The planned curriculum—Not just a matter of teachers

Helena Grundén

Department of Mathematics, Science, and Technology Education, Dalarna University, Falun, Sweden

Correspondence
Helena Grundén, Department of Mathematics Education, Dalarna University, Högskolan Dalarna, 79188 Falun, Sweden. Email: hgn@du.se, helenagrunden@telia.com

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Abstract
Teachers are responsible for teaching, and when they plan, they are part of a complex non-linear social practice of curriculum making. When planning, teachers draw on curriculum materials, which are often designed to promote reform; however, previous studies show that this is not always the case. A study on planning for mathematics teaching in Sweden showed that teachers are influenced by those who have formal and informal power when they plan. This article focuses on structural influence on teachers’ planning as curriculum work and the possible consequences for teacher agency. The data comes from a focus group discussion about planning with mathematics teachers in primary school. Tools for the analysis were inspired by actor analysis and “three pillars of institutions”. Results show that the structural influence on teachers is at the regulative, the normative, and the cultural-cognitive levels. Regulative influence seems to be short-term, while cultural-cognitive influence seems to last over the long-term. The most prominent influence was normative and related to the textbook. Results shed light on teachers’ curriculum work in the micro site of activity when they are planning for mathematics teaching. Based on the results, the article suggests that teachers—as key actors...
INTRODUCTION

Teachers are responsible for teaching. However, the teaching that students meet in the classroom results from a dynamic non-linear process in which different actors interpret, mediate, negotiate, and translate curriculum (Alvunger et al., 2021). This process of curriculum making has been described as different kinds of engagement and actions at different sites of activity (Alvunger et al., 2021). One such site is the micro site, which includes teachers' planning of lessons (Priestley et al., 2021). When teachers plan their teaching, they draw on different resources, including curriculum material. Curriculum material is often designed to promote reform in teaching, and texts, such as the national curriculum, may also be a way to govern teachers (Remillard, 2005). However, just because teachers use the same curriculum material does not mean that their teaching is the same. What aims a teacher has for her teaching is a result of an interaction between the teacher and the curriculum material, which means that the material and the teacher as well as her characteristics influence the aims (Remillard, 2005). In Sweden, a national curriculum provides teachers with frameworks for teaching. Within these relatively loose frameworks, teachers have the autonomy to plan as they will; however, this autonomy might be false (Grundén, 2020a). A Swedish study on planning for mathematics teaching reveals several aspects that influence decisions teachers make when planning, and sometimes teachers make decisions and act in ways that are contrary to what they think would best benefit their students' learning.

In the process of planning, teachers are influenced by formal and informal actors (Grundén, 2020b), which means that the description of planning as an interplay between curriculum material and the teacher (Remillard, 2005) seems rather to be an interplay between the material, the teacher, and other actors. Actors and structures are inevitably related (Fairclough, 2003, 2015). What this means is that on the one hand, actors in the planning process are influenced by structures surrounding, for example, schools, schooling, and teaching, and on the other hand, actors influence the structures. Learning more about these actors and structures in the micro site of curriculum making is one way to learn more about why teaching is the way it is. According to Alvunger et al. (2021), a better understanding of curriculum making might also “facilitate and enable social actors’ agency towards curriculum change” (p. 273). As such, this article aims to contribute to such an understanding of curriculum making by focusing on the micro site and possible consequences of what happens there for teacher agency in mathematics teaching in school years 1–3 The question that will be answered in this article is: What structural influences are apparent in primary teachers' discussions about planning for mathematics teaching? In the article, the answer to this question will be discussed in relation to “sites of activity” in curriculum making—as described by, for example, Alvunger et al. (2021) and teacher agency.
BACKGROUND

The Swedish context

In Sweden, there is one national curriculum for compulsory school years 1–9 that all teachers must follow. In the national curriculum, two chapters pertain to teaching in general, one chapter to pre-school class, one chapter to school-age educare, and one section pertain to the syllabus of each subject. Each syllabus has the same structure. It begins with a section about why the subject is taught in school, which is followed by the aim of teaching. The aim is summarized with a number of subject-specific knowledge-based abilities that the teaching is supposed to help students to develop. The next section is “Core Content”, which specifies the content students should meet in school years 1–3, 4–6, and 7–9, respectively. In mathematics, content is divided into six categories: The understanding and use of numbers, Algebra, Geometry, Probability and statistics, Relationships and changes, and Problem-solving. The last section in the syllabus is “Knowledge Requirements”, which lists the requirements for sufficient knowledge at the end of school year 3, and the requirements for different grades for school years 6 and 9.

