

Pressure at stake: Swedish third graders' talk about national tests in mathematics

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This article presents part of a larger scale ethnographic study¹ about Swedish national tests in mathematics in the third grade. Indications concerning possible needs in the test situation are examined through 102 pupils' talk about pressure and what is at stake. Results imply that this test could be experienced as a high stakes test. Negative pressure is quite common, especially among multilingual pupils in need of support and boys in need of support. There are gendered differences in the talk about what is at stake. The article frames who the pupil in need of support might be from a pupil's perspective, but also discusses how these possible positions of need might be managed in practice.

With the aim of standardising teachers' assessments of pupils' knowledge, third graders in Sweden took a standardized test between the years 1959–1980. The test was voluntary and was used mainly during the years when the pupils were given grades (Lundahl, 2009), which came to an end with the *Curriculum for the compulsory school 1980* (Lundahl, 2010). National tests in mathematics for third graders in Sweden (here called Ntm3) were reinstated in 2010 (Ministry of Education and Research, 2012). Pupils' reactions to national tests in Sweden are not well recorded, but there are indications of raised stakes and accountability issues in connection with the tests (Eklöf & Nyroos, 2013). Research on pupils' experiences and possible needs in the test situation of the third grade national test in mathematics in Sweden is scarce. The area is in need of further study. Research in areas adjacent to this age group concerns test anxiety, motivation, memory and achievement (Eklöf & Nyroos, 2013; Jonsson, Wiklund-Hörnqvist, Nyroos & Börjesson, 2014; Nyroos, Jonsson,

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Korhonen & Eklöf, 2015; Nyroos, et al., 2015; Nyroos, Bagger, Sjöberg & Silfver, 2012) and also concerns power, discourses and positioning in connection with the test (Bagger, in press a; Sjöberg, Silfver & Bagger 2015). Olovssons' (2015) research on the reform of earlier grades and national tests in three schools involved totally 80 pupils observed in fifth and sixth grades; 24 pupils were interviewed and 52 wrote reflective texts. This study of the reforms of national tests and grading revealed that: "The reforms have taken a strong hold on classroom practice and affected students' approach to learning and socialisation" (Olovsson, 2014, p. 297).

Other research concerning younger pupils' test taking include the Lunneblad and Asplund Carlsson (2012) studies of classroom behaviour in fifth grade connected to tests and assessment practice and Asp-Onsjö and Holm (2014) who followed ninth graders' experiences of test taking and assessment. One study focusing on third graders is Levlin (2014) who examines connections between language skills in second grade and performance in third grade. Pupils' voices on the effects of the National Curriculum assessments are "an important part of any picture of the social consequences of the use of test results as measurements of educational effectiveness" (Reay & Wiliam, 1999, p. 352). During Ntm3, knowledge about needs and pupils in need is created. This article is relevant due to the lack of research on these aspects of test taking from a pupil's perspective. It contributes by examining if and how nine-year-old pupils' talk about pressure and stakes in connection to Ntm3 indicate positions of need. Three focus areas guided the study: 1) Pupils' experiences of pressure during Ntm3. 2) If and how stakes are discussed in connection with the tests. 3) How positions of need during the tests might appear due to pupils experiencing pressure and high stakes. Certain aspects of pupils' experiences have been considered in the analysis since they could affect anxiety during tests i.e. gender (Beilock, 2008; Elwood & Murphy, 2002; Geist, 2010), how the pupil in need of support is managed and perceived by teachers (Xin & Cartwright, 2003; Urhahne et al., 2011) and the tests' effect on the individual (Elwood & Murphy, 2002).

Ntm3 as an educational reform

Educational reforms, in which defined standards play a key role in the assessment and comparison of pupils, have increased in several countries in recent years (Clarke, Madaus, Horn & Ramos, 2000). The will to identify pupils at risk of not achieving the educational targets is one of the purposes of these tests (Watt-Smith & Castleton, 2005). This increasing collection of test results in Sweden may be associated with the transition to a target and performance management approach (Swedish National

Agency for Education, 2003). The tests in Sweden are mandatory and have the combined purposes of testing how well the pupil is achieving the objectives stated in the curriculum, supporting teachers' assessments and acting as an evaluation tool locally and nationally (Swedish National Agency for Education, 2010a, 2010b, 2011a, 2011b). The test occasion itself is understood as creating knowledge about what the test is for and also knowledge about the pupil taking the test. The knowledge construed will affect pupils in need of support and the understanding of how it is to be this pupil.

