

# WHAT LEARNING MATERIALS REVEAL ABOUT DANISH L1 AS A SCHOOL SUBJECT

Background, methods and results from a collaborative mixed methods  
study on learning materials in Danish L1 education

SIMON SKOV FOUGT\*, JESPER BREMHOLM\*\* & BETTINA BUCH\*\*\*

\* *Danish School of Education, Aarhus University* \*\* *The Danish National Centre for Reading*  
\*\*\* *University College Absalon*

## Abstract

The purpose of this article is to give a general presentation of a collaborative mixed methods study on pedagogical learning materials that teachers report using in L1 teaching in primary and lower secondary school in Denmark. The presentation consists of four parts: an introduction covering the background for conducting this mixed methods study, including a contextualisation to support non-Danish readers in understanding the study, a brief description of other Nordic and international research on learning materials, a methodological section describing the mixed methods approach as an explanatory sequential design study, and, finally, a presentation and discussion of the main results of both the quantitative and the qualitative studies presented in this special issue. We conclude that the learning materials for Danish L1 generally have a formalistic approach to the subject matter, dominated by skills-based tasks, and that they are characterised by narrow text choices and decontextualised tasks. None of this is in accordance with the National Curriculum for Danish L1 in primary and lower secondary school.

Keywords: Learning materials, textbooks, Danish L1 education, mixed methods study, primary school, lower secondary school

1

*Fougt, S.S., Bremholm, J. & Buch (2020). What learning materials reveal about Danish L1 as a school subject. Background, methods and results from a collaborative mixed methods study on learning materials in Danish L1 education. Introduction to a special issue Danish as L1 in a Learning Materials Perspective, edited by Jesper Bremholm, Simon Skov Fougt, and Bettina Buch. L1-Educational Studies in Language and Literature, 20, 1-23. <https://doi.org/10.17239/L1ESLL-2020.20.02.04>*

Corresponding author: Jesper Bremholm, Humletorvet 3, 1799 Copenhagen V, Denmark, email: [jbre@kp.dk](mailto:jbre@kp.dk)

© 2020 International Association for Research in L1-Education.

## 1. INTRODUCTION

In this article, we give a general presentation of the background, method and overall results of a collaborative mixed methods study on learning materials that teachers report using in L1 in primary and lower secondary school in Denmark. This study constitutes the common point of reference for this special issue of *L1 – Educational Studies in Language and Literature* (Bremholm, Bundsgaard, Foug, & Skyggebjerg, 2017). This introductory article thus provides the contextual framework for the following articles, each elaborating on different parts or aspects of the collaborative study, and it discusses the main results of the combined study. The article consists of four parts:

In the first part, we outline the rationale for this mixed methods study on learning materials used in Danish L1 education (hereafter Danish L1) based on a national lack of systematic knowledge hereof. In the study, we have combined a nationally representative quantitative survey among K1-10 teachers of Danish L1 on which learning materials they use with a qualitative analysis of some of the most frequently used materials. This special issue presents the entire study.

In the second part, we outline Nordic and international research on learning materials. We give a broad overview of the main areas of study in the research on learning materials used in L1, followed by a presentation of four studies that methodologically resemble the study presented in this article.

In the third part, we present and discuss our methodological approach: a classic sequential mixed methods study where a quantitative survey is followed by a qualitative in-depth analysis of some of the most widely used learning materials among Danish L1 teachers.

In the fourth part, we present and discuss the main results of the combined mixed methods study. In other words, we include results from the other articles in this introductory article. For obvious reasons, the results are not fully presented in this article; because the different articles apply different methodological approaches, we refer to the articles for more details.

Throughout the issue, we will refer to the different Danish learning materials using their Danish title in italics followed by an English translation in square brackets the first time; thereafter, we will only use the translated English title in italics.

### *1.1 Rationale for the study and research questions*

The incentive to conduct this collaborative study stems from a series of discussions in our research group in 2015. A contrast in Danish L1 research was commonly observed: the research-informed insight that learning materials have an important impact on teaching, and the lack of systematic knowledge about which learning materials are used by Danish L1 teachers. In the following, we will elaborate on this contrast.

Systematic research on which learning materials are used in Danish schools has not been conducted in Denmark, and this study is therefore the first of its kind. A

few studies with a narrower focus have been conducted, such as studies on reading materials at the intermediate stage (grades 4-6) (Undervisningsministeriet, 1994 [Ministry of Education, hereafter abbreviated UVM]) and learning-to-read materials (Borstrøm, Petersen, & Elbro, 1999) and a few other not representative studies (e.g. Gissel & Skovmand, 2016) (see elaborations in Bundsgaard, Buch, & Foug, 2020). However, the lack of systematic knowledge at a national level was apparent and led us to the current study.

Learning materials are an intrinsic part of the teaching; it is hard to envisage teaching without a medium or learning material representing and forming the instructional content (Hansen & Skovmand, 2011, p. 59ff.). Furthermore, it has repeatedly been documented that learning materials exert a strong influence on teaching practices, including the instructional purpose of a lesson or a course, the activities that take place in a lesson and the selection and sequence of content in a course plan (Bjuland, Helgevold, & Munthe, 2015; McCutcheon, 1980; Warren, 2000; Sardo-Brown, 1990). This is particularly the case with regard to the category of learning materials that we label *pedagogical learning materials* in this article, meaning materials developed specifically for teaching (this idea will be explored in section 1.2; the abbreviated term *learning materials* will be used from this point forward).

Furthermore, studies such as the ones cited above show the importance of learning materials to teaching in general and to teaching practices in specific subjects such as mathematics (Superfine, 2008), science (Sanchez & Valcárcel, 1999), social science (Christophersen, 2004) and L1 (Elf, 2014; Hodgson, Rønning, Skogvold, & Tomlinson, 2010). Teachers in general also tend to trust and assign authority to the learning materials they use when it comes to the quality of the subject matter content, the pedagogical approach and the activities, which is plausibly a logical reflection of the strong influence learning materials have on teaching (Bremholm & Skott, 2019; Bachmann, 2005; Bjurland et al., 2015; Haggarty & Pepin, 2002). For instance, in Bachmann's study of Norwegian teachers' implementation of new national curricula, she observes how the teachers use the learning materials as a substitute for the national curricula and as an authoritative groundwork for their pedagogical decision-making (Bachmann, 2005, p. 345). The teachers' strong reliance on the quality of their learning materials stands in stark contrast to the scepticism towards learning materials that is quite common in the educational research community. For some scholars, this scepticism is based on a critical approach to the presentation of subject matter content in learning materials and to whether this presentation is flawed or biased (e.g., van Dijk & Encarna, 2011; Guggeis, 2004; Tainio, 2012; Winkler, 2007). For other scholars, the scepticism is aimed at the very concept of pedagogical learning materials, which are considered to be based on a one-size-fits-all approach to learning that is unresponsive to the specific needs of specific classes and specific students (e.g. Gee, 2015). Another type of scepticism voiced by researchers is directed towards the influence that learning materials have on teacher professionalism. Inspired by, among others, Schön's ideas about the teacher as a reflective practitioner (Schön, 1983), these researchers argue that there is a risk that the use of learning materials

will weaken or eliminate the teacher's own professional reflection and decision-making. This is the case if the teacher leaves it to the learning materials to define the content, activities and instructional approach, which is what the pedagogical learning materials, by their design and intended function, actually invite the teacher to do (Bremholm & Skott, 2019; Bjurland et al., 2015; Ewing, 2004; Schnack, 1995). The discrepancy between the teachers' reliance on learning materials and the scepticism towards learning materials shown by researchers is noteworthy and in itself a reason for L1 research to focus on the learning materials used in Danish L1 classrooms.

Thus, the purpose of the collaborative study presented in this article has been to obtain systematic knowledge about which pedagogical learning materials are used by L1 teachers in Danish compulsory education according to the teachers themselves. Based on the insight that learning materials exert a strong influence on teaching practices, we believe that such systematic knowledge constitutes a valuable contribution to the understanding of Danish L1 as a school subject. To use a metaphor, we also dare say that this kind of knowledge paints a picture of Danish L1 as seen through the lens of its learning materials. Adding nuance to the metaphor, it is important to note that the picture painted can never aspire to be more than a snapshot given that learning materials and teachers' preferences inevitably change in the course of time.