The reason the National Agency of Education [Skolverket] designed a new national curriculum came as a result of (among other things) the ambiguity of past steering documents (Prop. 2008/09:87, 2008). In mathematics, a 2009 evaluation of teaching showing that teaching did not adhere to the curriculum and that it was often guided by textbooks formed the basis of the syllabus (Skolinspektionen, 2009). The government stated that in the new national curriculum, which would include the syllabus for each subject, the connection between general goals, subject-specific abilities, and knowledge requirements should be clarified, which would help make it a better resource for teachers in, for example, their planning (Prop. 2008/09:87, 2008). Nevertheless, teachers in Sweden have a high degree of freedom in terms of organizing their teaching as they want. The government even emphasized that the new curriculum should be formulated in such a way that teachers have the freedom to design their teaching themselves (U2009/312/S).

Teachers' curriculum work

It seems reasonable to believe that behind the idea that teachers are free to design their teaching based on the national curriculum is an idea that what is stated in the national curricula will be implemented in the teaching. Curriculum materials are meant to guide and influence teachers' decisions and actions (Remillard, 2018), and often the thought is that curriculum materials will promote new ideas about teaching. However, in mathematics education, studies show that even when teachers use the same material, their teaching is not the same, which means that interpretation of curriculum materials is part of the planning process (Leshota & Adler, 2018; Remillard, 2018). According to Musofer and Lingard (2020), the potential of policy documents—which is one type of curriculum material—lies in the choices made by agents such as teachers. The discrepancy between what decision-makers in charge of schooling consider desirable and what happens in the classroom has been pointed out by several researchers (for example, Porter and Smithson (2001)), who, like others, use the term intended curriculum for policy documents, frameworks, and guidelines that describe what teachers are expected to deliver, and the term enacted curriculum to describe what students actually meet in the classroom.

Teachers' interactions with curriculum materials and the transformation from intended to enacted curriculum can be seen as a part of the curriculum making described by, for example, Alvunger et al. (2021) as well as Priestley and Philippou (2018). According to them,
curriculum making is non-linear and occurs across intertwined sites of activities. Priestley et al. (2021) describe these sites as “forms of activity that operate in education systems as curriculum is made and remade in different settings” (p. 9). The sites of activity are, according to Priestley et al. (2021), as follows: supra site, which involves actors such as OECD and EU, and shared ideas and discourses that influence educational policy across nations; macro site, which involves actors such as national governments and, in the case of Sweden, the National Agency of Education, and activities that concern the national curriculum and infrastructure and education within a nation. The meso site involves actors with formal power, such as governments and curriculum agencies, as well as actors with no formal power, such as textbook publishers. Activities in the meso site are, for example, the production of resources and guidance. In the micro site, the actors include teachers, and the activities include lesson planning. In the nano site, students and teachers are involved in, for example, pedagogic interactions (Priestley et al., 2021). Influence, information, actors, and activities flow between the sites (Alvunger et al., 2021), which means that when planning their teaching in the micro site, teachers are influenced by actors and activities in the others.

Planning for mathematics teaching in Sweden

For advocates of reform, it may seem that teachers in Sweden are in a fortunate position—the national curriculum and the syllabus in mathematics build on reform ideas, and teachers have, at least on paper, a high degree of freedom. Nevertheless, results from a study on planning for mathematics teaching show obstacles between what the national curriculum states—the intended curriculum—and what is planned by the teacher. In an interview study on planning involving six mathematics teachers in Sweden, it became clear that planning is influenced by material and other people (Grundén, 2020b). Although the teachers seldom mentioned the national curriculum explicitly, they talked about subject-specific abilities that can be traced back to the national curriculum. In addition, they implicitly referred to the national curriculum when talking about using textbooks to structure content so that “everything” would be covered. The influence of other people is made apparent in the interviews in two ways: first, as decisions made by, for example, school leaders that influence planning; and second, in a more subtle way where other peoples' opinions influence decisions teachers make in the planning process. In the interviews, it seems that teachers weigh up their options in terms of what others will think of them and what the common conception is about mathematics teaching and how it should be done (Grundén, 2020b). These results indicate that the difference between intended curricula and enacted curricula occurs, to some extent, in the planning stage: what this means is that there is also a planned curriculum (Grundén, 2020a, pp. 84–85).

