EMERGING STANCE AND ENGAGEMENT IN L1 ARGUMENTATIVE WRITING IN GRADES 5 AND 8

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Abstract

This study examines how young writers use stance and engagement—key constructs in shaping disciplinary voice—in L1 argumentative writing. A corpus of 118 student texts from grades 5 (age 10-11) and 8 (age 13-14) was analyzed using a framework that combined theory- and data-driven categories. Descriptive and comparative analyses revealed that grade 5 students used significantly more hedges, counters, invoked attitude, reformulation markers, and self-mentions, while grade 8 students employed more direct quotations and questions, suggesting a shift toward less explicit self-positioning and more content-focused argumentation in grade 8. A qualitative look at two texts illustrates how stance and engagement are realized in context, showing nuances—such as hedging combined with self-mentions in grade 5, and content-focused counters and rhetorical questions in grade 8—that are not fully captured by the quantitative measures. This highlights how writing task, genre, and instructional context shape the expression of disciplinary voice alongside general grade-level tendencies. The results are discussed in the context of general writing development theories as well as theories of voice and disciplinary writing.

Keywords: Disciplinary voice, stance, engagement, argumentative writing, L1 writing education

1. INTRODUCTION

At the heart of proficient writing lies the concept of voice—though its definition varies across scholarly perspectives (Matsuda & Jeffery, 2012). It has been examined, for instance, as a dimension of Bildung (Krogh & Piekut, 2015), as an expression of writer identity (Ivanić, 1998), and as a dialogic and linguistic construct that encompasses the resources writers use to engage with their audience and shape reader interaction (Hyland, 2008). However, voice is neither a fixed nor an autonomous construct; rather, it is shaped by disciplinary conventions and expectations, as each discipline requires specialized knowledge and practices for producing, communicating, and applying knowledge (Bazerman, 1992; Hyland, 2004; Shanahan & Shanahan, 2008). In L1 education, however, disciplinary norms are not uniform, which is reflected in the broad spectrum of metagenres and approaches that structure L1 writing and disciplinary discourse (Carter, 2007; Krogh, 2020; Sawyer & Ven, 2007). This disciplinary diversity highlights the need for theoretical and empirical inquiry into the different ways disciplinary voices are constructed in the context of L1 writing instruction.

In the present study, I focus on one of the central modes of writing in L1 education, namely argumentative writing. Argumentative writing plays a vital role in L1 education, as it allows students to engage in exposition and logical reasoning (Nestlog, 2009), while simultaneously socializing them into disciplinary ways of knowing and doing by building textual relationships, considering multiple perspectives, and grappling with complex and multifaceted content (Newell et al., 2015). Argumentative writing also transcends educational contexts, as analytical and logical reasoning become increasingly important as students progress from primary and lower secondary school through to upper secondary (Krogh, 2014) and higher education (Biber, 2006b). According to Hyland (2008), the disciplinary voice associated with this kind of argumentative and logical reasoning is constituted by two key metadiscursive constructs, namely stance and engagement. Stance and engagement refer to ways of bringing "writer and readers into a text as participants in an unfolding dialogue" (Hyland, 2005, p. 191). Stance, in this sense, reflects a writer's epistemic positioning and degree of authorial presence and encompasses linguistic features used to convey judgements, personal feelings, attitudes, and commitments (Biber et al., 1999), whereas engagement encompasses rhetorical strategies that align the writer with their audience, guiding readers through arguments and anticipating their responses (Martin & White, 2005).

In this paper, I examine how students express stance and engagement in a corpus of L1 argumentative texts from grades 5 (age 10-11) and 8 (age 13-14) in Denmark, collected from seven different classrooms. The study has two main objectives: first, to develop a theoretical framework for analyzing stance and engagement in L1 argumentative texts from primary and lower secondary school; and second, to examine how the linguistic features associated with stance and engagement evolve

and vary across these two grade levels. Specifically, the paper addresses the following research questions:

RQ1: How do students express stance and engagement in written L1 argumentative texts in grades 5 and 8?

RQ2: How do stance and engagement features vary and develop within and across grades 5 and 8?

By addressing these questions, I aim to provide insights into how students construct disciplinary voices in the context of L1 argumentative writing, shedding light on the linguistic resources students use to articulate stance and engagement at an educational stage where students are only beginning to learn how to form arguments by means of written language. Additionally, by examining texts across grade levels, I contribute to our understanding of broader developmental trajectories in student L1 writing (Durrant, 2022; Durrant et al., 2021) at two crucial stages in Danish compulsory education.

2.   RESEARCH ON STANCE AND ENGAGEMENT

Hyland (2018) and Martin & White (2005) provide foundational frameworks for understanding the theoretical underpinnings of 'stance' and 'engagement'. In Hyland's (2018) description of metadiscourse, the two terms are seen as interpersonal metafunctions of language and are related to the ways writers position themselves in relation to their claims and how they interact with and guide their readers. The term 'metadiscourse' is, however, a somewhat ambiguous one, and research on this field has moved in many different directions, ranging from discourse analysis to media studies (Hyland, 2017). What is particularly important about Hyland's (2018) description of metadiscourse, however, is the comprehensive analysis and categorization of specific linguistic markers of metadiscourse that writers use to organize their discourse, express their stance, and engage with their audience, making Hyland's (2018) framework a key reference in many corpus linguistic studies.

Research on stance has been extensive, particularly in professional and academic domains. In professional contexts, studies have examined how stance is constructed in news media (L. Chen & Li, 2023) and political discourse (Zhang & Cheung, 2022), highlighting how writers position themselves and their audiences in persuasive and argumentative communication. However, a significant share of stance research has focused on professional academic writing within different disciplinary research contexts (Hyland, 1999, 2004, 2008). Studies have, for instance, explored stance in research articles, abstracts, and funding applications within the natural sciences (Millar & Batalo, 2024; Poole et al., 2019), and Biber (2006a, b) finds that while stance markers play a crucial role across university registers, their distribution varies significantly, with spoken university discourse surprisingly exhibiting a higher frequency of stance features than written registers. Other studies have focused on

disciplinary variation (Gray et al., 2020; Hyland & Jiang, 2016), the use of specific linguistic stance features such as noun phrases (Jiang & Hyland, 2015, 2018) or compared the writing of more experienced researchers with that of young emerging researchers (Crosthwaite et al., 2017; Wang & Jiang, 2018). Relatedly, many studies have examined stance taking in the texts of university students (Aull, 2019; Lancaster, 2014; Wu & Paltridge, 2021; Yoon & Römer, 2020), with some focusing on, for instance, personal pronouns (Hyland, 2002), prediction modals (Becker & Feng, 2020), or the use of sources (Doolan, 2020, 2023), while others have taken a wider approach looking for general developmental trajectories in stance taking. Aull & Lancaster (2014), for instance, point to hedges, boosters, code glosses and contrast connectors as features indicating developmental trajectories in undergraduate writing; this is supported by Hyland (2012) who also points to reader references and directives as possible developing stance features from novice to expert writers.

