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The ABCs of writing motivation: a systematic review of factors emerging from K–5 students' self-reports as influencing their motivation to write

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Motivation is essential for writing success. However, investigations of writing motivation in younger students often overlook the students' voices, basing instead—insufficiently—findings solely on teachers' and/or researchers' observations. The present systematic literature review highlights the importance of also listening to students' own perspectives. It synthesizes findings from empirical studies (1996–2020) in K–5 classrooms. Of 5,795 studies initially identified, 56 met the inclusion criteria and were qualitatively analyzed. The analysis yielded nine factors that influence writing motivation. They are presented as the *ABCs of Writing Motivation*, organized according to the first nine letters of the alphabet: (A) Appeal, (B) Beliefs, (C) Choice, (D) Difficulty, (E) Environment, (F) Feedback, (G) Goals, (H) Help, and (I) Instructor. We suggest that this can be a useful tool both for researchers and for teachers, as a checklist or source of ideas when planning writing lessons or interventions.

KEYWORDS

writing motivation, elementary education, K–5 grades, systematic review, self-report, digital tools

1 Introduction

Although writing is an essential skill associated with achievement in the educational, social, professional, and civic spheres (Graham et al., 2013), many students still struggle to develop the skills necessary for writing success (Troia, 2014). The acquisition of these skills requires extensive experience and takes many years (Bazerman et al., 2017). It is associated with challenges not only regarding skill development as such but also regarding *motivation for writing* (Oldfather and Shanahan, 2007). Researchers have described numerous practices intended to improve students' writing performance (Bingham et al., 2017; Graham and Harris, 2017; Graham et al., 2018), but many of those studies have failed to fully examine the role of writing motivation. As stated by Bruning and Horn (2000), we still have much to learn about how motivation to write develops. Hall and Axelrod (2014) argued that, as we attempt to fill that gap in our knowledge, "it is imperative that students' voices are reflected in research on writing in the affective domain" (p. 3).

Back in 2002, Sturgess et al. pointed to an increase in self-report assessment for children, arguing that "this increase is compatible with the increase in the use of client-centered practice

and other frames of reference that give clients—including children—a greater voice in their therapy" (p. 108). In fact, the United Nations Convention on the Rights of the Child (1989) was likely a major inspiration for the child orientation observed at that time. However, progress toward full client orientation has been slower in schools than in other domains, probably owing to the existence of strong hierarchical traditions. This is important, because resolving this mismatch between intention and practice might unveil effective pathways to activating students' motivational drives to write. While awaiting this, we may at least listen to what children have to say about the writing activities that they perform in the classroom, so as to learn more about what motivates them and what does not, because "[o] ccupation [...] is best understood from the perspective of the child engaged in it" (Sturgess et al., 2002, p. 108).

In the present article, we thus propose to gather knowledge about *factors influencing students' writing motivation*. Given the importance of the early years of instruction for the development of foundational writing skills and motivation (Graham et al., 2012a,b), we focus on the K–5 grades (ages 5–11). Following our primary goal of foregrounding the students' voices, we report findings only from empirical studies that specifically investigate writing motivation through *students' self-reports*. In addition, as a secondary goal, we seek to encourage researchers and practitioners to translate findings from the present study into motivating writing practices for young students. To facilitate this translation, we provide writing practice examples that may support the implementation of the identified factors into practice.

2 Literature review

2.1 Writing in the early years of elementary education

Writing in early ages involves socialization into becoming a writer. Within a social cognitive tradition, Graham (2018) proposes a revised writer(s)-within-a-community (WWC) model of writing, where he defines writing as a social activity that is shaped and constrained by the cognitive abilities of and differences between the individuals who engage in that activity as well as by the characteristics of the community in which writing occurs. In this line of thought, school classrooms are seen as writing communities where writing takes place and—it is to be hoped—develops.

Transitioning from novice to becoming a proficient writer is a complex process that normally requires formal instruction, plenty of experiences and practice, and many years to develop (Bereiter and Scardamalia, 1987; Bazerman et al., 2017; Alves, 2019). However, despite its complex nature, simple views of writing are often maintained in early educational settings and entail a focus on specific skills deemed to be required for the writing activity. Conventionally, three skills are identified: handwriting (typing), spelling, and composing skills (Kaderavek et al., 2009; Bingham et al., 2017). Under this threepronged approach, writing essentially requires a person to be able to recall and form letters (handwriting/typing), to put them together into words (spelling), and to put words together into texts to convey meaning (composing). However, as pointed out by Gerde et al. (2012), in early literacy settings, "writing is frequently confused with handwriting or penmanship" (p. 351), and sometimes too much focus is placed on handwriting and spelling activities that are disconnected from composition practice. What is more, although it follows from a more complex model of writing that the three above-mentioned components should be viewed as synchronous or complementary, Håland et al. (2019) noted that many teachers in first grade chose not to engage their students in any composition activities because they viewed the three skills as sequential. For this reason, many researchers have recommended a stronger focus on composition in the early years of elementary education, arguing that writing for communication makes writing meaningful (Gerde et al., 2012; Bingham et al., 2017; Håland et al., 2019)—and perhaps more motivating as well, given that composing is arguably more inspiring than handwriting for its own sake.

Finally, although practicing the above-mentioned component skills is fundamental and a necessary condition for children's writing development, it is not a sufficient condition. This is because early literacy success is determined by both *skill* and *motivation* (Graham et al., 2007; Walgermo et al., 2018; McTigue et al., 2019). Hence, as proposed by Klassen (2002, p. 177), studying "how motivational factors interact with writing is crucial in understanding young writers and their development."

2.2 Motivation to write

Motivation can be defined as any force whereby behavior is energized and directed (Reeve, 2012, p. 150), meaning that "energy gives behavior its strength, intensity and persistence," while "direction gives behavior its purpose and goal-directedness." Motivation is the result of a complex process that arises from various sources, such as beliefs, goals, values, emotions, needs, and environmental events (Reeve, 2012). This complex process has been investigated through seminal theories of motivation, such as expectancy-value theory (Wigfield and Eccles, 2000), attribution theory (Weiner, 1986), social cognitive theory (Bandura, 1994; Zimmerman, 2000), goal-orientation theory (Dweck and Leggett, 1988), and self-determination theory (Deci et al., 1999; Ryan and Deci, 2000). While all of these general theories have arguably advanced our knowledge about general aspects of motivation, many researchers have argued that "motivational constructs vary across domain[s] and should be studied at that level" (Wigfield, 1997, p. 59).

In line with such a domain-specific view on motivation, several researchers have identified major components of writing motivation. They have proposed different models, but there are often considerable similarities between them. To begin with, Troia et al. (2012) argued in favor of four broad components of motivation: (1) self-efficacy beliefs (Bandura, 1986, 1994), (2) goal orientations (Dweck and Leggett, 1988; Elliott and Dweck, 1988), including mastery goals and performance goals, (3) task interest (Hidi, 1990; Hidi et al., 2002) and value (Eccles et al., 1983; Wigfield and Eccles, 2000), and (4) outcome attributions (Weiner, 1986; Schunk, 1994). Similarly, Boscolo and Gelati (2018) suggested three main factors that influence students' motivation to write: attractiveness and value of the task, perceived writing competence, and beliefs about writing. Finally, Graham (2018, p. 266) highlighted the central position held by beliefs in social cognitive theory and proposed seven sets of beliefs that influence whether a person engages with writing or not, and which will be briefly presented here.

The first set includes judgments on the value of the task. The second concerns personal enjoyment of writing and its attractiveness as an activity. The third set involves perceptions of competence, influenced

by self-efficacy beliefs and views on the malleability of ability. The fourth set pertains to motivations for writing, including intrinsic and extrinsic factors, as well as goal orientations. The fifth set relates to expectations regarding success or failure. The sixth focuses on writer identities, which can be multiple and influenced by various factors like gender, ethnicity, and culture. Finally, the seventh set concerns beliefs about writing communities, encompassing their values, purposes, audiences, actions, and tools, which are shaped by individuals' interactions within communities and their social belongings.

The main differences between these three frameworks pertain to the amount of focus on writer identity and on the role of the community. However, there is obviously a clear overlap among Troia et al. (2012), Boscolo and Gelati (2018), and Graham (2018). This is logical, given that all three models ultimately stem from the same seminal theories of motivation.