Demands on teachers and teacher autonomy

Some people involved in schooling have ideas that “professionally designed curriculum material decreases the demands on the teacher using them” (Remillard, 2018, p. 74). This seems to be the idea behind some current initiatives in Sweden where researchers and teachers design, plan, and provide directions for teaching in curriculum programs (“Unikt läromedel”, 2019; “Villkor att delta”, 2019). Even though some believe that the design of materials can reduce demands on teachers, others believe that reforms in teaching in themselves instead increase demands on teachers. For example, Skott (2004) emphasizes the fact that teachers need to address the needs of individual students and ensure each student's involvement in processes and collaborative work; Skott further emphasizes the fact that teachers need
to “maneuver independently and autonomously in order to sustain individual and collective learning opportunities through the on-the-spot-decision-making” (p. 239). In their work, teachers have many obligations and duties—all with different motives—which means there are demands imposed on teachers. These demands are, according to Skott (2004), referred to as “forced autonomy”, meaning that teachers are responsible for enacting the curriculum and that they are the link between what is written in curriculum material and reform literature on the one hand, and the context and the social surroundings of the school on the other. When ideas in curriculum materials are not enacted, teachers are often blamed, often with a view to their mathematical competence. However, the different motives for teachers’ activities “that force him [the teacher] to pursue one of these at the expense of others” (Skott, 2004, p. 235) lead to a balancing act in which teachers sometimes renounce their conviction about what activities best benefits students’ learning. Skott (2004) describes the work of teachers as linking between two spheres: these are priorities of school mathematics, as stated in, for example, curriculum documents, and the mathematical classroom, as framed by “the specific institutional context of the school and its immediate social surroundings” (p. 240). This balance between two spheres has been noticed by other researchers and described in other terms. For example, Musofer and Lingard (2020) describes how teachers, when implementing a new curriculum, analyse “their existing situations and the new demands by asking what was practically possible” (p. 14).

These examples show that the teacher is at the centre of curriculum enactment and must autonomously maneuver between different requirements. However, results from the study on planning for mathematics teaching indicate that the decision-making process of teachers is sometimes so complex that autonomy is called into question; “the forced autonomy may then, in fact, be a false autonomy, which means that the teacher has the task of planning for teaching, but not the full mandate to do so” (Grundén, 2020a, p. 83). This false autonomy can also be described as the teacher being autonomous in theory but not achieving agency in their practice. According to Biesta and Tedder (2007), the achievement of agency is a result of an interplay between individuals, resources, and contextual and structural factors. Therefore, knowing more about the contextual and structural factors might be key to the achievement of teacher agency. For example, Priestley et al. (2016) have seen that relational resources influence the achievement of agency. This influence should be taken into consideration in the organization of teachers’ work.

THEORETICAL STANDPOINTS

In this article, planning is viewed as one aspect of curriculum making, and as such, as a social process, which according to Chouliaraki and Fairclough (1999), means an interplay between structures, practices, and events. Events, such as decisions in the process of planning, are linked to social structures through the social practice of mathematics teaching. These events involve people—such as teachers, students, parents, school management, and politicians, who are thereby actors. The actors have different positions and perspectives, and as such, will construe aspects of the world—in this case, aspects of mathematics teaching—in different ways.

The term “practice” is ambiguous, which is why I need to describe the meaning I refer to in this article. I make use of the descriptions by Fairclough (e.g., 2003, 2015), who sees a social practice as both situated and consisting of more habitual actions and interactions that people do on certain occasions (Fairclough, 2015). Included in social practices—in addition to actions and interactions—are language, people, relations, and the material world. In a social practice, certain ways of acting (i.e., certain events) are possible—the practice control “the selection of certain structural possibilities and the exclusion of others” (Fairclough,
Hence, the practice mediates the relation between potential events defined by structures and actual events that occur (Fairclough, 2003). This means that existing structures determine what events are possible in a practice. However, events that occur in a practice also (re)produce structures. In this view of practices, actors and structures are seen as mutually dependent, which opens the opportunity both to explore planning in relation to structures and actors involved in the process, and as such to “exceed the dualism between macro-oriented structuralism that never enters the classroom and micro-oriented research on actors that never steps out of school” (Lund & Sundberg, 2004, p. 27).

