



Article

‘It is like a hammer and toothbrush; you need it for the rest of your life’ - Five Norwegian teachers’ experiences of working at a ‘thinking school’

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Abstract

This article investigates how a group of Norwegian teachers experience working at a ‘thinking school’ (i.e. a school that cooperates with UK-based consultancy Thinking Matters). The context is curriculum development in Norway, where schools and teachers are given increasing freedom in terms of what methods to apply and what content to teach while being expected to reflect and develop collectively as professional communities. In this setting, it is interesting to see how teachers utilise the tools and models offered by an external actor and how they negotiate between these and their own pedagogical ideas as well as the demands put on them by the curriculum. We approached this study by firstly analysing two documents published by Thinking Matters, and secondly by asking how the teachers experience the effects of the thinking school approach on pupils’ learning and themselves as professional teachers. We interviewed five teachers who emphasised several positive aspects of working within the thinking school approach. However, in this article, we also identify some tensions resulting from the adoption of a whole-school approach that



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emphasises the methods that teachers should use and that pupils should master as a way of achieving the overarching aims of the curriculum.

Keywords: thinking school approach, pupils' learning, teachers as professionals

Introduction

During the last two decades, the Norwegian school curriculum has changed from prescribing in a quite detailed manner the content that should be taught in schools to describing the competencies that pupils are expected to develop. This is part of a wider international focus on the output that schools and teachers should deliver in terms of pupils' learning (Biesta, 2006; Young, 2008). The most recent curriculum, LK20, was introduced in 2020 (Ministry of Education and Research, 2016). It describes the competencies that pupils should acquire at different stages of their education and gives schools and teachers a high degree of freedom in choosing what content to teach and what methods to apply.

The development from content-based to competency-based curricula puts a higher demand on schools to develop local curricula that can support teachers in their work, both as individuals and as participants in professional communities (Hodgson et al., 2010). Thus, a space is created for actors seeking to gain a foothold in the educational sector by offering tools and pedagogical approaches that can deliver solutions to the challenges schools face. One such actor is the consultancy Thinking Matters which, from its base in the United Kingdom, works with schools in several countries across the globe.

According to Dederling et al. (2015), consultation is an important instrument for supporting school development. However, their study shows that in German schools, teachers generally viewed consultation with actors from outside the school system with more scepticism than consultation with actors closely linked to the school system. In the Norwegian context, where individual teachers' autonomy and the importance of reflecting on the connection between teaching and the overall aims of schooling are valued, how teachers receive teaching programmes that the whole school collectively adopts, especially programmes developed by actors outside the Norwegian school system, presents an interesting question.

The origin of Thinking Matters can be traced to 2004, when Bob Burden and Richard Cummings established a partnership which, according to the Thinking Matters website, 'was to develop a research informed, whole school approach to the teaching of thinking'. The two partners created an

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approach that 'fused scientific evidence with what actually worked in classrooms' (Thinking Matters, n.d.-a). However, 'evidence-based teaching' is a highly contested concept, and the question of 'what works' must be understood in relation to the educational goals towards which teachers are working (Kvernbekk, 2011). As teaching practices have developed within different national contexts, concepts cannot simply be transferred but must be reinterpreted as they are adopted by teachers locally. Therefore, studying what takes place in this adaptation process can reveal something about the extent to which a private consultancy, such as Thinking Matters, can affect local teaching practices in Norway and how Norwegian teachers negotiate between the consultancy's ideas, official curricular guidelines and their pedagogical ideas. The aim of this study, therefore, was to investigate a group of Norwegian teachers' experiences of working at a 'thinking school'. The following three research questions (RQs) were posed:

1. What characterises the pedagogical approach of Thinking Matters?
2. In what ways do teachers experience that the thinking school approach affects pupils' learning?
3. How does the thinking school approach affect teachers' work and their self-understanding as teaching professionals?