Pupils' experiences of Ntm3

Reports from the Swedish National Agency for Education (2010c, 2011c) on the tests in 2010 and 2011 state that Ntm3 is perceived as a positive experience in schools. In 2010, 95% of the teachers gave positive evaluations and said that the pupils experienced the test as fun. In 2011, 99% of the teachers answered that the tests were positive experiences. This evaluation includes an example of these positive experiences: "My pupils wanted to do several tests each day. They clapped their hands and cheered when it was time for the next test. Great fun!" (Swedish National Agency for Education 2011c, p. 7; author's translation).

Children's first-hand experience or opinions about the tests were not part of the published evaluations. A pilot study of six pupils preceding this article revealed that issues of power and governance were inflicted on pupils' experience of test taking. This was gendered and depended on socio-cultural factors that concerned diversity or social justice. Pupils from multilingual schools were speaking from a competitive discourse whilst pupils in the Swedish-speaking schools were drawing on a learning discourse to a greater degree (Bagger, in press a). It was vital to look further into the discursive prerequisites of the position of being in need in a larger sample in order to understand these young children's experiences of the test situation and thereby contribute to securing equal opportunities for them in the taking of these tests.

Pressure and stakes during tests

An assumption made in the article is that negative pressure and perceived threats could be tampered by pedagogical methods if the teacher knew what kind of *position of need* the pupil was in. Ethnographic studies of class tests imply a risk that negative pressure could increase failure (Räty & Kasanen, 2008) and the stakes might also affect learning progression since self-worth is threatened by pressure (Putwain, Connors, Woods

& Nicholson, 2012). On one hand, Ntm3 is not conceptualised as a high stakes test in the meaning that pupils or teachers lose their employment or place in the class depending on the scores. On the other hand, the tension and pressure surrounding tests and the disciplining of the children taking them are obvious in the ethnographic and discursive study of a sample of over 400 pupils (Sjöberg et al., 2015). This article is part of that study. Research on ninth graders shows that some pupils, even if they are not numerous, experience the tests as high stakes (Eklöf & Nyroos, 2013). The question is if and how this appears in third grade and if this is connected with pressure. Although the instructions for the third grade mathematics tests recommend that teachers play down the seriousness of the test occasion, observations of eight teachers from three different schools in the test situation and in interviews afterwards revealed that they enhanced the gravity of the moment as it helped their pupils to concentrate. This approach might increase pressure on pupils and may possibly depend on the double purpose of the test to both measure the individual pupil's knowledge and the quality of the education, which positions the teacher as both a test-giver and a test-taker (Bagger, in press b).

Pupils in the same large-scale ethnographic and discursive study as mentioned earlier are positioned as winners or losers within a competition discourse during Ntm3 (Sjöberg et al., 2015). A similar pattern has been shown in other ethnographic studies in Finland regarding class tests for this age group (Räty & Kasanen, 2008), and in Great Britain with the SATs tests (Putwain et al., 2012). Pupils are trying to "avoid failure" at the same time as teachers and the school aim to bring out the pupils' true abilities (Räty & Kasanen, 2008). It is probable that the competition stance leads to pressure on pupils and teachers. Although standardised tests might be experienced as pressing, whether this pressure is perceived as positive or negative varies (Putwain et al., 2012). For pupils who are encouraged by pressure, tests could be rewarding whilst the experience of negative pressure could contribute to creating a situation that hinders learning.

The pupil in need during tests

The concept of a pupil in need is, in this paper, understood as a position that a pupil might move in and out of, depending on situational and individual or environmental prerequisites (Silfver, Sjöberg & Bagger, 2013). *Need* is also conceptualised as not only being about something the individual terms as "need" because it would be better or is desired for the individual, but it is also a matter of what is necessary to manage the test situation. If a pupil thinks he or she needs some candy in order to