2.3 Fostering students' motivation to write

Not surprisingly, the main elements of these models are reflected in recommendations given to ensure that instruction will foster motivation to write. For example, Bruning and Horn (2000) argued that four clusters of conditions are necessary for the development of writing motivation: (a) nurturing of students' positive self-beliefs, (b) fostering engagement through authentic writing tasks, (c) creating a supportive context that encourages positive teacher-student interactions and peer collaboration, and (d) building a positive environment that instills autonomy and positive attitudes toward writing. Camacho et al. (2021) found that these clusters aligned well with the teaching practices that they identified in their review.

However, Camacho et al. (2021) also caution that change was not seen in all motivation constructs investigated in their studies—some constructs (e.g., situational interest) appeared to be more malleable than others (e.g., self-efficacy beliefs). The authors argue that some of the interventions did not last long enough, and they posit—in line with Klassen (2002)—that "changing deeply-rooted beliefs about writing with brief interventions is challenging" (Camacho et al., 2021, p. 236).

This concept of *deeply rooted beliefs* about writing is often repeated in the literature, but in the case of K–5 students it deserves further consideration. This is because, given how young such students are, it is arguable how *deep* their beliefs about writing can actually have had time to grow. That is, self-beliefs and beliefs about writing at this age may be more malleable compared to older students. In fact, in a metaanalysis on reading self-efficacy, Unrau et al. (2018, p. 196) argues that the "reading self-efficacy of children in the elementary grades may be more susceptible to enhancement than in higher grades."

Finally, along similar lines, Boscolo and Gelati (2018, p. 72) emphasize the fundamental role of the teacher and argue that "helping students create a positive attitude toward writing and allowing them to feel able to write is the result of the strategies a teacher adopts."

2.4 Scope of the present review

Although a number of previous literature reviews addressing writing motivation have been published (Klassen, 2002; Troia et al., 2012; Ekholm et al., 2018; Camacho et al., 2021), none of them

synthesized findings with a focus on the students' own voices. That is, students' own perspectives and their teachers' observations have been synthesized "in unison," even though many studies have found that these two sources may diverge (e.g., Miller and Meece, 1997; Chohan, 2011; Paquette et al., 2013; Jones et al., 2016). In the case of motivation, this is also problematic given the internal nature of motivation, which means that observation alone is insufficient because it does not make it possible to tap into students' inner drives.

Sturgess et al. (2002, pp. 108–109) provide a three-pronged rationale for students' voices to be heard: first, "there is evidence that children hold a view about themselves which is unique, valid and stable over time"; second, there are sophisticated and reliable methods for children to present their views; and third, "children have a right to be intimately involved in the decisions being made about them." For these reasons, heeding students' voices is at the heart of every school in that it facilitates the development of a community of students who are engaged in the common endeavor of learning (Rudduck and Flutter, 2004).

To enable more age-specific recommendations for classroom practice to be given, the present review focuses specifically on the K–5 grades. Further, it targets studies that include at least one measure of motivation based on *students' self-reports* (e.g., questionnaires, surveys, or interviews). The research question it seeks to answer is the following: "What factors emerge from K–5 students' self-reports as influencing their motivation to write?"

3 Methods

This article uses the methodology of the systematic review (Gough et al., 2012), which is typically conducted in five steps: (1) framing the research question(s) that will guide the review (see above), (2) identifying relevant work through systematic literature search and predefined criteria, (3) assessing the quality of the studies identified, (4) summarizing evidence from the studies, and (5) discussing the findings (Khan et al., 2003). The present review follows the guidelines set out in the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA; Moher et al., 2009). Given that this review builds upon a prior review following the same methodology, we occasionally refer the reader to that publication for greater detail (see Alves-Wold et al., 2023).

3.1 Identifying studies

The review includes studies published between January 1, 1996, and April 1, 2020. The choice of 1996 as starting year was made for two reasons. First, Hayes's revised framework, which was published in 1996, reflects a new conceptualization of writing where affective components (such as motivation) are given a much more prominent role (Hayes, 1996). Second, as proposed by Alexander and Fox (2004, p. 50), the period from 1996 onward is the "Era of Engaged Learning," which represents a shift in how the literacy community perceives learners and emphasizes motivation. With regards to the end date, concluding the search in April 2020 excludes research published after the COVID-19 pandemics, which may have impacted student motivation during lockdown periods. Exploring whether such a change has occurred is an interesting starting point for newer reviews, in which 2020 is thus a relevant ending point. However, we remark that addressing such a shift falls outside the scope of our current study.

3.1.1 Systematic literature search

A thorough search of the literature was conducted using four different databases: ERIC, Academic Search Premier, PsycINFO, and Web of Science. The area of interest of the present review is at the intersection of three main topics, namely *writing*, *motivation*, and K-5 *students*. For each of them, related search terms were added. This yielded a total of 49 search terms, as shown in Figure 1.

The initial literature search returned 12,839 records. In the next step, depending on their availability within each database, limiters matching some of the inclusion criteria discussed below were applied, and a total of 7,047 studies were retrieved for screening. These studies were then exported to EPPI-Reviewer, a software tool for research syntheses, where 1,252 duplicates were removed, yielding a total of 5,795 studies that moved on to the screening stage. This process is summarized in Table 1.

3.1.2 Selection criteria

In EPPI-Reviewer, the remaining 5,795 studies were screened manually, first on title and abstract, and then on full text. Following the lead of Miller et al. (2018, p. 89), the inclusion criteria applied in both phases were divided into four categories: (a) publication: articles had to be written in English and published between January 1996 and April 1, 2020; (b) research: studies had to be empirical and peerreviewed; (c) topic: studies had to investigate students' motivation to write in L1 classroom settings; and (d) participants: studies had to focus on K–5 students in mainstream classrooms—studies were excluded if they were conducted in settings disconnected from school, such as writing camps (e.g., Olthouse, 2014), if they included older

students (e.g., de Smedt et al., 2019), or if their samples were composed only of students with disabilities (e.g., Adkins and Gavins, 2012) or second-language learners (e.g., Al-Hroub et al., 2019). In Phase 1 (screening on title and abstract), 5,434 studies were excluded, meaning that 361 studies remained. In Phase 2 (screening on full text, based on the same criteria), a further 267 studies were excluded, yielding a total of 94 studies. Similarly to Hakimi et al. (2021), these phases of screening were carried out by the first author, but with regular discussions with the other authors regarding uncertain cases.

The recursive nature of the process used to perform a systematic literature review allows researchers to adjust the procedures to maintain a focus on the research questions. In our case, we noticed at this stage that some studies did not directly investigate writing motivation but rather used it as a post hoc explanation for why students had been found to behave in specific ways. To make sure that the selected studies directly studied writing motivation and that the students' perspectives were included in them, a third screening phase was added, using the following two eligibility criteria: (a) studies had to include at least one research question about writing motivation (either explicitly stated in question format, or implicitly reflected in the goals and purposes of the study), and (b) studies had to include at least one type of student self-reported data on writing motivation (deriving, e.g., from surveys, questionnaires, or interviews). Further, any articles that met these criteria but focused solely on instrument development were excluded (e.g., Wakely et al., 2006; Limpo et al., 2020). In addition, to avoid overemphasizing particular studies in cases where multiple articles reported on the same data, the latest article was kept while previous ones were excluded (e.g., Li and Chu, 2018). In this Phase 3 of the screening process, 94 studies were screened on full text and 44 of them were excluded, resulting in a total of 50 studies. To ensure the reliability



TABLE 1 Total of records retrieved for screening.

Database	Initial search	Limiters applied	Records retrieved for screening
PsycINFO	1,244	Peer-reviewed, 1996-2020	551
ERIC	7,419	Peer-reviewed, 1996-2020	2,766
Academic Search Premier	1882	Scholarly, 1996–2020	1,542
Web of Science	2,294	1996-2020	2,188
	12,839		7,047
		Duplicates excluded	1,252
		Total for screening	5,795

of this screening step, a random selection of the articles (26 out of 94, i.e., 27%) were double-screened by the second author. The initial rate of inter-rater agreement was 92% (24 out of 26 articles), but a rate of 100% was achieved after discussion.

Finally, three hand-search procedures were conducted. First, we conducted *backward snowballing*, where we hand-searched the reference lists of all 50 studies; this yielded one additional study. Second, to identify newer studies, we conducted *forward snowballing*. For this search step, we used both Scopus and Google Scholar to identify all the papers that had cited the 51 studies, and we screened those references as described by Wohlin (2014). This yielded two additional studies, increasing the total to 53. Third, we hand-searched the reference lists of six relevant reviews/meta-analyses (Graham and Perin, 2007; Graham et al., 2012a,b; Troia et al., 2012; Ekholm et al., 2018; Camacho et al., 2021). This search returned three additional studies that met our criteria, meaning that the final total was 56 articles. For numerical data regarding each phase, see Figure 2.

