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# Scientification or political legitimization? Tracing the concepts of evidence and context in Nordic school reforms

## 科学化还是政治合法化？追溯北欧学校改革中证据和背景的概念

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### ABSTRACT

Presenting education reforms as evidence-based has become a global trend. This article investigates how evidence is selected and utilised, focusing on the role of academic research in recent school reforms in Denmark, Finland, and Norway. By analysing a dataset of fifteen interviews of policymakers and applying Sobel, Noah, W., and Jamie A. Kowalczyk's (2012. "The Problem of Context in Comparative Education Research." *ECPS Journal* 6:55–74), concept of Context, the findings reveal that experts and committee members selected different types of evidence for various reform topics based on their professional backgrounds, roles, positions, and the specific issues at hand. The decision-making processes were complex negotiations involving people from diverse networks and professions who interpret global ideas within local contexts. Consequently, the choice of evidence was shaped by and shaped further the unique Context of each reform, despite the shared commonalities among the three countries.

### 摘要



基于证据介绍教育改革已成为全球趋势。本研究重点关注学术研究在丹麦、芬兰和瑞典近期学校改革中的作用，探讨证据如何被选择和利用。通过分析包含15个对政策制定者访谈的数据集，并应用索贝和科瓦尔奇克关于“小背景”和“大背景”的概念，研究结果揭示专家和委员会成员根据其专业背景、角色、职位以及手头的具体问题，为各种改革议题选择了不同类型的证据。决策过程是复杂的谈判过程，涉及来自不同网络和专业的人员，他们在当地（小）背景中诠释全球性的理念。因此，尽管这三个国家之间存在共性，但对证据的选择是由每项改革的独特（大）背景所决定，并进一步塑造了这一背景的内容。

### KEYWORDS

Education reform; scientification; c/Context; evidence-based policymaking; legitimization

### 关键词

教育改革，科学化，小背景/大背景，基于证据的政策制定，合法化

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## Introduction

Transparency and accountability have become central operational principles of modern democracies worldwide, contributing to the emergence of a decision-making culture in which policymakers are expected to base their decisions on reliable knowledge and objective evidence (Wollscheid, Stensaker, and Bugge 2019). Knowledge has become so central in policy processes that it forms the core of policy rather than merely informing it (Grek 2013). For instance, Bromley and fellow researchers (2024) have demonstrated increased data-centrism and a decline in right-based approaches in education reforms worldwide from the 1970s to the 2010s. Nevertheless, comparative studies indicate that the global demand for expertise and evidence-based decision-making has been reshaped and interpreted differently across various national contexts (Baek 2023; Karseth, Sivesind, and Steiner-Khamsi 2022; Steiner-Khamsi, Karseth, and Baek 2020). These ideas are the starting point for our investigation into using knowledge as policy evidence in education policymaking. We will focus on the use of evidence, especially scientific knowledge, in recent school reforms in three countries – Denmark, Norway, and Finland. These nations share a partially similar history and share similarities in their political systems, providing a compelling foundation for our study.

Since the 1960s, the demand for academics as policy advisors has remained high, and the complexity of today's world and the highly specialised knowledge required by policymakers to make decisions are vital reasons academics are sought for advice (Christensen and Holst 2017; Krick, Christensen, and Holst 2019; Maasen and Weingart 2005). Scientific advice can also be sought for political-strategic reasons, as science works well to legitimise decisions already made, postpone a decision, or bury a topic entirely (Christensen and Hesstvedt 2019). The high demand for academic advice is an increasing trend, often called the '*scientification of politics*' (see, for instance, Krick, Christensen, and Holst 2019; Maasen and Weingart 2005).

As the academic community has become more involved in political discussions, science has been used to lend authority and legitimacy to various positions (Maasen and Weingart 2005). Consequently, the public has become aware of the ambiguous nature of scientific knowledge (Eyal 2019), a development Weingart (2003) coined as '*the politicisation of science*'. The politicisation of science is evident when academic experts are brought into the policy process as external advisors or when scientific knowledge is used to legitimise policy proposals (Baek 2020). The scientific knowledge originating from academic institutions is no longer automatically considered the top or most dependable evidence for policymaking. This is particularly the case given the growing competition from various entities, such as think tanks, sector research institutes, and international organisations, in generating policy expertise, which challenges the authority of academic experts (Auld and Morris 2014; Maasen and Weingart 2005).

This article examines the ambivalence in the relationships between science and politics, global ideas and local recontextualisations, and references to research through three examples of knowledge use in recent school reforms in three Nordic countries. Building on the findings from a bibliometric analysis of in-text citations in crucial policy documents conducted in the research project called 'Policy Knowledge and Lesson Drawing in Nordic School Reform in an Era of International Comparison' (POLNET), this article presents results from fifteen interviews with policymakers involved in the reform

processes. The analysis is guided by the concept of *c/Context* as relational and in constant flux (Piattoeva, Klutas, and Suominen 2019; Sobe and Kowalczyk 2012; 2018) and the concept of policy as a process (Ball 2017; Taylor et al. 1997). The article illustrates what policymakers considered valid and valuable evidence to support school reforms in these three cases. It includes discussing the process of choosing evidence and the weight they attributed to scientific knowledge.

