhou, X. (2025). The impact of emotion regulation strategies on teachers' well-being and positive emotions: A meta-analysis. *Behavioral Sciences, 15*(3), 342. https://doi.org/10.3390/bs15030342

Weinberg, A. E., Oster, N., Anayatova, D., & Jordan, M. E. (2025). Envisioning student roles in action-oriented pedagogies: Preservice teachers' plans for sustainability and climate education. *Environmental Education Research*. Advance online publication. https://doi.org/10.1080/13504622.2025.2575080

Whalen, C. (2025, May 29). *Running on empty: Teachers not prepared for increased challenging behaviors*. RethinkEd. https://www.rethinked.com/resources/teachers-not-prepared-increasing-challenging-behaviors/

Whewell, E., Caldwell, H., Tiplady, H., & Garrett, B. (2025). The power of pause: Experienced and novice teachers developing dimensions of expertise through video collaboration software. *Technology, Pedagogy and Education, 34*(3), 339–356. https://doi.org/10.1080/1475939X.2025.2454452

Wolff, C. E., Jarodzka, H., & Boshuizen, H. P. A. (2017). See and tell: Differences between expert and novice teachers' interpretations of problematic classroom management events. *Teaching and Teacher Education, 66*, 295–308. https://doi.org/10.1016/j.tate.2017.04.015

Wolff, C. E., Jarodzka, H., & Boshuizen, H. P. A. (2021). Classroom management scripts: A theoretical model contrasting expert and novice teachers' knowledge and awareness of classroom events. *Educational Psychology Review, 33*, 131–148. https://doi.org/10.1007/s10648-020-09542-0

Woodcock, S. (2024). First-year primary teachers' classroom management strategies: Perceptions of use, confidence and effectiveness. *Journal of Education for Teaching, 50*(2), 123–140. https://doi.org/10.1080/02607476.2023.2219218

Yang, X., König, J., & Kaiser, G. (2021). Growth of professional noticing of mathematics teachers: A comparative study of Chinese teachers noticing with different teaching experiences. *ZDM – Mathematics Education, 53*, 29–42. https://doi.org/10.1007/s11858-020-01217-y

Zach, S., & Sindiani, M. (2025). Pre-service teachers' evaluations of their cooperating teachers' contribution to their professional training: Questionnaire development. *Frontiers in Education, 10*, 1507154. https://doi.org/10.3389/feduc.2025.1507154

Zhukova, O., Pipere, A., Iliško, D., & Badjanova, J. (2018). Sustainability and unsustainability aspects of integration of novice teachers in the secondary school setting. *Society. Integration. Education. Proceedings of the International Scientific Conference*, *1*, 632–642. https://doi.org/10.17770/sie2018vol1.3243

Žydžiūnaitė, V., & Martinsone, B. (2024). Empowerment and power of a teacher through contributing to positive relationships and using positive discipline in the school environment: Teachers' experiences in two Baltic countries. *European Journal of Contemporary Education, 13*(1), 305–321.