3.2 Assessing the quality of the studies

To assess the quality of the 56 studies, we applied a methodologicalquality score, adapted from Miller et al. (2018, p. 90). Table 2 shows the six criteria used (see Alves-Wold et al., 2023, for additional details about scoring).

3.3 Coding and analysis of the studies

Following the lead of Reed et al. (2014), the coding process encompassed three stages In the first stage, all four authors developed a spreadsheet based on the research questions. This spreadsheet was then piloted by the first author. After multiple iterations, the final version was organized into four categories: (a) characteristics of the studies, (b) quality of the studies, (c) measures of writing motivation, and (d) factors affecting writing motivation. For a detailed discussion of these categories, see Alves-Wold et al. (2023). During the second stage of the coding process, the first author coded all studies included in the review (n = 56). The other three authors were available to discuss particularities of the coding. In the third and final stage, the second author double-coded all 56 studies. Any discrepancies between the two researchers' scores were resolved through a second review and discussion of discrepancies. This yielded 100% consensus.

3.3.1 Characteristics of the studies

The studies were coded for the following eight characteristics: name of scientific or scholarly journal, year of publication, country where the study was carried out, number of participants, participants' grade level(s), research method, whether the study was an intervention, and a summary of the main findings (see Supplementary Table S1 for an overview).

3.3.2 Measures

Studies were coded for type of writing task, type of student selfreport, and details about the measures used in the studies—such as whether a measure was administered in a group or individually. In addition, we coded for triangulation data in the case of studies combining student self-report data with other types of data, such as observation or parent surveys.

3.3.3 Factors affecting writing motivation

Both *deductive* and *inductive content analyses* (Moser and Korstjens, 2018) were used to code the data regarding factors affecting writing motivation. First, components of writing motivation (e.g., interest, value, beliefs) that had been derived from theory (Troia et al., 2012; Boscolo and Gelati, 2018; Graham, 2018) were used to categorize data deductively in a coding matrix. Then additional categories were added inductively to accommodate observations made during coding. Finally, related concepts in the coded material were grouped together. This yielded the clusters of factors that constitute the main findings of the present review.

Given the variety of self-reports (e.g., interviews, surveys, drawings) used in the studies included, it is appropriate to comment specifically on how different types of data were coded as representations of students' voices. First, it is important to remark that some types of self-report give more room for students to express their unique views. For example, longer interviews including open-ended questions may give more room for students to express their opinions than short surveys containing closed-ended questions. However, this does not mean that open-ended questions necessarily provide greater insight into the students' perspectives than closed-ended ones. In fact, depending on the wording of the questions asked and on the types of answers provided, in some cases closed-ended questions may yield a more detailed picture of students' motivation profiles, perhaps because they provide students with some helpful scaffolding. Second, even though some types of self-reports may be less flexible in this respect, giving students the opportunity to express their viewpoints through any type of *self*-report at least allows them to speak their mind. For



this reason, we have chosen to include all of these different types of self-report in the present review.

Based on this broad understanding of students' voices, the factors identified in the present review emerged from students' answers to closed- and open-ended questions regarding their motivation. However, it should be pointed out that the researchers who conducted the studies included in the review tended to identify motivational factors, particularly in the case of closed-ended questions, by interpreting either the *content* expressed in self-reports or the *characteristics of interventions implemented* (in cases where pre- and post-intervention comparisons showed significant differences in motivation levels). Regarding *content*, this was interpreted both in terms of *motivation constructs* and in terms of the *characteristics of the writing task*. For instance, in Mata (2011), three motivation constructs (value, self-concept, and enjoyment of writing) were measured, and *specific motivation constructs* were recognized as factors influencing motivation levels. By contrast, in

Merisuo-Storm (2006), students' preferences for specific writing activities (e.g., writing stories, writing poetry, or writing to a penfriend) were investigated. Based on the students' choices, the author argued that, to interest boys, "the writing task should have a meaningful purpose or a communicative function" (Merisuo-Storm, 2006, p. 111). Hence these *characteristics of the writing task* were interpreted as factors influencing the students' levels of writing motivation.

Self-reports were also used in various studies as benchmarks to measure students' levels of motivation before and after an intervention, on the assumption that such changes were influenced by *characteristics of the intervention*. For example, Hier and Mahony (2018) measured students' self-efficacy before and after a performance-feedback intervention, reporting increased levels of self-efficacy. Hence certain characteristics of the intervention implemented, such as feedback and focus on task effort, were interpreted as factors influencing the students' levels of writing motivation.

Methodological characteristic	Scoring options (Maximum total score = 14 points)	Distribution of characteristics among 56 reviewed studies	
		Frequency (n)	Percent (%)
Explicates theory and/or previous research in a way	Narrow sample (<10) = 1 point	37	66
that underpins the wording of the question(s)/ $% \left(\left({{{\left({{x_{ij}} \right)}}} \right) \right)$	Partially = 1 points	19	34
<pre>purpose(s)/objective(s), which must be possible to investigate empirically</pre>	Small sample (>10 and <100) = 2 points	0	0
Research method	Quantitative or qualitative methods = 1 point	32	57
	Mixed methods = 2 points	24	43
Sample size	Narrow sample (< 10) = 1 point	7	13
	Small sample (>10 and < 100) = 2 points	27	48
	Medium sample (> 100 and < 300) = 3 points	17	30
	Large sample (> 300) = 4 points	5	9
Refers to/uses relevant theory to justify choice/design	Explicitly = 2 points	19	34
of motivation measure	Implicitly=1 point	27	48
	Does not refer to relevant theory = 0 points	10	18
Characteristics/evidence of validity, reliability,	Reported = 2 points	51	91
credibility, and/or trustworthiness are (addressed and) reported	Not reported = 0 points	5	9
Findings and conclusions are legitimate or consistent	Narrow sample (<10) = 1 point	51	91
with data collected	Small sample (>10 and <100) = 2 points	5	9

TABLE 2 Criteria for assessing the methodological quality of the studies.

Comprehensive considerations regarding the coding procedures of the included studies in this review and the analysis and organization of the factors identified in these studies is provided in Alves-Wold (2024, section 3.3).

4 Results and discussion

In this section, we first present general characteristics of the studies reviewed, followed by a brief analysis of their quality and a brief account of the measures used to capture the students' responses. Then we present our findings related to the overarching research question of this review: "What factors emerge from K–5 students' self-reports as influencing their motivation to write?" For a brief description of the studies included, see Supplementary Table S1.

4.1 Characteristics of the studies

4.1.1 Period

There seems to have been a recent increase in the number of studies about writing motivation in K–5 classrooms, as almost 70% (38 out of 56) of the studies reviewed were published in the last decade rather than between 1996 and 2009.

4.1.2 Place

Almost 60% of the studies were conducted in North America: the United States (n=28), Canada (n=4), and Mexico (n=1). Asia was the second-most represented continent with 28% of the studies: Turkey

(n=9), China (n=2), and Indonesia, Jordan, Singapore, and Taiwan (all n=1). Europe contributed 11% of the studies: Finland (n=2) and Cyprus, Italy, Portugal, and Sweden (all n=1). Finally, Oceania contributed a single study, from Australia.

4.1.3 Publication

The studies were published in 40 peer-reviewed journals, with the most represented journals being *Early Childhood Education Journal* (n=4), *Reading Psychology* and *Reading & Writing Quarterly* (both n=3), and *Education*, *Elementary School Journal*, *Reading Improvement*, *Reading Horizons*, and *International Electronic Journal of Elementary Education* (all n=2).

4.1.4 Participants

A single grade level was investigated in 70% of the studies (n=39). Most (n=28) focused on higher grade levels: 5th (n=13), 4th (n=9), and 3rd (n=6), while less than one-third (n=11) focused on lower levels: kindergarten (n=6), 1st (n=2) and 2nd (n=3). More than one grade level was investigated in 30% of the studies (n=17), with the most common combinations being 2nd and 3rd (n=3) and 4 and 5th (n=3). Only one study included participants from all six grades.