The article is divided into five parts. The first presents the interpretative framework based on previous research on evidence-based policymaking (EBPM) and the construction of *c/Context* in education policy and politics. The second part deals with recent school reforms in three Nordic countries: Denmark, Finland, and Norway. The third part briefly overviews the data and methods employed in the study. The study's findings are presented in the fourth part, and the fifth presents our conclusions.

### **Policy, context-specific evidence and the construction of a specific 'Context'**

Cairney (2016) argued that policymaking processes identified as based on objective evidence are seldom straightforward and simple; in fact, political decision-making always involves competing information and numerous actors representing various subsystems with their ideas of what constitutes 'evidence' (Cairney 2016). Previous research in comparative education has demonstrated that even though cross-national comparisons have become central tools in arguing for 'what works' in education, national education policymakers are selective in the application of such data (Auld and Morris 2014; Steiner-Khamsi, Karseth, and Baek 2020), and evidence becomes part of policy only when it aligns with a specific narrative (Volmari 2024). For instance, previous analyses of knowledge usage in Norwegian policy documents reveal that evidence is referenced variedly in different policy projects and policy realms (Hörmann and Sivesind 2022), implying that EBPM is always, to some extent, a context-specific endeavour and a process influenced by many factors and actors. In a similar vein, using five Latin American countries as examples, Guadalupe (2024) argues that references to ILSAs often serve, among others, as gestures to show commitment to educational improvement or as cherry-picked data to suit policymakers' needs rather than as genuine basis or direction for reforms.

In this article, we approach context through the concept of small 'c' and big 'C' context, coined by Sobe and Kowalczyk (2012; 2014; 2018), and policy as a process (Ball 2017; Taylor et al. 1997). Sobe and Kowalczyk (2012) describe context as a 'conjoining process' that directs researchers to focus on 'the relationality of objects and contexts; how they become intelligible and interconnected, and their effects' (Sobe and Kowalczyk 2012, 63, 65). Thus, context is seen not as stable and static but as 'a process of interweaving' (Sobe and Kowalczyk 2018, 197).

To clarify their perspective, Sobe and Kowalczyk (2014) use Gee's (1990) distinction between big 'D' and little 'd' discourses. Big 'D' discourses refer to historically and socially significant narratives in educational research that shape what is considered thinkable and doable, aligning with Ball's (1993) idea that policy discourses actively shape social reality instead of just portraying it. Little 'd' discourses encompass the individual elements of a given setting. Ball (2013) argued that experts and their knowledge play a pivotal role in shaping how policy discourses eventually determine and govern individuals' actions

and perceptions of their identities. In short, policies 'construct the problematic, the inevitable, and the necessary' (Ball 2017, 8). Discourses are crucial to context, shaping the interplay of actors and ideas within educational settings. Hence, for this study, we interviewed state actors who operate at the intersection of power and knowledge, playing a crucial role in shaping educational Discourses.

In the era of EBPM, these actors influence the broader context of education by contributing to school reforms and improvements deemed inevitable and necessary. However, their actions are enabled and constrained by national decision-making processes, power structures, and path dependencies. As Peck and Theodore (2015) argue, policy outcomes are inherently context-specific, making it challenging to alter deeply entrenched local elements of policymaking. Despite the global circulation of policy ideas and transnational discourses of 'what works', national constitutions, political cultures, and governance models largely shape education reforms (Holmén 2022). In line with this, Ball (2017) reminds us that policies are made and remade in many contexts and evolve through reports, speeches, agendas, and more. Thus, policy is a process rather than a fixed product, ongoing and interactional rather than a stable and finite product (Ball 2017; Taylor et al. 1997).

At the same time, we support Carney's (2008) assertion that educational phenomena in one country must be understood in relation to other cases. Carney's research on three rather different contexts, Denmark, Nepal, and China reveals that despite different interpretations of the state's role, all three countries base their reforms on 'best practices' and 'accepted knowledge' from perceived Western standards. These references justify and implement reforms, using global discourses that link educational improvement to economic progress, reflecting a shared power/knowledge regime shaped by global discussions on education. Unlike Carney's study, our research focuses on three cases from the Nordic countries, a region often viewed as unified by historical, cultural, and linguistic similarities and comparable political systems.