manage, this is not per se a need to fulfil in order to enable the pupil to take the test. But it is necessary that teachers know what to look for and how needs might appear in the test situation: "Needs, like medical conditions have signs and symptoms. Knowledge of these, with inference, results in knowledge of need" (McLeod, 2011, p. 211). Needs connected to challenges in the learning process that are obvious or anticipated are, of course, easier for the teacher to plan for. For example that someone needs more time, or help with reading. These kinds of needs are depicted in the teachers instructions to the tests under the heading *Adaptation of the tests* (Author's translation). Supportive actions that are mentioned include: explaining hard words, helping with reading difficulties, giving enough of time, fewer tasks per occasion. Needs that pupils might have are mentioned as "pupils with disabilities" or "difficulties with language". What *needs* might consist of, lead to, or why they need to be managed is not explained. Teachers are encouraged not to threaten the validity of the test by the use of adaptations. The school is responsible for making appropriate adaptations. There are no instructions or advice on how to handle test anxiety, stress or negative pressure nor advice on how to approach pupils depending on various needs (Swedish National Agency for Education, 2010a, 2011a). The child might have other pedagogical, social or psychological needs in the learning situation than those mentioned in the instructions, needs that may be subtle, unexpected or arise only in the test situation. The need for support during tests could be explained as a temporary need, which for some individuals also recurs on other occasions and could also be caused by a dispositional educational need. This means that if a pupil talks about negative pressure for example "stomach ache" and also mentions things at stake "feeling shame" or "not being permitted to go up to fourth grade" this is considered as a need for the pupil.

Children respond to assessment situations differently. It is known that pupils in need of special education (Magne, 1998) are especially sensitive to test anxiety and this can affect both their performance during the test and their long-term development negatively (Birenbaum & Gutvitz 1993). This represents an educational dilemma, since it of course is important to identify the pupils who need support and where they need it on the one hand, whilst on the other hand it is risky to assess pupils with test anxiety. Teachers are good at detecting achievement but less good at detecting what the pupil thinks about him or herself (Urhahne et al., 2011). This can lead to pupils having less self confidence in a subject, underestimating their skills and being affected by test anxiety without getting the help they need to overcome it. There are ways of handling test anxiety, of coping with stress and of learning *test taking skills* (Sena, Lowe & Lee, 2007) however in order to do so, it is first necessary to identify

the needs of the individual. Rätty and Kasanen (2008) show that pupils might position in a "restrictive sphere" in fear of failure and as a result of poor scores in which they lose hope in their own ability to perform. In addition, previous research has shown that the social and public aspects of mathematics education could contribute to maths anxiety (Newstead, 1998) and that tests in this subject could contribute to difficulties in mathematics by creating a circle of anxiety, poor expectations and results (Sjöberg, 2006).

Methods

The methodology was ethnographic, hence the focus to research the insider's perspectives during the tests. In order to obtain the pupil's first-hand experience, video-stimulated recall dialogues were held in 2010 in groups and with pupils individually in 2011 (see more in Silfver et al., 2013). Data were produced in three phases: before, during and after Ntm3. For this article a total of 120 hours were spent at the schools selected. Time was also spent in the classrooms before the testing period, which made pupils more at ease with the researcher. This also provided the researcher with an understanding of the culture in the specific classroom and school.

Video-stimulated research dialogue (VSRD)

The technique used when interviewing the children was inspired by Morgan's (2007) research with young pupils in focus groups. Pupils were shown a series of video clips of themselves and their class performing the tests and displaying the test introduction, pupils through the test situation and the end when pupils were returning the test to their teacher (for further reading see Silfver et al., 2013). The interviews were held in a conversation style guided by themes regarding their experiences, thoughts and opinions about mathematics, the tests and themselves. The video afforded the pupils opportunity to focus on, and highlight, different events. Questions directed from a descriptive point of view were avoided since they could give raise to plain descriptive answers instead of pupils' experiences. The VSRDs were videotaped.

Selection of pupils

This article explores who might be the pupil in need of support during the test situation in third grade. A selection of schools was made in order to gain a broad representation of socio-economic and cultural settings, schools ranged in size from medium to large, and their locations varied

from inner-city to suburban and from lower class, immigrant-majority to native Swedish-speaking, middle-class areas (table 1). The selection of schools allows for a discussion of social justice and diversity issues in the area of test taking.

Table 1. *Selection of pupils for this article, a total of 51 girls and 51 boys*

	Outer city school		Inner city school		Suburban school	
Parental post upper secondary school educational level by school	50%		60%		60%	
Parental immigrant background by school	45%		35%		5%	
Gender	Girls	Boys	Girls	Boys	Girls	Boys
Pupils Year 2010	6	4	3	6	24	14
Pupils Year 2011	2	6	5	8	11	13

Note. The measurements have been rounded up in order to not reveal the schools and the names are fictional. There are fewer pupils from schools that are more multilingual.