In the collaborative study, we have sought to answer the following three research questions:

- 1) Which pedagogical learning materials are used in Danish L1 in compulsory education according to Danish L1 teachers?
- 2) What are the main characteristics of the pedagogical learning materials used in Danish L1?
- 3) How do these characteristics correspond to the National Curriculum for Danish L1?

This article is first and foremost intended to give an overview of the results of research question 2 and to discuss research question 3, whereas question 1 is only addressed by the quantitative article (Bundsgaard, Buch, & Foug, 2020). The quantitative article also addresses questions 2 and 3, and all qualitative articles address question 2 as well.

### *1.2 Terminology: Pedagogical learning materials*

In the study, we only focus on *pedagogical* learning materials, and a clarifying note about this term is needed. It refers to a typology developed by Danish researcher Hansen (2010) that distinguishes between three basic types of learning materials: *pedagogical*, *semantic* and *functional* learning materials. *Pedagogical learning materials* are defined as learning resources specifically designed for teaching, meaning that they have a pedagogical intent and an instructional approach, for example textbooks, digital learning materials and educational games. *Semantic learning materials* are carriers of content introduced into the teaching, but without an integrated

pedagogical intent, for example films, articles, literature, newspaper articles or pictures. *Functional learning materials* are tools used to facilitate teaching and learning, and whose nature is unrelated to either content delivery or pedagogy, for example black and white boards, pencils, tablets and mobile phones (Hansen, 2010, p. 47). Our reason for only focusing on pedagogical learning materials in this study is that they, by virtue of their integrated pedagogical intent and instructional approach, are designed specifically to influence teaching and teachers' decision-making. Please note that Hansen uses (in Danish) the term "didactical" instead of "pedagogical", but we have chosen to replace it with "pedagogical" in order to avoid the misunderstandings that might arise due to the negative connotations of "didactics" in the English language. Also, because the included materials are both digital materials and textbooks, we have deliberately used the term *learning materials*, and not the more common English term *textbooks* (e.g. Tomlinson, 2012; Gee, 2015). Finally, as indicated above, when we use the term *learning materials*, it refers to pedagogical learning materials as defined in this section.

### 1.3 The Danish learning material market

To understand the ecology of learning materials in schools, it is essential to be familiar with the conditions surrounding the production, distribution and selection of learning materials in a given country. Like a number of other countries, including Sweden, Australia, the United Kingdom, Estonia, Finland, Ireland, Italy, Norway and the Netherlands, Denmark is characterised by a liberalised and deregulated learning material market; private publishing houses are the main agents in the production, marketing and distribution of learning materials. In many countries, the present state of affairs is the result of systematic reforms from the early 1990s onwards (Reichenberg, 2016), but in Denmark, the private market for learning materials is considerably older, dating back to at least the 1950s (Weinreich, 1995).

Considering that Denmark is a small country (about 5.7 million inhabitants), the number of publishing houses that produce learning materials is significant (more than 70). However, most of them are quite small, and so, despite the apparent diversity, the Danish learning material market for compulsory education is actually dominated by three big publishing houses (Gyldendal, Alinea and Clio Online). Additionally, during the last decade there has been a strong move, backed by the government, towards digitising the Danish educational system. As regards learning materials, this move has resulted in a marked increase in the production and distribution of digital learning materials, heavily supported by governmental subsidies (e.g. between 2012 and 2017, the Danish Ministry of Education refunded 50% of the expenses for digital learning materials paid by schools and/or municipalities). The big publishing houses mentioned above have been the frontrunners in this digitisation process.

In accordance with the deregulated market, Denmark has no official approval system, certification or quality standards for learning materials, and this applies to

both analogue, or paper-based, and digital learning materials. Furthermore, it is a longstanding and well-established principle in Denmark that teachers have a high degree of autonomy when it comes to choosing learning materials (as well as instructional approaches) that they deem fit to use in their teaching, and this autonomy is also supported by the act governing Danish compulsory school (UVM, 2019, chap. 2, §18, subsection 4). However, there has been a recent tendency for municipalities to centralise the purchase of learning materials, especially digital materials, in order to reduce costs (Rambøl, 2018), thus limiting teachers' ability to freely choose materials to some extent (please note that this tendency only appeared after this study (see Bundsgaard, Buch, & Fougat, 2020).

To sum up, as a result of the structure of the Danish learning material market, it is difficult to ascertain which learning materials are actually being used in L1 and in other school subjects. As mentioned, no attempts have been made to acquire such knowledge in a systematic way—until now.

#### *1.4 Danish compulsory education and Danish L1*

Danish compulsory education (primary and lower secondary school) lasts 10 years (K-9) and is integrated within a single structure, meaning that students (can) attend the same school throughout all 10 years. The 10th year is optional (grade 10) and is aimed at preparing students for higher education (students with social, personal or academic difficulties).

Up until the late 1990s, it was common for Danish L1 and math teachers to follow their classes from grades 1 to 9 (students have a specialised teacher in grade 0), and it was also common to limit the number of teachers at least in the early grades, so that the L1 teacher typically also taught, for example, history, religion and creative subjects. A recent governmental initiative is that teachers should be formally trained in the subjects they teach<sup>1</sup>, and, therefore, classes now change teachers two or three times during compulsory school.

Danish L1 must, according to the law on public schools in Denmark, support the students in their general development as human beings and as future citizens in order to ensure that they are able to participate in the democracy to the extent that they can take a stand and act on it (UVM, 2019). Therefore, the main purpose of the subject of Danish L1 is to develop the students' personal and cultural identities by giving them the possibility to experience and understand a broad variety of texts, as well as promoting the students' understanding of society in terms of history, ethics and aesthetics. Furthermore, Danish L1 should reinforce students' communicative skills in order to enable them to interact with others in society (UVM 2015, UVM 2019).

---

<sup>1</sup> *The current political aim is that 95% of all teachers should have formal education or 'equivalent' qualifications in their subjects in 2025: <https://www.folkeskolen.dk/652519/nu-skal-alle-laerere-foerst-vaere-undervisningskompetente-i-2025>, visited 16 March 2020.*

Danish L1 is by far the largest subject, with almost twice as many lessons as the second largest, mathematics (UVM, n.d.); thus, Danish L1 plays a very important role throughout school for all students. Historically, Danish teachers have enjoyed a high degree of autonomy in terms of choosing which learning materials to use as well as their preferred method of teaching. This is a longstanding tradition in the Danish school system, dating back to the early 20th century (Laurson & Bjerresgaard, 2009, p. 22; UVM 2019, chap. 2, §18, subsection 4). At the present time, teacher autonomy does not stand alone. The teaching of all subjects in Danish compulsory education must conform to the competency-based national curriculum: “Fælles Mål” [“Common Goals”, referred to as the *National Curriculum* in this special issue] (UVM 2015). For Danish L1, the National Curriculum consists of four main competence domains: Reading, Writing, Communication and Interpretation. Overall, as outlined in the National Curriculum, the subject is very broad and encompasses a wide variety of skills and content areas. These include early reading and information literacy, multimodal productions and critical technological literacy, basic knowledge of Norwegian and Swedish as well as reading, analysis and interpretation of literature and other aesthetic texts. The National Curriculum is differentiated into four levels, with goals for grades 2, 4, 6 and 9.

The fact that Danish teachers have a high degree of autonomy with regard to choosing which learning materials to use also means that far from all learning materials used according to the quantitative survey (see Bundsgaard, Buch, & Foug, 2020) are up to date and in line with the current National Curriculum, as they were created according to a former curriculum, but are still (frequently) used. For example, the most used learning material, *Den første læsning* [The first reading] (Borstrøm & Pedersen, 1999–) originates from the late 1990s (see Bremholm, 2020 in this special issue).

### 1.5 A note on the theoretical premise of the study

In the first section of the article, we have pointed to solid empirical research documenting the strong influence that pedagogical learning materials have on teaching practices, and we have referred to this knowledge as part of the rationale for our study on learning materials in Danish L1. However, it is imperative for us to emphasise that we do not assume a simple causality between a specific learning material and the actual teaching in which this learning material is used. Teachers might choose to follow the instructions in the learning material very closely; they might use only selected elements of the learning material as supplements to their own instructional design, or they might follow other methods of using learning materials. Still, by this we do not mean to imply that the link between learning materials and teaching is completely arbitrary. As a way of conceptualising the multiform link between learning materials and actual teaching, we have been inspired by pedagogical design theory, which is a theory of teaching and learning strongly influenced by social semiotics.