### **Preparatory reform work in Denmark, Finland and Norway**

The Nordic countries share a common history and a commitment to welfare policies aimed at societal well-being (Arnesen et al. 2014). Education has traditionally been a critical instrument for advancing social justice and ensuring equal opportunities for all, regardless of socio-economic background or geographical location (Lundahl 2016). The political model of the Nordic countries is often described as corporatist or neo-corporatist (Christensen and Hesstvedt 2019; Christiansen et al. 2010; Holli and Turkka 2021) and consensus-oriented (Baek 2023), with commissions representing various interest groups playing a key role in policymaking (Christensen and Holst 2017). These government-appointed commissions, comprising civil servants, stakeholder representatives, and researchers, prepare reform proposals and knowledge bases (Holli and Turkka 2021). According to Baek (2023), such drafting bodies are essential for balancing interests, gaining expert knowledge, and legitimising policy ideas. While policy-advisory arrangements in our three Nordic country cases differ slightly, they share these core characteristics.

In Norway, the number of ad-hoc commissions and, in particular, the number of academics participating in them have risen tremendously over the years (Krick, Christensen,

and Holst 2019), and simultaneously, the inclusion of stakeholders in these commissions has been decreasing (Christensen and Hesstvedt 2019). In Finland, the number of academic members in government-appointed working groups was reduced by half in the 2010s compared to the previous decade, and academics seldom hold the chair position of such a group (Holli and Turkka 2021). In Denmark, advisory commissions are sometimes used to prepare policy proposals. However, Denmark does not have an equivalent of the Norwegian or Swedish Official Commissions that produce public enquiry reports (NOUs and SOUs). In the case of the 2013 reform examined in this study, no official commission work took place to prepare the elements of the reform (Reder and Ydesen 2022). Considering the different tendencies in the three countries' preparatory reform work, our study explored how context and evidence are constructed under different conditions and within existing discourses. In each case, we chose a recent comprehensive school reform that brought significant changes to the school system, such as curriculum revisions, school structure alterations or important organisational movements.

The Danish case we examined was a comprehensive school reform completed in 2014, the proposal for which, presented in December 2012, was named 'Make a Good School Better: Improving the Academic Level of the Public School'. It suggested comprehensive reform of the Danish public school (*'folkeskolen'*), including longer school days, more lessons in Danish and mathematics, daily exercise for all pupils and earlier foreign language learning. Furthermore, a parallel project, named 'The New Nordic School', was launched in the spring of 2012, inviting all education institutions from years 0–18 (e.g. kindergartens, schools, gymnasiums) to participate in a change process (Ydesen and Buchardt 2020). Its objectives were revealed to be similar to the objectives of the 2014 school reform proposal, where after political negotiations in the parliament, an agreement was reached in 2013, and the reform came into effect in 2014. The reform was highly politicised, and the components were primarily negotiated between political parties and stakeholders in parliament. An informant explained that the first step in preparing the public school reform proposal was creating a partnership with the key stakeholders in the Danish public school (DK-I2), who were invited to the Ministry of Education for three seminars to discuss the content of the reform. As such, no formal commission work or reports were linked directly to the reform and the use of evidence was characterised as cherry-picking (Reder and Ydesen 2022).

The case of Finland examines the National Core Curriculum Reform 2014, in which the Finnish government was responsible for the distribution of lesson hours and the general objectives of the core curriculum, which were legislated in a Government Decree (422/2012). In 2010, a working group, primarily composed of members from the National Agency for Education, stakeholder organisations, and the main political parties, was tasked with producing a proposal for the general objectives and distribution of lesson hours as part of complete curriculum reform. However, their proposal was never discussed in parliament and was discarded due to a change in political power (Siekkinen 2017). In 2012, with a new coalition government in place, the reform process was revived, and a new working group, consisting solely of civil servants from the Ministry of Education and Culture, was formed. They completed their decree proposal by the end of 2012. This proposal, outlined in the Government Decree by the Ministry of Education and Culture (422/2012), set the framework for the new curriculum by establishing the general objectives and distribution of lesson hours. Once the government accepted



these objectives and lesson hours, the authority to decide upon the curriculum content was delegated to the National Agency for Education. Establishing the general objectives and distribution of lesson hours was a crucial first step in complete curriculum reform, setting the framework for the new curriculum. Overall, the Finnish National Core Curriculum 2014 allegedly follows the ideas of the Organisation for Economic Co-operation and Development (OECD) and its key competencies (Uljens and Rajakaltio 2017).

