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Article

Audience awareness in elementary school students' texts: Variations within and between grades 1–3

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Abstract

In this study, we investigated audience awareness characteristics in elementary school students' texts. To achieve this goal, we used a cross-sectional study design and sampled texts from 90 students in grades 1–3 (N = *270). These texts formed a corpus that was qualitatively analyzed by the research team. We used descriptive statistics to identify audience awareness patterns. Based on previous research, we expected to find considerable variation within and between grades. Therefore, we posed the following two research questions: (1) What characterizes audience awareness within grades 1–3? and (2) How does audience awareness develop between grades 1–3? We found that students used various rhetorical moves oriented toward the audience, such as greetings and closings, meta-text, explanations, and justifications. The results indicated that the students exhibited several characteristics related to audience awareness in all three grades. However, the variation within the grades was significant, while the variation between the grades was less pronounced.*

KEYWORDS: AUDIENCE AWARENESS, ELEMENTARY SCHOOL, WRITING, WRITING DEVELOPMENT

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Introduction

In recent years, early writing instruction has received increased attention in Norway. A new law obliges schools to provide extracurricular assistance to students in grades 1–4 who run the risk of 'falling behind' (Skar et al., 2022). Moreover, a new national curriculum has provided schools with four writing-related competency aims (i.e., learning objectives) to be achieved after the second grade: (1) describe and narrate orally and in writing; (2) write texts by hand and using a keyboard; (3) use capital and small letters, periods, question marks, and exclamation marks in writing; and (4) write texts that combine writing and pictures.[1] The same curriculum also describes a student's anticipated writing development, noting that 'writing proficiency within the language arts subjects develops from basic skills to a proficiency to plan, draft, and revise texts in different genres, *adapted to the purpose of writing, the medium and the intended audience*' (emphasis added).[2] Although 'basic skills' are undefined in the curriculum, it is plausible to think that these are covered by competency aims 2–4, while higher-level writing proficiency is covered by competency aim 1. It is worth noting that competency aims 2–4 can be evaluated relatively easily, while competency aim 1 poses a greater challenge in this regard, as the curriculum does not specify the characteristics associated with satisfactory descriptions and narratives. Therefore, it is unclear what to expect in terms of adaptation to the purpose of writing, the medium, and the intended audience.

Writing in elementary schools has been highlighted in several recent Norwegian research projects. Two explorative studies investigated writing instruction in grades 1–3 and found varied practices, with some teachers offering students multiple opportunities to write and presumably develop their writing skills (Graham et al., 2021), while others postpone writing instruction to the second half of the first school year (Håland et al., 2019). Another ongoing project has investigated how different modes of writing (handwriting vs. writing using digital tools) affect writing development (Gamlem et al., 2020), and a fourth, also ongoing, project has tested the hypothesis that an early start for 'meaningful' writing would have a positive impact on students' writing development (Skar, Aasen, et al., 2020). A fifth project was conducted to establish performance standards for identifying students who risk falling behind (Skar et al., 2022).

Such research-based knowledge is sorely needed, as neither the new law nor the competency aims in the curriculum have been backed up by empirical or theoretical knowledge about writing development in general or writing development in Norway in particular. While the aforementioned projects have provided and will continue to provide new knowledge, a better understanding is still needed in terms of what to expect of students'

descriptive and narrative writing. This need is also related to the evaluation of whether students achieve the competency aims. If teachers are to evaluate the extent to which students can write descriptions and narratives with regards to purpose, audience, and medium, we need to know what characteristics of student texts one might expect to encounter at these grades. This study was designed to provide insights that could help reduce this knowledge gap by investigating the audience awareness characteristics in young children's writing.

Young Children and Audience Awareness

Audience awareness have received various treatments in prior research, partly dependent on the theoretical approach that has guided the investigations. Berge (2012), for example, debated how 'anthropologic text science' on the one hand, and systemic-functional linguistics on the other treated (or neglected) the interaction between a writer and reader, mediated through a text. Another example is research of style and stylistics which in some cases (e.g., Cassirer, 2003) have been conducted to establish more or less context-independent descriptions of for example formal and unformal writing styles.

The current investigation has been guided by more cognitively oriented research, which in some cases can be said to focus less on context and more on the cognitive processing processes associated with writing. This is of particular interest when investigating young writers' adaptations to audience, since one can presume that a beginning writer – very much unlike the adult expert – cannot draw on a rich experience of how certain communicative choices may or may not affect a presumed reader. Nor is it plausible to think that children entering school (aged 5.5 years) necessary will command all the tools of writing. Indeed, previous cognitively oriented research into writing development has demonstrated how transcriptional skills (i.e., handwriting, spelling, etc.) afford or constrain a writer, in the sense that automatization of transcriptional skills frees up cognitive capacity, which allows one to engage in the substantive aspects of text generation (Berninger, 1999; Bourdin & Fayol, 1994; Graham, 1999). However, such automatization does not guarantee the successful crafting of texts, as automatization is only a first step in a potentially long path to developing writing proficiency.

Previous writing-process research on developmental paths has documented distinct stages in writing development, from *knowledge telling* via *knowledge transforming* to *knowledge crafting.* The findings have suggested that students usually need 10 to 20 years to develop the writing proficiency required for reaching the stage of knowledge crafting whereby they

understand the relationship between characteristics of their own texts and readers' possible interpretations (Bereiter & Scardamalia, 1987; Kellogg, 2008; Rijlaarsdam et al., 2012). The knowledge-telling strategy is associated with a quick and relatively effortless retrieval of content and discourse knowledge based on an interpretation of the writing assignment, while the knowledge-transforming strategy entails goal setting and 'a two-way interaction between continuously developing knowledge and continuously developing text' (Bereiter & Scardamalia, 1987, p. 12).[3] This interaction involves, for example, situations in which a text is used by the writer herself as new input, which can lead both to knowledge development and to revisions of the text. Young writers are more likely to rely on the knowledge-telling strategy than the knowledge-transforming strategy.