In contrast, stance in secondary and primary education has received much less attention, with the majority of research focusing on higher education, with notable exceptions being, for instance, Christie & Derewianka (2008). Studies on upper secondary students' stance construction remain scarce (exceptions are e.g., Chen et al., 2024; Myklebust, 2017; and Thomson, 2020), and research in primary and lower secondary education is even more limited. When stance has been examined in younger students' writing, the studies have predominantly been qualitative. Kabel (2021), for instance, analyzes how Danish lower secondary students (age 13–14) use literary terms and construct evaluative stances (including engagement features) in their written interpretations of contemporary short stories, identifying distinct knowledge tendencies that reflect the challenges students face in balancing literary analysis with subjective expression. Another relevant qualitative study is Folkeryd (2006), who—although not explicitly framed as a study of stance—identifies patterns of attitudinal use, categorizing students' (grades 5, 8 and 11) approaches to engaging readers through evaluative language. High-achieving students use more attitudinal markers and engage readers more effectively, while low-achieving students, particularly boys, use them less frequently. However, beyond these qualitative studies, research on stance in L1 student writing remains limited, particularly in primary and secondary education. Much of the research on stance in student writing has been conducted in L2 or EFL contexts, particularly examining how non-native speakers of English develop stance in academic writing (Crosthwaite & Jiang, 2017; Fogal, 2020; Lam & Crosthwaite, 2018; Xinghua & Thompson, 2009; Yoon, 2017; Zhao, 2013). This leaves a significant gap in understanding how stance is constructed and developed in L1 writing, particularly in primary and secondary education, where students are still in the process of mastering argumentative discourse and conventions.

Turning to research on engagement, studies are also somewhat limited, though many engagement features are examined as components in the above-mentioned studies of stance. In a recent synthesis review of studies using appraisal within the

context of academic writing, Xuan & Chen (2024) point out that in studies of undergraduate writing, it is generally agreed that more frequent use of engagement resources is closely connected to quality writing, thereby underlining that the active inclusion or exclusion of other voices enhances the depth and persuasiveness of academic texts. Swain (2007), for instance, shows that engagement plays a more significant role than attitude in constructing persuasive arguments. Mori (2017) conducted a qualitative study on how two undergraduate writers engage with sources, emphasizing that incorporating sources into a text is no simple task; rather, it is a complex process that involves both structuring ideas and asserting ownership over the ideas and voices presented in the text. Mei (2007) analyzed 27 geography essays, finding that writers of high-rated essays use engagement strategies to develop a contrastive stance, often highlighting contradictions in the evidence presented. Liardét and Black (2019) compared undergraduate and professional research writing, focusing on how reporting verbs are used to engage with sources and establish authority. Ryshina-Pankova (2014) explored engagement in course-related blogs, showing that successful academic arguments often involve alternating between expanding and contracting options, effectively engaging with other readers' ideas and supporting claims with evidence. Finally, Zárate (2021) demonstrates how combining appraisal analysis with argumentative schemes can provide a more nuanced understanding of how engagement resources function rhetorically to position the writer and manage the dialogic space in academic texts.

In upper secondary education, both Derewianka (2007) and Myskow & Gordon (2012) found that heteroglossic features were more prevalent in advanced writing, thereby suggesting that the ability to engage with multiple perspectives and manage dialogic space is a key characteristic of more developed argumentative writing proficiency. Conversely, Myklebust (2017) found in a qualitative text study that the most heteroglossic texts are often those that present a minority point of view, i.e. writers who find themselves in a rhetorical situation where they cannot just assume that their assumptions are shared by the reader. Myklebust and Høisæter (2018) examined argumentative writing in upper secondary students, revealing that task type influences the use of engagement strategies. They found that students writing for a teacher tend to rely on intellectual appeals supported by reliable sources, while those writing for a general online audience often use emotional appeals and draw on personal values rather than external sources. Focusing on primary and lower secondary level, Thomas et al. (2014, 2015) found that even high-achieving Year 3 students predominantly used invoked attitudinal meanings and limited engagement resources introducing other voices, indicating that at this early stage, students' argumentative writing shows strong evaluative positioning but relatively constrained dialogic engagement. Similarly, Humphrey (2016), although primarily focusing on developing teachers' knowledge and use of metalanguage, examined students' persuasive writing from Year 7 to 9 in the context of classroom interventions focused on metalinguistic awareness. Her analyses showed that students expanded their linguistic repertoires for academic writing, including evaluative and dialogic

resources, but that few had yet achieved full rhetorical control over engagement with audience and context. This suggests that while explicit teaching can enhance students' awareness and use of stance and engagement features, these resources continue to develop gradually across the middle years of schooling.

Taken together, these studies on stance and engagement show that despite growing interest in stance and engagement features, few studies provide comprehensive cross-grade comparisons in L1 argumentative writing, particularly in early adolescence. Most studies on stance and engagement focus on higher education or upper secondary students, leaving primary and lower secondary writing somewhat unexplored. Even where younger students' writing has been studied, research often focuses on either stance or engagement in isolation, uses small qualitative samples, and rarely considers the interaction between these dimensions in shaping disciplinary voice. Moreover, there is limited understanding of how these features develop across grades and how variability within and between grade levels affects emerging argumentative writing. The present study addresses these gaps by analyzing a corpus of L1 argumentative texts from grades 5 and 8, systematically examining both stance and engagement features, and considering possible developmental differences across grade levels and classroom contexts. While the study is cross-sectional and cannot track longitudinal development in individual students, it provides a glimpse of grade-level differences, offering insight into how young writers construct disciplinary voices and navigate dialogic space in school-based L1 argumentative writing.

3.   THEORETICAL FRAMEWORK

In the title of this paper, I describe stance and engagement as "emerging", a term that underscores their origins as constructs primarily used for analyzing epistemic and dialogic positioning in professional academic writing, rather than for examining children's argumentative writing in school. As mentioned, the present study is not a longitudinal account of stance and engagement development, but rather a cross-sectional exploration of how linguistic features associated with stance and engagement differ across grades 5 and 8. In this sense, the study examines potential developmental tendencies across grade levels, while also serving as an exploratory and conceptual examination of which linguistic stance and engagement features are actually present in grade 5 and 8 students' texts, thereby exploring what elements are relevant for studying stance and engagement outside higher education, specifically at this early stage of argumentative writing development.

The stance and engagement framework in this study is inspired by Hyland's (2018) seminal work on *metadiscourse*. According to Hyland (2018), all speech and writing contain metadiscursive components, i.e. expressions that reference the text producer, the imagined receiver, and the evolving text itself. These expressions provide information about the participants, the type of discourse being constructed, and the broader context in which communication occurs. In Hyland's work,

metadiscourse has two overarching functions: it can be interactive, i.e. help guide the reader through a text, and interactional, i.e. involve and engage the reader in the text. Based on these foundational notions of metadiscourse and interaction in writing, I developed a framework for examining stance and engagement through an iterative approach. This process involved testing various existing stance and engagement frameworks against close readings of student texts from the corpus. As a result, many of the categories in the framework are theory-driven, adapted from established models in the literature, while others are data-driven, emerging as potentially interesting features during the initial close-readings of the texts. The aim of this combination of theoretical grounding and empirical refinement was to ensure that the framework would capture both established features and patterns specific to the texts in the corpus. I will now describe the included features for both stance and engagement.