In the case of Norway, we focus on the most recent reform, called 'The Renewal of the Knowledge Promotion Reform' (*Fagfornyelsen* or 'Knowledge Promotion Reform 2020'). It was presented in 2017 and implemented in 2020, and its mandate was to revise the content of the core curriculum and the subject curricula in primary and secondary education. In Norway, education reforms are usually prepared via ad-hoc commissions that produce Green and White Papers written under the auspices of the Norwegian government and the Ministry of Education and Research. They are an essential knowledge base for preparations for political decision-making processes within the parliament. While Green Papers represent the current state of knowledge on a given topic and provide information based on academic expertise, White Papers present policy suggestions by building – to different extents – on the Green Papers (Steiner-Khamsi, Karseth, and Baek 2020). For our study, two Green Papers were particularly relevant because they laid the groundwork for the reform and constituted the core knowledge base (Baek et al. 2018; Steiner-Khamsi, Karseth, and Baek 2020). The two papers were written by a commission appointed by a left-wing government in 2013, shortly before elections led to a new, right-wing government. The commission was called 'The Ludvigsen Commission', and its mandate was to deliver knowledge on the school of the future and students' learning therein, as well as to 'assess the subjects in primary and secondary education and training by the requirements for competence in the future society and its working life' (Ministry of Education and Research 2015, 15). Previous research revealed that the Ludvigsen Commission's report promoted ideas related to twenty-first-century skills and competencies within the Norwegian context even more radically than the Finnish curriculum reform (Mølstad and Karseth 2016; Sivesind, Afsar, and Bachmann 2016).

## Data and method

Our study is embedded in the research project Policy Knowledge and Lesson Drawing in Nordic School Reform in an Era of International Comparison (POLNET), which deployed a bibliometric analysis of in-text references in key policy documents in Nordic countries as one of its methods (Karseth, Sivesind, and Steiner-Khamsi 2022). The results from the bibliometric analysis served as a starting point for our investigation since they raised several further questions.

Following Steiner-Khamsi's notion of references as 'validation of evidence' (Steiner-Khamsi 2022, 35), references of core policy documents were coded into five different categories according to the type of publication, such as reports, books, academic articles, the government-published documents and other types of publications. In this study, we refer to the relative frequencies of bibliometric data in seventeen core policy documents ( $N = 1,314$ ) in Denmark, Finland, and Norway. The percentage of academic articles referenced was lower than what previous research on the scientification of politics (Krick, Christensen,



and Holst 2019; Maasen and Weingart 2005; Weingart 2003) would suggest. The use of scientific articles varied among the three countries, ranging from 9.45% in Finland to 16.02% in Denmark. The results of the bibliometric analysis lead to several further questions, such as why academic resources scored so low despite the expected demand for scientific evidence. However, as also argued by Hörmann and Sivesind (2024), the analysis only provided information on the knowledge on which the authors officially and eventually agreed was valuable evidence; they did not grasp the complexity of the deliberation process, tensions and compromises behind the eventual consensus. Thus, to determine who and what are most decisive in choosing knowledge for reforms, we conducted fifteen expert interviews with key policymakers involved in document preparation. Their insights contributed to understanding the discourse of ‘what works’ as policy evidence. Furthermore, the interview data allowed us to delve into the co-constructed nature of the ‘Context’ of education policy (Sobe and Kowalczyk 2012; 2014; 2018).

The interview informants were chosen because of their involvement in preparing and producing critical policy papers and recommendations. The four informants from Denmark were involved in the reform work as members of the School Council, Parliament or Ministry of Education. The five informants from Finland were involved in two working groups that prepared a proposal for the Government Decree (422/2012). Meanwhile, the informants from Norway were members of a committee that developed two reform documents to renew the Norwegian curriculum. In all three countries, we asked the informants about their involvement in and contributions to the reform process, how they dealt with different kinds of sources, how they chose knowledge sources and what role knowledge from different networks and institutions played in the reform process. The interviews lasted about 60–90 min each, and all were recorded and transcribed.

A detailed description and background of the reforms and their preparations were provided earlier in the third part of this article. Table 1 overviews the three reforms of interest in the three respective countries. The contents of the reforms deal with both structural and curriculum issues in the case of Denmark and with curriculum issues only in the cases of Finland and Norway. The ‘focus of analysis’ lists the government documents that played a crucial role in the reform processes and that involved groups of experts

**Table 1.** Cases, data, and methods.

	Denmark	Finland	Norway
Reform	Public School Reform (2013/2014)	National Core Curriculum of Finland (2014)	The Renewal of the Knowledge Promotion Reform (2020)
The focus of bibliometric analysis	The reform proposal published by the Government (2012) Four key policy documents 231 references	Proposal for renewed distribution of lesson hours and objectives (2012) Ten key policy documents 677 references	Commission with the mandate to evaluate content in basic education and the needs for competencies in the future society and workforce (2014, 2015) Two key policy documents 406 references
Interviews	Four interviews <ul style="list-style-type: none"> <li>• One former Ministry of Education official</li> <li>• One former parliament member</li> <li>• Two members of the School Council</li> </ul>	Five interviews <ul style="list-style-type: none"> <li>• One member of the 2012 working group</li> <li>• Four members of the 2010 working group</li> </ul>	Six interviews with members of the commission

from similar locations to those at which we recruited our interview participants, whereas the final row gives information on the number of interviews and the role of the interviewees in each country.