4.2 Quality of the studies

A methodological-quality score (MQS) was awarded to each study, as described in Table 2. Scores ranged from 4 to 13 points (maximum possible=14), and the mean, median, and mode values were very similar to each other (mean=10.23, median=11, and



mode = 11). Almost three-quarters of the studies scored above 70% and only two studies scored below 50%. Table 2 shows frequency distributions for each MQS category (for a detailed discussion of the MQS, see Alves-Wold et al., 2023). In general, these quality ratings suggest that the corpus of the present review is characterized by methodological rigor.

4.3 Measures

Motivation constructs were measured using three main types of self-reports: (a) interviews, (b) surveys and questionnaires, and (c) alternative written responses, such as students' completion of the metaphorical sentence "Writing is like ... because ..." (Erdoğan and Erdoğan, 2013) and drawings (Zumbrunn et al., 2017). The results indicate that surveys and interview questions measuring students' *attitude* toward writing represent the most common type of self-report (for a comprehensive review of the studies' assessments of writing motivation, see Alves-Wold et al., 2023).

4.4 What factors emerge from students' self-reports as influencing their motivation to write?

Based on our categorization of factors, as described in the Method section, nine clusters of factors were identified. For simplicity, we will refer to these identified *clusters of factors* as simply *factors*. Further, as this review is also intended for teachers and teacher trainers, to ensure

the memorability of the nine factors, we present them listed alphabetically from A to I, and refer to them as the ABCs of Writing Motivation. The nine factors are as follows: (A) Appeal, (B) Beliefs, (C) Choice, (D) Difficulty, (E) Environment, (F) Feedback, (G) Goals, (H) Help, and (I) Instructor. Figure 3 shows the overall prevalence of these factors across the studies, broken down into three methodological types: qualitative, quantitative, and mixed-methods studies. It is clear from this breakdown that some factors are more prevalent in studies using specific types of methodology. For example, the Difficulty factor is present in 23% of the qualitative studies (3 out of 13) and in 32% of the mixed-methods studies (8 out of 25), but only in 6% of the quantitative ones (1 out of 18). This could be an indication that methodologies including open-ended questions give students more room to express their "unique views," as mentioned above and as described by Sturgess et al. (2002, p. 108). Supplementary Table S2 provides an overview of the factors identified in each study.

In this section, we present the factors in alphabetical order along with examples of *practices* and *students' utterances* to illustrate the contexts in which the various factors have been identified. Table 3 presents an overview of these factors, their motivational focus, and writing practice examples that may support those foci. It is important to keep in mind that, although these factors are presented separately, they are often highly intertwined. For instance, offering students *choice* can be of little value for their motivation if the options available have no *appeal* for them.

4.4.1 Appeal

The *appeal of the task* was identified as a factor in more than half of the studies reviewed (n = 30). This includes studies where reference

TABLE 3 Practice examples.

Motivational factor	Focus	Practice examples
Appeal	Offering appealing tasks that students experience as interesting, authentic.	 Dramatic play center (Ihmeideh, 2015) Play-based activities (Boscolo et al., 2012) Apps where characters come to life (Sessions et al., 2016)
	Fostering students' positive self-beliefs.	 Exploring videoclips of peers working on writing (Grenner et al., 2020) Showcase portfolios (Hillyer and Ley, 1996)
Beliefs	Nurturing functional <i>beliefs about writing</i> , including explicitly communicating the value of writing.	 Authentic material (Boyacı and Güner, 2018) Authentic writing tasks (Mata, 2011) Process portfolios (Nicolaidou, 2012)
	Helping students adopt a growth mindset regarding their <i>beliefs about success and failure.</i>	• Writer's workshop enhanced with instruction in self-regulation and growth mindset (Schrodt et al., 2019)
Choice	Providing students with opportunities to choose: <i>what</i> to write;	Choices regarding topic and genre (Hall and Axelrod, 2014)
	<i>how</i> to write (choice between paper-based assignments, including letters and posters, and digital assignments, including emails, wikis, and blogs);	 Online blogs (Nair et al., 2013) Wikis (Li and Chu, 2018) Posters advertising community events or goods (Teague et al., 2010)
	<i>where</i> to write (allowing students to choose other environments than school, such as their home, or digital environments);	Writing at home (Abbott, 2000)Game-based writing environment (Liao et al., 2018)
	for <i>whom</i> to write (allowing students to choose other audiences than the teacher, such as peers living far away, family members, or communities).	 Schoolwide mailing program (Chohan, 2011) Writing to local and distant peers (Gallini and Zhang, 1997)
Difficulty	Offering tasks that present a certain degree of complexity but that students feel able to take on and handle successfully.	 Collaboratively writing multiple paragraphs (Miller and Meece, 1997) Challenging writing tasks (Miller and Meece, 1999)
Environment	Creating positive and supportive writing environments.	 Collaborative writing (Li and Chu, 2018) Cross-age tutoring program (Paquette, 2008) Classrooms with a high level of self-regulated learning (Perry, 1998)
Feedback	Providing concrete and supportive feedback.	 Peer feedback (Seban and Tavsanli, 2015) Growth-mindset feedback (Truax, 2018) Teacher feedback encouraging revisions through advice (Silver and Lee, 2007) Student-teacher writing conferences (Snyders, 2014)
Goals	Providing opportunities for students to pursue and achieve personal writing goals.	Showcase portfolios (Hillyer and Ley, 1996)Rubrics (Bradford et al., 2016)
Help	Facilitating the writing process.	 Six-stage story structure (Chen and Liu, 2019) Word processors (Beck and Fetherston, 2003) Artmaking as a motivational entry point (Andrzejczak et al., 2005) Modeling (Hertz and Heydenberk, 1997)
Instructor	Planning, implementing, and evaluating practices that foster students' writing motivation.	 Asking students about their preferences (Jones et al., 2016) Modeling positive writing attitudes (Zumbrunn et al., 2019) Cooperating with teaching artists (Lee and Enciso, 2017)

is made to writing tasks being *enjoyable*, *fun*, or *engaging* (e.g., Mata, 2011; Liao et al., 2018; Chen and Liu, 2019), such as play-based activities (e.g., Boscolo et al., 2012; Kanala et al., 2013) or apps where students could see the characters in their stories come to life (Sessions et al., 2016). In those studies, suggestions for how to increase writing motivation often involved practices incorporating both *interesting* and *authentic* writing activities, such as writing birthday cards (Perry et al., 2003) or documenting real-world science (Gallini and Zhang, 1997), which were presented as appealing (e.g., Merisuo-Storm, 2006; Boyacı and Güner, 2018). Creative-writing activities that allow self-expression were proposed for both lower and higher grades (e.g., Babayigit, 2019;

Göçen, 2019; Zumbrunn et al., 2019). Moreover, it was recommended to focus less on the mechanics in lower grades and to provide students with opportunities to write for communication, such as writing in a dramatic play center (Ihmeideh, 2015). Examples given of demotivating writing tasks include summarizing texts (Kholisiyah et al., 2018), writing responses about books and texts read (Leroy, 2000), and preparing for mandated writing exams (Tunks, 2010, p. 7).

One notable finding concerns the importance of consulting students to check the correctness of teachers' assumptions regarding the appeal of a task. For example, Jones et al. (2016) compared preferences regarding two spelling practices: rainbow writing and retrieval practice. They argued that rainbow writing was likely popularized because teachers believe that children enjoy it. However, when the students' own views were checked, it appeared that they not only preferred retrieval practice, but also felt that they learned more from it. The authors conclude by pointing out that even when teaching methods have been developed to be fun and innovative, this requires empirical support.

4.4.2 Beliefs

Approximately two-thirds of the studies reviewed (n=37) mentioned *beliefs*. Three main types were identified: (a) self-beliefs, (b) beliefs about writing, and (c) beliefs about reasons for success or failure.

4.4.2.1 Self-beliefs

Various aspects of *self-beliefs* were explored in the studies, including the students' *confidence* in writing (e.g., Unal, 2010; Hall et al., 2017), their *self-efficacy beliefs* and *self-concept* (e.g., Mata, 2011; Bayraktar, 2013; Grenner et al., 2020), and their *writer identities* and *perceptions about themselves as writers* (e.g., Chohan, 2011; Snyders, 2014). In essence, these studies indicated that students who have *positive self-beliefs* regarding their *writing abilities* and *writer identities* are more motivated to write. For instance, Hall et al. (2017) found that kindergartners' experience with reading and writing informational texts increased their self-efficacy beliefs, which positively affected their interest in informational text. This finding aligns with Bandura's (2002, p. 3) theory of change, according to which *mastery experience* (i.e., experience of successful completion of a task) is the "most effective way of creating a strong sense of efficacy."