Theoretical perspectives

Conceptions of learning and *Bildung*

In the German- and Scandinavian speaking countries of Europe, the overarching aims of schooling have since the Enlightenment been formulated through the concept of *Bildung*. The German philosopher and educational reformer Wilhelm von Humboldt (1767–1835) defined *Bildung* as 'the linking of the self to the world to achieve the most general, most animated, and most unrestrained interplay' (von Humboldt, 2000, p. 58). As a normative concept, *Bildung* can be used as a reference point for the practical tasks of teaching and learning. While theories of learning can reveal something about how people learn (whatever they set out to learn), theories of *Bildung* are concerned with how learning can contribute to the formation of the human being as a subject with the capacity to make independent decisions and act responsibly within the framework of a democratic society.

The German pedagogue Wolfgang Klafki (1927–2016) distinguished between two main types of theory that aim to account for how *Bildung* can occur through organised teaching and learning (Klafki, 2001). Material theories of *Bildung* emphasise the content with which pupils should engage to become educated, such as reading literary classics or learning important historical or scientific facts. Formal theories, on the other hand, are preoccupied with how the development of innate powers or mastery of certain methods can contribute to the formation of the human subject. Klafki (2001) argues that the material and formal theories of *Bildung* are each 'partly right' in capturing the

essence of teaching and learning but that they will not work independently of one another. A purely material approach would easily become elitist, dogmatic and inflexible and lead to a view of pupils as passive receivers of knowledge, while a purely formal approach would suffer from a lack of criteria for deciding what knowledge young people need to engage with to become autonomous and responsible citizens. Therefore, Klafki (2001) argues, a comprehensive theory of Bildung must integrate and balance both material and formal aspects, so the teaching can facilitate a 'double unlocking', where pupils become open to the world, while the world becomes open to the pupils.

In their analysis of the most recent Norwegian curriculum, Hilt et al. (2019) show how formal elements, such as 'self-regulation' and the ability to monitor and manage one's learning process (metacognition), come to the forefront as qualities of the 'ideal pupil' in the formulation of LK20. As the teachers interviewed for this study were preparing for the introduction of the new curriculum in August 2020, it was interesting to investigate how they see the pedagogical approach of Thinking Matters in relation to the aims of the new curriculum and their own ideas of Bildung, and especially whether there is a balance between the formal and material aspects.

Teacher autonomy and schools as 'learning organisations'

The high degree of autonomy granted to teachers to interpret the national or state curriculum has traditionally been a predominant feature of the countries belonging to the Bildung or Didaktik tradition, in contrast to for example the American tradition, where teachers are seen to a greater extent as directed by the curriculum (Westbury, 1998). In Norway, teachers are traditionally authorised by, and achieve their legitimacy through, a system of licencing that makes them 'morally, but not juridically, responsible for the final realization of educational aims and objectives' (Gundem, 1993, p. 257). The completion of a nationally approved teacher education programme assures that they have the necessary competence to interpret the written curriculum and adapt it as they see fit in various educational settings. Yet while teacher autonomy is a highly valued feature of the Norwegian school culture, the influence of international comparative studies, like the OECD's PISA tests, and the turn to competence-based national curricula, have led to an increased focus on output and accountability mechanisms being installed, also in Norway (Skedsmo & Mausethagen, 2017). Furthermore, there is also an expectation that collective development should take place at the local school level (Engelsen, 2006). This is emphasised in the core curriculum of LK20, which states that a school 'should be a professional environment where teachers, leaders and other members of staff reflect on common values and assess and develop their practice' (Ministry of Education and Research, 2017, p. 18).

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The emphasis on collective processes resonates with the international literature in the field of school development. Kools et al. (2020) note the growing number of scholars, educators and policymakers arguing for 'reconceptualising schools as "learning organisations", which they consider the ideal type of organisation for dealing with the changing external environment, facilitating, and sustaining organisational change and innovation and even improving student and HR outcomes' (p. 25). The conceptualisation of schools as learning organisations builds largely on organisational and management theory, which advocates 'cultivating collaborative cultures' (Fullan & Kirtman, 2019, p. 2), but critical inquiry is also an essential component. The possible tension that these demands can create can be seen in the features that Kools et al. (2020) identify as distinguishing schools that function as learning organisations. These demands include the development of 'a shared vision centered on learning of all students', 'creating continuous learning opportunities for all staff' and 'establishing a culture of inquiry, innovation and exploration' (p. 27).