According to pedagogical design theory, learning materials represent an essential component that—together with other components such as curricula documents, the physical environment of the classroom and the school, and institutional norms and values regarding teaching—constitutes the framework for a teacher’s many different instructional decisions through which the teaching is orchestrated (or designed). In the actual teaching, the orchestration is realised through the interaction between the teacher and the students, and, therefore, it conditions the students’ potential learning (Selander, 2008, p. 39; Selander & Kress, 2010, p. 33). Thus, the learning material is an essential component of the framework for the students’ potential learning, but it is the actual use of the learning material in the actual teaching that transforms this component into specific interactions between teacher, students and subject matter content, resulting in potential learning for the students. Accordingly, in this study, when we examine the use of learning materials in Danish L1 as reported by the teachers, we procure knowledge about an essential component of the framework for teaching and students’ potential learning in Danish L1. We do not claim to be able to draw conclusion about teachers’ actual use of learning materials in Danish L1 classrooms.

A similar notion of the link between learning materials and teaching is found with the Danish educational scholars Bundsgaard and Illum Hansen. In their proposal for a holistic approach to the evaluation of learning materials, they distinguish between potential learning potential, actualised learning potential and actual learning. Potential learning potential is the “affordances and challenges of the learning material and the competences supposedly supported when working with the material”; the actualised learning potential is “the potential for learning when the design for learning is enacted by integrating the learning material in a situation in a given context”, and the actual learning is “how the participants actually develop their competences through working with the learning material or enacting a design for learning” (Bundsgaard & Hansen, 2011, p. 33). Bundsgaard and Hansen thus characterise learning materials as “the potential learning potential” in order to stress that the real learning potential of a given learning material cannot be assessed until the learning material is used in an actual instructional context (Bundsgaard & Hansen, 2011, p. 34).

## 2. NORDIC AND INTERNATIONAL RESEARCH ON LEARNING MATERIALS

Both in general and with specific regard to L1, the study of learning materials is a broad and diversified research field. However, to our surprise, we have only found very few studies that resemble the one we present here—studies that map the teachers’ use of learning materials in L1 on a national (or regional) level and attempt to characterise the subject of L1 based on this mapping. In the following, we will give a broad outline of the main studies in the research on L1 learning materials, and subsequently we will present studies that resemble ours. For some of these studies, the resemblance is primarily methodological since they do not have L1 as their object



of study. We conclude with a brief description of the development and trends of learning materials research in Denmark.

Based on the Knudsen et al. study (2011), which reviewed international research on general learning materials, it is possible to distinguish between five main areas of research on learning materials in L1. First, there are studies that examine learning materials in a historical perspective, either to describe historical changes in the content and design of learning materials (e.g. Bezemer & Kress, 2008; Skjelbred, Askeland, Maagerø, & Aamotsbakken, 2017) or to use learning materials as sources to depict historical periods or themes (e.g. Beeing, 2000; Eilard, 2008; Pinto, 2004). Second, a number of studies focus on content-specific aspects of learning materials for L1. In some studies, such aspects relate to the way given phenomena are represented in L1 learning materials, for instance age groups or national identities (e.g. von Münchow, 2009; Ylikiiskilä, 2007). Other studies examine how specific content domains within the L1 subject are treated in learning materials. Among these studies, reading is by far the dominant domain (e.g. Maisonneuve, 2001; Reynes, 2004; Runestad, 2015), while other L1 domains such as grammar (e.g. Wack, 2004) and communication (e.g. Hafner, 2004) are represented to a much lesser extent. In particular, it is noteworthy that studies on literature in a learning material perspective are quite rare (e.g. Brink, 2006; Skjelbred, 2004), considering the important position literature has traditionally held in L1 teaching. Third, some studies investigate the form and/or design of learning materials for L1. For instance, there are studies analysing the linguistic features of learning materials (e.g. Askeland, 2008; Torvatn, 2004) or the use of different modalities as aspects of learning material design (e.g. Ballstaedt, 2005). Fourth, a group of studies examine the use of learning materials in actual L1 classroom contexts. Some studies focus in particular on the impact of learning materials in relation to students' learning and classroom behaviour (e.g. Slot, 2010; Tønnesen, 2010), while others address the interaction between learning materials and teacher practices (e.g. Atjonen et al., 2008; Jewitt, 2006). Knudsen et al. note that, in general, empirical research on the use of learning materials is a neglected field of study (Knudsen et al., 2011, p. 16), and this logically also applies to research related to L1. Fifth, and finally, there are a considerable number of studies on digital learning materials. However, the predominant part of this research is directed towards what we in this article define as *functional learning materials* (see section 1.2.). These are typically experimental or intervention studies that examine how digital tools, games or technologies support and enhance student learning and new forms of teaching environments (e.g. Hartnell-Young & Vetere, 2008; Krommer, 2003; Smith, Hardman, & Higgins, 2006). Studies on digitised pedagogical learning materials, however, are quite sparse (e.g. Malo & Hambach, 2009).

The studies that (methodologically) resemble ours are presented in a reverse chronological order starting with the most recent study. On behalf of the Directorate of Education in Norway, professors Gilje and Ludvigsen led a large-scale mixed methods study among teachers, school principals and superintendents on learning materials in Norwegian lower and upper secondary school and the importance they have

for teaching and learning (Gilje et al., 2016). In the study, surveys ( $n = 1,510$ ) were combined with 12 case studies focusing on social studies, English, science and mathematics. The study showed that in lower secondary school, teachers have a large influence on the choice of learning materials, and that learning materials are important components in the teachers' instructional practices, both as support for the teachers' interpretations of the curriculum and as a resource for determining the structure, content and activities of the teaching. Furthermore, the study revealed that lower secondary teachers prefer paper-based learning materials, whereas digital learning materials are more popular among upper secondary teachers.

In contrast to the study by Gilje et al., a smaller Norwegian mixed methods study included L1 in its research design. The purpose of the study was to examine the role that learning materials play in primary and lower secondary school teaching in Norway as well as the correspondence between the learning materials and the national curriculum (Skjelbred, Solstad, & Aamotsbakken, 2005). Focusing on Norwegian L1, mathematics and science, the study consisted of three parts: structured observations made by student teachers in 64 classrooms (one lesson in each classroom); ethnographic observations for one week in three classrooms (grades 3, 6 and 8) in the three subjects in question; and document analysis of the learning materials used in the three classrooms. In accordance with Gilje et al., the findings of the study establish the central instructional role of learning materials when it comes to the choice of activities and the structuring of the teaching. With regard to the national curricula for the three subjects in question, the study showed that the learning materials (re)present a restricted version of the school subjects addressed at the middle-attaining students, and does not include the possibility for differentiation or the variety of texts, tasks and content matter actually required in the national curricula.

We have not been able to find similar studies that focus exclusively on learning materials for L1, but a study by the American reading researcher Shannon is worth mentioning since it examines teachers' use of learning materials in beginning reading instruction, an important domain within L1. In his study, Shannon combined a survey among L1 teachers ( $n = 565$ ) and school administrators ( $n = 26$ ) in a large Midwestern school district with semi-structured follow-up interviews with selected respondents (29 teachers and 3 administrators) with the aim of investigating teachers' use of learning materials in their reading instruction and their rationales for using the materials (Shannon, 1982). The results of the study showed that the American teachers based their reading instruction almost entirely on learning materials. Furthermore, the results also indicated that even though the teachers believed that the learning materials were based on scientific research, their main reason for using the materials was their belief that the school administrators expected them to do so. Most of the teachers also testified to a lack of involvement or agency regarding the reading instruction.

The last study to be mentioned is the most comprehensive one, but also the oldest. It is a large-scale mixed methods study conducted by the Educational Products Information Exchange Institute (EPIE), examining the learning materials used in

mathematics, reading, science and social studies in schools in the United States. The study combined a survey among a nationwide sample of teachers ( $n = 12,389$ ) with classroom observations and interviews with teachers, students and principals at 56 schools across 13 states as well as analyses of inventories of learning materials (EPIE, 1977). The main results of the study showed that, on average, teachers used learning materials during 63% of the class time, and that the majority of the most frequently used materials had a traditional design (i.e. teacher-oriented, drill-based and dominated by written text with limited use of other media). The study also showed that despite a very big learning material market, only a limited number of materials are frequently used by the teachers (the study provides a list of 70 learning materials frequently used in the four subjects).