Power is constantly at play in social practices where actors and structures are mutually dependent. According to Fairclough (2015), this means that actors involved might have the “power to act” as well as “power over people”. In the case of planning, this means that other actors might have power over the teacher who is planning but also that the teacher might have the power to act. This view of power relates to the previous section about autonomy and agency—teachers as actors might be autonomous in theory, but still do not have the power to act. Their agency has individual dimensions and also depends on structural conditions (Priestley et al., 2016).

There are various ways to define “actors”. An overall description is “a participant in an action or in a process” (Oxford Dictionary, 2021), and a more specific description is when being an actor is linked to the capacity to, and space for, actions and the ability to act differently (Giddens in Johnson, 2001). From this dualistic perspective, actors are influenced by structures, and actors influence structures; therefore, actors and structures need to be understood in relation to each other. Social subjects—that is to say, actors—operate within positions that have been set up in discourse types so that they actively and creatively combine discourse types “in ways that meet the ever-changing demands and contradictions of real social situations (Fairclough, 2015, p. 69).

The focus of this article is on what structural influence becomes apparent in teachers’ discussions about planning for mathematics teaching. As such, it is relevant to see in what ways structures can act on actors. For this article, I do not touch on actors’ influence on structures; instead, I focus on the structural influence on teachers in the process of planning. Scott (2014) describes three contrasting models of institutions—or, as he calls them, three pillars of institutions, with differences in assumptions about how actors make choices in social situations. The three pillars—regulative, normative, and cultural-cognitive—are, according to Scott, “the central building blocks of institutional structures, providing the elastic fibres that guide behaviour and resist change” (p. 57). Johnson (2001) refers to an older article by Scott when he describes the pillars as structural influence at three different levels.

In this article, I adopt Johnson’s interpretation and see the three pillars as being levels of structural influence.

Regulative influence on actors is about, for example, rules, laws, and directives, and rewards or punishments are handed out in an attempt to influence actors. Laws and rules are drawn up according to the interests of a group of individuals or society, and individuals follow them to get rewards or avoid sanctions (Scott, 2014). Most often, regulations are connected to repression and constraint, but regulations can also enable actions and empower actors by way of, for example, licenses or benefits for some actors. In this study, the regulative level includes the Education Act, national curriculum, mandatory assessments, and local directives about planning.

The normative level includes values and norms, and according to Scott (2014), emphasis is on normative rules that state what is preferred and desirable and “how things should be done”. Standards are constructed against which actions can be compared and assessed. There are goals and objectives at the normative level and appropriate ways to pursue them. The logic behind normative influence is about actors asking themselves, “Given this situation, and my role within it, what is the appropriate behaviour for me to carry out?” (Scott,
2014, p. 65). In this study, this question would regard norms about how mathematics teaching “should be done” and what a teacher in mathematics “should do”. The goals and objectives are not the stated goals in the syllabus, but could, for example, be that “mathematics should be fun”, and an appropriate way to achieve this could be to vary the teaching. Another goal could be “we must have time to finish the textbook”, which could be made possible by giving students more time for individual textbook work.

Structures that function at a cultural-cognitive level influence in a fundamental way how “reality” is perceived and interpreted (Johnson, 2001). Shared understandings, collective meanings, and professional ideologies influence actors, and an orthodox logic underlies the cultural-cognitive level (Scott, 2014). In this study, shared conceptions about education in general and mathematics teaching specifically are at the cultural-cognitive level.

**METHOD**

This article builds on material from a focus group study with mathematics teachers. The topic for the focus group discussions was planning for mathematics teaching. Focus group discussions were chosen as a method for data generation since they are helpful in an exploration of complex issues because they can provide richer material than interviews can. This is because of the opportunity participants have to react to each other’s statements (Carey & Asbury, 2012). In the study on planning, I wanted the teachers to meet and respond to other teachers’ reflections. The focus group study involved 27 mathematics teachers who were put into six groups. Each of the groups can be seen as a practice in itself, and hence, leaning on Fairclough’s description of a practice (Fairclough, 2003), actors and structures might to some extent differ between groups. To enable a deep analysis of the structural influence in one of the practices, one of the three groups with primary teachers was randomly chosen for this article. The group had six teachers teaching mathematics and other subjects in school years 1–3.