Each interview was given a country code and a sequence number (e.g. NO-I1 = first interview, Norway). The transcribed interview data were analyzed using a thematic and theory-based qualitative analysis guided by the theoretical concepts introduced earlier in this article, including c/Context and d/Discourse (Sobe and Kowalczyk 2012; 2014; 2018), scientification and the democratisation of expertise (Maasen and Weingart 2005). Using these theory-based conceptual tools enabled us to draw conclusions across the country cases. Though the analysis method did not aim to find similarities and differences among the three countries and reform contexts, it did examine context-specific uses of knowledge and the role of societal representation, as well as explore how the specific Context of renewed curricula was established through the choices of knowledge sources made by individuals in powerful positions. Our approach was inspired by the criss-crossing comparison, where 'comparison makes it possible to look behind the landscape of tangible things to surface patterns and processes of knowing and doing that configure globalizing world' (Seddon, McLeod, and Sobe 2018, 9). In particular, the patterns of knowledge and processes of knowing are of significant interest to our research.

### **Scientification, context-specific legitimation processes, and the co-construction of Context in education policymaking**

The interview study explored the construction of context by examining the use of knowledge as evidence, stemming from questions arising from the bibliometric analysis of key policy documents in our three country cases. Concerning the role of knowledge in the process of writing the reform proposals, the interviews reveal a general ambition to use scientific evidence or data originating from scientific knowledge production in the reforms, which is in line with the global demand for reliable knowledge and objective evidence in policy decisions (Wollscheid, Stensaker, and Bugge 2019). Especially our Norwegian informants emphasised the commission's ambition to base its work primarily on scientific knowledge, which aligns with the previous findings of a considerable increase of academics in the official commissions (Christensen and Holst 2017; Krick, Christensen, and Holst 2019). However, they specified that they considered particular research that fit the Norwegian context. They regarded evidence as 'related to the study processes, and what they need to contain to be of high quality' (NO-I10), as well as particularly relevant, and they mentioned empirical analyses, meta-analyses and systematic reviews as examples of this kind of evidence. However, even if most informants from Norway underlined the great value of scientific knowledge, some also explained that not all information necessary for the reform could be found in scientific journal articles and scientific research. Depending on their role and professional background, they also considered non-empirical research, consultations, conversations and presentations from experts and practitioners. It became apparent in the interviews that to constitute relevant knowledge; the international research must connect to issues or themes that are transferable and applicable to the reform issues in the national context, as illustrated by the following interview excerpt:

So we were very concerned about how we represented research [...] However, that it's research and review or things that are quality-assured research or whatever we should call it. It was important for us to base ourselves on the type [of research] and use reviews rather than reports where they exist. Especially if you're going to use it as a basis for recommendations. So, especially in the field of learning research, we were keen to use research summaries, but also [...] review-based analyses ... yes. But at the same time, we also have research-based evaluation of the Knowledge Promotion Reform. So this ... this was important ... as a basis and ... yes, I would say that research was the most important thing. At the same time, in the field of curricula, in particular, it's not so easy to conduct studies on what works in one context in one country and in another. So, of course, we had to rely on more analyses and non-empirical research. So, it has to be a mixed knowledge base as well. [...] So I would say that there's also a recognition that you need different sources of knowledge. (NO-13)

The personal networks of the academic commission members significantly influenced their reliance on policy evidence. In Finland and Norway, some members even described the sources of knowledge used as being produced by their close colleagues, emphasising the importance of personal relationships in a policy process publicly presented as evidence-based. Hence policies are never entirely rational processes but are influenced by social connections, extending beyond those directly involved in the policy process. It also underscores the convenience of referring to the nearest and most accessible sources in an era characterised by a rapid pace of knowledge production and an abundance of knowledge producers.

In Finland, scientific knowledge was more integrated into the informants' expertise and background rather than being used as direct references in the policy documents, which might explain the comparatively low rate of academic articles revealed by our bibliometric analysis. The experts in Finland drew evidence from their professional networks, close colleagues, and discussions with friends outside work on work-related issues. The Finnish informants also explained how they used their previous working experience and substantial knowledge in their reform work, referring to the centrality of 'tacit knowledge' (Eyal 2019, 23) in policy processes. In Finland, however, there were no academics in the two working groups, which suggests structural differences in policymaking between Finland and Norway. Scientific representation in Finnish working groups is declining, whereas decision-making in Norway has become more visibly influenced by science in recent years (Christensen and Holst 2017; Holli and Turkka 2021; Krick, Christensen, and Holst 2019). Concerning their attitude towards scientific evidence especially, civil servants explained in their interviews that it was part of their job to maintain a working knowledge of what happens in scientific research. Staying abreast of current knowledge constituted part of their job and their expertise. However, it often meant skimming through texts recommended by colleagues or abstracts of research reports or other scientific publications.