In some countries, such as the United States, Germany, Norway and Great Britain, learning material research is a longstanding and well-established scientific field supported by strong centres of research (cf. Knudsen et al., 2011; Watt, 2015).

In Denmark, the learning materials field of research is relatively young, and, until a decade ago, it was centred around individual scholars. In the 1970s, there was an increased interest in the field, and a number of studies and projects were carried out, typically based on Marxism and critical theory (e.g. Andersen, 1981; Thobo-Carlson et al., 1978). In the 1990s, there was a renewed interest in learning materials, now focusing primarily on the quality and effectiveness of different materials, as exemplified in the studies on learning materials for reading instruction mentioned earlier in the article (see Section 1.1). In 2007, Danish research in learning materials was revived with the establishment of *Læremiddel.dk*, a national centre for research and information on learning materials. The centre has sparked an intensified research interest in learning materials, not only at the centre itself, but also at Danish universities and university colleges. The researchers at *Læremiddel.dk* have shown a particular interest in the development of generic frameworks for the analysis and evaluation of learning materials (e.g. Hansen, Graf, & Hansen, 2012; Hansen & Skovmand, 2011). However, they have also conducted several studies focusing on various aspects of Danish L1 in a learning material perspective, for example genre (Hansen & Carlsen, 2009) and digitisation (Gissel & Skovmand, 2016) (see also Bundsgaard, Buch, & Fougts, 2020).

### 3. THE METHODOLOGICAL APPROACH: MIXED METHODS

In this section, we describe the overall methodological design of the mixed methods study: an explanatory sequential design (Creswell & Clarke, 2011) guided by our research questions.

#### 3.1 *An explanatory sequential design*

The fundamental principle of mixed methods is, according to Johnson & Turner (2003), that “researchers should collect multiple data using different strategies,

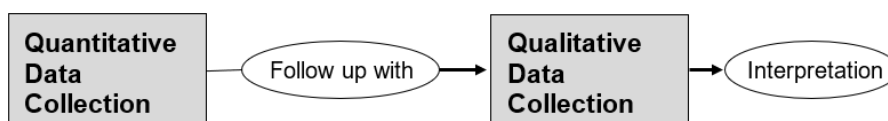
approaches, and methods in such a way that the resulting mixture or combination is likely to result in complementary strengths and nonoverlapping weaknesses” (Johnson & Onwuegbuzie, 2004, p. 18).

This present study is ‘a straightforward explanatory mixed methods design’

in which the researcher begins by conducting a quantitative phase and follows up on specific results with a second phase [...] The second qualitative phase is implemented for the purposes of explaining the initial results in more depth, and it is due to this focus on explaining results that is reflected in the design name.” (Creswell & Clark, 2011, 82)

In order to align the design with our research questions, we decided that all learning materials in the qualitative part were chosen based on popularity in the quantitative study: they had to be among the top ten most used materials. The rationale behind this approach is to provide a general picture of the research question through a quantitative approach and then follow up with a qualitative analysis based on the quantitative results to further explain or understand the research question (see Fig. 1).

Figure 1. The explanatory sequential design (Creswell & Clark, 2011, p. 69)



Creswell and Clark (2011) point out two tendencies regarding the research question(s) in mixed methods research: 1) The single question approach, where the combination of the quantitative and qualitative approaches answers the question, or 2) separate quantitative and qualitative questions are combined with an integration question.

We see one very important difference, as the quantitative part and the different qualitative parts can be considered individual research projects with their own agendas. As such, this study is a combination of the two tendencies: The combination of the quantitative and qualitative studies answers our research questions in general, but both the quantitative and the different qualitative studies can also be seen as individual projects with individual research questions. The quantitative study provides us with insight into which learning materials are used, which learning materials are best in the teachers’ view, and the teachers’ influence on which materials to buy; through content analysis and inferential statistics, we characterise the learning materials used and provide a general statistical analysis of correlations in terms of content—how the different areas of the Danish L1 subjects co-exist (or not) in the materials (Bundsgaard, Buch, & Fougat, 2020).

The individual qualitative studies provide an in-depth analysis of some of the most frequently used learning materials, but with a variety of methodological approaches and interests. A selection of these qualitative studies is presented in different articles in this special issue with a focus on learning-to-read materials (Bremholm, 2020), fiction and literature (Rørbech & Skyggebjerg, 2020), grammar (Kabel, 2020) and media texts (Berthelsen & Tannert, 2020).

#### 4. MAIN RESULTS AND DISCUSSION

In the fourth part, we present and discuss the main results of the overall study: the conclusion based on the interpretation of the combined results from the quantitative and the qualitative strands of the study (see other articles in this special issue). Our point of departure is the research questions for the overall combined mixed methods study, but due to the nature of this study, Question 1 (which learning materials are used) is only addressed by Bundsgaard, Buch, & Fougts (2020). Questions 2 (main characteristics) and 3 (correspondence with National Curriculum) are addressed in all articles and will be our focus points across all articles. To get an in-depth understanding of the full study, we encourage readers to continue to read the articles in this special issue.

The conclusion highlights four characteristics of learning materials in Danish L1: 1) the dominance of a skills-based and formalistic approach to the subject matter, 2) the lack of meaningful contexts for student activities, 3) content dominated by a narrow concept and selection of texts, and 4) the fact that the subject of Danish L1 represented in the learning materials does not correspond well with the National Curriculum. In this final section of the article, we discuss these characteristics in both a national and an international perspective, addressing, among other things, the questions they raise regarding teacher qualifications and the ecosystem around the production of learning materials.

##### *4.1 A skills-based and formalistic approach to the subject matter*

As clearly shown in the quantitative article (Bundsgaard, Buch, & Fougts, 2020), learning materials for Danish L1 are dominated by a skill-based and formalistic approach to the subject matter. Materials focusing on the training of skills dominate over materials with a focus on interpretation and critical literacy thinking. This is confirmed and exemplified in the in-depth analysis of learning materials for literature teaching, which shows that these materials are characterised by a drill-based approach to the students' acquisition and use of specific analytical concepts. Little attention is paid to the students' interpretive understanding and appreciation of literature as a way to inspire and develop their independent critical thinking about themselves and the outside world (see Rørbech & Skyggebjerg, 2020). This is also apparent in the analysis of the most used learning-to-read materials, which are dominated by a focus on training the technical elements of reading, thus losing focus on the meaning-

oriented elements (Bremholm, 2020, in this special issue). It is also shown in the grammar learning materials, which focus on correctness, decontextualised grammatical concepts, and trial and error (Kabel, 2020, in this special issue). This also applies to the media and communications area, where the analysis points to a dominance of learning tasks focused on the formal features of media texts (Berthelsen & Tannert, 2020, in this special issue). This result echoes the findings in the large-scale study done by EPIE in the 1970s the United States showing that the most frequently used learning materials across four different subjects including reading are dominated by a drill-based approach to the subject matter (EPIE, 1977). The resemblance between the findings in the two studies could lead one to assume that a formalistic and drill-based approach to subject matter constitute a strong and constant dimension in learning materials across time and cultural contexts. However, more studies are needed to examine this assumption.

This focus on skill training and the apparent formalistic perception of Danish L1 (when seen through the most frequently used learning materials) can be interpreted as a sign of making Danish L1 into a pseudo-science subject. Theoretical concepts and categories from scientific domains have infiltrated the learning materials in Danish L1, apparently with little or no pedagogical reflection regarding language, literature and media literacy. Methods and associated terminologies appear detached, and the meaning of the tasks and training in the learning materials becomes unclear.

#### 4.2 *The lack of meaningful contexts for student activities*

A second characteristic across the quantitative and qualitative analysis of learning materials in Danish L1 is the lack of meaningful contexts for the student activities, or for the students' work with the subject matter. The outside world, or the world outside the subject, is rarely included and neither are the students' lives nor their experiences with the world. This lack is obviously related to the first characteristic—the dominance of a skill-based and formalistic approach—as the approach is focused on decontextualised concepts and subject matter while ignoring how the concepts and the subject matter in question are related to and applied in the outside world. This absence is clear in the most frequently used material of all, the phonics-based learning-to-read material, *The first reading* (Borstrøm & Pedersen, 1999), where the students' reading or writing skills are not used in meaningful communication situations, and the material does not urge the students to choose texts based on their own interests or motivation (see Bremholm, 2020, in this special issue).