In a prior interview study (Grundén, 2020b), aspects related to planning according to mathematics teachers were identified. Some of the most prominent aspects—students, school management, national tests, template/forms, parents, and textbook—were used as stimuli for the focus group discussions. Using the aspects as stimuli for the discussions was a way foreground participants’ experiences and meanings and thereby reduce the bias of participants giving answers they think the researcher wants. Each aspect was written on a piece of paper and placed in the middle of the table that we were sitting around. I told the participants that other teachers had identified the aspect as being related to planning in some way. I wanted the teachers to consider whether the aspects related to planning for them and, if they were, to reflect upon the aspects in relation to their own planning. The participants could remove aspects they thought did not relate to planning or could add aspects they thought were missing. In the focus group discussion, my role was to ask follow-up or clarifying questions, invite participants to contribute to the discussion, and confirm that I was listening by way of small words and gestures. The discussion was audio-recorded and transcribed.

When doing qualitative research, the researcher herself is, according to Shufutinsky (2020), the main instrument of the research—she is responsible for collecting, analysing, and reporting data. Hence, the researcher must consciously work to, as far as possible, set aside previous knowledge and pre-suppositions regarding the object of study. This can be done, for example, by self-exclusion, and reflexivity (Shufutinsky, 2020). In this study, I used notes as stimuli to withdraw myself from the discussion as much as possible. I was aware that my personal beliefs, ideas, and values could influence how I collected, analysed and presented data during the whole process. I constantly reflected and tried to understand my
underlying thoughts to act the way Shufutinsky (2020, p. 55) suggests: “intentionally, with conscious presence, to distinguish between essence and interpretation”. In this article, I intend to be transparent with how the study was conducted and how the analysis was done, which enables each reader to reflect on the credibility of the study.

Analysis

This article aims to illuminate the influence of structures in the process of planning. Actors and structures are inevitably intertwined; as such, in the analysis, I needed to identify actors and see the ways in which they were participating in the process of planning and the way they were connected to other actors. I also needed to see how structures influence teachers when they plan.

The analysis had two steps. In the first, actors were identified. According to Enserik et al. (2010), actors can be identified by asking key actors—in this study teachers—to identify important actors in the planning process. The teachers, however, could only talk about actors they were aware of, meaning that actors who implicitly influence planning may have gone unidentified. Instead of letting teachers talk about actors they think influence planning, the teachers were asked to talk about planning, which helped me identify actors in the analysis.

Step 1: Identifying actors

In the first step, the definition of an actor as a participant that influences a process was used. The use of this definition meant that the participants could talk about, for example, students; however, it was not until they talked about how students influenced the process of planning that they were identified as actors. In the analysis, guiding questions were used that were inspired by the description of actor analysis by Enserik et al. (2010). The questions were:

1. Who/what is doing something in the process of planning?
2. In what way(s) is the “who/what” involved in the planning process?
3. What relations between actors do teachers mention?
4. What known and obvious relations of importance for the process of planning exist between actors?

The transcript of the discussion was read with these questions in mind. In the sections where the teachers talked about something that affected decisions in the planning process actors were marked in one colour, the participation in another, and expressed relations with other actors in a third colour. In this process, any as-of-yet unidentified actors became apparent. Examples from the analysis are presented in Table 1, with actors in bold.

In the first example, the mandatory assessment support material is identified as an actor mentioned by the teachers. The statement is taken from a section where a teacher talked about how the material helps her to see what she needs to cover in her planning. In the discussions, the group talked about how “someone” constructed the assessment support, which I used in my analysis as a sign of an expressed relation between the material and someone. Consequently, someone is also interpreted to be an actor. The National Agency of Education provides the material, and therefore, the authority is identified as a known and obvious actor.
Step 2: Identifying structural influence

The second step in the analysis was to look at the sections from the previous step where actors were identified with analytical questions inspired by Scott's (2014) “three pillars of institutions” in mind. The analytical questions were as follows: What signs of influence at the regulative level are identifiable here? What signs of influence at the normative level are identifiable here? What signs of influence at the cultural-cognitive level are identifiable here? Table 2 provides an example with a section from the transcript and answers two of the questions. In this example, there were no signs of influence at the cultural-cognitive level.

In this example, the teachers talked about how they changed the way they planned while taking part in the development program. The program was initiated by the National Agency of Education: as such, I interpreted the influence as structural influence at a regulative level. In the quotation, there is a mention of how textbooks normally form the basis of planning, which I interpreted as structural influence at the normative level.