All kinds of evaluation data were considered highly relevant by the informants from Finland, particularly the civil servants, though a few mentioned specific academics who had influenced their thinking and their contributions to the working group. Most of these academics were experts in evaluating learning outcomes and student assessments. They were affiliated with either the Finnish Institute of Educational Research (University of Jyväskylä) or the Centre for Educational Assessment (University of Helsinki), both of which have, at different points in time, administrated

the Finnish PISA (Programme for International Student Assessment) evaluations and results.

In contrast to the cases of Norway and Finland, the interviews in Denmark indicated that policymakers and politicians did not value academic and expert knowledge differently, and the distinction between scientific- and expert-based evidence appears irrelevant to the reform. The focus in the Danish reform process was instead on what works well as evidence. According to the informants, scientific research was used if it was able to support the political and ideological agenda behind the reform, which illustrates the case of the 'politicisation of science' as described in the introduction of this article (Weingart 2003). Similarly relevant was the question of whether the research was applicable to the Danish context, as one interviewee explained by distinguishing between the knowledge used to identify the problem and knowledge used to provide possible solutions:

When we use research in policy development, I often distinguish between the 'problem' and 'solution'. You need different types of knowledge for each of them. To understand the problem, you need knowledge of the state of things – an understanding of the Danish system or problems. [...]. As soon as you need to find solutions, then you have to render it probable that you causally will get the effect that you claim that you will get. [...] And [those types of studies] are typically carried out in a different context [than the Danish one] (DK-I1).

How specific knowledge worked as evidence seemed to be the primary concern, and this relevance determined the hierarchy of evidence rather than the source or actor that produced it. In this sense, the case of Denmark illustrates the use of knowledge well, which Pawson (2006, 7) called 'policy-based evidence'. It also illustrates how the big 'C' Context is interwoven in the interaction of national narratives, needs and traditions in decision-making, and international influences and comparative examples that align with the national policy narrative.

Concerning other types of knowledge, Finnish informants considered evaluation and assessment data or expertise especially valuable as policy knowledge; even the scientific expertise of the academics mentioned in the Finnish interviews originated from this field. The three civil servant informants all elaborated on the importance of national student evaluations in curriculum reform work, with one explicitly stating, 'We have this extensive and well-functioning evaluation system and evaluation was created to be a tool for developing education, so it would be comical if we were not to use that knowledge that is produced' (FI-I2).

The quote indicates that evaluation data were used to inform policy recommendations partly because they exist and are readily available, and Finland has a long tradition of producing such data. Furthermore, an essential form of expert knowledge utilised in the reform was the expertise of the working members themselves, as the informants explained in detail where they gained and built their expertise, as well as how they aimed to translate their expertise into the policy knowledge needed for this specific reform. Nevertheless, they needed help pinpointing exactly how they used their expertise in their contributions to the working group, as they had gained this kind of 'tacit knowledge' (Eyal 2019) in different national, regional and international positions of trust during their working careers. One informant described this tacit knowledge as 'this big lump between one's ears that is in constant motion' (FI-I1).

We detected the same tendency to use one's professional knowledge in the reform work in Denmark and Norway. As discussed, some Norwegian informants categorised this knowledge as 'scientific'. In the Danish case, the informants also highlighted the importance of experts and academics occasionally invited to speak at the Ministry of Education during the reform process. In the case of the Danish school reform, what constituted valuable knowledge was the knowledge of the people whom the Ministry employed. In addition, in all three countries, study visits to other countries considered 'successful' in education (usually based on their performance in OECD's PISA programme) were integral to the work of the expert panels and other parties involved in the reform processes. The informants from the Norwegian commission mentioned a study visit to the headquarters of the OECD tailored to the Ludvigsen Commission, the programme including presentations on the OECD's recent projects. While some commission members asserted that the OECD's framework for twenty-first-century skills served as a model for the national development of a competency-based curriculum, other members toned down the OECD's role as 'a not more important basis than others' (NO-I3).

Although the valued knowledge varied across countries, there was a common tendency to present reforms as evidence-based and widely supported. All informants emphasised the importance of the national context and the relevance of 'what works' within their specific circumstances, underscoring the localised and context-specific nature of policymaking processes (Auld and Morris 2014; Holmén 2022; Peck and Theodore 2015; Volmari 2024). They highlighted that it is not only about what objectively works best for a particular policy problem but also about what serves as the best tool for legitimation in a specific national context (Auld and Morris 2014; Steiner-Khamsi, Karseth, and Baek 2020). As one informant in the case of Finland explained:

In all honesty I would say with those international comparisons that if somewhere else is done in a certain way, it does not mean that we will do the same. In other words, for the importance of international comparisons have, I would say that the everyday life in education policymaking and politics is legitimizing decisions that have already been taken. It [evidence] does not really direct the work. (FI-I2)

Furthermore, our findings highlight that even in the EBPM era, the composition of expert panels can influence which type of evidence holds sway, accentuating the evidence used in the policy proposal with the panel members' represented subsystems. Reform efforts, therefore, represent three levels of context specificity: (1) specific to the national context, (2) specific to the policy reform at hand, and (3) influenced by the backgrounds, values and ideas of the individuals appointed to specific expert panels working on a reform proposal.