The characteristics of the knowledge-telling strategy are relevant to audience awareness. Bereiter and Scardamalia noted that 'much of the bad writing that one sees is explainable by the knowledge-telling model – writing that seems to lack purpose, plan, or consideration of the reader' (1987, p. 29). It has also been proposed that the information that a writer retrieves via the knowledge-telling strategy will not be 'transformed in order to be adapted to the reader' (Carvalho, 2002, p. 273). Therefore, the use of this strategy may explain findings from other studies, which indicate that some writers pay little attention to audiences (Graham, 1997) and exhibit consistency-related difficulties in writing according to the genre and maintaining proper distance to readers (Brisk, 2012) and, finally, that students' writing lags behind students' oral skills in terms of audience adaptation (Kroll, 1978) and the capability of using cohesive devices (Pinto et al., 2016).

The causes of young writers' lack of audience awareness are interesting in relation to the Norwegian curriculum because insights into these causes may contribute to generating reasonable expectations of writing proficiency in elementary schools. Put simply, if young writers lack cognitive maturity (Carvalho, 2002), the empathic ability to view their texts from the reader's perspective (an argument referred to by Sharples, 1999), and/or strategies for focusing on the needs of the audience, then the expectations implied in the curriculum – that students should be able to develop skills for adapting their writing to readers – may be unreasonable. However, this conclusion may be premature due to various reasons.

First, findings indicate that children can show empathy at the age of two years (Eisenberg, 2000). Second, a writer may be unable to set goals and revise a text with an audience in mind (i.e., employ a knowledge-transforming strategy) while still having readily available genre schemata that can be retrieved when employing a knowledge-telling strategy (Bereiter & Scardamalia, 1987, p. 29); it is important to understand that a text-writing strategy cannot be inferred from the reading of a text. Third, the causes of

seemingly poor adjustments to the needs of a distanced audience may be related to young writers' unlikely engagement in the 'compare, diagnose, and operate (CDO)' processes, in which writers compare their texts to a representation of the intended text (Bereiter & Scardamalia, 1987, p. 267). Going through these stages could lead to revised (and better) texts, but, according to Bereiter and Scardamalia (1987), young children do not routinely engage in CDO processes, thereby failing to revise their texts.

A fourth reason for refuting the claim that young students are unable to exhibit audience awareness in texts stems from several investigations that have explored how an instructional focus on audiences may impact text quality. In a small-scale study, which inspired our own research, Wollman-Bonilla (2001) investigated the audience awareness expressed in texts written by four children aged 5–7 years and found that these young writers were able to express audience awareness. When validating rating scales, Skar et al. (2020) found that an audience awareness scale provided valid and reliable information on text quality. Durán (2017) noted that first-grade students who participated in a curriculum that highlighted audiences could express audience awareness, as could second-grade students in a study by Block and Strachan (2019) when writing texts to prompts with audiences specified. Several investigations on somewhat older students (grade 5 and upward) showed that writing for an audience results in better texts (Cohen & Riel, 1989; Roen & Willey, 1988; Sato & Matsushima, 2006) and that students being invited to take a reader's perspective also results in better texts (Holliway & McCutchen, 2004; Moore & MacArthur, 2012). Students also seem to write better when instructed in strategies for considering audiences (Carvalho, 2002; Midgette et al., 2008).

The instructional impact presented above points to context-dependent aspects of audience awareness. From a socio-cultural perspective (Graham, 2018), adapting texts to an anticipated audience requires the writer and the reader to share textual norms (Russell, 1997; Russell & Yañez, 2003). Textual norms and conventions differ between contexts, regions, and countries (Evensen, 2002; Graham & Rijlaarsdam, 2016; Purves, 1992). This position has at least two important consequences for our investigation. First, audience awareness – whether by critically scrutinizing one's own text in relation to one's understanding of audience needs or by retrieving already available schemata – is likely to differ between contexts. Second, this implies that investigations of audience awareness may benefit from adopting context-specific research design. The findings from previous studies imply that even if elementary school students tend to employ knowledge-telling strategies, which has been associated with poor audience adjustment, it is by no means rare to find traces of audience awareness in texts by these students. The expectations expressed in the curriculum may thus

be warranted. However, we lack descriptions of *what* audience awareness might look like for elementary school students in grades 1–3 in Norway, which is the context in which this study was conducted.

Aims and Research Questions

The aim of our study was to explore audience awareness characteristics in elementary school students' texts. Based on previous research into the same student group (Skar, Lei, et al., 2021), we expected to find considerable variation within and between grades. Therefore, we posed the following two research questions:

- What characterizes audience awareness within grades 1–3?
- How does audience awareness develop between grades 1–3?

Based on the previous research discussed earlier, we expected that students in all three grades would exhibit audience awareness.

Method

Research Design Overview

To investigate audience awareness in students' texts, we used a cross-sectional study design and sampled texts from 90 students in grades 1, 2, and 3 (N = 270). These texts formed a corpus that was analyzed by the research team. We used descriptive statistics to identify audience awareness patterns. Below, we present our data sources, sampling strategy, and the analysis in more detail.