TABLE 1  Examples from the first step in the analysis

<table>
<thead>
<tr>
<th>Action</th>
<th>Relations—expressed</th>
<th>Relations—known and obvious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example 1: “I think it is good to have it [mandatory assessment support for school year 1]”</td>
<td>Someone has made it</td>
<td>National Agency of Education has published it</td>
</tr>
<tr>
<td>Example 2: “I think the textbook governs a lot. When we participated in Matematiklyftet [national in-service development program for mathematics teachers], then that was governing.”</td>
<td>National Agency of Education has approved the textbook, The textbook is aligned with national curriculum, The students love their textbook.</td>
<td>An author has written the textbook, A publisher has published the textbook, National Agency of Education provided material for Matematiklyftet</td>
</tr>
</tbody>
</table>

*In Sweden, there is no control of textbooks.

TABLE 2  Example from the second step in the analysis

<table>
<thead>
<tr>
<th>Section from the transcript</th>
<th>Influence at the regulative level?</th>
<th>Influence at the normative level?</th>
<th>Influence at the cultural-cognitive level?</th>
</tr>
</thead>
<tbody>
<tr>
<td>“In Matematiklyftet [a national development program for teachers in mathematics] I really appreciated sitting with you [the colleagues] and planning a lesson and then doing it in the classroom. In the textbook [that we normally use], we somehow get the planning done”</td>
<td>The national development program influenced the way teachers plan</td>
<td>The textbook forms the basis for planning</td>
<td></td>
</tr>
</tbody>
</table>
RESULTS

This section starts with an overview of the identified actors and the relations between them. After that follows a presentation on structural influence at the three levels—regulative, normative, and cultural-cognitive.

Actors and relations

In the analysis, several actors were identified. An overview of actors, either mentioned by the teachers or identified from a look at relations, is presented in Figure 1. The actors at the periphery of the circle directly impact teachers' planning, while actors outside the circle relate to those who have a direct impact. The solid lines between the actors symbolize the relations mentioned by the teachers. The dashed lines, meanwhile, symbolize known relations, such as textbooks have authors and national tests build on national curriculum. For a fuller description of actors and the relations between them, see Grundén (2021).

STRUCTURAL INFLUENCE

In the focus group discussions, influence appeared at all three levels: regulative, normative, and cultural-cognitive. In some cases, some statements showed signs of influence at different levels, such as some statements regarding students' different needs where there were signs of influence at the regulative and cultural-cognitive levels. In those cases, both interpretations form part of the result.

Regulative level

In the teachers' discussions, some statements relate to three different regulations and can thereby be linked to the regulative level of influence. Firstly, the teachers implicitly refer to the Education Act. The teachers talk about students having different needs that need to be considered in the process of planning. One teacher talks about how she chooses to plan for problem-solving when she knows that another teacher or an assistant will be in the classroom. Another teacher talks about the fact some students cannot read, and how she must, therefore, keep this in mind when choosing what task to work with and when to work with word problems. Although the teachers in the group do not refer to the Education Act, the law states that every student has the right to learn and develop according to their personal circumstances and ability, which may be why the teachers say as they do.

Secondly, mandatory tests, such as the national test in school year 3 and mandatory assessment material in school year 1, seem to greatly influence teachers' planning. They influence planning at an organizational level—they take time—and at a content level—teachers want to cover the content they know will be on the tests. The teachers talk about organization as both an obstacle and an asset. For example, one teacher talks about one part of the national test that involves the teacher sitting with every student individually for about 20 min: "I think it's hard to find the time". Another teacher responds: "At the same time, it's good that you get to spend time with everyone". When it comes to content, the teachers talk about adjusting their plans if they see on the instructions for the national test that some content will be on the test that they have yet to cover in class.

Thirdly, the teachers talk about how the national development program in mathematics provided by the National Agency of Education changed the way they planned. In the
program, teachers were to plan together, teach the lesson, and reflect afterward on what had happened. This, the teachers stated was very positive. However, in the discussion, what they said suggests that the positive changes made in the project did not last.

**Normative level**

What emerges above all is that when you teach mathematics at this school, at this time, the content and structure of the textbook are the basis for planning. For example, this is apparent when one teacher says: “The textbook provides the structure” or another says: “the textbook governs quite a lot”. In the discussion, the teachers state how the textbook influences at the regulative level since, as they state the National Agency of Education approves the
book. Another norm at this school is that when teachers plan, they use a learning management system with a matrix with goals related to the textbook. The textbook also ties to two other norms that became apparent in the discussions. One is that when there is to be a substitute teacher, the regular teacher plans textbook work for the students; the other is that the teachers use social media for inspiration and tips that complement the textbook. The only influence at the normative level that was not connected to the textbook is that the teachers choose activities based on issues of organization. For example, this becomes apparent when a teacher says: “I want them to work with problem-solving and then they need to read the task. Consequently, I plan to have problem-solving lessons when I have an assistant so that the student [who cannot read] doesn’t have to be in the classroom.