3.1 Stance features

Stance, although also described within sociolinguistic traditions (see e.g., Du Bois, 2007), is a well-established construct in corpus linguistics. There is, however, not a uniform or standard approach and framework for conceptualizing and understanding the lexical and grammatical features that writers use for expressing stance (Gray & Biber, 2012). Instead, I have drawn on categories from across different theoretical traditions, although primarily inspired by Hyland's (2005) foundational framework. An overview of all the included stance features is presented in Table 1 below.

Table 1. Overview of stance features in the framework

Features	Functions	Lexicogrammatical realizations	Examples from the corpus
Hedges	Expresses uncertainty, tentativeness or lack of commitment to a proposition, often related to epistemic certainty or precision of statements.	Epistemic verbs (e.g., think, seem, believe), particularly modal verbs (e.g., may, might), and adverbs (e.g., possibly, perhaps).	"There is usually no one who wants to eat in the cafeteria" "I think it is better that way"
Boosters	Expresses certainty, confidence, or emphasis, often related to epistemic certainty.	Adverbs (e.g., clearly, definitively), epistemic verbs (e.g., prove, show), and in Danish also compound adjectives.	"I have no doubt that everyone at school would be happy if you reconsidered the decision"
Counters	Introduces contrasts or refutations of claims.	Conjunctions (e.g., but, while, although), adverbs (e.g., however, instead), and adverbial phrases (e.g., in contrast, on the other hand).	"As opposed to Denmark, Sweden actually has a law on this" "On the other hand, it will make us students happy."
Attitude (inscribed)	Explicit (lexically inscribed) markings of affect, judgement or appreciation in the text.	Adjectives (e.g., terrible, beneficial, interesting), adverbs (e.g., surprisingly), and verbs (e.g., hate, admire).	"I think that it is boring to sit and stare all day at school" "School toilets are very disgusting."
Attitude (invoked)	Implicit markings of affect, judgement or appreciation, often relying on implication, context and association rather than explicit language.	Not lexically inscribed but implicitly invoked in the text and inferred through contextual clues by the reader.	"Everything a mobile phone can do, paper and pencil can as well" [implicitly invoking positive judgement of paper and pencil]
Reformulation markers	Code gloss that clarifies or rephrases earlier propositions.	Phrases (e.g., in other words, put differently, for instance).	"There are, in other words, no excuses for not reintroducing school camps."
Self-mentions	Refers explicitly to the author.	First person pronouns (I, we, my) or, in some cases, third-person impersonal pronouns (e.g., one).	"We all know in class that we learn better without computers"

Note: Examples from the corpus have been translated from Danish by the author (spelling mistakes in the original Danish text have not been retained in the translation).

The selection of features covering stance was initially guided by Hyland's (2005) characterization of stance, which includes hedges, boosters, attitude markers, and self-mentions. Among these, hedges and boosters have been particularly central to

epistemic positioning in academic writing, and, notably, hedges have consistently emerged as one of the most frequently used stance markers across various studies (see e.g., Aull, 2019; Aull & Lancaster, 2014; Yoon & Römer, 2020). Counters and reformulation markers, referred to by Aull (2019) as textual cues and encompassing features such as contrastive connectors and code gloss, were added to the framework based on studies by e.g., Aull & Lancaster (2014) and Thomson (2020) that showed these features as frequent in different kinds of argumentative and academic writing.

Turning to attitude, Hyland (2005) describes attitude in broad terms. To refine this aspect of the framework, I turned to Martin & White's (2005) appraisal framework, which differentiates attitude into three subcategories: affect, judgment, and appreciation. However, during the initial close reading of texts from the corpus it became clear that these categories were too fine-grained, leading to many cases of uncertainty and inconsistencies in the coding of the texts. Instead, I decided on the two broader categories, attitude (inscribed) and attitude (invoked), based on Macken-Horarik & Isaac (2014), as these were more attuned with the implicit and more inferential and context-specific attitude markers that I found in the student texts. The two attitude categories also suggest two clearer modes of expressing attitude in the texts; one that is implicit, relying on the reader's interpretation of the textual cues, often influenced by context and shared cultural knowledge, and one that is explicit and lexically inscribed. Similar adaptations have been made in previous studies, such as Thomas et al. (2015). The last category, self-mentions, is an important element in constructing a discoursal self in stance taking (Hyland, 2005) and was very frequently found in the initial close-readings of the texts.

3.2 Engagement features

Engagement, in Hyland's (2005) terms, is an important part of examining how writers bring readers into their texts, anticipating their possible objections and responses, and rhetorically positions the reader in relation to the propositions in the text. Hyland's (2005) engagement framework consists of reader pronouns, directives, questions, shared knowledge, and personal asides, most of which are included in the engagement features of this study, as presented below in Table 2. I have also drawn inspiration from Martin & White's (2005) engagement system, albeit with considerable adjustments as outlined in the following discussion.

Table 2. Overview of engagement features in the framework

Features	Functions	Lexicogrammatical realizations	Examples from the corpus
Questions	Involves the reader by posing a question.	Interrogatives, rhetorical questions.	"Aren't school uniforms pointless?"
Direct reader address	Refers explicitly to the reader, engaging them directly.	Second-person pronouns, proper nouns.	"Dear Thomas, I am writing to you because…"
Directives	Instructs or urges the reader to do something.	Often imperatives connected to textual acts (e.g., look at the picture), physical acts (e.g., sit down before reading this) or cognitive acts (e.g., think about this for a second).	"Imagine a world without war" "Imagine if it happened to you"
Attributed sources	Cites specific sources of information (explicit source-text deiksis).	Explicit addresses of source (e.g., article titles, specific people, links, newspaper titles).	"In this article "Disgusting toilets affects school teaching" (folkeskolen.dk) they talk about…"
Unattributed sources	Refers to general knowledge with no specific source attributions (no source-text deiksis).	Generic expressions (e.g., research shows, many experts say, it is well known that).	"Studies show that if you hold it, you risk that bacteria spread"
Direct quotation	Introduces information directly from a source through explicit quotation.	Explicitly marked quotations.	"[…] but as the journalist says "it is your body and your choice"

Note: Examples from the corpus have been translated from Danish by the author (spelling mistakes in the original Danish text have not been retained in the translation).

The category of questions is according to Hyland (2005) "the strategy of dialogic involvement *par excellence*" (p. 185), underlining that it is perhaps the most explicit way to address a reader in a text, and making it an obvious inclusion in the present framework. The next category 'direct reader address' is almost equivalent to Hyland's (2005) 'reader pronouns'. By labelling the category 'direct reader address', however, I expand the concept to also include instances where the writer directly names the reader (using proper nouns), making the category more aligned with the argumentative texts found in the corpus and in L1 writing instruction in general (see section 4.2). "Directives" refers to explicit instructions in the text, where the writer attempts to get the reader to do something, encompassing actions such as requests, commands, and advice (Searle, 1969). In this category, I follow Hyland (2005) and include directives that instruct the reader to do either textual, physical or cognitive acts. Hyland's engagement category of 'personal asides', which refers to cases where the writer briefly interrupts the flow of an argument to provide a metacommentary,

was initially included in the framework, but later excluded after being found only twice in the entire corpus.