Data Sources and Sampling Strategy

The corpus constituted a representative sub-sample of a large pool of texts (N = 6,058) that were written by students in grades 1–3 (aged 6–8 years) and were scored for text quality (see Skar, Lei, et al., 2021, for details on the scoring procedure and the representativeness of the larger sample; see Skar, Kvistad et al., 2021, for information on the scoring criteria). The corpus used in the present investigation was representative in terms of *score groups*. For each grade, we randomly sampled 30 texts from three distinct score groups: texts with low scores, texts with mean scores, and texts with high scores. Technically, we portioned all texts from each grade into three groups based on z-scores to sample students well below or above the mean (more than 1.5 standard deviation [SD]) and around the mean (± 0.5 SD).[4] Texts with standardized scores below -1.5 were placed in the group 'Low Scores' (LS), texts with scores in the range of -0.5–0.5 were placed in the group 'Mid-Scores' (MS), and texts with scores of and above 1.5 were

placed in the group 'High Scores' (HS). Tables 1–3 describe the large corpus of 6,058 student texts (Table 1), the score-group sample (Table 2), and the sub-sample of the students whose texts we analyzed (Table 3). As can be seen, the mean scores of the groups in the sub-sample were almost identical to the mean scores of the larger score groups. We thus argue that the sampling strategy and the resulting closeness in scores provided us with a corpus that was both suitable for answering questions related to variations within and between grades and was representative of the larger corpus.

Table 1. Descriptive Statistics for the Entire Data Set

	Boys		**Girls**		**Total**	
	n	M (*SD*)	*n*	M (*SD*)	*n*	M (*SD*)
1st grade	1,097	2.53 (0.57)	1,073	2.77 (0.50)	2,170	2.65 (0.55)
2nd grade	933	2.98 (0.57)	1,023	3.30 (0.55)	1,956	3.15 (0.58)
3rd grade	917	3.34 (0.64)	1,015	3.72 (0.58)	1,932	3.54 (0.64)
Total	2,947	2.92 (0.68)	3,111	3.25 (0.67)	6,058	3.09 (0.69)

Note. M = average Text Quality Score for each group.

Table 2. Descriptive Statistics for All Students in LS, MS and HS

	LS			**MS**			**HS**		
	n (% female)	M (*SD*)	Range	*n* (% female)	M (*SD*)	Range	*n* (% female)	M (*SD*)	Range
1st grade	180 (28.3)	1.41 (0.27)	1.01–1.82	939 (47.8)	2.67 (0. 16)	2.38–2.92	78 (73.1)	3.70 (0.18)	3.48–4.22
2nd grade	125 (28)	1.83 (0.39)	1.01–2.27	838 (51.7)	3.15 (0.16)	2.86–3.43	123 (78)	4.23 (0.18)	4.02–4.73
3rd grade	115 (20)	2.05 (0.51)	1.01–2.58	761 (53.9)	3.54 (0.18)	3.22–3.85	98 (79.6)	4.67 (0.12)	4.51–4.98

Note. LS = Low Scores, in the range $z = \leq -1.5$; MS = Mid-Scores, in the range $z =$ -0.5–0.5; HS = High Scores, in the range $z = \geq 1.5$; range = the *z*-score range equivalents on the original scale; M = average Text Quality Score for each group.

Table 3. Sub-Sample

	n	**LS**		**MS**		**HS**	
		n (% female)	M (*SD*)	*n* (% female)	M (*SD*)	*n* (% female)	M (*SD*)
1st grade	90	30 (33.3)	1.44 (0.32)	30 (56.7)	2.65 (0.15)	30 (60)	3.71 (0.20)
2nd grade	90	30 (13.3)	1.72 (0.46)	30 (50)	3.20 (0.16)	30 (70)	4.22 (0.18)
3rd grade	90	30 (26.7)	2.16 (0.44)	30 (46.7)	3.59 (0.19)	30 (86.7)	4.66 (0.11)

Note. LS = Low Scores, in the range $z = \leq -1.5$; MS = Mid-Scores, in the range $z =$ -0.5–0.5; HS = High Scores, in the range $z = \geq 1.5$; range = the *z*-score range equivalents on the original scale; M = average Text Quality Score for each group.

The Texts in the Corpus

All texts in the corpus were answers to the same writing task (presented in detail in Skar, Lei, et al., 2021). The writing task, which was administrated at the end of the academic year in the spring of 2019, instructed the students to write an answer to the researchers at the university in Trondheim, informing the researchers of what the students enjoyed doing during recess. The teachers were instructed to first read aloud a letter *from* the researchers to the students. This letter (Appendix 1) asked the students what they enjoyed doing. After reading the letter, the teachers were instructed to have a brainstorming session while the students were shown a picture of a school playground (Appendix 2) before instructing the students to craft a reply letter to the researchers. The teachers were specifically instructed not to use blackboards and the like during the brainstorming session or to let the students have the letter from the researchers in front of them during writing (Appendix 3). The teachers were informed that the test would take about an hour, including the brainstorming session. The students wrote by hand on a lined writing sheet.

Analysis

Text Transcription

Prior to the text analysis, all texts were transcribed by the second author and two research assistants (please see Acknowledgements). The transcriptions followed a protocol according to which all texts had to be transcribed twice: first, resembling the original as closely as possible, and second, with normalized orthography and periods. In the ensuing analysis, only the normalized texts (i.e., the texts with correct spelling and periods) were used, as they enabled us to perform adequate comparisons of surface measures (see below) and to avoid any surface effects on the coding – for example, by unconsciously letting spelling and aesthetics affect coding (Graham et al., 2011).