With the increasing emphasis on turning schools into learning organisations, comes a plethora of educational programmes offering the schools methods and concepts that they can apply to achieve their various aims. Programmes deliver 'hands on' directions for teaching, where problems about the theoretical foundation are de-emphasised (Jank & Meyer, 2006). Therefore, the strength of these programmes is also their weakness; while they deliver clear guidance on how to teach in a meaningful way, 'only a few of them offer the possibility of reflecting on the programme and its translation into actual teaching with a critical distance' (p. 245, authors' translation). The programmes are typically supported by evidence confirming that the methods on which they are based have been proven effective for achieving their stated aims. However, rather than approaching the question of the actual effects of these programmes in a critical manner, the pattern seems to be confirming the effects by testimonials or reports based on self-evaluation, where people involved in the programmes are usually the ones who identify positive effects (Pettersvold & Østrem, 2019).

Biesta et al. (2015, p. 638) use the concept 'teacher agency' to highlight the importance of teachers having access to robust professional discourses, and argue that 'the absence of such a discourse ties teachers to the particular beliefs that circulate in their practice and prevents them from locating such beliefs within such wider discourses'. Thus, an interesting question is how a school's adoption of a comprehensive teaching programme affects the professional discourse of the teachers and thus their possibility to achieve agency.

Methods

This study utilises a case study approach (Yin, 2017) focused on an urban primary school in Norway that had been deploying the thinking school approach for eight years. Data analysis is conducted with two kinds of data, which allows for triangulation and thus increases the validity of the study (Cohen et al., 2011).

First, two documents published by Thinking Matters are analysed, to discern how the programme positions itself. The two documents were chosen because they are concerned with the more overarching questions relating to the pedagogical and theoretical foundations of the programme, and not merely the description of the various tools the consultancy offers. The first is called Thinking Schools – What are they (Thinking Matters n.d.-c) and builds on reflection by co-founder professor Bob Burden on the rationale and purpose behind the setting up of Thinking Matters in the mid-2000s. The second document is called Beyond Rosenshine (Thinking Matters n.d.-b). It discusses how a pedagogy built on the idea of ‘metacognition’ can help schools develop practices that go beyond ‘instruction’, and in doing so elaborates on the pedagogical approach of Thinking Matters.

Secondly, semi-structured interviews (Brinkmann & Kvale, 2018) with five teachers from the school are analysed. The informants were selected strategically to represent a diversity of teaching experience, grade levels and subjects. The interviews were conducted in Norwegian and followed an interview guide concerning three focus areas: how the teachers work with the thinking school approach, how it has affected pupils’ learning and the benefits and challenges of the thinking school approach. The interview guide consisted of six questions (see Appendix), which were succeeded by follow-up questions when appropriate. Each interview lasted approximately 30 minutes and was recorded and transcribed. The interviews were conducted in June 2020, six weeks before LK20 came into force. The transcripts were analysed using NVivo 12 software.

The data analysis followed a thematic analysis approach following Braun and Clarke (2006). The six phases of this approach are described in Table 1 below.

Table 1. Process of the thematic analysis

Phase	Description of the process
1. Becoming familiar with the data	The data (i.e., documents and transcripts) were read thoroughly and repeatedly by both authors.

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2. Generating initial codes	The data were analysed jointly by the two authors. The analysis was done abductively, alternating between data and theory (Alvesson & Sköldbberg, 2018).
3. Searching for themes	The authors grouped the initial codes into eleven preliminary themes.
4. Reviewing themes	The preliminary themes were checked against the data and regrouped several times, generating a thematic map consisting of eight themes.
5. Defining and naming themes	The focus of each theme was refined and clearly defined through ongoing analysis.
6. Producing the report	Excerpts were selected and added to thick descriptions of the data in the research questions. The selection and final use of excerpts and descriptions validated the core of each theme.