Another practice highlighted as beneficial in fostering fourthgrade students' positive self-beliefs was the use of process *portfolios* (Nicolaidou, 2012). However, the author remarked that these results were "mediated by feedback given and received" (p. 18). Similar findings were reported by Hillyer and Ley (1996), who argued that the use of *showcase portfolios* (i.e., collections of one's best work to demonstrate skills and achievements), together with *conferences* where students discussed characteristics of their two best writing pieces (as chosen by themselves) with the researchers, increased the students' ability to identify strengths and weaknesses in their texts and led to positive changes in how they saw themselves as writers.

4.4.2.2 Beliefs about writing

Regarding *beliefs about writing*, it emerged that students need to see the *value* of the writing tasks that they engage with in order to want to execute them (e.g., Akyol and Aktaş, 2018). Even if students feel competent in their writing abilities (i.e., have positive self-beliefs), they may still not be motivated to write if they believe that writing is not a *valuable*, *important task* (i.e., have negative beliefs about the task). In a survey of 451 kindergartners' responses about *enjoyment*, *value*, and *self-concept* as regards reading and writing, *value* emerged as the "strongest motive" for literacy activities (Mata, 2011, p. 288).

The students' beliefs about the value of writing also seemed influenced by *views shared in the writing communities* in which they participated. Teague et al. (2010) found that first and fourth graders shared their parents' and teachers' favorable views of *school-based literacies*. While teachers cannot easily change the shared views of large writing communities, they may exert a strong influence on their students' beliefs about the value of *classroom writing activities*. For example, Nair et al. (2013) found that, in classrooms where teachers expressed that they took *online assignments* less seriously, this view was seemingly adopted by their students, who had higher submission rates for *paper-based assignments*. Hence teachers should be aware of how they may influence their students' beliefs about the value of writing activities, and—as suggested by Bruning and Horn (2000, p. 28)—should strive to nurture "functional beliefs about writing" in their classrooms.

Students' beliefs about the value of writing were also linked to their beliefs about what "good writing" is. That is, while some students (especially in the lower grades) characterized good writing in terms of mechanics, such as having neat handwriting (e.g., Beck and Fetherston, 2003; Paquette et al., 2013), others characterized it in terms of communication such as expressing ideas and being creative (e.g., Hall and Axelrod, 2014). This, in turn, affected their self-beliefs and their motivation to write. In addition, these beliefs about what good writing entails also seemed to influence the accuracy of the students' perceptions of writing self-efficacy. For example, Kim and Lorsbach (2005) found that, although kindergarten and first-grade students' own self-efficacy ratings were mostly (14 out of 18) consistent with their teachers' ratings, the cases where students overestimated their own competence could in part be explained by those children's beliefs about writing. Specifically, three of the students who reported high self-efficacy scores despite receiving low writing-development ratings from their teacher defined writing as "knowing the alphabet," while students with high self-efficacy and high writing-development ratings instead defined writing as "a way to communicate what they were thinking" (p. 169). Differences in the students' abilities also influenced their beliefs about the necessary processes involved in writing. Seban and Tavsanli (2015, p. 227) found that although low-, average-, and high-achieving second graders all indicated that making drafts improves writing, high achievers did not consider revision "as a normal process," suggesting a belief on their part that revising is something that only struggling writers do. However, some high achievers did mention that they would revise their texts if they received suggestions for changes that made sense to them.

4.4.2.3 Beliefs about reasons for success or failure

Finally, in line with attribution theory (Weiner, 1986; Schunk, 1994), the third type of belief that emerged as influencing the students' motivation to write was their beliefs about reasons for success or failure (e.g., Hier and Mahony, 2018; Schrodt et al., 2019). In other words, the stories that writers tell themselves about how their success or failure came about may influence their motivation. In a study of 198 first graders, Wilson and Trainin (2007, p. 227) found that "students with higher literacy achievement articulated more internal attributions focused on efforts, while students with lower literacy achievement attributed their performances to external factors." Further, Truax (2018) found that the students who showed the most motivational growth over a 25-week intervention were those who adopted a growth mindset (i.e., the belief that abilities improve through effort and learning) and acknowledged the contributory role of their own effort in relation to their writing success. According to the author, the teachers' feedback promoting a growth mindset was also fundamental for the students' motivation, and the students' growth-mindset development reached its full potential when they realized that they could seek feedback to increase their writing ability.

4.4.3 Choice

The *Choice* factor was present in one-fourth of the studies (n=14). It seems clear that "giving students choices about what they will write" is an important condition for enhancing motivation (Bruning and Horn, 2000, p. 28). However, students' self-reports indicated that, in addition to valuing the ability to choose *what* to write, they also value being allowed to choose *how* to write, *where* to write, and whom to write *for*.

4.4.3.1 What to write

In terms of *what to write*, being able to choose a *topic* and *genre* and being allowed to *write about interesting topics* is often referred to, in the students' self-reports, as motivating. For example, a fifth grader quoted in Zumbrunn et al. (2019, p. 8) expressed that writing is fun "when I get to pick my own cool topic." Students also indicated valuing *autonomy* in their writing, as illustrated by another student in the same study who stated that "writing is fun when you write freely without anybody telling you what to write or what not to write" (p. 8). The students' perception of *freedom* in their writing was also reflected in their choice of words. In Nolen (2007, p. 251), children referred to "teacher-controlled writing" as an *obligation*, using expressions such as "we have to," but they referred to "student-controlled writing" as a *privilege*, using expressions such as "get to." The authors remarked that "get to' is used when people feel that they are doing something they would choose to do on their own" (p. 252).

However, there are some caveats when it comes to choice as a motivating factor. For example, in Seban and Tavsanli (2015, p. 226), two low-achieving second graders indicated that writing on a "given topic is better," and one expressed that "finding a topic is hard." Indeed, as remarked by Hall and Axelrod (2014, p. 11), although children appreciated choosing a topic within assigned genres, they also appreciated receiving *help* from their teachers when needed, as expressed by a fifth grader: "I like getting an idea of what to write out or else I'm kinda stuck and having a little trouble."

4.4.3.2 How to write

Being able to choose *how to write* also emerged as an influential factor, including with regard to aspects such as *group size* and *tools* used for writing. While *collaboration* and *group activities* are highlighted by various studies as motivational (e.g., Paquette, 2008; Kanala et al., 2013), fourth and fifth graders with higher levels of self-efficacy indicated a preference for working on their own instead of in a group (Gallini and Zhang, 1997). Students also valued being able to choose what writing *tools* to use, with some preferring digital tools and others preferring conventional paper-based assignments (Nair et al., 2013).

4.4.3.3 Where to write

Choosing *where to write* was also appreciated by students in selfreports, particularly regarding the *home* versus *school* settings. For example, whereas a third grader expressed that it was easier to concentrate at home (Hall and Axelrod, 2014), some fourth graders complained that, when they had not finished a writing assignment in school, they were not able to write well at home (Li and Chu, 2018).

4.4.3.4 Whom to write for

Finally, being allowed to choose *whom* they write for or to was also regarded as positive by students. In particular, they appreciated

writing for *real audiences*—which often meant audiences beyond the classroom. For instance, Gallini and Zhang (1997) found that 65% of the 84 fourth and fifth graders in their study preferred writing to longdistance peers over writing to classmates. However, sharing one's texts with others was not always experienced as positive by students, especially those in higher grades. In Hall and Axelrod (2014), three students in fourth and fifth grade expressed negative feelings about doing so, particularly if their writing was personal or if they doubted its quality. Merisuo-Storm (2006) also found that above all boys (one-fourth of 67 fourth-grade boys) indicated that they would hate having their texts read by other students. In cases where positive attitudes toward sharing were observed, these were found to be dependent not only on *opportunities for making choices* but also on whether the writing community in which the students participated was characterized by a *positive sharing culture*.

The concept of choice thus interacts with many other factors. It seems apt to conclude with the recommendation put forward by Troia et al. (2012) of providing students with autonomy and "permitting *choice* whenever possible" (pp. 11–12; italics ours).

4.4.4 Difficulty

The *difficulty of writing tasks* was identified in various ways as a factor in more than one-fifth of the studies reviewed (n = 12). Indeed, according to Oldfather and Shanahan (2007), writing is inherently difficult and may hence entail challenges for motivation. In Ihmeideh (2015) 9 out of 14 first and second graders reporting that they did not like writing explained that this was because writing is *difficult*. Similarly, in Hall and Axelrod (2014, p. 16), children from kindergarten to fifth grade expressed negative feelings toward writing and often linked those feelings to "the *difficulty* and *complexity* of writing including figuring out how to spell and use punctuation, writing lengthy sentences, and organizing thoughts and ideas" (italics ours).