The two categories of attributed and unattributed sources were included based on Martin & White's (2005) crucial point that texts differ in how they include other voices, distinguishing between monoglossic discourse, which contains bare and uncontested assertions, and heteroglossic discourse, which more explicitly engages with alternative perspectives and viewpoints. Heterogloss, according to Martin & White (2005), can be divided into utterances that either expand or contract the dialogic space created in the text. However, because some of these distinctions overlap with stance-related categories such as counters and hedges or boosters, I chose instead to adapt Hyland's (2005) concept of "appeals to shared knowledge", which refers to instances where writers, whether explicitly or implicitly, invite the reader to accept a statement or piece of knowledge as familiar or commonly acknowledged within a particular disciplinary domain. In the initial close readings of the texts in the corpus, I found that, in addition to appealing to shared knowledge, some students would create leverage for their claims by referring to external sources—although not all students would explicitly mark their sources of information. Inspired by, among others, a study by Doolan (2023), I instead constructed the two categories "attributed sources" and "unattributed sources". When students use attributed sources it means, to paraphrase Doolan (2023), that there is an explicit source-text deixis, meaning that the source of information is explicitly stated. When students use unattributed sources, it means that they either appeal to shared knowledge (e.g., "we know that food affects the well-being of students") or base their claim on sources without explicitly marking the source text (e.g., "research shows that"). This distinction between attributed and unattributed sourcing also resonates with Martin and Matruglio's (2013) notion of 'presence', where meanings vary in how explicitly they signal their contextual origins, ranging from high presence in explicitly attributed statements to low presence in generalized or implicit assertions. Relatedly, the last category, direct quotation, covers what Derewianka (2023) calls "quoted clause" (actual words), but not 'quoting clause', that is features signaling that a quote is coming up or who may have uttered the proposition. This was also added as a result of the initial close readings of the texts, which indicated that some students used direct quotations quite extensively—a point also made by Doolan (2023).

4. PRESENT STUDY

In the present study, I adopt a corpus-driven (Tognini-Bonelli, 2001) and explorative approach to the study of stance and engagement in grades 5 and 8. The study aims, first, to explore what stance and engagement features are present in the texts within the corpus to identify which features are relevant for the particular age groups. Second, the study examines cross-sectional differences across grade levels, highlighting patterns that may suggest potential developmental trajectories in these

features (Durrant, 2022; Durrant et al., 2021). In this section, I describe the national context in which the data was collected, detail the data collection procedures and corpus design, and outline the analytical approach.

4.1 The national context

Data was collected in Danish grade 5 and 8. Both grade levels are part of compulsory education in Denmark (grundskolen), which comprises grade levels 0–9. After compulsory education students transition to vocational or general upper secondary school, with most students choosing the latter (ages 16–18). Grade 0 serves as a bridge between kindergarten and school, focusing on early literacy and numeracy skills (Kabel & Bremholm, 2022). From grades 1–9, writing instruction becomes progressively advanced, primarily within the Danish L1 curriculum, which sets mandatory competency goals for writing and multimodal text production (Jeffery et al., 2018). In Danish primary and lower secondary schools, writing instruction primarily takes place within the Danish L1 subject (Elf & Troelsen, 2021), which makes extensive use of digital texts and digital learning resources in the classroom, particularly in grades 7–9 (Bundsgaard et al., 2020). Grammar instruction is often formal and separated from writing instruction (Kabel et al., 2022) and studies of writing culture in Danish lower secondary school indicate that writing tasks at this stage tend to emphasize students' personal experiences and attitudes (Krogh, 2014), while simultaneously maintaining a strong focus on the final writing exam in grade 9, which serves as the sole writing assessment in mandatory education (Christensen et al., 2014).

4.2 Data collection and corpus design

The corpus under study consists of argumentative texts written by grade 5 (*n* = 66) and grade 8 students (*n* = 52), comprising a total of 54,015 words. These texts were collected as part of a larger study of writing education in four grade 5 and three grade 8 classrooms across five different schools, incorporating both text interviews with students and classroom observations (Kabel et al., 2024). The participating schools were chosen based on a purposive sampling strategy to provide as much variation as possible based on demographic parameters such as geographical location, language background, and socioeconomic status. See overview of the corpus in Table 3 below[1].

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1 *On a sidenote, it is worth noticing that there is a substantial difference in text length between grades 5 and 8 in the corpus, which aligns with findings in many diachronic studies of writing development (Crossley, 2020).*

Table 3. Brief overview of the corpus

Feature	Grade 5	Grade 8	Total
Number of texts	66	52	118
Number of words	21,045	32,970	54,015
Average text length (no. of words)	318.9	634.0	457.8

Although the corpus under study is small, there is, as argued by both Koester (2010) and Biber (1993), an advantage with small corpora in that it allows for more detailed and nuanced analysis, drawing in contextual factors that may influence the linguistic patterns found in the corpus. Although the corpus is certainly not representative in any statistical understanding of the term, it does have the advantages that, firstly, it relies on purposive sampling, which aims at including classrooms with different demographic parameters, and secondly, as can be seen in Table 4, it contains genres that are easily recognizable as typical for L1 writing education, capturing much of the expected variability in writing proficiency that you would expect to find in L1 writing within and across these grade levels.

The writing tasks were independently designed by the participating teachers, without any influence from the researcher. Teachers were simply asked to notify the researchers when their writing instruction included any form of argumentative writing, and the texts were collected afterward. As shown in Table 4, the argumentative writing tasks exhibit both similarities and differences.

Table 4. Overview of writing tasks in the corpus

Grade level	Writing task
5	1. <u>Opinion piece</u>: Students wrote an opinion piece for a children's newspaper, arguing for or against the use of school uniforms.
5	2. <u>Portfolio of argumentative texts</u>: Students wrote three short argumentative texts on ecology, school camp, and youth labor regulations.
5	3. <u>Argumentative letter</u>: Students wrote a letter to the school board arguing for or against the use of smartphones in school.
5	4. <u>Argumentative letter</u>: Students wrote a letter to the school principal about a self-chosen problem at school.
8	5. <u>Argumentative essay</u>: Students wrote an argumentative essay on a self-chosen topic.
8	6. <u>Opinion piece</u>: Students wrote an opinion piece for a newspaper or website on a self-chosen topic.
8	7. <u>Opinion piece</u>: Students wrote an opinion piece responding to issues they identified in the lyrics of the song Malene by Sys Bjerre.

All writing tasks share the fundamental similarity of requiring students to construct an argument, take a stance, and support their claims with reasoning and evidence. Additionally, many tasks are designed with real-world audiences in mind, such as newspapers, school boards, or principals, encouraging students to consider their

reader and adapt their language accordingly. However, a key difference lies in audience variation, as some tasks target a broad public readership (e.g., newspaper opinion pieces), while others are directed at real-world figures, like a school principal, close to the everyday life of the students. Another major difference is the level of topic control that the students are given, as some tasks provide pre-determined topics, such as school uniforms or ecology, while others allow students to select their own topics. These differences, however, reflect much of the variation found in many studies of L1 writing and writing tasks, both in a Danish national context (e.g., Krogh & Piekut, 2015; Olsen, forthcoming; Troelsen, 2018) and a broader Scandinavian context (e.g., Blikstad-Balas et al., 2018; Dagsland et al., 2023; Vagle & Evensen, 2005), supporting the case that the texts in the corpus are typical of L1 writing.