Cultural-cognitive level

At the cultural-cognitive level, some assumptions—taken-for-granted-ideas—were identifiable in the teachers’ discussion. One was that students are very different, and teaching needs to be adapted to their individual needs. Students’ differences were the first subject to be brought up in the discussion, and hence, it seemed to be what the teachers thought about first when thinking about planning. Besides students’ individual needs, the teachers also talked about the differences between groups and the fact activities that work for one group cannot be used with another group. One teacher brought this up: “You know what works in your group. There can be activities that you feel … No, we’re not going to do that! We’re not going to be that competitive!” In the discussion, an assumption becomes clear about small groups being better when teachers talk about group activities. Another assumption apparent from the discussion is that teachers must be able to adapt teaching according to who they are and what they want. Altogether four different ideas about adapting teaching are frequently brought up in the discussion. Yet, there is another thought, and that is that teaching should be equal for all students. This is made clear by one teacher: “If there were to be ready-made packages [pre-planned lessons] … Then everyone would get the same. This can be advantageous because then you know that someone else [the one who has made the pre-planned lessons] has thought”.

Another theme at the cultural-cognitive level is textbooks. In the discussion, one of the taken-for-granted-ideas was that of students working individually with their textbooks in mathematics lessons. Related to that, the teachers stated how “students love their textbook”, which seemed to be an assumption that guided teachers in their planning process. What became very clear is the assumption that textbooks are in line with the national curriculum, which means that the matrix in the learning management system based on the textbook is also assumed to be in line with the national curriculum. Although the teachers talked about using the matrix for planning, their assumption is that the more experienced teachers are, the more independent and freer they are in their planning.

DISCUSSION AND CONCLUSIONS

In this section, the most prominent results concerning structural influence on teachers’ planning for mathematics teaching are discussed in relation to sites of activity in curriculum making and teacher agency.

Results from this study shed light on one of the activities in the micro site of curriculum making—planning for mathematics teaching. The results indicate that what teachers are planning—the planned curriculum—is influenced by several actors and structures at different levels, which aligns with the descriptions of curriculum making as being an intertwined
and complex process (Priestley et al., 2021). This means that teachers who are key to the process of planning makes their decisions about teaching in a social practice where they—consciously or unconsciously—must balance interests. Furthermore, this study provides new insights: for example, the fact teachers perceive relations between actors—in this case, the textbook and the National Agency of Education—as well as between the textbook and the national curriculum—that do not exist. The consequence of this is that a normative influence seems to be perceived as a regulative influence. This can also be expressed in terms of “sites of activity” (e.g., Priestley et al., 2021)—the nano site of activity in which textbooks are produced influences the micro site where the activity of planning occurs, although the teachers think of it as the macro site influencing the micro site. Since teacher agency is constrained and supported by context and structures (Priestley et al., 2016), the confusion that appeared in this study about in what site activities occur and how structural influence work might in turn negatively influence teachers' achievement of agency.

Textbooks are the most prominent actor by virtue of how often they showed up in data and how many relations there are between textbooks and other actors. Textbooks are also prominent when it comes to structural influence, and they seem to be what influences teachers the most at a normative level. Altogether, it seems reasonable to say that textbooks greatly impact teachers' planning in mathematics, and as such—in this specific case—what happens in the meso site of activity greatly influences teachers' planning. The Swedish School Inspectorate's report (Skolinspektionen, 2009) showed that the textbook has a strong position in mathematics teaching. This study indicates that this strong position remains, despite the formulation about teacher autonomy in the work drawing up the 2011 national curriculum from (U2009/312/S), which exemplifies teacher autonomy and teacher agency being different things.