Interestingly, despite differences in the types of evidence emphasised and the importance of national context and decision-making traditions, all three countries eventually gravitated towards the global discourse on skills and competencies in their school reforms, and especially the work of the OECD on these themes, as the following excerpts from Norway suggest:

Interviewer: ... but if you would refer to particular international references or information, would you say that OECD had a significant influence or ... ?

Interviewee: Yes, so in another project, I studied those transnational competence-based frameworks that are influential [...] there are several influential frameworks for competence-based curricula, for example, the European Commission has a framework, and 21st Century skills, and there are some companies, U.S. based companies that also have frameworks for competence-based curriculum, but when comparing those frameworks I think in this case when it comes to Norwegian policy making the OECD framework is the most influential. (NO-I1)

These findings suggest that even reforms portrayed as context-specific are shaped by broader, transnational discourses that are selectively applied in the national context (Carney 2008; Sobe and Kowalczyk 2012; 2014), in what Guadalupe (2024) has described as ‘situated instances of translating (or not)’ (2). These discourses, selection procedures and negotiation processes are part of a policy Context for education that, instead of being static and fixed, is constantly constructed in the entanglements of various actors, knowledge sources and policy discourses (Ball 2017; Sobe and Kowalczyk 2018; Taylor et al. 1997).

## Conclusion and final remarks

This research article presents the findings of a qualitative interview study that explores the utilisation of evidence in recent school reforms in Denmark, Finland, and Norway. The study aimed to understand how policymakers in these contexts identified relevant knowledge, their perceptions of valid evidence, and particularly the value placed on scientific evidence. Theoretically, the study was informed by the concepts of the scientification of politics and the politicisation of science, as well as the distinction between small ‘c’ and big ‘C’ contexts. Additionally, our approach to policy work was shaped by viewing reform proposals not merely as static texts but as dynamic processes. Key conclusions drawn from our research include:

**The co-constructed and contingent nature of ‘what works’.** Our study in three Nordic countries identified context-specific emphases on what constituted evidence. The notion of ‘what works’ in educational reforms is not an objective, absolute truth. Instead, our findings underscore that ‘truth’ is co-constructed, contingent, and context-dependent and that expert panel members’ professional backgrounds and networks shape perceptions of ‘what works’ and what constitutes evidence. Selecting and appointing these members is, from this perspective, an inherently political process from the outset. Hence, the composition of expert panels, including their members and chairs, can significantly sway the balance towards particular types of evidence. For example, our study highlights the trust Finnish civil servant members placed in evaluation data as evidence and the Norwegian committee’s emphasis on scientific evidence aligned with specific thematic agendas.

The study also illustrates how ‘what works’ is deeply influenced by complex negotiation processes and social interactions, aligning our findings with previous research (e.g. Guadalupe 2024). The selection of knowledge used as policy evidence is a crucial part of these negotiations, especially in today’s policymaking landscape, where

knowledge has become the core of policy (Grek 2013) and numerous actors vie for positions as expert advisors (Auld and Morris 2014). We argue that these factors not only contribute to the existing policy conditions but also construct the social realities of education and influence our ability to envision what is feasible and 'true' in education. They are crucial to the co-construction of 'big C contexts', as coined by Sobe and Kowalczyk (2012; 2018), examples of which in the findings of this specific study include how the informants stressed a specific national context and specific evidence as central to the reform process. However, the dominant global discourse on skills and competencies was evident in all three cases.

**Evidence as a tool for legitimization.** Consistent with prior research, our findings demonstrate that knowledge plays a pivotal role in policy texts and policymakers' discourses, selectively used to present reform ideas as commonsensical and self-evident. By branding these ideas as evidence-based, policymakers aim to legitimise specific reform proposals and impose their validity on the educational landscape. Scientific evidence held particular importance in Norway, while Finnish informants emphasised the significance of evaluation data, citing its abundant availability in Finland. Conversely, Danish informants highlighted societal consensus as pivotal in Danish politics, underscoring its longstanding importance in the Danish policymaking context. They also emphasised that selecting evidence in Denmark hinges primarily on what works within the Danish context rather than on the source or specific subsystem of the evidence. Consequently, evidence is a contingent concept, defined differently across contexts and by various actors. In line with Bromley and fellow researchers (2024), we observe a specific reliance on data; however, comparing three countries, perceived as similar in their policymaking systems and values, reveals a more nuanced and varied use of scientific information, emphasising the complexity of evidence use in different contexts.