Originally, the corpus included 15 additional texts from grade 8 based on a writing task in which students were asked to write a job application. However, these texts were excluded after a close reading revealed that they differed significantly from the other argumentative texts in their use of stance and engagement features, exhibiting a notably high frequency of self-mentions and inscribed attitude while containing far fewer hedges, boosters and attributed sources. This deviation is understandable given the rhetorical situation of a job application, in which the writer's primary goal is to present themselves confidently and persuasively rather than to engage in balanced argumentation and epistemic positioning.

4.3 Analytical approach

Stance and engagement were coded manually following a coding manual based on the theoretical framework outlined in section 3. The coding process followed a collaborative, interpretive approach, as suggested by, for instance, Braun & Clarke (2021). I held a seminar where other linguistic researchers participating in the larger study on writing education collectively reviewed and discussed coding decisions applied to specific texts. Some discrepancies initially arose, particularly as the team attuned to the distinction between invoked and inscribed attitude features, but these were resolved through group consensus, which facilitated subsequent coding. The group discussions also served to validate the initial coding and refine the interpretive framework, ensuring analytical rigor. The seminars were guided by the predefined coding framework, and discrepancies were resolved through group consensus. This approach thus aligns with general qualitative methodologies that prioritize co-constructed understanding (e.g., Terry & Hayfield, 2020) and highlight linguistic annotation, in particular, as an interpretive process (e.g., Leech, 2005), never entirely objective but always representing "one choice among a variety of plausible analyses" (McEnery & Hardie, 2011, p. 32), particularly for context-dependent linguistic features such as stance and engagement, where, as Macken-Horarik & Isaac (2014, p. 78) point out, "indeterminacy [is] at the center of the task".

To analyze differences in stance and engagement features between grade 5 and grade 8, I first calculated absolute frequencies of each feature, which was then recalculated as ratios per 100 words, enabling comparisons across texts. Descriptive statistics, including mean and standard deviation, were computed for all features, and Levene's test for homogeneity of variance was conducted to determine whether equal variance could be assumed. Based on the results of Levene's test, either Welch's t-test (for unequal variances) or a standard t-test (for equal variances) was used to test for group differences for each linguistic feature. To measure effect size, I calculated Cohen's d, using the weighted (pooled) version to account for the unequal sample sizes of 66 (grade 5) and 52 (grade 8). A power analysis for grade-level differences showed a power of 0.76, which is slightly below the conventional threshold of 0.80. This suggests that while the analysis is reasonably well-powered, it is important to keep in mind that smaller effects may not be reliably detected. Given that each grade level had different writing prompts, and the sample sizes for individual tasks are relatively small, I also conducted a statistical power analysis to estimate the possibility of examining writing task effects. The power analysis (power = 0.24), however, revealed that the sample size is too small to reliably detect differences between writing tasks.

Instead, I conducted a subsequent qualitative analysis of two texts with a frequency of stance and engagement features closest to the grade level mean. In the subsequent examination of the two texts, I focus on qualitative differences and similarities in the use of stance and engagement features in the two texts. The combination of quantitative analyses and subsequent qualitative examination are based on a sequential explanatory design (Cresswell & Clark, 2018), in which quantitative corpus methods are used to identify overarching patterns in stance and engagement features in student texts from grade 5 and 8, which are then explored through qualitative linguistic analyses to see how these patterns manifest within specific textual contexts (Tannert, 2021). The aim of this combined approach is to uncover how these patterns are enacted in individual texts, offering insights into the diverse ways disciplinary voice emerges in student writing. While the small sample size limits the generalizability of the quantitative findings, the frequency counts provide a starting point for identifying potentially relevant features that could be investigated in larger corpora across grade levels. This dual approach, supported by the purposive sampling strategy, allows for both the recognition of recurring patterns and the exploration of task- and context-specific variations in how students construct stance and engagement in L1 argumentative writing.

5. RESULTS OF THE QUANTITATIVE ANALYSIS

In this section, I present the results of the quantitative analyses. First, I give a descriptive overview of the distribution of stance and engagement features across grade levels 5 and 8, aiming to provide insight into which stance and engagement features are more predominant in argumentative writing in these grade levels. I also

present the results of the Levene's test, testing for homogeneity of variance for each feature. Second, in section 5.2, I present the results of the analysis of grade differences in stance and engagement features based on corresponding t-tests and weighted effect sizes.

5.1 Descriptive statistics and homogeneity of variance

Starting with stance, Table 5 provides the mean frequency of each feature per grade level (calculated as ratios per 100 words), standard deviations and Levene's F (including p-value).

Table 5. Stance features: Descriptive statistics and Levene's test for homogeneity of variance

Feature	Grade 5 M (SD)	Grade 8 M (SD)	Levene's F (p-value)
Hedges	1.27 (1.06)	0.60 (0.47)	31.76 (<0.01*)
Boosters	0.36 (0.54)	0.42 (0.34)	2,80 (0.01*)
Counters	0.72 (0.64)	0.49 (0.41)	10.59 (<0.01*)
Attitude (inscribed)	3.26 (1.45)	2.99 (1.26)	0.10 (0.75)
Attitude (invoked)	2.99 (1.24)	1.94 (0.82)	4.72 (0.03*)
Reformulation markers	0.31 (0.43)	0.18 (0.25)	8.54 (<0.01*)
Self mentions	4.66 (2.82)	1.37 (0.98)	32.53 (<0.01*)

Note: M = Mean; SD = Standard deviation. Levene's test assesses the equality of variances between grade levels, with a significant p-value (< 0.05, marked with an asterisk) indicating unequal variances.

Overall, attitude is a prominent feature in the corpus, appearing frequently in both invoked and inscribed forms. Hedges (e.g., "it might be a good idea to…") are more common than boosters (e.g., "there is certainly need for more…") and counters (e.g., "as opposed to my parents, I like to lie around…"), suggesting a tendency toward cautious expression. Self-mentions are particularly prevalent in grade 5, indicating a strong personal presence in the texts. In contrast, reformulation markers (e.g., "there are, in other words, no…") are the least frequent stance feature. Significant p-values in Levene's test (<0.05) for hedges, counters, invoked attitude, reformulation markers, and self-mentions indicate that these features exhibit significantly different variability across the two groups. The most pronounced differences in variance are seen for hedges ($F = 31.76$, $p < 0.01$) and self-mentions ($F = 32.53$, $p < 0.01$), suggesting substantial differences in how consistently these features are used within each grade. In contrast, attitude (inscribed) ($p = 0.75$) shows no significant difference in variance, meaning its distribution is relatively stable across grades. Boosters ($F = 2.80$, $p = 0.01$) do exhibit significant differences in variance across grades, but the magnitude of this variance difference is not as pronounced as in other features.

Turning to engagement features, Table 6 provides descriptive statistics and Levene's F for all engagement features.