The study followed the general ethical standards of the Norwegian National Research Ethics Committees (2016). Due to the size of the school and the number of schools in Norway following the thinking school approach, informants are not described thoroughly, as this could jeopardise their anonymity. Pseudonyms assigned to the informants in this article do not necessarily reflect their gender.

Results

The aforementioned research questions guided the analysis, which revealed eight themes that will be presented with the three research questions in the following.

The pedagogical approach of Thinking Matters (RQ1)

In the analysis of the pedagogical approach of Thinking Matters, two themes were identified: views on learning and Bildung and an image of the professional teacher.

Views on learning and Bildung

A key concept in the pedagogical approach of Thinking Matters is 'metacognition', and the material that the consultancy offers its customers is built around a range of 'metacognitive tools' aimed at supporting reflective learners. These tools include 'thinking frames' (eight separate frames visualising different thinking processes, such as to define, describe and compare), 'habits of mind' (16 habits and behaviours that underpin effective learning, e.g. persistency, taking responsible risks and managing impulsivity) and a set of thinking routines (different methods to increase reflection in

classroom tasks, e.g. open questions, counterfactual claims and making inferences from limited evidence).

The consultancy uses the image of an airport control tower to represent the ideal pupil – or ‘meta-learner’ – who has assumed control of his learning:

An airport control tower (or those who work within it) has a high degree of alertness to what is going on around it, with information taken in, processed and, as a result, appropriate and effective resulting action is taken. This is a powerful metaphor for the metacognitive student who likewise is aware of what is going on within their learning environment, how they are taking in and processing information, how they are making decisions and organising their learning and who then expertly select and utilise tools and approaches from their metacognitive toolkit. As a result, they can process information effectively, make informed judgements and react appropriately. They have control and mastery as agents of their own learning - ideal qualities for problem solving whether those be exam or real life problems. (Thinking Matters n.d.-b, p.4)

By coupling certain methods with the overarching aim of making the pupils ‘agents of their own learning’, Thinking Matters places itself clearly within the range of *formal* educational approaches. As we see from the above quote, the skills and attitudes that can be mobilized in solving an exam question are not only seen as promoting academic learning in school; the learning is also seen as *transferable to real life problems*. Thus, the development of the (pre-defined) ‘thinking routines’ and ‘habits of mind’ become a prerequisite for the overall development or *Bildung* of the pupils. We are talking about the type of formal *Bildung* theory that Klafki (2001) calls ‘methods-based *Bildung*.’

Image of the professional teacher

When we look beyond the conceptions of the ideal pupil, to the picture that is painted of the ideal school community, we see that the importance of a ‘whole school approach’ is accentuated:

In order to achieve this goal [a common commitment to giving regular, careful thought to everything that takes place] a whole school approach will be necessary whereby all stakeholders (including parents and school governors) are fully committed to the school’s aims and how they can best be achieved. Staff will need to be specially trained and methods will need to be introduced into the curriculum for teaching the skills of thinking and associated cognitive and meta-cognitive strategies. The widest possible application of these skills and strategies should underpin all other aspects of the curriculum and should guide behaviour policies and expectations about human interactions at every level. (Thinking Matters, n.d.-c.)

The aim of giving careful thought to everything that takes place within the school is seen as hinging on the consultancy’s methods being applied to the *widest possible extent*. While the methods are designed to promote critical thinking and professional development, the idea that these methods should underpin *all the other aspects of the curriculum* seems to lead to a paradox, as the room for

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questioning and giving meaning to contested and value-laden curricular concepts, appears to be reduced. The teaching staff is not expected to take individual, separate stands on these issues, but rather subscribe to the interpretations provided to them. Instead of engaging in a discussion on how they should work to reach the overarching aims, the teachers should focus their efforts on how to realise them through the application of the given methods.

Thus, we can conclude that the emphasis on the formal aspects extends beyond classroom application, as training and mastery of methods is also seen as the way to proficiency on the part of the teachers. Furthermore, the rather harmonious and coherent picture, lacking tensions or invitations to question the underlying foundations of the chosen methods, fits well with the picture of a typical teaching programme. This in turn forms the basis of the powerful claim to offer a common vision, and the basis for a whole school approach to pedagogical and professional development, where all actors pull together in a common effort to promote their individual and collective learning, as well as the learning of the pupils.