Before the transcription, all texts were fully anonymized, meaning that any names of persons or locations mentioned by the original author were redacted. These redactions were displayed as grey boxes. In the transcription phase, the grey boxes were substituted with the word 'Fredric' to standardize the length of the person and place names.

Audience Awareness

Identifying audience awareness in texts is a complicated task. First, being aware of an audience involves cognitive processes rather than text features, and, as Bereiter and Scardamalia (1987) pointed out, a student text cannot

offer immediate insights into the writer's mental activities. This means that when one uses student texts to investigate audience awareness, one is examining textual features that are usually indicative of texts that are perceived as being audience oriented or friendly.

The somewhat unclear relationship between audience awareness as a mental activity and a (set of) text feature(s) makes audience awareness an elusive concept. In the past, scholars have attempted to analyze texts to evaluate audience awareness, and some of these attempts underscore the elusiveness. For example, Kellogg (1999) noted that 'the immature writer fails to organize effectively and appropriately for the purpose of the text' and that 'such writing features arbitrary ordering, tangled ideas, and chains of associative thinking', features that, by any standards, are difficult to evaluate as concrete instantiations. Of course, some investigations have used specific textual features as indications of audience awareness. Brisk (2012) treated the personal pronoun as an indicator of audience awareness, as the personal pronoun is related to genre conventions (i.e., were pronouns used according to genre expectations?). Sharples (1999) demonstrated low audience awareness by using, among other things, a grammatical perspective to study micro aspects. One example was how the article 'the' implied a known referent in a text, when, in fact, the referent was unknown to the reader. The studies by Brisk (2012) and Sharples (1999) are examples of using a linguistic approach that treats certain linguistic features as instantiations of genre conventions and that takes adherence to genre conventions to be evidence of audience awareness. This is a pragmatic and plausible stance. The problem with genre conventions, however, is that they differ from context to context (e.g., Evensen, 2002; Graham, 2018; Russell, 1997), which makes the 'borrowing' of features from one context to investigate writing in another context difficult.

Audience awareness has been evaluated by and incorporated into assessment criteria (e.g., Berge et al., 2016; Gregg et al., 1996; Skar, 2017; Skar, Jølle, et al., 2020). In Gregg et al. (1996), for example, raters used five criteria (each on a five-point scale) to evaluate aspects of audience awareness. A score of 0 represented 'none/very poor', while a score of 4 represented 'many/very good'. One example of the five criteria was 'overview of general characteristics', which Gregg et al. (1996, p. 128) defined as a category 'used to determine whether the writer appears focused on the identified content, the confidence of the writer with this content, and the tone of the writer's voice'. In a study such as ours, the use of criteria like these would be an insufficient strategy for two reasons. First, it would not add to the knowledge of what to expect from children, as the criteria themselves would have been based on such expectations. Second, the texts in the corpus already represented different score levels (Skar, Lei, et al., 2021), and

using assessment criteria would have produced a circular argument: texts in the HS groups would have been shown to exhibit the characteristics listed in the criteria for high scores.

For our study, we chose a third avenue for examining audience awareness, which expanded the findings from Skar, Lei et al. (2021). We coded rhetorical moves (i.e., text characteristics that could signal a conscious or unconscious orientation toward a reader) – a technique also used by Wollman-Bonilla (2001) – that would be relevant and appropriate for an answer in the rhetorical situation instantiated by the writing task. The rhetorical situation is a central aspect of the writing task (Flower & Hayes, 1981). Using an inductive and iterative strategy, we read and re-read students' texts to identify the rhetorical moves that were relevant to this particular task, namely writing a letter to researchers about recess activities. We identified the following categories:

- *Introductory greeting*, which was coded by registering any form of greeting at the start of the text (e.g., 'Hi!' or 'To the researchers'). The introductory greeting was coded as present ('1') or not present ('0').
- *Closing*, which was coded by registering any form of greeting/sign-off at the end of the text (e.g., 'From Frederic' or 'Regards Frederic'). Closing was coded as present ('1') or not present ('0').
- *Meta-text*, which was coded by registering text segments that commented on the text itself. There were three codes for meta-text, with '0' representing no meta-text, '1' representing a somewhat implicit meta-text (e.g., 'I like to play football in recess time', where 'recess time' referred to the theme of the task) and 2 represented a more explicit meta-text (e.g., 'Now I will tell you what I like to do outside in recess time').
- *Justifications*, which were coded by registering justifications for choosing activities during recess. There were three codes for justifications, with '0' for no justifications, '1' for a limited elaborated justification (e.g., 'it is fun'), and '2' for an elaborate justification (e.g., 'I like the handstand game because then you learn how to do a handstand'). Justifications were only coded for the texts that included an activity.
- *Explanations*, which were coded by registering explanations of the activities that the writer reported engaging in during recess. There were three codes for explanations, with '0' representing no explanations, '1' representing a limited explanation (e.g., 'One is on the lines and the others are trying to run over', which explained the activity 'line tag'), and '2' representing an elaborate explanation (e.g., 'Then the ball can only bounce once on the ground. If

it bounces twice, you are out. In the end, there is one who wins', which explained the activity 'Catch and drop'). Explanations were only coded for the texts that included an activity.

The strength of these codes stems from their relevance for the particular writing task that the students had to perform. Another advantage is that the codes themselves work not only as a coding tool but also constitute a finding, as they effectively compromise a set of audience awareness characteristics that can be identified in elementary school students' texts. However, these benefits can also be interpreted as a limitation because the generalizability of the results is unclear. We discuss this limitation at the end of the article.