Table 6. Engagement features: Descriptive statistics and Levene's test for homogeneity of variance

Feature	Grade 5 M (SD)	Grade 8 M (SD)	Levene's F (p-value)
Questions	0.28 (0.44)	0.65 (0.49)	2.23 (0.14)
Direct reader address	0.54 (0.80)	0.27 (0.42)	20.92 (<0.01*)
Directives	0.04 (0.14)	0.12 (0.26)	5.35 (0.02*)
Unattributed sources	0.17 (0.40)	0.02 (0.06)	29.17 (<0.01*)
Attributed sources	0.47 (0.97)	0.42 (0.35)	2.41 (0.12)
Direct quotation	0.04 (0.18)	0.19 (0.29)	16.57 (<0.01*)

Note: M = Mean; SD = Standard deviation. Levene's test assesses the equality of variances between grade levels, with a significant p-value (< 0.05, marked with an asterisk) indicating unequal variances.

In general, engagement features are less frequent than stance features. This is unsurprising, not because engagement features are difficult to identify using the framework, but because they operate at a more global, interactive level of the text rather than at the lexical level, which is where most stance features are realized. The most predominant engagement features in the corpus are direct reader address (e.g., "Dear school principal" or "have you ever thought about…") and attributed sources (e.g., "according to the prime minister's statements in this article…"). Directives and direct quotations are quite rare in the corpus, suggesting that they do not necessarily reflect a strong engagement strategy at these grade levels. Levene's test reveals significant differences in variability for direct reader address ($p < 0.01$), directives ($p = 0.02$), unattributed sources ($p < 0.01$), and direct quotation ($p < 0.01$), indicating that the variance in these features differs significantly between the grade levels. This suggests that there is greater inconsistency in the use of these features across the grades. For instance, direct reader address shows considerable variance between grades 5 and 8, reflecting a clear difference in how students utilize this feature within these grade levels.

5.2 Grade differences in stance and engagement features

Table 7 shows grade differences and effects sizes for stance features across grade levels. Positive *t*-values and effect sizes indicate that grade 5 students use the feature more frequently than grade 8 students, while negative *t*-values and effect sizes suggest that grade 8 students use the feature more frequently than grade 5 students.

Table 7. Grade differences in stance features (t-test and Cohen's d)

Feature	t-value	p-value	Cohen's d
Hedges	4.57	<0.01*	0.73
Boosters	-0.67	0.51	-0.12
Counters	2.35	0.02*	0.39
Attitude (inscribed)	1.01	0.28	0.19
Attitude (invoked)	5.52	<0,01*	0.92
Reformulation markers	2.17	0.03*	0.35
Self mentions	8.83	<0.01*	1.40

Note: Asterisks (*) indicate statistical significance at p < 0.05. Welch's t-test was used when Levene's test indicated unequal variances; otherwise, a standard t-test was applied. Cohen's d effect sizes are interpreted as small (0.2), medium (0.5), and large (0.8).

The analysis of stance features across grade levels reveals several key differences. While one might expect the presence of stance features to increase from grade 5 to grade 8, the analysis shows that the opposite is actually the case with most features. Grade 5 students use hedges, counters, attitude (invoked), reformulation markers, and self-mentions more frequently than grade 8, with significant differences and effect sizes ranging from moderate (*Cohen's d* = 0.35 for reformulation markers) to large (*Cohen's d* = 1.40 for self-mentions). Specifically, hedges (*Cohen's d* = 0.73), counters (*Cohen's d* = 0.39), and attitude (invoked) (*Cohen's d* = 0.92) all show notable differences, with grade 5 students exhibiting a higher frequency of use. Reformulation markers also show a significant difference, but with a smaller effect size (*Cohen's d* = 0.35). In contrast, boosters do not exhibit a significant difference (*t*-value = -0.67, *p* = 0.51, *Cohen's d* = -0.12), suggesting that both grades use boosters at similar frequencies.

Turning to engagement features, Table 8 presents similar information to table 7 regarding grade differences and effect sizes.

Table 8. Grade differences in engagement features (t-test and Cohen's d)

Feature	t-value	p-value	Cohen's d
Questions	-4.27	<0.01*	-0.74
Direct reader address	2.33	0.02*	0.38
Directives	-1.91	0.06	-0.35
Unattributed sources	3.07	<0.01*	0.48
Attributed sources	0.33	0.74	0.06
Direct quotation	-3.29	<0.01*	-0.61

Note: Asterisks (*) indicate statistical significance at p < 0.05. Welch's t-test was used when Levene's test indicated unequal variances; otherwise, a standard t-test was applied. Cohen's d effect sizes are interpreted as small (0.2), medium (0.5), and large (0.8).

In Table 8, several significant grade-level differences in engagement features are observed. Grade 5 students use questions, directives, and direct quotations less frequently than Grade 8 students, with all showing negative t-values and moderate to large effect sizes (*Cohen's d* ranging from -0.35 for directives to -0.74 for

questions). In contrast, grade 5 students show higher frequencies of direct reader address, unattributed sources, and attributed sources, with positive *t*-values and moderate effect sizes (*Cohen's d* ranging from 0.38 for direct reader address to 0.48 for unattributed sources). Notably, however, attributed sources do not show a significant difference between the grade levels.

6.   A QUALITATIVE LOOK AT TWO STUDENT TEXTS

I turn now to examine two texts from the corpus that exhibit feature frequencies close to the grade means. To provide context, I also incorporate information on the writing task and briefly summarize relevant observations from the classroom instructional units during which the texts were written. For reasons of space, I provide an overview of examples illustrating the most predominant tendencies in the texts, rather than providing full-text examples.

6.1 Text 1 (grade 5)

Text 1 is written by a girl from grade 5 and is written as a response to writing task 4 (see Table 4). In this writing task, students were asked to write an argumentative letter to the school principal, in which they debate a school-related issue of their own choice. The teacher began the course by using a Coca Cola advertisement to illustrate the persuasive nature of arguments, followed by a class discussion. Students then watched a film about argumentative techniques and discussed the differences between subjective and objective arguments. They engaged in various activities, including identifying arguments in texts, debating the pros and cons of abolishing quiet time during lunch, and writing speeches in groups. These activities were used to prepare students for working on their individual text related to school issues, involving both individual writing and group discussions on their texts in the process.

Table 9. Excerpts from text 1 exemplifying the use of stance and engagement features

Excerpts exemplifying the use of stance	Excerpts exemplifying the use of engagement
[1] I was pleased, because I believe, that it is important that we cultivate a sense of community here at the school. [2] Community dining can be beneficial for many things. [3] I can already now imagine the lonely student with a unique interest meeting another student who shares the same interest […] [4] This could hopefully be carried over into the school breaks […] [5] For example, community dining can help people who feel lonely, which we know is a problem […]	[6] In this article (https://frivillighed.dk/kurser/naar-faellesspisning-handler-om-meget-mere-end-mad), they write that communal dining can be beneficial for several things.

Note: Translated from Danish by the author (spelling mistakes in the original Danish text have not been retained in the translation).

The most dominant stance features in text 1 are inscribed and invoked attitude markers, hedges and self-mentions. Example 1 and 2 in Table 9 are typical examples of lexically inscribed attitude markers in the text where the student positively appraises community and community dining by explicit use of the adjectives "important" and "beneficial". Both examples are, however, also examples of another typical feature in the text, namely that many of the inscribed attitude markers are also hedged, in the two examples by using the epistemic verb "believe" in example 1 and a modal verb "can" in example 2. In example 3, we see a typical example of attitude of a more invoked character, in which the student positively appraises the scenario of two students with special interests meeting without directly stating an emotion, but instead relying on the reader to infer the positive appraisal from the described scenario. As we have already seen examples of, the typical hedges of the text are epistemic verbs in conjunction with self-mentions. In example 4, we see both a verbal hedge (the modal verb "could") and the only example of an adverbial hedge in the text ("hopefully"). Example 5 shows, besides more examples of inscribed attitude (refers to people feeling lonely as a problem) and hedges (the modal verb "can"), the only examples of reformulation markers ("for instance") and boosters (the epistemic verb "know") in the text.