Influence of the thinking school approach on pupils' learning (RQ2)

The analysis of the teachers' points of view on how the thinking school approach influences pupils' learning revealed that these were clustered around three themes: study methods, Bildung and the learning environment.

Study methods

The most common theme related to pupils' learning was how the thinking school approach has introduced the pupils to *study methods*: 'Yes. A study method. And that is really fun because that is what we are teaching our children. It means that they learn about study methods as early as the first grade, and that is fantastic' (Erica). Within the thinking school approach, they saw *thinking maps* as most relevant for study methods.

Another aspect the teachers addressed as important was a *visualisation of the thinking process* and *making the pupils aware of their thinking processes*. This is very much in line with the emphasis on metacognitive thinking in the Thinking Matters approach, which is also strongly present in LK20. Some teachers also mentioned assisting pupils in the initial phase of a task, such as Beth, who exemplified this through her work with first graders:

Even the youngest pupils have become experienced, and they know how to create the forms in their book. (...) First graders sometimes struggle to open their books, right. But now they know they are

supposed to open their book and write the word 'water' and then we start defining. So, I think it is a good tool for them to structure and start their work.

Other teachers also described the pupils' development and how they develop study habits that allow them to work efficiently and in-depth already as second graders. The teachers further stated that the pupils are *aware of their habits and study methods*. Anita expressed this as follows:

After using 'habits of mind' a lot, we can see the pupils develop their language. I have had a parent-teacher conference, and the pupils are really good at explaining what they need to work on. They need to work on their impulse control or how they collaborate in groups or... It becomes a joint language, even when they are quite young, which is really nice.

Some teachers also reported the pupils eventually chose to use structures from the thinking school approach on their own initiative. Dina used an example from the period of homeschooling during the COVID-19 pandemic when she saw a pupil using a classification tool, and through this tool was able to solve the task in a way he had not been able to before.

Bildung

The teachers were also occupied with aspects related to *Bildung* and linked it to *habits of mind*. Several teachers emphasised their work with habits of mind throughout the school years: 'We have these [habits of mind], like *impulse control* and *listening with empathy and understanding*, and *perseverance*. (...) I find it fun with six-year-olds who talk about impulse control' (Beth).

The teachers related the thinking school approach to *critical thinking* as well, and they argued that pupils improved in reasoning, reflection and critical thinking, in line with LK20's interdisciplinary topic 'life skills', which Erica clarified:

Becoming an educated human being was already in the past curriculum, but now it is more about thinking critically – making up one's mind, thinking, structuring, and becoming a complete human being. When educated. And that is what we contribute as teachers in primary school. We are laying the foundation. And I am thinking that through the thinking school pedagogy and tools, the children are better prepared for their future lives.

Dina elaborated on this and emphasised her perception of the thinking school approach as *a toolbox that pupils can use throughout their lives*:

This is a toolbox that you bring for the rest of your life. It is like a hammer and toothbrush. [Laughter] You need it for the rest of your life. It is what you bring. And when they are getting further up [the grades], it becomes more and more difficult, but they still have... Even if the nail is thick or thin or round, you have the hammer. That is the mode of thought, to put it briefly. [Laughter]

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The linking of the study methods, not only to academic learning in school but also to the overall development and formation of the pupils as human beings that we see here, resonates with the formal, methods-based ideal of *Bildung* in the Thinking Matters approach.

Learning environment

All teachers discussed how the thinking school approach contributes to the learning environment. Dina described an occasion where the pupils initiated the use of thinking tools when working on the class environment:

We talked about placing oneself in other people's situations, when one of the pupils argued, 'We can use this when we have problems in our class and are angry with each other'. I had not thought about the class environment at all.

Another aspect of the contribution to the learning environment was *predictability*, and Erica argued that several pupils could benefit from using familiar methods:

I see that the children, especially those feeling unsafe, those needing consistency and repetition, really benefit from thinking maps, for example, to have the structure and learn how to use the various things. The most restless or hectic can sit down calmly with a circle map or definition map because they are able to. And I believe that it is about life skills.