**The role of evidence in shaping 'big C contexts' in education.** Our study highlights that evidence is not only context-specific but also instrumental in shaping proposed reforms, thereby playing a pivotal role in defining social realities within educational policies. The construction of policy context increasingly revolves around the types of knowledge used as evidence and the experts engaged in policymaking processes, extending the notion of context in educational policy reforms beyond mere small 'c' factors determined by national governance models or legislation. This perspective might clarify how education reforms such as the Norwegian curriculum reform are regarded as rooted in the OECD's concept of twenty-first-century skills and, at the same time, as an entirely independent national enterprise that does not directly relate to the OECD.

Even when focusing solely on one aspect of the conjoining process where some reform ideas become intelligible (Sobe and Kowalczyk 2012) – specifically, the type of knowledge valued and used as evidence rather than its actual effects – our study highlights the importance of not merely accepting claims that educational reforms are evidence-based. There is a critical need to delve deeper and examine the nature of the knowledge utilised, how its use is negotiated, and the assertions of educational progress and truth based on such knowledge. In conclusion, scientific knowledge, much



like any other knowledge used as evidence in policymaking, is often drawn upon to establish legitimacy. Policymaking processes are complex negotiations involving people from diverse networks and professions who interpret global ideas within local contexts. Consequently, the actors involved and the evidence used in school reforms further shape the contexts of education. While our three examples may share common elements traditionally seen as context, each case reveals a unique ‘big C’ Context (Sobe and Kowalczyk 2018) – an interweaving of knowledge, experts, social connections, and policymaking traditions.

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No potential conflict of interest was reported by the author(s).

## Ethical declaration

The Norwegian Centre for Research Data AS (NSD) has assessed the processing of personal data in the research project on which the article is based, and has confirmed that it complies with data protection legislation. Additionally, NSD concluded that the research project met all required ethical guidelines.

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## Appendix 1

### Key policy documents used for bibliometric analysis in the Danish, Finnish and Norwegian cases

#### Denmark

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The Reform Proposal:

Danish Government. 2012. *Gør en god skole bedre – et faglig løft af folkeskolen* [**Make a Good School Better – Improving the Academic Level of the Public School**].

Danish School Council. 2011. *Beretning om Evaluering og Kvalitetsudvikling af Folkeskolen 2011* [**Report on the evaluation of quality development of the public school 2011**]. Ministry of Education.

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The Danish Evaluation Institute. 2011. *Undervisningsdifferentiering som bærende pædagogisk princip* [**Differentiated Teaching as a Core Pedagogical Principle**]. The Danish Evaluation Institute.

Danish National Centre for Social Research. 2011. *Ledelse af folkeskolerne – vilkår og former for skoleledelse* [**Leadership in the Public Schools – Conditions and Forms of School Management**].

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#### Finland

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Tulevaisuuden perusopetus [**Future Basic Education**].

*Perusopetus 2020 – yleiset valtakunnalliset tavoitteet ja tuntijako* [**Basic Education 2020: Common National Aims and Division of Teaching Hours**].

*Opinto-ohjauksen arviointi perusopetuksessa, lukiossa ja ammatillisessa koulutuksessa sekä koulutuksen siirtymävaiheissa* [**Evaluation of Student Counseling in Basic Education, Upper Secondary Schools, Vocational Education, and in Transition Phases of Education**].

*Onko laskutaito laskussa? Matematiikan oppimistulokset peruskoulun päättövaiheessa 2011* [**Are Mathematical Skills in Decline? Math Learning Results at the End of Basic Education in 2011**].

*Aihekokonaisuuden tavoitteiden toteutumisen seuranta-arviointi 2010* [**Evaluation of Achievement of Overarching Education Goals 2010**].

*Opettajat Suomessa 2010* [**Teachers in Finland 2010**].

*Esi- ja perusopetuksen opetussuunnitelmajärjestelmän toimivuus* [**Evaluation of the Curriculum of Pre-School and Primary Education**].

*Liikunnan oppimistulosten seuranta-arviointi perusopetuksessa 2010. Koulutuksen seurantaraportit 2011:4* [**Evaluation of Learning Results in Physical Education 2010. Educational Evaluations 2011:4**].

*Luonnontieteiden seuranta-arviointi* [**Evaluation of Natural Sciences**].

*Historian ja yhteiskuntaopin oppimistulokset perusopetuksen päättövaiheessa 2011* [**Evaluation of Learning Results in History and Social Studies at the End of Basic Education 2011**].

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#### Norway

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Norwegian Ministry of Education and Research. 2014. *Elevenes læring i fremtidens skole – Et kunnskapsgrunnlag* [**Student learning in the school of the future – a knowledge base**]. Official Norwegian Reports NOU 2014: 7. Norwegian Ministry of Education and Research.

Norwegian Ministry of Education and Research. 2015. *The School of the Future. Renewal of Subjects and Competences*. Official Norwegian Reports NOU 2015: 8. Norwegian Ministry of Education and Research.

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