The text contains relatively few engagement features. In terms of the use of attributed and unattributed sources, example 5 shows the student making reference to unattributed sources by stating that "we know" that people who feel lonely is a problem, without explicitly addressing where this knowledge comes from, whereas example 6 shows the use of an explicit text-deixis reference, the only example of this in text 1. When taking the writing task into account (an argumentative letter with an explicit and real reader), it is surprising that the text does not contain more engagement features, particularly "direct reader address". A brief examination of

the other texts in the corpus related to the writing task, reveals, however, that this is a distinctive feature of this particular text, as most of the other texts from this particular writing task contained direct reader addresses at least at the beginning (e.g., "Dear [name of principal]) and end of the text (e.g., "I hope I have convinced you that […]").

6.2 Text 2 (grade 8)

Text 2 is written by a boy from grade 8 based on writing task 5 which required students to write an essay on a topic of their choice. The writing process included phases such as content discovery, structuring, and the use of sensory words. Although each student wrote individually, many collaborated closely during the writing process. Instruction involved minimal classroom dialogue, with students mostly sitting in pairs writing their individual texts while the teacher walked around, answering questions and providing feedback on specific parts of their texts.

Table 10. Excerpts from text 2 exemplifying the use of stance and engagement features

Excerpts exemplifying the use of stance	Excerpts exemplifying the use of engagement
[1] Substance abuse is a serious problem that can cause devastating problems and risk the health and life of the abuser.	[6] How hard is really to stop, is it the smell of smoke from a cigarette that makes you addicted?
[2] It can also create problems in social life and decrease one's ability to function in everyday life.	[7] Can we really allow ourselves to ignore the consequences of substance abuse and not take steps to help those affected, even though so many people live with it?
[3] It may be, that you think something very different on this issue.	
[4] Many believe that substance abuse is a personal choice and nothing more […]	
[5] Substance abuse can affect both mental health, but also the physical health in many ways.	

Note: Translated from Danish by the author (spelling mistakes in the original Danish text have not been retained in the translation).

Text 2 exhibits a range of different stance features. Inscribed attitude is prevalent in text 2, just as it was in text 1. As can be seen in example 1 and 2, which are very typical for the text, substance abuse is negatively valorized through the use of adjectives ("serious", "devastating"), nouns ("problems") and verbs ("risk", "decrease"). Unlike text 1, however, the inscribed attitude markers are rarely accompanied by verbal hedges and self-mentions. While equally normative and appraising, the student in text 2 attunes a more content-focused style, assuming that the underlying assumptions are shared by the reader, and therefore the student does not hedge the statements through epistemic verbs and the insertion of an authorial presence in the text. In example 3, we see a type of hedging that is more reader-oriented, explicitly addressing the reader and using it to acknowledge and

incorporate the reader's potential differing opinions, thereby establishing epistemic caution to the utterances that follow. In example 4, we see a rare example of a booster, where the phrase "many believe" suggests that the opinion is widely held and therefore carries more weight or credibility. This is, however, the only booster in the text. Example 5 shows a general trait of the text, which is the use of counters as a way of engaging with the content of the text, establishing contrast and balance while also engaging the reader by prompting them to consider multiple aspects of the topic.

In terms of engagement features, text 2 also has limited features, but the ones present differ from those in text 1. We have already seen in example 5 the use of direct reader address using a second-person pronoun. In example 4 and 5, we see other examples of reader engagement, this time using questions. Although they are both rhetorical questions, they are used in the text in different ways. Example 6 engages the reader by prompting curiosity and reflection on the nature of addiction, while example 7 appeals to the reader's sense of morality and ethics, urging them to consider their responsibility and take action. The former has an exploratory tone, whereas the latter serves as a call to action at the end of the text. Notably, there are no attributed or unattributed references to sources in the text. This absence of source references may be linked to the reflective tone of the essay genre, which, although argumentative and persuasive in nature, encourages a more personal and reactive style. Additionally, the lack of explicit instruction on source use in the observed writing context could have contributed to this pattern, just as the writing task itself did not explicitly require students to engage with external sources, which may have led them to focus more on personal reasoning and direct engagement with the reader rather than incorporating evidence from other texts.

6.3 Similarities and differences

While both texts employ stance and engagement features characteristic of argumentative writing, they do so in notably different ways. A key similarity is the frequent use of inscribed attitude in both texts, with explicit positive or negative evaluations reinforcing their arguments. However, the hedging strategies differ. In text 1, hedging is primarily achieved through epistemic verbs in conjunction with self-mentions, whereas in text 2, hedging is more limited, with one notable example acknowledging alternative perspectives without explicitly marking epistemic uncertainty.

Engagement features are limited in both texts but manifest differently. Text 1 lacks direct reader address, which is unexpected given the explicit communicative situation of writing to a school principal. In contrast, text 2 includes direct reader address and rhetorical questions that prompt reflection or appeal to the reader's sense of morality. Another significant difference is the presence of source references. Text 1 includes an instance of attributed and unattributed sources, whereas text 2 lacks them entirely. This may be influenced by genre differences, as

the essay format of text 2 leans more toward personal reasoning. These differences highlight how genre expectations, writing task, instructional context, and individual writer choices shape the use of stance and engagement features in the texts.

7. DISCUSSION

The results show, firstly, that the theoretical framework for studying emerging stance and engagement, developed during the initial close readings of texts in the corpus, does capture the linguistic resources students use to position themselves epistemically and the way they engage with readers and other voices in the texts. Secondly, the results show that it is possible to detect differences in the realization of disciplinary voice in argumentative writing across grade levels 5 and 8, although these are likely also affected by a range of contextual factors, as suggested by the qualitative text analyses. Unlike disciplinary writing in professional academic domains, where the discourse community shares epistemic and communicative goals and engages in a range of both hidden occluded genres and published texts (Swales, 1998), disciplinary writing in primary and lower secondary school is characterized by more segmented and unrelated discourse patterns, where in the words of Christie & Derewianka (2008, p. 31) "the learning of one confers to no necessary advantage in learning another". So, while disciplinary writing in its purest and professional form is considered a shared and communal effort, disciplinary writing in school is more fragmented, presenting students with diverse and often disconnected opportunities to practice writing in various genres for different, often imagined, audiences—what Smidt (2009) refers to as the multidimensional situatedness of writing classrooms. In this paper, however, I have tried to show that despite the breadth of differences in the nature and purpose of writing across domains, argumentative writing in L1 education shares a disciplinary voice that is realized by linguistic resources that engage readers and adopt a stance based on epistemic positioning. The study therefore highlights how school-based argumentative writing fosters an emergent disciplinary voice—one that is linguistically related to, yet pragmatically distinct from, the disciplinary voices found in professional academic settings.