Surface Measures of Texts

All texts were transcribed to enable the automatic tallying of text length via word count and the number of characters without spaces.[5] While these statistics were not the focal interest of our study, nor were they treated as a quality criterion, they were used as a pragmatic means for identifying exemplar texts (see below).

Exemplar Texts

To offer additional context, a total of nine texts were selected for inclusion as exemplars of each score group for each grade. The texts were chosen using average text length as the selection criterion. For example, the average text length in the low-score group for the first grade was three words, which meant that the first text in the sub-corpus of low-score texts that matched this length was chosen. This was not so much an optimal strategy as a pragmatic one: as there were five measures of audience awareness, it would have been too complex to identify texts that matched the average for all five measures. Also, we assumed that texts with a length that matched the average text length would contain one or more audience awareness characteristics associated with the particular score group.

Quality of Data Analysis

The second, third, and fourth authors individually transcribed and coded one third of the corpus. During the initial stages of the coding process, the researchers met several times to discuss the evolving categories and the ensuing coding. When, at a later stage, the coding was complete, a subsample of texts from the corpus was recoded to estimate reliability. A total of 30 texts (i.e., ~10% of the corpus) were coded by all three researchers, and the reliability was good for all measures.[6] Please refer to Table 4 for a summary of reliability estimates for each measure.

Table 4. Reliability Estimates for the Coding of 30 Texts by Three Raters

	Fleiss' kappa		
	Estimate	**Lower**	**Upper**
Text length: words	.91	.86	.95
Text length: characters	.89	.85	.92
Greeting	.99	.79	1.0
Closing	.99	.79	1.0
Meta-text	.73	.57	.90
Explanations	.94	.77	1.0
Justifications	.94	.78	1.0

Note. "Lower" and "upper" denote the lower and upper bounds of the 95% confidence interval.

Results

RQ1: What Characterizes Audience Awareness within Grades 1–3?

There were specific differences in each grade. One example of these differences was the meta-text measure in all three grades. In the first grade, the LS texts hardly contained any meta-text, while texts in the HS group on average contained 0.73 instances of meta-text (SD = 0.79). The average MS text contained 0.17 instances (SD = 0.46). While the absolute numbers may seem small, it is worth noting that the average HS text in first grade contained around 429% more instances of meta-text than the average MS text. The same pattern was also evident in the second and third grades.

Regarding the text exemplars from the first grade, the within-grade differences are even clearer. As expected, text 1.LS (see Figure 1), which consisted of three verbs, contained no instantiations of any audience awareness variables. Neither did text 1.MS. Text 1.HS, however, contained both meta-text ('I hope this helps you researchers') and explanations (e.g., 'I find it fun to swing. It also tickles in my stomach'). Again, the same pattern was evident for the second and third grades. These patterns are depicted in Figure 1, which shows how the pattern was present in all three grades. LS texts described the activities without much extra information (e.g., 3.LS), while MS texts included some elaborations (e.g., 3.MS, which explained 'the game with rings'). HS texts included extensive explanations, as was the case in 3.HS, or contextual clues like 'I hope this helps you researchers' (1.HS) and 'To the researchers! In recess time I like to […]' (2.HS).

Table 5 summarizes the findings regarding the differences within the grades. The effect size column in the right-most part of the table clearly reveals that group membership explained a substantial proportion of the variance for each measure. The audience awareness variables h^2 ranged

from .19 to .27 for first grade, from .08 to .36 for second grade, and from .12 to .39 for third grade. The average value of h^2 was .21 for the first and second grades and .24 for the third grade. For first-grade texts, the effect size was largest for meta-text. For the second grade, the effect size was largest for greetings, and for the third grade, the effect size was largest for closing.

Table 5. Within-Grade Characteristics for Low-Scoring, Mid-Scoring, and High-Scoring Groups

Gr	Msr.	LS			MS			HS			Diff.		
		n	M	*SD*	*n*	M	*SD*	*n*	M	*SD*	F ratio	p	h^2
1	A	30	3.07	2.82	30	19.27	10.00	30	59.50	31.23	70.17	.000	.62
	B	30	18.73	15.99	30	82.03	40.51	30	249.03	127.77	69.92	.000	.62
	C	30	0.17	0.38	30	0.33	0.48	30	0.73	0.45	13.26	.000	.23
	D	30	0.03	0.18	30	0.33	0.48	30	0.50	0.51	9.65	.000	.18
	E	30	0.00	0.00	30	0.17	0.46	30	0.73	0.79	16.05	.000	.27
	F	30	1.30	1.68	30	2.93	2.13	30	5.43	4.53	13.97	.000	.24
	G	18	0.00	0.00	30	0.18	0.48	30	0.43	0.55	5.27	.007	.12
	H	18	0.00	0.00	30	0.03	0.18	30	0.41	0.60	9.01	.000	.19
2	A	30	6.37	5.00	30	36.53	16.64	30	98.63	33.76	138.19	.000	.76
	B	30	35.37	26.03	30	155.60	67.52	30	405.70	138.09	132.17	.000	.75
	C	30	0.13	0.35	30	0.53	0.51	30	0.87	0.35	24.44	.000	.36
	D	30	0.03	0.18	30	0.33	0.48	30	0.50	0.51	9.65	.000	.18
	E	30	0.07	0.25	30	0.37	0.62	30	0.73	0.79	9.48	.000	.18
	F	30	2.00	2.30	30	3.73	3.63	30	3.80	2.70	3.64	.030	.08
	G	24	0.13	0.34	30	0.38	0.62	30	0.91	0.80	10.97	.000	.21
	H	24	0.04	0.20	30	0.51	0.69	30	0.95	0.72	14.97	.000	.27
3	A	30	12.90	9.24	30	52.37	25.89	30	114.43	33.84	124.05	.000	.74
	B	30	57.37	41.26	30	218.50	101.00	30	470.03	138.42	125.32	.000	.74
	C	30	0.40	0.50	30	0.80	0.41	30	0.93	0.25	14.50	.000	.25
	D	30	0.13	0.35	30	0.50	0.51	30	0.90	0.31	28.08	.000	.39
	E	30	0.00	0.00	30	0.37	0.62	30	0.80	0.89	12.40	.000	.22
	F	30	1.57	1.04	30	3.17	2.21	30	3.90	2.48	10.55	.000	.20
	G	27	0.24	0.44	30	0.54	0.66	30	0.76	0.63	5.54	.005	.12
	H	28	0.11	0.42	30	0.63	0.72	30	0.99	0.68	14.68	.000	.26