It is important to emphasize that difficulty in itself is not demotivational. By extension, nor are easy tasks necessarily motivational. Although some students (especially low achievers) showed a preference for simpler writing tasks, such as writing short texts (Seban and Tavsanli, 2015; Boyacı and Güner, 2018), Miller and Meece (1999) found that third graders' responses to open-ended questions actually revealed a strong distaste for low-challenge writing tasks (e.g., worksheets with vocabulary, spelling, and handwriting exercises), which the students described as "boring, meaningless, and minimally challenging" (p. 28). Kim and Lorsbach (2005, p. 164) argued that this represents "a convincing argument against classroom practices that 'teach to the middle." Hence it would appear essential to present students with writing tasks that are neither too easy nor too difficult.

Going beyond this rather commonsensical conclusion, however, Boscolo and Gelati (2018, p. 58) remark that, to be *both challenging and motivational*, it is not sufficient that a task is complex yet feels manageable to students—they must also experience the outcome of the task as *pleasing*. Moreover, given the multitude of skill levels represented in the typical classroom, it is important to remember that writing activities can be challenging at different levels and can offer good opportunities for collaborative work. Miller and Meece (1997) argue that collaboration can minimize competition among students and create a supportive *environment*, where students can help each other achieve their writing *goals* (see also the sections below on the *Environment* and *Goals* factors). A further point worth mentioning in this context, given that it is in the nature of complex writing tasks that they take considerable time to complete, is that students mention having too little time as demotivating (Hall and Axelrod, 2014).

Finally, Miller and Meece (1999) point out that students must be given enough exposure to highly challenging tasks in order to become accustomed to this type of activity. The authors note that, in classes where students had been exposed to numerous opportunities to engage in high-challenge tasks, they preferred those activities "because they felt creative, experienced positive emotions, and worked hard" (p. 28).

4.4.5 Environment

The *environment* is identified as a factor in almost 40% of the studies (n=21). According to children's self-reports, there are three kinds of environment that influence their motivation to write: (a) their physical environment, (b) their social environment, and (c) their psychological environment.

4.4.5.1 The physical environment

In line with Graham (2018) definition of *physical environment*, this includes any place where people can meet in person as well as *digital* arenas such as chatrooms. In the children's responses, physical environments deemed to facilitate writing were commonly characterized by being "free from noise," as verbalized by a second grader who described her ideal location: "I'd like to write in the quietest building in the quiet world that has quiet things with no intercoms and no cameras" (Hall and Axelrod, 2014, p. 13). Whereas quiet places were identified as positive environments for writing, *noise* and *distractions* were generally referred to as negative influences on students' motivation.

4.4.5.2 The social environment

Again, in accordance with Graham (2018), the *social environment* encompasses the relationships among the members of a writing community, including "writers, collaborators, readers, teachers, and mentors" (p. 262). Such a social environment can influence writing outcomes and "further promote or suppress a sense of motivation within a writing community" (p. 262). In line with this, Unal (2010) found significant differences between schools in terms of fourth and fifth graders' disposition to write and attributed these findings to the different environments that the schools in question represented.

In the students' self-reports, the social environment was often referred to in terms of interactions among the members of the writing communities in which the students participated. These interactions included collaborating with peers (e.g., Paquette, 2008), communicating through writing (e.g., Merisuo-Storm, 2006; Chohan, 2011), and playing games together (e.g., Kanala et al., 2013; Liao et al., 2018). Although such interactions are usually seen as positive influences on writing motivation, they do need to be fostered in social environments that are experienced by the students as supportive and pleasant, rather than being characterized by judgmentalness and criticism. For instance, in Hall and Axelrod (2014, p. 18), students described "uncomfortable writing environments" in terms of criticism and bad feelings when their writing was criticized in front of their peers. There would thus seem to be a need to communicate expectations of positive classroom interactions; explicit classroom rules may be needed to avoid unnecessarily uncomfortable situations. One example of this is that,

during the first phase of a design-based study in a Chinese upperprimary classroom (Li and Chu, 2018), 100% of the students experienced problems when writing collaboratively. This was due to group members' lack of compatibility and the unclear division of tasks, as well as to frustration about having one's text in a shared document deleted by other students. Based on the students' feedback, the teacher then suggested explicit editing rules and the use of democratic voting to solve disputes among group members, which resulted in better collaboration among the students (p. 372).

4.4.5.3 The psychological environment

Supportive social environments also affect students' psychological environments, which in turn may influence their motivation to write. For example, according to Zumbrunn et al. (2019), "writing is more enjoyable for them when they feel calm and relaxed," whereas writing was experienced as "less enjoyable when they are in a bad mood, tired, or frustrated" (p. 10). In this context, Bruning and Horn (2000) suggested that teachers can actually help students reframe anxiety and stress as a natural "physiological response to a challenging and stimulating task—not as a signal that they are about to fail" (p. 34).

A study investigating a writing program where fourth graders tutored second graders (Paquette, 2008) exemplifies how the three types of environments discussed above can influence each other. In that study, fourth graders reported that *noise* and *distractions* from a construction site outside the window of the classroom where they were working (physical environment) made it difficult for them to keep their tutees' attention (psychological environment), which had a negative impact on their collaboration (social environment). One of the fourth graders reported that he handled this issue successfully by taking his tutee to another room, that is, by changing their physical environment on the assumption that a less noisy room would be better for his tutee's attention and consequently for the dynamics of their collaboration.

4.4.6 Feedback

Feedback was identified as a factor in one-fifth of the studies (n=11). In essence, students indicated that they value *positive responses* to their texts (e.g., Hall and Axelrod, 2014; Zumbrunn et al., 2019) as well as *constructive* and *concrete* feedback (e.g., Perry et al., 2003), whereas they considered that *negative* feedback focusing on their *mistakes* had an unfavorable effect on their motivation to write (e.g., Truax, 2018; Zumbrunn et al., 2019).

On the one hand, *positive responses* from their teachers were encouraging for the students' writing, as expressed by a fifth grader who described that writing was fun "when [the teacher] makes good and exiting [*sic*] comments about my work" (Zumbrunn et al., 2019, p. 9). Hall and Axelrod (2014, p. 12) also found that receiving *praise* in the form of *public recognition* or by *eliciting emotional responses from readers* also emerged as a motivator for writing. On the other hand, students expressed discomfort with feedback characterized by *judgmental responses* that communicated a *negative evaluation of their performance*. In a study on the impact of teacher language on writing motivation in second and third grade, Truax (2018) similarly found a negative impact on the writing motivation of students for a teacher feedback style characterized by "criticizing, correcting, and drawing attention to mistakes" (p. 142).

However, although students mostly showed a preference for positive feedback, they also expressed that they could see the value of *feedback that helps them grow as writers*. For instance, in a qualitative study of one high-achieving and one low-achieving first grader, Perry et al. (2003) found that *performance feedback* motivated both students—but that this type of response was experienced as motivating only if it was provided in a *positive social environment* and if it was *valued* by the individuals in the writing communities where it occurred.

According to Truax (2018), teachers' concrete feedback helps students experience mastery, which in turn has a positive effect on their writing motivation. This is in line with Troia et al. (2012), who argued that feedback should be oriented toward task performance and be "truthful, realistic, and specific" (p. 9). Different practices incorporating concrete feedback in the studies reviewed include the use of oral feedback at teacher-student conferences where the student's portfolio is discussed (e.g., Hillyer and Ley, 1996), feedback from peers (e.g., Seban, 2012; Li and Chu, 2018), and feedback from and parents portfolios teachers, peers, on process (e.g., Nicolaidou, 2012).

4.4.7 Goals

The *goals* of students' writing also emerged as a factor influencing their motivation to write; it was identified in students' self-reports in more than one-fourth of the studies reviewed (n=15). With reference to the framework of *goal-orientation theory* (Dweck and Leggett, 1988; Elliott and Dweck, 1988), the students' goals displayed characteristics of two broad types of goals: (a) *mastery goals*, also referred to as *learning goals*, and (b) *performance goals*.

Characteristics of *mastery goals* were identified in cases where students expressed a desire for personal mastery (e.g., Perry, 1998). For instance, in a study on the use of process portfolios (Nicolaidou, 2012), fourth graders received a set of criteria for self-evaluating their texts and setting personal goals to improve their writing. This turned out to increase the levels and accuracy of their writing self-efficacy.