Here we see how the internalisation of structured routines based on the application of tools and skills are seen as contributing not only to learning and character development but also to a feeling of safety for pupils that would otherwise struggle.

Influence of the thinking school approach on the teachers' work (RQ3)

Turning to how the thinking school approach has influenced the teachers' work, three relevant themes were identified: planning in a collaborative community, linking to the curriculum and individual experiences.

Planning in a collaborative community

Common ground, common direction and common language were some of the perspectives the teachers emphasised when they described what they have gained from the thinking school approach. Caroline underlined the *feeling of community* and its contribution to the teaching staff:

I think it is fun that the school has a vision, or that we have an aim. I know many other teachers whose meeting time is like 'we talk about this and we talk about that'. Here, we have a foundation [platform] we work from and everyone is aware of it. It gives a lot and creates varied teaching, too.

Some teachers also argued that the thinking school approach has affected the *collaboration climate* at the school, both in general and regarding the thinking school approach. Further, some teachers highlighted the benefit of a *common language*, both when discussing teaching with colleagues and concerning the pupils. Anita explained:

You find a language you can use when talking with the children about quite difficult processes... They get a common frame of reference. I find it nice that you get it across teachers and grades – that we can talk together and transfer things quite directly. (...) If you switch teachers, the methods are still the same, and that's nice.

In addition, the teachers described learning from each other, both in their teams (i.e. all teachers teaching the same grade) and in weekly meetings, where all teachers at the school meet to discuss teaching-related issues. These meetings may be linked to progression within a specific topic, such as writing or the thinking school approach itself. Erica elaborated:

We have been discussing: What is smart to do? What should the children be able to do after first grade? What should they be able to do after the second? The third? Right, making a progression. Because there are a lot of thinking habits, maps, keys... Right? So, you cannot pour everything into the first or second years. There must be a structure.

Although the teachers were positive about the thinking school approach, Anita pointed to *the risk of being too caught up in the approach* at the expense of other parts of schooling: 'There is a risk when you are working with a specific method that you want to do everything within the thinking school approach, making other things subordinated. (...) So, that is a pitfall you need to be attentive to'. As we saw above, the pedagogical approach of Thinking Matters stresses that their methods should underline all other aspects of the curriculum. While following up this through the connection of the methods with other aspects of schooling, Anita is aware of the risks associated with elevating the methods above all else and placing them outside the realm of what the teachers should engage critically with.

Linking to the curriculum

The teachers highlighted several similarities between the thinking school approach and LK20. In particular, they emphasised that the holistic perspective of the thinking school approach is in line with the focus on in-depth learning in the new curriculum. As Anita argued, this is especially pronounced through a focus on the bigger picture:

When I read the new curriculum, I find that it suits the thinking school approach well. It has turned in the direction of the thinking school when it comes to in-depth learning and seeing things in connection. And maybe work more across and see... not work so much with the competence aims but

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more with progression. What are we aiming for in Language 1? What do we want the pupils to be left with at the very end? Seeing the bigger picture –is in line with the thinking school approach.

Some teachers described working interchangeably with the thinking school approach and the curriculum, especially when working with life skills: 'human decency and equal opportunities and so on are already... We are thinking that *habits of mind* is a nice approach' (Dina). Interestingly, the accentuation of 'the big picture' and cross-curricular work and the downplaying of detailed knowledge and the material requirements that the students should master clearly defined bodies of knowledge is seen as a common trait of both the Thinking Matters approach and LK20. The formal features of a competency-based curriculum align with the formal educational approach of the consultancy.

Individual experiences

When asked about how the approach differs from what they learned in teacher education, Caroline argued that the thinking school approach follows the same ideas but is more detailed about how to conduct the teaching:

It is not very different; it is just about putting it into words and making the pupils understand it as well. We learn about Bloom's taxonomy in teacher education, right. But now we are working on including the pupils and making them understand where we are in the taxonomy and how we can get higher... (...) It is about creating varied teaching for pupils at all levels. So, it covers the syllabus [from the teacher education], but just very clearly.