In the media and communications area, we identify a similar approach, where the students' (often well-developed) practices and experiences with the use of various media forms are not included in the learning materials; the student tasks focus on formal and generic features of the given media text, and not on how this media text is used in the outside world (see Berthelsen & Tannert, 2020, in this special issue). The same characteristic is identified in learning materials for literature teaching (see Rørbech & Skyggebjerg, 2020). Finally, the lack of meaningful contexts is also

indicated by the findings in the quantitative analysis (see Bundsgaard, Buch, & Foug, 2020).

#### *4.3 A narrow text choice*

A third characteristic of the learning materials used is a narrow understanding of texts. Danish L1 learning materials do not include a rich variety of the texts, expressions and communication types we encounter and use in modern human and social life (see Bundsgaard, Buch, & Foug, 2020). The choice of fictional literature is dominated by an unofficial canon list, where the same authors and texts appear repeatedly across different materials. This tendency is reinforced by the official and mandatory Danish Literary Canon (15 Danish writers) (see Rørbech & Skyggebjerg, 2020). With the aforementioned uniform choice of Danish fictional literature and the mandatory Danish Literary Canon list, the impression of a nationally oriented self-understanding subject has emerged.

#### *4.4 Content and pedagogical approaches do not correspond well with the National Curriculum*

Finally, a fourth characteristic of the most widely used learning materials is that the content does not correspond well with the National Curriculum (UVM, 2015). Spelling takes up an average of 20% of the content in K1-10 and literary analysis more than 20% in K4-10, while literary interpretation takes up only 7%. However, areas such as oral communication, media, multimodal communication, nonfiction and neighbouring languages (Swedish and Norwegian) are strongly deprioritised in the learning materials (see Bundsgaard, Buch, & Foug, 2020). The National Curriculum (UVM, 2015) stresses competencies, communication, interpretation and critical thinking, and emphasises aesthetic and multimodal ways to develop students' personal and cultural identity, empathy and aesthetic, ethical and historical understanding as well as their democratic participation. This is not developed through the passive repetitive training of concepts out of context. In this respect, our study on the learning materials in Danish L1 corresponds to the findings made by Skjelbred, Solstad and Aamotsbakken in their study on learning materials for among others L1 in primary and lower secondary school in Norway. In their study, they showed that the Norwegian learning materials represent a restricted version of the school subjects that do not meet the requirements of the national curricula regarding the content matter, the tasks and the selection of texts (Skjelbred, Solstad & Aamotsbakken, 2005).

#### *4.5 Summary: Danish L1 according to the learning materials*

The four characteristics of Danish L1 as presented above are striking, and they might give cause for worry. Observed through the learning materials at the time of the

study, the subject of Danish L1 is skill-based and lacks meaningful contexts; it seems to be dominated by a nationally oriented and narrow understanding of texts, and, finally, the content and pedagogical approaches do not correspond well with the National Curriculum (UVM 2015). Important areas such as critical thinking, democratic participation, creativity and life philosophy are marginalised. This is problematic as Danish L1 is considered one of the most important subjects to students' formation as enlightened, self-thinking individuals who can participate, contribute and take a personal stance as members of the public and as democratic citizens in a global world.

#### *4.6 4.6. Discussion: Reflections on the critique*

In this section of the article, we will discuss these characteristics in a national perspective by, among other things, addressing the questions that the characteristics raise regarding teacher qualifications and the ecosystem around the production of learning materials. The discussion would also be relevant from an international perspective. We will elaborate on international perspectives in the final section.

In this article, and in this special issue in general, we have presented a severe critique of the most widely used learning materials in Danish L1 as seen through the eyes of the researchers; therefore, we must ask: how can we understand this discrepancy between the actual practice and the researchers' theoretical lens? We generally believe that this criticism can and should be directed towards several parties, but we also stress that complex causal factors are at stake. It is not a matter of assigning blame, but rather a result of history, tradition, politics and habits. However, we all have a responsibility to act on it.

The first to be addressed are the teachers, who still have a great influence on the choice and purchase of learning materials according to the quantitative study (Bundsgaard, Buch, & Foug, 2020). The teachers appraise the materials used with statements such as "well-varied text selection" "students learn literary concepts", "good opportunities for the students to think for themselves", "thorough material" and "based on the latest research" ([korturl.dk/2ou](http://korturl.dk/2ou), our translation). Statements like these suggest that Danish L1 teachers in general see the most frequently used learning materials as being well-founded pedagogically, which might indicate a lack of a critical approach to the learning materials. However, it could also indicate that the teachers do not share the concerns presented throughout this special issue. This might be due to their professional judgement and their positive experiences with the functionality of the learning materials in their teaching. It might also be that the teachers' actual use of the materials is more in accordance with the progressive and student-centred approaches to teaching than the materials themselves. As mentioned earlier, teachers in Denmark traditionally enjoy a great deal of freedom to choose their instructional methods. Therefore, it would be of huge interest to conduct research on how teachers actually use and interact with learning materials as part of their professional practice when preparing, conducting and evaluating



teaching, especially since such empirical research is a neglected field of study (as pointed out in section 2.0).

Furthermore, when it comes to the teachers' choice of learning materials, an investigation of the structures around teaching and preparation should be further investigated. Since the change in the law for public schools in 2013 (and the following conflict regarding teachers' preparation time), many teachers say that they have very little time to prepare their teaching, making it more difficult for them to show consideration for individual students (Anker og Grundtvig, 2018; Danmarks Lærerforening, 2014). It is, however, important to stress that today there is no national knowledge of the average of Danish teachers' preparation time, as preparation time, due to the 2013 law, is now negotiated locally in each municipality. How do these varying regulatory frameworks and conditions for practice shape teachers' decisions when using learning materials?

Second, the publishers who produce teaching materials could reflect more ethically on their products, not only economically. Of course, private publishers are responsible to boards and owners and must focus on bottom lines. Therefore, they will obviously produce materials that repeat spelling rules if teachers ask for it. However, they could enter into discussions with both practicing teachers and researchers. Publishers produce learning materials in the gap between sales, common practice, goals and curricula, ideals and research. It would be a desirable development if the publishers took part in turning our schools towards the 21st century, taking responsibility for establishing a higher standard for publishing-based learning materials.

Third, our politicians set the course for the schools, and, from 2012 to 2017, the Danish parliament supported the schools' purchases of ICT-supported learning materials by compensating the municipalities for 50% of the expenses for digital learning materials. Initially, all pedagogical learning materials were supported, but criteria such as interactivity and professional relevance were later imposed; there were no real pedagogical criteria, however. The initiative was successful, as it truly enforced the digitisation of Danish schools, but we strongly recommend that pedagogical criteria such as contextualisation and meaning-orientation be introduced in the future to reduce the large amount of formalistic learning materials, especially in the early grades (see Bundsgaard, Buch, & Foug, 2020). Politicians as well as researchers, teachers and publishers influence the learning material market, and therefore all parties should be invited to engage in the discussions and the decision-making regarding learning materials.

Fourth, there is teacher education. Existing research indicates that student teachers actually work critically with learning materials throughout the Danish teacher education, but somehow they seem to be institutionalised by schools after graduation, or they do not find it possible to incorporate their knowledge in their new and hectic teacher practice. We need much more research within this field.

Finally, there are the researchers. The gap between research and practice could also indicate that we are wrong. We have investigated the learning materials but not the use of them in the classrooms; therefore, we do not know how teachers actually

use the materials. Teachers might already approach the learning materials with pedagogical criticism and conduct teaching that differs significantly from the content and intention of the learning materials. We assume—given the very little amount of preparation time a Danish teacher has for each lesson—that many teachers follow the materials and use them in a way that reflects the intended content. If this is the case, then our conclusions may be correct. It seems impossible to conduct contextualised and meaning-oriented teaching with very little time to prepare and with a large amount of learning materials pointing in another direction (see Bundsgaard, Buch, & Foug, 2020). We strongly encourage more research on this matter.