Note. Gr = grade; Msr. = measure; A = words, B = characters, C = introductory greeting, D = closing, E = meta-text, F = number of activities recorded, G = justifications, H = explanations; Diff. = the difference between groups, h^2 = eta squared (i.e., variance explained by group). Please note that some students did not include any activities, which is why n may differ across groups.

Low Scoring (LS) Texts from Grades 1–3
Text 1.LS Play, climb, swing.
Text 2.LS I like to swing. The climbing frame. Draw.
Text 3.LS I like to play football. Sometimes I rather play dodgeball.

Figure 1. Low-Scoring Texts

Mid Scoring (MS) Texts from Grades 1–3
Text 1.MS I like to play fantasy alone. Football with my friends. I like it best when it is sunny inside.
Text 2.MS To NTNU [The university in Trondheim]. I like to play football. I like to play kick the can. I like to play hide and seek. I like to play with friends. I like to play dodgeball. I like to play things. From Fredric
Text 3.MS To the researchers. I like to play a game with rings. It is one ring in the middle and five rings around it. One of us is jumping and the others are trying to jump out of the square. Greetings Fredric. 3rd grade. Anonymous School.

Figure 2. Mid-Scoring Texts

High Scoring (HS) Texts from Grades 1–3
Text 1.HS I like to play tag because I find running fun. I like to train because it makes me strong. I also like to play football because I am quick. I find it fun to swing. It also tickles in my stomach. I also like to climb in the climbing frame. It is fun. I hope this helps you researchers.
Text 2.HS To the researchers! In recess time I like to play football. To play football one need two goals two teams and a ball. It is about scoring the most. One needs to pass the ball and cooperate. If the ball goes off the field, the other team gets a throw-in. It is 11 players on each team. It is fun to score. To play dodgeball. One needs a ball and at least three players. It is about hitting more players. The one with the ball is supposed to catch the others. If one gets hit one has to sit down on a bench. Greetings Fredric
Text 3.HS Hi researchers. I like to play football. There is one goalkeeper and two teams. For example, girls' and boys' teams. If there are more players in one of the teams, we need to have substitutes. Sometimes I like to do something else, but that is rarely. At real football matches, the teams have vests or t-shirts. I like to do this [play football] because it is fun, and it is a good way of playing with friends. At least I think so. One of my favorite activities is to play with friends. I find football fun!! Greetings Fredric, Anonymous School, 3rd grade.

Figure 3. High-Scoring Texts

RQ2: How does audience awareness develop between grades 1–3?

To obtain statistical estimates of the developments between the grades, we compared MS texts from all the grades. We selected the MS texts because they represented the average student in each grade and could thus reflect the average development. Due to our cross-sectional study design, we were unable to track individuals' developmental trajectories; therefore, to complement the statistical analysis and to partly address the possibility that a student may produce texts that receive low, mid, and high scores across grades, we also carried out close readings of the texts from the different score groups across the grades.

Regarding the descriptive statistics, it can be noted that in terms of surface measures, there were significant differences in text length between the grades. The average first-grade text consisted of 19 words (*SD* = 10), the average text from the second grade consisted of 37 words (*SD* = 17), and the average text from the third grade consisted of 52 words (*SD* = 26). The production rate thus changed positively between the grades; this technically increased the chance of rhetorical moves associated with audience awareness appearing in the texts. However, the increased production did not yield a general increase in the use of rhetorical moves, as only *greeting* and *explanations* were significantly different between the groups. The relatively small values of h^2 indicate that there were less pronounced differences between the grades than within the grades. The code for *closing* is a case in point. Between the grades, the groups explained 3% of the variance, which can be compared to the within-grade explanation of variance by group membership (i.e., 18% for the first and second grades and 39% for the third grade). Table 6 presents all the statistics.

Table 6. Characteristics of Texts from the Mid-Score Group across Grades

Msr.	**First**			**Second**			**Third**			**Diff.**		
	n	M	*SD*	*n*	M	*SD*	*n*	M	*SD*	F ratio	p	h^2
A	30	19.27	10.00	30	36.53	16.64	30	52.37	25.89	23.56	.000	0.35
B	30	82.03	40.51	30	155.60	67.52	30	218.50	101.00	25.60	.000	0.37
C	30	0.33	0.48	30	0.53	0.51	30	0.80	0.41	7.56	.001	0.15
D	30	0.33	0.48	30	0.33	0.48	30	0.50	0.51	1.16	.318	0.03
E	30	0.17	0.46	30	0.37	0.62	30	0.37	0.62	1.24	.295	0.03
F	30	2.93	2.13	30	3.73	3.63	30	3.17	2.21	0.67	.513	0.02
G	30	0.18	0.48	30	0.38	0.62	30	0.54	0.66	2.72	.072	0.06
H	30	0.03	0.18	30	0.51	0.69	30	0.63	0.72	8.74	.000	0.17

Note. Gr = grade; Msr. = measure; A = words, B = characters, C = introductory greeting, D = closing, E = meta-text, F = number of activities recorded, G = justifications, H = explanations; Diff. = the difference between groups, h^2 = eta squared (i.e., variance explained by group).