As we can see, the adoption of an educational programme gives substance to and makes more concrete concepts that would otherwise be more abstract and open to different interpretations.

A challenge that all teachers mentioned was the extent of the approach and, therefore, that being a new teacher at the school could be demanding. Erica articulated the following:

When I started working here, there was a lot to grasp. In the beginning, I was thinking: 'Wow. How am I supposed to manage everything?' But then I understood the foundation and I find it amazing. It is sort of a way of using study methods for children, right. And the thinking school approach has made me think... made me think about asking more open questions, right. Instead of only closed ones. And facilitate within a topic: How can I use the tools and how do I use them? And what kind of in-depth understanding can the children gain?

Despite this challenge, all informants expressed a positive attitude. The methods and tools give a clear direction to the work of the teachers also when it comes to their individual, professional development.

Some teachers stated that although they support the pedagogy, working at a thinking school obliges them to use the tools, and the extent of their use differs from one teacher to the next. None of them were aware of anyone who does not want to adopt the thinking school approach, but they conceded that working at such a school means they must embrace the approach: ‘You need to go all in, and you need to believe in the organisation and what lies at the heart of it. (...) That is at least how I am: either all in or I would need to do something else’ (Erica).

When asked about whether there was room to criticise the approach, Dina stated that teachers are welcome to be critical, but the arguments must be good, since the teachers have had good experiences overall:

They are welcome to talk and be critical. (...) But they need to be convincing. I know what I have experienced with my pupils and I know how it is connected. (...) We have tests: national tests and tests regarding bullying and well-being. And then we can compare over the last four to five years. How has it been with the thinking school approach and how has it been without? That is important data.

This justification resonates with the claims of Thinking Matters that their approach is based on evidence of ‘what works’, which is understood as connected to scores on national, standardized tests.

Discussion and conclusion

The analysis of the documents and the interviews with five teachers working at a Norwegian thinking school show some interesting patterns that deserve further discussion. First, we discuss the perceived contribution of the thinking school approach to the learning and formation (*Bildung*) of pupils, and then we discuss the teachers’ perceptions of how working with the approach has influenced them as professionals.

Concerning learning, all the informants emphasised the positive contribution of the pedagogical tools provided by the consultancy to the development of pupils’ capacity to use study methods independently and reflectively. It seems that when applied over time, the methods are internalised and create patterns of thinking, manifesting themselves in a *common language*. The teachers observed that pupils not only began to use the terms actively in class but also became more aware of their thinking – including a meta-cognitive aspect of their thinking. The teachers did not see this development as limited to the pupils’ learning in the narrow sense of simply mastering school subjects but as an important element of the process of *Bildung*. One teacher framed the methods as a ‘toolbox’ that the pupils bring with them into their future lives, comparing the methods to a hammer and a toothbrush. This resonates with the emphasis on life skills in both the current

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educational discourse and the new Norwegian curriculum – a point that several informants raised. The teachers see themselves as involved in building a foundation for pupils' development as independent subjects who can think critically, structure their lives and become 'whole persons'.

At the same time, the coupling of meta-cognition and self-regulation with *Bildung* can be seen as reinforcing an individualist and instrumentalist conception of the aims of education (Biesta, 2006). If pupils are 'to be mostly preoccupied with personal competence management', there is reason to be 'concerned about the space provided for ethico-political dimensions of education' (Hilt et al., 2019, p. 396). In other words, if the development of a meta-perspective becomes focused on the ability to apply the appropriate method at the right time, what space is there for analysing whatever one is doing from a wider, societal perspective? To handle this dilemma, it is necessary to go beyond a *formal* conception of *Bildung* as skills training, where pupils internalise certain ways of thinking (Lipman, 2003), and include *material* aspects of the knowledge that they are to acquire (Ryen, 2020). Whether the tools that Thinking Matters offers can contribute to this is an open question that perhaps can only be answered by looking deeper into how teachers apply the tools and, importantly, what content they decide to work with.