Characteristics of *performance goals* were identified in cases where students expressed goals in terms of obtaining better grades (e.g., Kim and Lorsbach, 2005) or outperforming other students (e.g., Miller and Meece, 1997) but also where they expressed *performance-avoidance goals*, such as a desire to avoid failure (e.g., Perry, 1998). Some studies found a link between *performance-goal orientation* and high-achieving students (e.g., Perry et al., 2003; Kholisiyah et al., 2018) and students with high self-efficacy (e.g., Kim and Lorsbach, 2005). For example, Kim and Lorsbach (2005) argued that, although kindergartners and first graders with both high and low self-efficacy worked longer on their writing tasks than those with average self-efficacy, the students with low self-efficacy did so because they struggled with their tasks, whereas those with high self-efficacy devoted more time to their tasks because they wished to attain goals in terms of obtaining good grades and achieving "perfect and neat" writing (p. 166).

As remarked by Troia et al. (2012), *mastery goals* are associated with various positive learning outcomes; the authors suggest that teachers can help students set "specific, proximal, and challenging goals for themselves" while focusing on "personal improvement and mastery" (p. 10). In the studies reviewed, practices aiming to help students set and pursue such goals usually incorporated the use of *rubrics* (e.g., Bradford et al., 2016) and *student portfolios* (e.g., Nicolaidou, 2012). This helped students set personal goals and track their progress. Concretely, students tended to move from broader goals such as writing longer stories to more specific, action-oriented goals such as "developing characters, improving vocabulary, and doing more prewriting and editing" (Hillyer and Ley, 1996, p. 6).

Finally, one important aspect related to goal orientation that should be highlighted is that the types of goals set by students were highly associated with their *classroom environments*. For instance, in a study of 187 third graders and 8 teachers to examine how different types of assignments influenced students' use of goals and strategies, Miller and Meece (1997) found that "the students' goal orientations varied according to how well the teachers implemented the project's objectives" (p. 295). In high-implementation classes, students "were less likely to state that their goals were to outperform others, to gain favorable judgments of their ability, or to prove the adequacy of their ability for self-enhancement purposes" (p. 295). Similar findings were also reported by Perry (1998), who found that low-achieving first and second graders in classroom environments characterized by low levels of self-regulated learning demonstrated "self-handicapping" goals such as steering clear of challenging tasks to avoid failure.

4.4.8 Help

In line with Boscolo and Gelati (2018) remark on the importance of helping students manage their writing skills, *help* emerged as an important motivational factor in more than one-third of the studies reviewed (n = 19). Help was mentioned as a positive factor not only in terms of obtaining *help from others*, such as *teachers* and *peers*, but also in relation to helpful *strategies* and *tools* that facilitate the writing process.

Help from others was valued by the students at different stages of the writing process, including during pre-writing activities (Lee and Enciso, 2017), when having difficulty choosing topics or setting goals (Hall and Axelrod, 2014), or when revising and needing input on writing conventions (Seban and Tavsanli, 2015). Students also indicated that help from *teachers* and *peers* was good because it helped them to improve their writing, pointing out that one can ask for others' opinions "even if one knows what to do" (Seban and Tavsanli, 2015, p. 226).

Students also appreciated when help was given in the form of *tips* and *strategies* that facilitated their understanding and management of the writing process. For example, in Chen and Liu (2019), fifth graders reported that they enjoyed working with a six-stage story structure (i.e., a framework outlining six sequential stages for crafting stories), as this approach provided them with *concrete guidelines* for creating stories and made the writing process *easier, more interesting*, and *fun*. In addition, fifth graders (Kholisiyah et al., 2018) appreciated when teachers *explained* and *modeled writing activities* before assigning writing tasks. The *writing workshop* format, where writing *techniques* and *strategies* were first *modeled* to the students before they were able to implement those techniques in their own texts, was also valued by students.

Different *tools*, such as rubrics (e.g., Bradford et al., 2016), visuals (e.g., Andrzejczak et al., 2005), word processors (e.g., Beck and Fetherston, 2003), and apps (e.g., Sessions et al., 2016), were also acknowledged by the students as valuable because they made writing easier, helped them finish their writing tasks, or raised the quality of their product. Andrzejczak et al. (2005) found that, instead of asking students to illustrate their texts *after* writing, painting an image *before* writing could be used as a *pre-writing tool* to help students visualize what they were going to write about and enrich their texts.

Similar findings were put forward by Sessions et al. (2016), but regarding a *digital format*. In addition to offering aids that help students visualize what they want to write, digital tools were also valued by students because of other *facilitative affordances*, for instance that word processors made editing easier (Beck and Fetherston, 2003), that online tools facilitated written communication with distant peers (Gallini and Zhang, 1997), or that writing platforms supported collaborative writing (Li and Chu, 2018). By contrast, Nair et al. (2013) found that some students indicated that they preferred paper-based assignments and felt that computers were distracting. What is more, some student reports also indicated that digital tools can be experienced as *demotivating* when *technical problems* are encountered. Hence technical glitches weaken the *assisting* or *appealing* characteristics of digital tools.

Lastly, whether students primarily seek *direct help from others* or instead rely on *tools* and *strategies* to help them with their writing seems to be linked to their mindset and to how prepared they are to deal with writing challenges. In Schrodt et al. (2019), kindergartners were divided into a control group that received traditional writer'sworkshop instruction and an experimental group where the writer's workshop was supplemented with instruction in *self-regulation* and *growth mindset*. The authors found that all of the kindergartners in the control group indicated that they would ask their *teachers* or *parents* for help if they were stuck whereas all of their peers in the experimental group instead mentioned *strategies* and *tools* that could help them with their writing, such as ABC charts, picture dictionaries, and sight-word walls (p. 435).

4.4.9 Instructor

Finally, it is essential to emphasize that the previous eight motivational factors need to be orchestrated in appropriate ways according to the students' needs, which leads us to the final factor: the *instructor*. We argue that all of the studies suggest—either directly or indirectly—that the *teacher* has a decisive function in influencing students' writing motivation. In some studies, the role of the teacher as a crucial motivational factor is explicitly discussed in relation to students' self-reports (e.g., Pollington et al., 2001; Perry et al., 2003; Nolen, 2007; Zumbrunn et al., 2019). In other studies, the important role of the teacher is an implicit assumption underpinning recommendations for classroom practice that incorporate some or all of the other motivational factors discussed above, such as creating a supportive classroom environment (Bayat, 2016, p. 625) or reconsidering practices that seem unappealing and negatively affect students' motivation to write (Tunks, 2010, p. 7).

Hence all other factors suggested in this review are clearly mediated through the teacher. Teachers' influence can take many forms. For instance, in Zumbrunn et al. (2019), findings indicated a positive relationship between teachers' and students' writing enjoyment. Specifically, students who perceived that their teachers enjoyed teaching them writing tended to report higher writingenjoyment scores. In Nolen (2007), the teacher from the classroom with higher student-motivation levels "described her goals for writing instruction in terms of identity and self-determination," and her goals were indeed "mentioned in child interviews as reasons for [the children's] positive writing affects (enjoyment, interest, continuing motivation)" (p. 22). By contrast, in the classroom with a teacher who focused more on mechanics and held "tighter control over various aspects of students' writing" (Nolen, 2007, p. 23), the students' levels of motivation were lower—students saw writing activities as obligations to be fulfilled in order to meet the teacher's criteria.

Teachers also strongly influenced the success or failure of various interventions. For example, Chohan (2011) reported that the level of commitment to a schoolwide letter-writing program differed among teachers, noting that this may have influenced the children's enjoyment of the program and suggesting that "unless all teachers are responsive to new initiatives, some teachers' efforts in implementing new strategies may be neutralized" (p. 47). It is also important to note that writing instruction can be provided not only by classroom teachers, but also by others, including parents, researchers, visitors, or even more competent peers—in other words, various members of a writing community. This means that the *instructor* factor encompasses the roles potentially played by other individuals beyond classroom teachers.

For instance, in Lee and Enciso (2017), students' self-efficacy for pre-writing increased after they participated in an intervention where *teaching artists* from a theater encouraged students to suggest story ideas and then performed the students' stories to the rest of the school. Having their ideas incorporated in the stories, and watching their stories come to life through the artists' performances, contributed positively to the students' motivation to write. In summary, as Pollington et al. (2001) concluded, "individual teachers are more important than strategies or approaches in affecting the writer selfperception" (p. 249).