7.1 Modes of argumentative writing

The motivation behind looking at grade-related group differences is not only to study what Hudson (2009) refers to as linguistic maturity, i.e. developmental progress in writing ability as students advance in age and writing experience, but also to shed some light on the disciplinary norms that shape argumentative writing in L1 education at these two grade levels. As shown in the analysis of grade differences (section 5.2), the patterns suggest two modes of argumentative writing that emerge across grade levels and writing tasks. In grade 5, students rely more heavily on personalized and expressive argumentation, characterized by frequent use of self-

mentions, a higher use of inscribed attitude markers, and a greater reliance on hedges to signal epistemic caution. As suggested in the qualitative analysis, hedging may be driven by a verbal form of hedging in conjunction with first person pronouns, emphasizing the personal, argumentative style in grade 5. This mode suggests a more subjective engagement with the topic, where writers position themselves explicitly in relation to their arguments. In contrast, findings from grade 8 suggest a shift toward detached and structured argumentation, marked by a reduction in self-mentions, a greater use of invoked attitude markers, and an increased reliance on reformulation markers and counters. This indicates a move toward a more formalized and abstract disciplinary voice, engaging more in exposition, where arguments are structured with less explicit authorial presence and with more emphasis on reasoning through textual and metadiscursive strategies.

Although the findings seem to indicate that as students progress in their writing development across grade levels, they move from a more self-centered approach to argumentation toward a more content-focused style, the presence of both modes within each grade (as evidenced by the significant variance within grade levels) suggests, however, that argumentative writing in L1 education does not follow a strictly linear developmental trajectory; rather, writing is also shaped by individual factors, instructional practices and genre expectations. Other studies have previously shown that linguistic features used in argumentative writing, particularly, are sensitive to a range of contextual factors (Allen et al., 2019), such as instructional practices (MacArthur et al., 2019) and writing tasks (Allen et al., 2016). Therefore, while this study explores cross-sectional differences in stance and engagement in grade 5 and 8, it does not suggest that the grade differences indicate generalizable traits intrinsic to the individual writers. Instead, it highlights the socially situated disciplinary norms and conventions in L1 writing instruction that are specific to the grade levels and writing tasks at the participating Danish schools. Skilled argumentative writing is not reducible to mastering an absolute set of linguistic or metadiscursive skills but is rather associated with navigating the complex requirements of disciplinary writing in L1 education, characterized by, for instance, engagement with abstract and interpretive meanings through literary analysis and persuasive, personal writing (Schleppegrell, 2004). This has also been referred to as, for instance, variability in writing (Fogal, 2020), being a designer of writing (Myhill, 2009) or the linguistic flexibility hypothesis (Allen et al., 2016). Thus, rather than assuming generic developmental trajectories, the findings in this study point to tendencies in how disciplinary voices are enacted in specific socially situated writing classrooms, both unique in their contextual configuration, while also influenced by disciplinary conventions and discourses that shape how voice is constructed in L1 argumentative writing.

7.2 Disciplinary voices in L1 writing

In some accounts of voice, such as the one notably taken by Elbow (1994) and later critically discussed by, for instance, Ramanathan & Atkinson (1999), voice is a personal, expressive and less uniform phenomenon, contrasting the, to some extent, deductive approach adopted in this study. In contrast to the idea of voice as an inherent, individual quality of a writer, Hyland (2008) argues that voice is shaped by social, cultural, and institutional contexts. From this view, writers develop voice through their participation in discourse communities, negotiating between personal expression and disciplinary norms. Voice is, in this perspective, an inherently intertextual practice, or in a more Bakhtinian phrasing: a dialogic practice where voice is co-constructed through interaction with existing disciplinary discourses (Bakhtin, 1981). Hyland (2008), however, also highlights that voice is not static, but rather a flexible resource that writers draw upon when engaging in different writing tasks and adapting to specific audience expectations, rhetorical situations and genre conventions. Reuter & Lahanier-Reuter (2008) refer to this as a process in which students seek to demonstrate disciplinary awareness by navigating the changing and heterogenous disciplinary configurations and writing universes of subjects, that shape not only the content and form of writing but also the linguistic and rhetorical choices that convey expertise and authority in a given field.

   With this in mind, this study of stance and engagement in L1 argumentative writing does not aim to define a uniform disciplinary voice. Rather, it emphasizes that the linguistic resources used to establish disciplinary voice both reflect general linguistic categories, such as those in the stance and engagement framework adapted from Hyland (2005), which are shaped by disciplinary conventions for argumentative discourse, and are also expressed differently depending on the writing context, thereby highlighting a flexible and context-sensitive dimension of voice. As argued by Tardy (2016), textual orientations to voice in which voice is measured as something either present or absent in the text, is in opposition to a more dialogic approach, where voice is always present in all texts. According to Bazerman (1992), however, understanding disciplinary writing requires attention to what a text does within local networks of activity and what it says, thereby underlining the importance of the text as something operationally significant in studies of disciplinary writing. By examining stance and engagement as aspects of disciplinary voice in L1 argumentative writing, this study offers insight into how disciplinary voice emerges within the texts in the corpus, while acknowledging that it does not provide a comprehensive account of the complex dialogic nature of disciplinary voices in L1 education.

7.3 Limitations of the study

One limitation of this study is its cross-sectional design that limits conclusions about how stance and engagement develop for individual students, as well as the relatively

small and non-representative corpus, which restricts the generalizability of the findings. However, this smaller dataset was necessary to enable the development of a nuanced, data-informed framework for analyzing stance and engagement—a framework that can be applied to larger corpora in future research. Another limitation is the use of broad linguistic categories, which likely contain more nuanced patterns of variation. For example, the qualitative analysis indicated that although overall hedge use decreases from grade 5 to grade 8, it is possible that specific types of hedges follow different developmental trajectories (e.g., the use of epistemic verbs)—a level of detail that was beyond the analytical scope of this quantitative study due to the manual annotation of fourteen features in a, by manual annotation standards, relatively large corpus. Additionally, while qualitative analyses of two texts from the corpus hinted that writing tasks are likely to influence stance and engagement features, the quantitative study design does not account for these effects due to limitations in statistical power.

7.4 Future research

Building on the findings of this study, future research could benefit from expanding both the scale and scope of investigation into disciplinary voice in L1 argumentative writing. Large-scale corpus studies would allow for a more comprehensive analysis of linguistic patterns across diverse educational contexts, capturing broader trends in how stance and engagement are enacted in texts across grade levels. Additionally, research designs that systematically account for the influence of specific writing tasks could provide deeper insight into how task conditions shape students' linguistic and metadiscursive choices. Given the finding in this study that attitude is a prominent feature in argumentative stance and engagement, future work could also explore the development and role of evaluative resources (attitude), building on Painter's (2003) observation that young children initially express appreciation or reaction, with judgement and social evaluations emerging later as part of schooling.

Beyond textual analysis, future studies could also explore the enactment of voice at multiple levels, from individual identity construction to classroom interactions and disciplinary norms as they are realized in specific educational settings. This could include ethnographic and discourse-analytic approaches that examine teacher-student discussions, peer interactions, and talk-around-text interviews, shedding light on how students negotiate and develop their disciplinary voices within particular classroom environments.

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