With respect to differences between the grades, the close reading revealed the results discussed below.

Texts from the LS Group

The development between the grades in the LS group was subtle. As indicated by the three texts (1.LS, 2.LS, and 3.LS), the main differences were related to text length rather than instantiations of audience awareness. All three texts contained two or more activities and none of the audience awareness characteristics coded in this investigation.

Texts from the MS Group

The development between the grades in the MS group was also somewhat subtle. Texts from the second and third grades included some rhetorical moves associated with audience awareness. Reviewing the text examples, it is clear that both 2.MS and 3.MS included an introductory greeting and that 3.MS also included a closing. The 3.MS text also included an explanation that informed the audience of how the game with rings is played. Text 1.MS included none of these characteristics.

Texts from the HS Group

The HS texts contained more words than the LS and MS texts and included several categories of the rhetorical moves associated with audience awareness. Text 1.HS included five activities, five justifications, and one meta-comment directed at the audience of the text ('I hope...'). This meta-comment may be an indication of an awareness of the text's recipient and thus of the purpose of writing the text. In 2.HS, the explanations and justifications were more frequent than in 1.HS. The former contained two activities and provided explanations. This text also contained a meta-textual statement ('In recess time...'), which referred to the context of the activities and the theme of the task. Unlike most texts in the HS group of the third grade, text 3.HS did not include a meta-textual statement but did contain an introductory note, a closing, an explanation, and a justification.

Discussion

The aim of our study was to explore audience awareness in elementary school students' texts. Questions regarding variation within and between the grades guided the investigation. To code the material, we used a data-driven approach, which provided a tool for classification and yielded a set

of characteristics that were observable when the children wrote descriptive letters to a specified audience.

The students made use of various rhetorical moves oriented toward the audience, such as greetings and closings, meta-text, explanations, and justifications. Based on the characteristics found in the material, it is thus reasonable to expect that students – at least when writing tasks are similar to the one reported in this article – may include several characteristics related to audience awareness, which is relevant to the competency aims for the second grade, as discussed in the Introduction. The findings also improve our understanding of young students' capacity to include audience awareness characteristics, which complements the findings from previous investigations (e.g., Block & Strachan, 2019; Durán, 2017; Wollman-Bonilla, 2001). Our study and future investigations can ultimately provide an exhaustive list of characteristics that can be used to formulate assessment criteria for evaluating the degree to which students can adapt their writings to rhetorical situations, including different audiences. However, as the list of characteristics in itself cannot tell us what to expect – in terms of frequency of text features related to audience awareness – the list would be of limited use as a standalone artefact when devising assessment criteria.

The investigation into variations within the grades revealed significant differences. There are several possible explanations that can account for the large within-grade variation. First, the sampling strategy was tailored to tease out such differences. Based on previous research (Skar, Lei, et al., 2021), we knew that there would be large within-grade variations in terms of text quality, and we anticipated that this would be reflected in audience awareness characteristics as well. However, the sampling strategy cannot explain the cause of these differences. How come students in the first grade, for example, can produce texts as different as 1.LS and 1.HS? Previous research into the phases of writing development indicates that students in the first grade are likely to employ knowledge-telling strategies (Bereiter & Scardamalia, 1987; Kellogg, 2008; Rijlaarsdam et al., 2012), which has been associated with composing texts with few, if any, overt considerations of the intended audience. The strategy itself thus seems like an unlikely explanation for the variation. Another set of explanations is related to students' training: it is a well-established fact that transcription skills affect a student's capability to write (Graham, 1999; Skar, Lei, et al., 2021). Carvalho (2002, p. 272) suggested that students will not be able to include characteristics associated with audience awareness as long as lower-level writing processes take up a considerable amount of the cognitive capacity. As instruction that focuses on transcription skills has been shown to have positive effects (e.g., Limpo & Graham, 2020), one can conclude that a varied focus on transcription skills may partly explain variations among

students of the same grade. This would be in accordance with previous research into writing instruction in grades 1–3 in Norway, which has indicated large variation (Graham et al., 2021).

Obviously, transcription skills alone will not enable students to incorporate audience awareness characteristics. The use of a knowledge-telling strategy implies that students need readily available schemata to solve recurrent rhetorical problems. Several previous investigations have proven to be effective in terms of teaching students to consider audiences (Durán, 2017; Midgette et al., 2008; Moore & MacArthur, 2012). Again, variation in writing instruction seems to be one plausible explanation for the observed variation; if some teachers successfully teach students to handle recurrent rhetorical problems (e.g., describing something to a non-present audience) and some do not, that could explain the significant within-grade differences. It is also important to note that it cannot be ruled out that students' outside-school-experiences of writing may explain some of the differences. Both a cognitive (Bereiter & Scardamalia, 1987) and a socio cultural perspective (Russell & Yañez, 2003) assumes that available schema or prior experience shapes one's possibility to use rhetorical moves perceived as suitable by a reader. If some students practice letter writing in recreational settings, while others do not, this may be part of the explanation.