5 Implementing motivation factors in K-5 writing instruction

The present review has identified nine motivational factors (the ABCs of Writing Motivation: Appeal, Beliefs, Choice, Difficulty, Environment, Feedback, Goals, Help, and Instructor) based on the self-reports of K-5 students. This presentation of the factors in an ABC format is intended to facilitate the translation of research into practice by creating a user-friendly checklist for motivation in writing lessons (see Table 3). For effectively implementing these factors in classroom practices, in this section we first emphasize the importance of teacher planning. Then we consider further implications regarding two other central elements of classroom writing communities (Graham, 2018), which are the types of tasks and tools used in writing instruction in K-5 educational settings. Finally, we suggest a heuristic model that can facilitate teacher planning, and which can be useful in teacher education or professional development programs that support teachers in implementing these factors in their didactical endeavors.

5.1 Teacher

In summary, this review underscores the crucial need for teachers to integrate motivation planning alongside skill development in writing instruction. The ABCs of Writing Motivation proposed here offer essential concepts for effective motivation planning. To meet the diverse needs of students, teachers are encouraged to incorporate structured choices within curricular constraints. For example, when assigning an argumentative essay, engagement is likely to be stronger if students are allowed to choose their issue and their target audience. To ensure the success of motivational efforts, teachers should engage in follow-up using informal and frequent measures, as suggested by Jones et al. (2016). Beyond traditional questionnaires, appropriate assessment tools may include observing students' behavior and engaging them in conversations, as highlighted by Kim and Lorsbach (2005). However, given the potential impact of assessments on students' writing identities, there is a need for careful consideration. The measurements must remain a means to an end (Alves-Wold, 2024; Alves-Wold et al., 2024). A cyclical approach along the lines suggested above—integrating motivation into planning, offering structured choices, and assessing effectiveness—can enhance teachers' ability to foster motivation in young writers.

5.2 Tasks

Writing tasks in schools often limit diversity by focusing on a narrow range of genres, such as stories and essays. This limitation may shape students' perceptions of writing and writers. For this reason, explicitly linking school tasks to real-life writing situations, such as emailing or text messaging, is crucial to enhance the relevance and value of writing instruction. In fact, the value attributed to writing is closely tied to motivation, as seen in Mata (2011) study of kindergartners. Further, it has been noted in the present review that students perceive noise in writing environments as a demotivational factor. This may reflect that they are influenced by a traditional view of writing as an activity undertaken in a quiet environment and individually. However, while the noise from a construction site is obviously problematic for an activity requiring attention, utter silence may not be necessary. In fact, if students come to recognize the role of expressive language in both writing and talking, and if collaboration is emphasized, this may broaden their perspectives on writing and create more motivational environments.

5.3 Tools

Besides recognizing the diverse forms of writing as discussed above, it is also important to recognize the diversity of writing tools. It is evident that traditional classrooms often lack a comprehensive range of such tools, with a particularly slow integration of digital tools. Graham and Harris (2016) highlight the prevalence of pencil and paper despite the ubiquity of digital writing tools in non-school settings. Camacho et al. (2021) claim that there is a growing trend favoring "21st century tools," but the present review suggests a more nuanced view. In fact, from the perspective of motivation, the digitality or otherwise of a tool is not inherently crucial. Instead, it is more fruitful to consider how the features and affordances of individual tools impact on motivation.

Digital tools do not in and of themselves enhance motivation, as is sometimes assumed, but our findings do suggest that the appeal of features such as characters coming to life does have a positive influence on motivation. However, it should be noted that this applies both to digital platforms such as apps (Sessions et al., 2016) and to non-digital scenarios such as teaching artists performing stories (Lee and Enciso, 2017). Along similar lines, Ekholm et al. (2018) review indicates that, while technological interventions may improve attitudes, it is unclear whether technology itself is intrinsically beneficial. Teachers must

5.4 A heuristic model for implementing the ABCs of writing motivation in K-5 educational settings

As indicated in the sections above, the factors in the ABCs of Writing Motivation have separate functions in the design of motivating writing lessons. While didactical models such as the Didactical Relationship Model (Hiim and Hippe, 1998) tend to be highly general, and with reciprocal relations showing the interplay between all elements, the ABCs of Writing Motivation may inform a simpler and more straightforward model for designing writing lessons. As earlier discussed in section 4.4.9, the Instructor emerges as the most prevalent motivational factor in writing, given that the instructor is the one who orchestrates the other factors in writing lessons. In a first consideration for lesson design, the instructor may enhance writing motivation through considering the writer's disposition through the factors Beliefs and Goals. In a second step, writing motivation can be facilitated through the task and tools, by considering the factors Appeal and Difficulty. Finally, there is a row of factors that we may term *didactics* at hand, which the instructor can implement for further enhancing students' writing motivation, namely: Choice, Environment, Feedback and Help (see Figure 4).

6 Concluding remarks

6.1 Limitations

The limitations of the present review stem from the diverse methodologies used in the studies investigated, which makes it impossible to produce quantified results of the kind typical of a metaanalysis. While extensive search procedures were employed, it is almost certain that not all potential studies were identified, given the stringent inclusion criteria applied, such as an exclusive reliance on peer-reviewed studies. However, although hand-search procedures added six studies, no new factors were discovered in those, suggesting possible saturation. Limitations related to the available data also include a reliance on self-reporting without triangulation, inconsistent instrumentation quality in quantitative studies, and variability in the documentation of students' voices as well as in the integration thereof in the analysis. For a comprehensive description of such limitations related to the included studies, see (Alves-Wold et al., 2023).

6.2 Future directions

First, given the many interactions between motivation factors (for example that *choice* is important but only when the options hold *appeal*), we recommend the conduct of classroom research to observe highly capable teachers translating those factors into practice (assuming that this is something they do) and interpreting their actions. Specifically, we recommend identifying groups of students with high motivation for writing and then observing and analyzing how their teachers create the conditions for writing instruction,



including to determine whether any of the factors identified here are more decisive than others. Second, considering that our review looks at L1 writing in mainstream classrooms, logical next steps would be to carry out a review in relation to other types of student samples, such as students with special needs or L2 writers, as well as a review concerning other educational settings, such as summer camps or specialized courses for struggling writers. It would also be interesting to investigate whether different motivation factors emerge in relation to diverse demographic backgrounds. Third, as highlighted in the discussion, there is an urgent need to identify and specify how the affordances of digital tools may foster motivation. Finally, as documented in the section on limitations, there is much variation among approaches to measuring writing motivation, which makes it difficult to compare findings across studies. For instance, as remarked by Schrodt et al. (2022, p. 338), to evaluate whether students are in fact "willing to match their actions to their stated levels of motivation," there is a need for more task-oriented assessments of young students' writing motivation. Such remarks indicate a need for better validated measures of writing motivation and for more studies that give students better opportunities to express their own perspectives.

6.3 Conclusion

This review is unique in its focus on the K–5 period, which is critical for writing in that young students are developing their identities as writers, and in the fact that we gather evidence from the students' own perspectives. While all of our nine factors were

identified in self-reports across the entire K-5 age span, the concrete implementation of those factors must of course differ by grade level. As noted above, our intended audience is not only researchers but also teachers and teacher trainers. What, then, are our final takeaways for those groups? First, the focus on students' voices highlights the teacher's role, as it becomes clear that the factors are all crucially mediated by the teacher. Such a finding underscores the importance of investing in teachers, whether through initial teacher preparation or continued professional development or, ideally, both. To facilitate this endeavor, we propose a heuristic model for implementing the ABCs of Writing Motivation in K-5 educational settings (see Figure 4). Second, contrary to earlier findings, digital tools do not seem to be a motivational factor in and of themselves. Instead, what is motivational are specific features of such tools, and those features can also be found in analog approaches. Third, given the various ways in which researchers have captured the students' own perspectives on their motivations to write, the present review illustrates how students' self-reports can be a rich source of data for helping us understand how we may better address maladaptive beliefs and engage students in writing. This is particularly important for students in the K-5 age range, when their beliefs are less deeply rooted and more malleable.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

AA-W: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Software, Supervision, Validation, Visualization, Writing–originaldraft, Writing– review & editing. BW: Conceptualization, Data curation, Writing – original draft, Writing – review & editing, Visualization. EM: Conceptualization, Writing – original draft, Writing – review & editing, Visualization. PU: Conceptualization, Writing – original draft, Writing – review & editing, Visualization.

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The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/feduc.2024.1396484/ full#supplementary-material

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