#### *4.7 And then what? International suggestions*

As stated above, this study is the first of its kind in Denmark, where a quantitative, systematic and representative survey on widely used learning materials is followed up by a qualitative, in-depth analysis of some of the most frequently used learning materials. We have not been able to identify similar studies internationally. Thus, first and foremost, we encourage researchers in other countries or regions to conduct similar research, not only for L1, but for all subjects. As the learning material market in Denmark is open and commercial, publishers tend to keep their sales information confidential, and we have no official and systematic knowledge of sales or used materials (which is not always the same). Similar tendencies apply to Sweden, Australia, the United Kingdom, Estonia, Finland, Ireland, Italy, Norway and the Netherlands. Therefore, this type of research would provide insight into which learning materials teachers actually use.

Furthermore, this research could be used to characterise the learning materials used as we have been doing here, and this approach would also be of interest in countries with more centralised control of learning materials, such as France or some states in the United States, although there is a general tendency towards a more open market (Reichenberg, 2016). Due to the limited size of Denmark, and with our centralised control of public schools with a national curriculum, we can conduct this kind of research nationally. In other larger countries with decentralised school systems, like Germany or the United States, this kind of research would have to be done regionally.

With this kind of national or regional research in other countries, comparative studies would be of importance and interest, allowing us to compare frequently used learning materials between countries and regions in order to learn from and be inspired by one another.

As a final remark, we hope that this special issue might contribute to the professional ongoing discussions in the international L1 community on issues like “What is good teaching?”, “What should we teach?” and “How should we teach?”. We also hope that our study will help launch a discussion among teachers both in Denmark and internationally about the content and pedagogical approaches in learning materials.

## LEARNING MATERIALS REFERRED TO IN THE ARTICLE

Borstrøm, I., & Pedersen, D.K. (1999–). *Den første læsning* [The first reading]. Copenhagen, Denmark: Alinea.

## REFERENCES

- Andersen, K. (1981). *Skolebøgernes indhold* [The content of the textbooks in school]. Copenhagen, Denmark: Specialarbejderforbundet i Danmark.
- Anker, N., & Grundtvig, G. (2018). *FTF'ernes psykiske arbejdsmiljø - hovedresultater og konsekvenser for sygefravær og sygenærvær* [Mental work environment for members of FTF - main results and consequences for absence due to illness]. Copenhagen, FTF. Retrieved January 11th, 2019, from [https://www.ftf.dk/fileadmin/Billedbase/FTF\\_analyse\\_nyhed/pdf\\_til\\_nyhed/Temareport\\_1\\_Psykisk\\_arbejdsmiljoe\\_og\\_sygefravaer\\_web\\_22.1.2018.pdf](https://www.ftf.dk/fileadmin/Billedbase/FTF_analyse_nyhed/pdf_til_nyhed/Temareport_1_Psykisk_arbejdsmiljoe_og_sygefravaer_web_22.1.2018.pdf)
- Askeland, N. (2008). *Lærebøger og forståing av kommunikasjon* [Textbooks and the understanding of communication] (Master's thesis). Oslo, Norway: Oslo University.
- Atjonen, P., Halinen, I., Hämäläinen, S., Korkeakoski, E., Knubb-Manninen, G., Kupari, P.,... Wikman, T. (2008). *Tavoitteista vuorovaikutukseen. Perusopetuksen pedagogiikan arviointi*. [From aim to interaction. An evaluation of the pedagogy of the comprehensive education in Finland]. Jyväskylä, Finland: Koulutuksen Arviointineuvoston Julkaisuja.
- Bachmann, K. E. (2005). *Læreplanens differens: Formidling af læreplanen til skolepraksis*. [The difference of the national standard: From national standard to school-based practice]. Trondheim, Norway: Norwegian University of Science and Technology
- Ballstaedt, S. P. (2005). Text-Bild-Kompositionen im Unterrichtsmaterial [Text-Picture Composition in Textbooks]. *Der Deutschunterricht*, 57(4), 61–70.
- Beeing, A. (2000). "Eines der schönsten Länder unter der Sonne". Zum Wandel des Deutschland-Bildes in niederländischen Schulbüchern (1750–1940) ["One of the most beautiful countries under the sun": The changes in the representation of Germany in Dutch textbooks (1750–1940)]. *Praxis Geschichte*, 13(6), 22–25.
- Berthelsen, U. D. & Tannert, M. (2020). Utilizing the affordances of digital learning materials. Contribution to a special issue Danish as L1 in a Learning Materials Perspective, edited by Jesper Bremholm, Simon Skov Fougat, and Bettina Buch. *L1-Educational Studies in Language and Literature*, 20, 1-23. <https://doi.org/10.17239/L1ESLL-2020.20.02.03>
- Bezemer, J., & Kress, G. (2008). Writing in multimodal texts: a social semiotic account of designs for learning. *Written Communication*, 25(2), 166–195.
- Bjuland, R., Helgevold, N., & Munthe, E. (2015). Lesson study og lærerstudenters fokus på eleveres læring i veiledningssamtaler [Lesson study and student teachers' focus on pupils' learning in counseling sessions]. *Acta Didactica Norge*, 9(1), 1–17. <https://doi.org/10.5617/adno.1299>
- Borstrøm, I., Petersen, D. K., & Elbro, C. (1999). *Hvordan kommer børn bedst i gang med at læse?* [How do children get the best start to read?]. Copenhagen, Denmark: University of Copenhagen and The Ministry of Education
- Bremholm, J. (2020). Evaluating textbooks for primary grade reading instruction: A usable heuristic for L1 education. Contribution to a special issue Danish as L1 in a Learning Materials Perspective, edited by Jesper Bremholm, Simon Skov Fougat, and Bettina Buch. *L1-Educational Studies in Language and Literature*, 20, 1-21. <https://doi.org/10.17239/L1ESLL-2020.20.02.01>
- Bremholm, J., Bundsgaard, J. Fougat, S.S. & Skyggebjerg, A.K. (Eds.) (2017). *Læremidlernes danskfag* [Danish L1 according to its Learning Materials]. Aarhus, Denmark: Aarhus Universitetsforlag.
- Bremholm, J., & Skott, C. K. (2019). Teacher planning in a learning outcome perspective: a multiple-case study of mathematics and L1 Danish teachers. *Acta Didactica Norge - nasjonalt tidsskrift for fagdidaktisk forsknings- og utviklingsarbeid*, 13(1), 1-22. [1]. <https://doi.org/10.5617/adno.5540>
- Brink, L. (2006). Konsensus om kanon? Kanonbild och ämnesuppfattning hos 75 litteraturlärare [Consensus on canon? Conceptions of canon and subject matter by 75 literature teachers]. In L. Brink