The relatively small differences that were observed between grades are difficult to explain (please see the Limitations below for a discussion on statistical power). They indicate less significant differences between the grades, which means that teachers should not expect major leaps. An intriguing avenue for future research is whether the within-student development is correctly reflected by the small between-grade variations detected in our study; if so, this would imply that students' developmental trajectories are flat rather than steep and that the relative standing of a student's proficiency remains throughout the grades. Future longitudinal within-grade research design may provide answers to this question if students in, say, the MS group remain in the MS group throughout the grades, while the differences in students' audience awareness proficiencies vary to a small degree based on the grade. Future research of this kind would need to take into account the nature of the writing instruction that a student is exposed to and other measures of interest, such as transcription skills, cognitive maturity, socio-cultural background, and so on.

This study has provided one possible answer to the question of what to expect in terms of audience awareness and, as noted in the Introduction, has indicated that the expectations of the curriculum may be warranted. However, our study is not exhaustive, and it remains to be seen what other audience awareness characteristics can be expected and to determine what

will be good enough for a student to reach the competency aim for the second grade. Provided that teachers are free to operationalize the curriculum as they see fit, and provided that the presumed link between instruction and the development of schemas for audience awareness characteristics is true and strong, the question of what to expect will be closely linked to the question of what writing instruction should be implemented.

Limitations

There are several important limitations to this study related to the data type, the codes used, and the sampling strategy. The data type offers insights into textual characteristics, which is important when formulating what to expect of tests for students, but not into the cognitive processes related to audience awareness. Nor does the student texts offer insights into the other aspects mentioned above, such as instruction, socio-cultural background, and so on. Further research should pursue clearer insights into audience awareness by studying texts written by students with either one of the following two conditions: (1) no audience specified or (2) audience specified. For example, this has been done in a study with older participants (Sato & Matsushima, 2006), and it would be interesting to replicate this in a Norwegian context with very young writers. One could also use think-aloud protocols or stimulated-recall interviews to tease out audience considerations when writing and to model how audience awareness characteristics relate to instruction and other external aspects.

Another limitation concerning the data type had to do with the task that the students were given and with the use of context-specific codes. While this kind of coding helped us investigate audience awareness in this particular context and this particular type of text (a letter), it should be noted that the codes are not easily generalizable to other curriculum-relevant writing tasks. Another descriptive task might render both greetings and justifications unnecessary, to mention only two aspects. Further studies are needed to investigate inter-task audience awareness correlations. Only if such correlations are high can the results of this study be generalized.

The sampling strategy was crucial to identifying the variations. At the same time, the sampling strategy itself may have led to overestimated within-grade differences. The small differences between the MS texts may suggest a considerable overlap between grades or the fact that the study was heavily under-powered, with group sizes being too small to detect significant differences.

The limitations of this investigation call for further research. While the findings of this study do provide new knowledge, audience awareness remains a relevant field of study.

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Notes

1 In Norwegian, these four competency aims are presented as follows:
- beskrive og fortelle muntlig og skriftlig
- skrive tekster for hånd og med tastatur
- bruke store og små bokstaver, punktum, spørsmålstegn og utropstegn i tekster
- lage tekster som kombinerer skrift med bilder

(https://www.udir.no/lk20/nor01-06/kompetansemaal-og-vurdering/kv116)

2 Original: «Utviklingen av å kunne skrive i norsk går fra den grunnleggende skriveopplæringen til å planlegge, utforme og bearbeide tekster i ulike sjangre og tilpasset formål, medium og mottaker.»

3 We will not elaborate on the *knowledge-crafting strategy* because, based on the proposed time frames (e.g., by Kellogg, 2008), it is highly plausible that students in elementary school will rely on a knowledge-telling strategy.

4 *Z*-score refers to the transformation of scores into standardized units. A *z*-score is computed by dividing the difference between a non-standardized score (e.g., a singe student's Text Quality Score) (x) and the mean non-standardized value ($\bar{x}$) (e.g., the group's mean Text Quality Score) by the sample's standard deviation (s): $z = \frac{x - \bar{x}}{s}$. *Z*-scores have a mean value of 0. A *z*-score of 1 represents 1 standard deviation above the mean, and a *z*-score of -1 represents 1 standard deviation below the mean.

5 In the transcription process, the researchers 'normalized' the use of periods to increase readability (i.e., inserted periods as needed). This could be done because syntactic competence was not investigated.

6 Fleiss' kappa is a chance-corrected measure of absolute agreement (i.e., not agreement of ranking). See Gwet (2014).

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Appendix 1

The Writing Task

Trondheim, 16.05.2019

Hi, 1st, 2nd, and 3rd grade students! We are some researchers at the University of Trondheim (NTNU) who want to learn more about what children like to do in their recess time, and we wonder if you can help us with this. We want you to write us a letter about what you like to play during recess time. You can use letters. You can also draw. Write a letter in which you describe what you like to play during your recess time.

With best regards,
The researchers

Appendix 2

Teacher Instructions for Data Collection

Grades 1–3, spring 2019

Before writing, you should have an oral brainstorming session. The picture of a school playground (see appendix) should be shown on a big screen/smartboard to provide inspiration for the task. Important: The teacher cannot write on the blackboard/smartboard during the brainstorming session. The students cannot have the letter from the researchers in front of them when they write. This is because the conditions should be as similar as possible for all students during data collection. Suggestions for what you can talk about during the brainstorming session: What do you like to do during your recess time? Why do you like that particular activity? What does it mean to describe? What is a researcher? What does a letter look like? It is important that everyone should have decided what they want to write about before moving on. Give the students writing tools and the writing sheet. It would be better if the teacher could fill in the information in advance (name, school, class, gender, first language). After the students have written their texts, they can tick the evaluation form. Some may need help with this.

Appendix 3

Visual Stimulus