Turning to how working with the approach has influenced the interviewed teachers as professionals, some interesting patterns emerge. First, while the teachers all pointed to the steep learning curve when they initially became acquainted with the approach and the expectation that they would use it in their classrooms, they also reported several positive aspects that affected them both individually and collectively as teaching staff. These include the feeling of working together towards a common goal and the development of a common language, which seem to facilitate a climate for collaboration among the teachers. This is very much in line with the literature in this field which highlights the benefits that pupils derive from teachers' successful teamwork (Fullan & Kirtman, 2019). The fact that the programme was developed by a foreign consultancy does not seem to have reduced its usefulness or legitimacy among the teachers. They have worked as a group to make the approach their own, taking ownership of it and building their collective professional identity around it. That their efforts are paying off is validated by the positive results they have seen in terms of the pupils' learning. Furthermore, the teachers see the thinking school approach as closely aligned with LK20, for which a key term is 'in-depth learning'. Given the abstract content and the high degree of freedom entrusted to the teachers in terms of choosing what methods to use in the new curriculum, they feel that they have an edge when it comes to handling the challenging work of adapting the curriculum to their classroom practice.

Although the teachers remain focused on the benefits of working this way, they also underline the openness of school leaders to critiques of problematic aspects of the methods. Although the experiences so far have been positive, if this changes and the tools provided by the consultancy no longer yield results, it is clear to the teachers that the approach will be abandoned. Conversely, however, until such a conclusion is reached, the teachers are expected to be loyal and implement the thinking tools in their teaching. According to one teacher, it is about either 'going all in' or finding another employer. As is normally the case with teaching programmes (Jank & Meyer, 2006), the approach offered by Thinking Matters presents aims, content and methods holistically as something that works and does not invite discussion on alternative methods that might be better suited in a given situation. As the question of whether a method 'works' must always be answered in a particular context (Kvernbekk, 2011), this may pose a challenge for teachers by limiting their choices as they prepare and conduct their lessons. It should be noted that none of the informants reported this to be a problem, and it may be argued that the benefits of adopting a whole-school approach are so great that individual teachers having to relinquish some pedagogical freedom would be a small sacrifice. At the same time, it seems pertinent to ask whether a 'culture of inquiry, innovation and exploration' (Kools et al., 2020, p. 27) can flourish when important decisions regarding the development of a school's pedagogical approach are taken by a consultancy.

Furthermore, if critical discussions are limited to how a collection of tools can be applied, there is a danger of a rather instrumental and limited culture developing. This resonates with the findings of Biesta et al. (2015, p. 635-36), who in their research on the Scottish 'Curriculum for Excellence' that came into force in 2010, found that the teachers they interviewed seemed 'to lack a systematic set of professional discourses over and above those provided by the language of policy'. In this light, the alignment of the competency-based LK20 curriculum and the Thinking Matters approach, that the teachers report, may be understood as a result of the rather formalistic conceptions of Bildung and education that underly both. The question is whether this leaves the teachers with the freedom and language to allow a discourse where they actively explore alternatives that might deviate from those offered by Thinking Matters. In this case, equating loyalty to the professional community with loyalty to the thinking tools appears as a danger that could undermine the teachers' professional meta-discourse going beyond the conceptual apparatus of the consultancy.

Biesta et al. (2015) also remind us of the importance of approaching the question of teacher agency from a structural perspective. Teachers, school leaders and even teacher educators do not act in a vacuum. When competency-based curricula are adopted in line with international trends, formal aspects of education are reinforced. At the same time, the local context is affected by generating a

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huge workload for the schools in terms of local curricular development. While the pedagogic freedom of the teachers is retained in principle, when the schools turn to external actors to find solutions to 'what works', while simultaneously emphasising coherence and the need to pull together, this freedom can easily come under pressure. Thus, the question of what role a consultancy that delivers tools and methods as the basis of whole school development should have must also be understood in the wider context of national curriculum development.

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Appendix: Interview guide

1. How do you work with the thinking school approach?
2. How has it changed your teaching practice?
3. How does it affect the pupils' learning?
4. What is, from your perspective, the advantages of the approach?
5. What is, from your perspective, the disadvantages of the approach?
6. How has the approach assisted you in implementing the new curriculum?