- & R. Nilsson (Eds.), *Kanon och tradition. Ämnesdidaktiska studier om fysik-, historie- och litteraturundervisning* (pp. 149–180). Gävle, Sweden: Lärarutbildningens skriftserie 2.
- Bundsgaard, J., Buch, B. & Foug, S.S. (2020). Danish L1 according to the learning materials used—a quantitative study. Contribution to a special issue Special issue Danish as L1 in a Learning Materials Perspective, edited by Jesper Bremholm, Simon Skov Foug, and Bettina Buch. *L1-Educational Studies in Language and Literature*, 20, 1-31. <https://doi.org/10.17239/L1ESLL-2020.20.02.05>
- Bundsgaard, J., & Hansen, T. I. (2011). Evaluation of learning materials: A holistic framework. *Journal of Learning Design*, 4(4), 31–44. <https://doi.org/10.5204/jld.v4i4.87>
- Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research*. Los Angeles, CA: SAGE Publications.
- Christophersen, J. (2004). *Empirisk samfunnsfag eller lærebokfag: Lærebokas betydning i samfunnsfaget i forhold til læreplan, andre læremidler og informasjonskilder* [Social science as a school subject based on empirical sources or textbooks: The importance of the textbook in social science in relation to curriculum, other learning materials, and sources of information]. In K. Klette (Ed.), *Fag og arbeidsmåter i endring? Tidbilder fra norsk grunnskole* (pp. 101–117). Oslo, Norway: Universitetsforlaget.
- Danmarks Lærerforening. (2014). *Analysenotat. Lærere mangler tid til forberedelse og efterbehandling*. [Analysis. Teachers need time to prepare and aftercare]. Copenhagen, Denmark: Danmarks Lærerforening.
- Eilard, A. (2008). *Modern, svensk och jämställd. Om barn, familj och omvärld i grundskolans läseböcker 1962–2007* [Modern, Swedish and equal: Children, family, and the world in reading textbooks for the compulsory school, 1962–2007] (Master's thesis). Lund, Sweden: University of Lund.
- Elf, N.F. (2014). Læremidler som social praksis i fag [Learning materials as social practice in school subjects]. *Cursiv*, 13, 97–122.
- EPIE (1977). *Report on a national study of the nature and the quality of instructional materials most used by teachers and learners* (Report by Educational Products Information Exchange Institute (EPIE), no. 76). New York, NY: Educational Products Information Exchange Institute.
- Ewing, B. (2004). "Open your textbooks to page blah, blah, blah — So I just blocked off!". In I. Putt, R. Faragher, & M. McLean (Eds.), *Proceedings of the Twenty-Fourth Annual Conference of the Mathematics Education Group of Australasia Incorporated: Mathematics education for the third millennium* (pp. 231–238). Townsville, Australia.
- Gee, J. P. (2015). *Literacy and education*. New York, NY: Routledge.
- Gilje, Ø., Ingulfsen, L., Dolonen, J. A., Furberg, A., Rasmussen, I., Kluge, A., . . . Skarpaas, K. G. (2016). *Slutrapport. Med ARK & APP. Bruk av læremidler og ressurser for læring på tvers av arbeidsformer* [Final report. With ark and app. The Use of learning materials and resources for learning across work forms]. Oslo, Norway: Universitetet i Oslo.
- Gissel, S.T., & Skovmand, K. (2016). *Kategorisering af digitale læremidler. En undersøgelse af didaktiske, digitale læremidlers karakteristika* [Categorization of digital learning materials. A study of the characteristics of pedagogical digital learning materials]. Odense, Denmark: Læremiddel.dk
- Guggeis, K. (2004). Der Mohr hat seine Schuldigkeit noch nicht getan: Afrika und seine Bewohner in zeitgenössischen Schulbüchern aus ethnologischer Sicht [The Moor has not yet done his duty: Africa and its inhabitants in contemporary textbooks from an ethnological point of view]. In E. Mathes, & C. Heinze (Eds.) *Interkulturelles Verstehen und kulturelle Integration durch das Schulbuch? Die Auseinandersetzung mit dem Fremden* (pp. 251–269). Bad Heilbrunn, Germany: Klinkhardt.
- Hafner, H. (2004). Neue Medien im Deutschunterricht. Allgewalt und Kritik [New media in the teaching of German: Omnipotence and critique]. In K. H. Jahn, & M. Wyss (Eds.), *Lesen und Schreiben* (pp. 93–103). Frankfurt, Germany: GAFB.
- Haggarty, L., & Pepin, B. (2002). An investigation of mathematics textbooks in England, France and Germany: Some challenges for England. *Research in Mathematics Education*, 4, 567–590. <https://doi.org/10.1080/14794800008520106>
- Hansen, J.J. (2010). *Læremiddellandskabet. Fra læremiddel til undervisning?* [The Landscape of learning materials. From learning material to teaching?]. Copenhagen, Denmark: Akademisk Forlag.

- Hansen, J.J., & Carlsen, D. (2009). Findes læremiddelgenrer? Et perspektiv på læremidler i dansk [Do learning materials genres exist? A perspective on learning materials in Danish]. *Læremiddeldidaktik*, 2, 11–19.
- Hansen, T.I., Graf, S., & Hansen, J.J. (2012). *Læremidler i didaktikken: Didaktikken i læremidler* [The learning materials in the pedagogy: The pedagogy in the learning materials]. Aarhus, Denmark: Klim.
- Hansen, T. I., & Skovmand, K. (2011). *Fælles mål og midler* [National Curriculum and their means]. Aarhus, Denmark: Klim.
- Hartnell-Young, E., & Vetere, F. (2008). A means of personalising learning: Incorporating old and new literacies in the curriculum with mobile phones. *Curriculum Journal*, 19(4), 283–292.
- Hodgson, J., Rønning, W., Skogvold, A. S., & Tomlinson, P. (2010). *Rapport. På vei fra læreplan til klasserom: Om læreres fortolkning, planlegging og syn på LK06* [Report. From national curriculum to the classroom: Teachers' interpretation, planning and view of LK06]. Bodø, Norway: Nordland Research Institute.
- Jewitt, C. (2006). *Technology, literacy and learning: a multimodal approach*. London, UK: Routledge.
- Johnson, B., & Turner, L. A. (2003). Data collection strategies in mixed methods research. In A. Tashakkori & C. Teddlie C. (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 297–319). Thousand Oaks, CA: Sage.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), 14–26.
- Kabel, K. (2020). For what benefit? Grammar teaching materials in upper primary Danish L1. Contribution to a special issue Special issue Danish as L1 in a Learning Materials Perspective, edited by Jesper Bremholm, Simon Skov Foug, and Bettina Buch. *L1-Educational Studies in Language and Literature*, 20, 1-25. <https://doi.org/10.17239/L1ESLL-2020.20.02.02>.
- Knudsen, S. V. et al. (red.) (2011). *Rapport. Internasjonal forskning på læremidler – en kunnskapsstatus* [Report. International Research in learning materials—a status of knowledge]. Vestfold: Høgskolen i Vestfold, Senter for pedagogisk tekstforskning og læreprosesser. Retrieved January 11, 2019, from [http://laeremiddel.dk/wp-content/uploads/2012/07/Internationale\\_l%C3%A6remidler.pdf](http://laeremiddel.dk/wp-content/uploads/2012/07/Internationale_l%C3%A6remidler.pdf)
- Krommer, A. (2003). Chatten mit dem lyrischen Ich: Ein literatur- und mediendidaktisches Experiment [To chat with the poetic I: A didactic experiment on literature and media]. In J. Wermke (Ed.), *Literatur und Medien* (pp. 87–103). München, Germany: KoPäd.
- Laursen, P.F. & Bjerresgaard, H. (2009). *Praktisk pædagogik: Metodik i folkeskolen* [Practical pedagogy: Instructional methods in the Danish public school]. Copenhagen, Denmark: Gyldendal.
- Maisonroue, L. (2001). *Apprentissage de la lecture: méthodes et manuels* [Learning to read: Methods and textbooks] (Master's thesis). Rennes, France: Université de Rennes II.
- Malo, S., & Hambach, S. (2009). Spielend lernen in der Alphabetisierung [Playful learning in decoding]. *Zeitschrift für E-learning*, 4(4), 35–47.
- McCutcheon, G. (1980). How do elementary school teachers plan? The nature of planning and influences on it. *Elementary School Journal*, 81(1), 4–23. <https://doi.org/10.1086/461201>
- Pinto, D. (2004). Indoctrinating the Youth of Post-War Spain: A Discourse Analysis of a Fascist Civics Textbook. *Discourse Society*, 15(5), 649–667. <https://doi.org/10.1177/0957926504045036>.
- Rambøll (2018). *Indsatsen for it i folkeskolen. Evaluering* [The effort for ICT in primary and lower secondary school. Evaluation]. Copenhagen, Denmark: Undervisningsministeriet
- Reichenberg, M. (2016). Explaining teachers' use of textbooks. *Journal of Educational Media, Memory and Society*, 8(2), 145–159.
- Reynes, P. (2004). Approche de l'apprentissage lexical et du rôle du lexique dans plusieurs méthodes et manuels de catalan [Approaches to vocabulary instruction and the role of vocabulary in different methods and textbooks for Catalan]. *Études de linguistique appliquée*, 136, 449–463.
- Runestad, A.K.S. (2015). *Intensjoner, adaptasjoner og leserposisjoner* [Intentions, adaptations, and reader positioning] (Doctoral thesis). Trondheim, Norway: Norwegian University of Science and Technology (NTNU).
- Rørbech, H. & Skyggebjerg, A.K. (2020). Concepts of literature in Danish L1—textbooks and their framing of students' reading. Contribution to a special issue Danish as L1 in a Learning Materials Perspective, edited by Jesper Bremholm, Simon Skov Foug, and Bettina Buch. *L1-Educational Studies in Language and Literature*, 20, 1-23. <https://doi.org/10.17239/L1ESLL-2020.20.02.06>