In their discussions, the teachers barely refer to the documents that constitute the intended curriculum. In Porter and Smithson's (2001) intended curriculum seems to be documents provided by actors with formal power, which in Sweden would be the Educational Act, the national curriculum, and mandatory assessments, such as national tests. The only explicit reference to the national curriculum is when the teachers say that textbooks are in line with it, something that there is no guarantee that they do. However, there are three examples of regulative influence in the focus group discussions: students' different needs and individualization, mandatory assessments, and national development programs. When the teachers talk about the last two, they describe how they “do as they are told”. For example, the teachers appreciate the opportunity to talk with students individually—which is part of mandatory assessments—and see the opportunity as something that benefits students learning. However, they only meet with students in this way as part of the mandatory assessment. A possible explanation for this is that the teachers believe that if things that benefit students are formally determined, such as individual meetings with them during mandatory tests, the school and the teachers are forced to find ways to organize for it. In this way, regulations in the macro site of curriculum making might open up space for teacher agency so that teachers can teach in ways they think benefit students' learning.

Another example of structural influence at the regulative level is when the teachers talk about the national development program. In positive terms, they describe how the program changed the way they planned and their teaching in a good way. However, when the program was over, they conducted their planning and teaching as they always had prior to the program. According to Priestley et al. (2016), social relations—informal and formal—in schools open up for teacher agency, which might explain the changes made during the development program. After the program, the organization that made pedagogical meetings with colleagues possible dissolved, which might have reduced teacher agency.

These examples might indicate that activities in the macro site of curriculum making influence the process of planning in the short term. In contrast, when the teachers talk
about students' needs, the influence on planning seems more durable and something that constantly permeates their work, which may have to do with the fact that the focus group discussion reveals structural influence not only at the regulative level but also at the cultural-cognitive level. As such, there are shared assumptions and taken-for-granted ideas about students being different and about teaching needing to be adapted to the needs of individuals. These assumptions and ideas influence teachers' curriculum work in the micro site. What may seem contradictory is that the teachers in this study want teaching in Sweden to be equal and think that "packages for teaching", i.e., detailed lesson plans that can be interpreted as a "teacher-proof curriculum", as described by, for example, Alvunger et al. (2021), are one way to achieve that. It seems that the teachers in this group want structural influence at a regulatory level and clearer guidelines on how to teach. This can be interpreted to mean that teachers want more curriculum making activities to take place in the macro site and the meso site. What the teachers seem to be requesting is a teacher-proof curriculum. The support they request can be interpreted to mean that they believe others have more competence when it comes to deciding on the structure of teaching. Furthermore, perhaps they share the idea that demands on teachers decrease when curriculum materials are professionally designed (Remillard, 2018). What speaks against the interpretation that means that teachers' request for more regulative influence is the need for adaptions to students' individual needs teachers emphasize. Speaking in terms of intended and planned curriculum, teachers, on the one hand, seek structural influence at a regulative level in the form of a detailed intended curriculum. However, on the other, they value their autonomy to plan their teaching based on their experiences and their groups and students, which may result in the intended and the planned curriculum differing greatly between teachers. These ambiguous wishes might be an example of the balancing between interests that teachers, according to Skott (2004), must keep in mind.

The results of this study provide clues to teachers' curriculum making in the micro site. The results show that the intention to promote changes and govern teaching through an intended curriculum produced in the macro site of activity to some extent succeeds. However, to achieve lasting change in teaching, there appears to be a need for something else. Based on the results, this article suggests that assumptions and taken-for-granted ideas—that may to some extent be traced to the supra site of activity—need to be made visible and discussed. In addition, also power relations in the curriculum making need to be discussed and problematized. It seems reasonable to believe that these issues need to be discussed by all actors in all sites of activity in the curriculum making process. However, teachers' important roles as key actors in school improvement, as emphasized by, for example, Priestley et al. (2016), indicate that discussions where teachers are involved are crucial. Organizing such discussions and thereby contributing to teachers' relational resources will also be a way to make space for teacher agency, and as such, make space for those who are educated to teach and to make the final decisions about teaching.

CONFLICT OF INTEREST
There is no conflict of interest.

ETHICS STATEMENT
In accordance with guidelines from the Swedish Research Council, https://www.vr.se/english/analysis/reports/our-reports/2017-08-31-good-research-practice.html, no ethical review of this study is required.

PATIENT CONSENT
Teachers in the focus groups gave their written consent to participate in the study. The documents are stored in line with policy of Dalarna University.
PERMISSION TO REPRODUCE MATERIAL
I own the right to all material used.

DATA AVAILABILITY STATEMENT
The material in this study cannot be shared for institutional and national regulations. National regulations can be found at https://www.vr.se/english/analysis/reports/our-reports/2017-08-31-good-research-practice.html.

ORCID
Helena Grundén https://orcid.org/0000-0003-3087-7447

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