- Sanchez, G., & Valcárcel, V.M. (1999). Science teachers' views and practices in planning for teaching. *Journal of Research in Science Teaching*, 36(4), 493–513.  
[https://doi.org/10.1002/\(SICI\)1098-2736\(199904\)36:4<493::AID-TEA6>3.0.CO;2-P](https://doi.org/10.1002/(SICI)1098-2736(199904)36:4<493::AID-TEA6>3.0.CO;2-P)
- Sardo-Brown, D. (1990). Experienced teachers' planning practices: A U.S. survey. *Journal of Education for Teaching*, 16, 57–71. <https://doi.org/10.1080/0260747900160104>
- Schnack, K. (1995). Educational texts in the light of general didactics. In P. Skyum-Nielsen (Ed.) *Text and quality: Studies of educational texts* (pp. 22–33). Oslo, Norway: Scandinavian University Press.
- Schön, D. (1983). *The reflective practitioner*. London: Temple Smith.
- Selander, S. (2008). Tecken för lärande—tecken på lärande: Et designteoretisk perspektiv [Signs for learning—signs of learning: A perspective from design theory]. In A.-L. Rostvall, & S. Selander (Eds.) *Design för lärande* (pp. 28–44). Stockholm, Sweden: Nordstedts Akademiska Förlag.
- Selander, S., & Kress, G. (2010). *Design för lärande: Ett multimodalt perspektiv* [Design for learners: A multimodal perspective]. Stockholm, Sweden: Nordstedts Akademiska Förlag.
- Shannon, P. (1982). Some subjective reasons for teachers' reliance on commercial reading materials. *The Reading Teacher*, 35(8), 884–889.
- Skjelbred, D. (2004). 'Den dannelsen alle må være fortrolige med': om morsmåsfagets kanon i læreplaner og lærebøker i den norske grunnskolen [‘The *Bildung* all must be familiar with’: The canon of the mother tongue subject in curricula and textbooks in Norwegian compulsory school]. In D. Eriksen, A. Mølgaard, M. Søndergaard, & K. Thybu (Eds.), *Børnelitteratur: læsninger og undervisning*. Copenhagen, Denmark: Dansk lærerforening.
- Skjelbred, D., Askeland, N., Maagerø, E., & Aamotsbakken, B. (2017). *Norsk lærebokhistorie: Allmueskolen—folkeskolen—grunnskolen, 1739–2013* [A history of the Norwegian textbook: The peasants' school—the primary school—the compulsory school, 1739–2013]. Oslo, Norway: Universitetsforlaget.
- Skjelbred, D., Solstad, T., & Aamotsbakken, B. (2005). *Kartlegging av læremidler og læremiddelpraksis* [An overview of learning materials and learning materials practice]. Tønsberg, Norway: Høgskolen i Vestfold.
- Slot, M. F. (2010). *Læremidler i danskfaget: en undersøgelse af gymnasieelevers og læreres brug af tre læremidler i danskfaget* [Learning materials in the subject of Danish: A study of high school students' and teachers' use of three learning materials in Danish] (Master's thesis). Odense, Denmark: University of Southern Denmark.
- Smith, F., Hardman, F., & Higgins, S. (2006). The impact of interactive whiteboards on teacher-pupil interaction in the national literacy and numeracy strategies. *British Educational Research Journal*, 32(3), 443–457.
- Superfine, A. C. (2008). Planning for mathematics instruction: A model of experienced teachers' planning processes in the context of a reform mathematics curriculum. *Mathematics Educator*, 18(2), 11–22.
- Tainio, L. (2012). Gender in Finnish school textbooks for basic education. In T. Tolonen, T. Palmu, S. Lappalainen, & T. Kurki (Eds.) *Cultural practices and transitions in education* (pp. 211–225). London, UK: Tufnell Press.
- Thobo-Carlsen, J., Christiansen, K.D., Christiansen, O.H., Hansen, F.S., Lenger, C., & Madsen, J.G. (1978). *Danskbøgerne i folkeskolen—et debatoplæg* [The textbooks for Danish in compulsory school—a discussion paper]. Odense, Denmark: Odense Universitetsforlag.
- Tomlinson, B. (2012). Materials development for language learning and teaching. *Language Teaching*, 45(2), 143–179.
- Torvatn, A. C. (2004). *Tekststrukturens innvirkning på leseforståelsen: en studie av fire læreboktekster for ungdomstrinnet og sju elevers lesing av dem* [The influence of text structure on reading comprehension: A study of four textbook texts for lower secondary school and seven students' reading of them] (Master's thesis). Højmark, Denmark: Høgskolen i Hedmark.
- Tønnessen, E. S. (2010). *Sammensatte tekster: barns tekstpraksis* [Composite texts: Childrens' textual practices]. Oslo, Norway: Universitetsforlaget.
- UVM, Undervisningsministeriet (n.d.): 'Timetal#'. [Number of hours]. Copenhagen, Denmark: Undervisningsministeriet. Retrieved January 11th, 2019, from <https://uvm.dk/folkeskolen/fag-timetal-og-overgange/timetal>

- UVM, Undervisningsministeriet. (1994). *Dansk- og historiebøger. En gennemgang og vurdering udbredte undervisningsmaterialer til dansk og historie på folkeskolens mellemtrin og til dansk i ungdomsuddannelserne* [Teaching materials in Danish and History. A review and appraisal of teaching materials for Danish and history at the middle school of the primary school and Danish in the youth education]. Copenhagen, Denmark: Undervisningsministeriet
- UVM, Undervisningsministeriet. (2015). *Fælles Mål - dansk* [National Curriculum, Danish L1]. Copenhagen: Undervisningsministeriet. Retrieved January 11th, 2019, from <http://www.emu.dk/omraade/gsk-laerer/ffm/dansk>
- UVM, Undervisningsministeriet (2019). *Folkeskoleloven* [Law about public school]. Copenhagen, Denmark: Undervisningsministeriet. Retrieved October 27th, 2019, from <https://www.retsinformation.dk/Forms/r0710.aspx?id=196651#id022b0e44-841e-4caf-9378-363beef94c1>
- van Dijk, T., & Encarna, A. (2011). Knowledge and discourse in secondary school social science textbooks. *Discourse Studies*, 13(1), 93–118.
- von Münchow, P. (2009). Le discours d'adolescents dans les manuels scolaires de lecture en France et en Allemagne [The discourse of adolescence in reading textbooks in France and Germany]. *Adolescence*, 70, 921–930.
- Wack, L. (2004). *Quels regards sur la grammaire scolaire? Etude comparative de différentes approches grammaticales abordant la négation et l'objet* [How to look on school grammar? A comparative study of different grammatical approaches to negation and object] (Master's thesis). Nancy, France: Université Nancy II.
- Warren, L. L. (2000). Teacher planning: A literature review. *Educational Research Quarterly*, 24(2), 37–42.
- Watt, M. (2015). Research on textbook use in the United States of America. *IARTEM e-Journal*, 7(2), 48–72.
- Weinreich, T. (1995). The educational text market: Qualities and quantities. In P. Skyum-Nielsen (Ed.) *Text and quality: Studies of educational texts* (pp. 22–33). Oslo, Norway: Scandinavian University Press.
- Winkler, I. (2007). 'Im Allgemeinen hat die Kurzgeschichte ein offenes Ende ...': Zum Umgang mit literarischem Gattungswissen in aktuellen Lehrwerken für Deutschunterricht [In general, the short story has an open ending ...': The approach to literary genre knowledge in current textbooks for the teaching of German]. In E. Matthes, & C. Heinze (Eds.) *Elementarisierung im Schulbuch* (pp. 267–293). Bad Heilbrunn, Germany: Klinkhardt.
- Ylikiiskilä, A. (2007). Bilder av sverigefinnar, finnar, finska och Finland i några läroböcker i svenska och historia [The representation of Swedish Finns, Finns, and Finland in selected textbooks for Swedish and history]. In S. V. Knudsen, D. Skjelbred, & B. Aamotsbakken (Eds.), *Tekst i vekst. Teoretiske, historiske og analytiske perspektiver på pedagogiske tekster* (pp. 231–241). Oslo, Norway: Novus forlag.