Although parents had agreed, great efforts were made to empower the children participating in the interview situation. This approach was used in order to secure the pupils' consent to participate. All willing pupils at three schools in one municipality were interviewed. In total 115 pupils participated in the observation of the tests, of these 102 pupils participated in interviews. Reasons for non-participation varied from pupils moving away (14), pupils being ill (3), being on leave (6), or just not wanting to participate (4). Two pupils did not participate since their teacher felt that they needed to stay in the classroom. This teacher was not the same as the one giving the test to the pupils.

Analysing process and tools

The review of VSRDs was conducted using Transana². This was performed in three steps according to guidelines by Heath et al. (2010) and is displayed in figure 1.

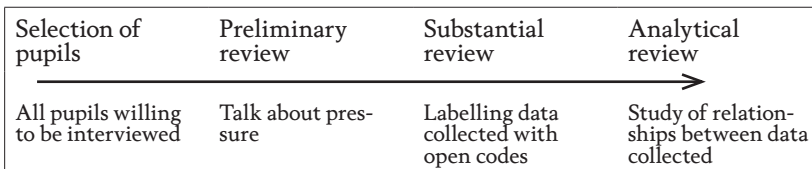


Figure 1. *Process of analysis of VSRDs*

In order to construe knowledge of pupils' needs in the test situation, pupils' account of their experiences and thoughts about the test were collected. These might indicate a need but this need must be connected to the test demands and what it is supposed to lead to, namely progress and a good learning situation for the individual. Threats against this were identified by searching pupils' talk for issues of *pressure* and *stakes*. Negative pressure is identified in their talk when pupils imply that they are anticipating something negative, and as a consequence of taking tests. Examples include feeling uncomfortable in their bodies, or experiencing fears or disturbing thoughts about the test and themselves, or that a pupil believes that there might be negative consequences. Positive pressure is identified as pupils talking about pressure in connection with positive feelings. Examples of this include that the test helps concentration and that it is exciting to be tested.

Talk about stakes was identified with guidance from the Putwain et al. (2012, p. 291) definition of stakes during tests:

The real or imagined consequences of testing for students' academic credentials (test scores or grades), educational access (for example to a particular school) and educational progression/ability setting, and also for teachers' professional status (e.g. from school league tables).

In this article, adjustments of the definition were made. Instead of "teachers' professional status", "pupil's status" was examined. The concept status here refers both to social status in the class and professional status as a pupil. Expressions about scores connected to educational access, progression, ability setting or pupil's status were to be selected for analysis. Positions of need were construed to summarise the findings and patterns between pressure and stakes in the discussion.

Discourse and positioning as analytical lenses

Foucault's concept of discourse is used in this article, discourse is understood as constructing and being constructed by individuals and society through systems of representations through which knowledge, truth and power are produced (Hall, 2001). How, when and from which positions individuals might speak is also regulated by discourse (Davies & Harré, 1990). In this way people can only talk about things in a way that is meaningful and from positions that are possible to adopt. Pupils can move between positions depending on the discursive context, the participants and the activity (Lofors-Nyblom, 2009). It is not the subject (pupil) who talks but the discourse that talks through the subject. I draw on Foucault in the understanding of the test as exercising disciplinary power at the level

of the body (Foucault, 1980; Sjöberg et al., 2015) and that discourse talks through the subjects that it governs (Foucault, 1983).

This implies that pupils' positions of need must be studied in relation to the discourses involved in the test situation and the social context surrounding it. On the test occasion, discourse will govern the positions of need available, and how the test can be talked about by the test takers. The words used are understood as signals and mediators of value and knowledge. As the pupil engages in the discursive practice of taking tests he or she is, at the same time, the subject of discourses. The pupils' talk about taking the test adds up to a story about the position participants in the discourse can derive from in their understanding and handling of the test situation.

Theoretical distinctions

One important analytical distinction is that, although the individual's stories and experiences are in focus, the result constitutes a discursive reading of these. No claims can be made regarding what pupils feel or think, it is rather the preconditions for needs and pressure that are framed. Another distinction is that *positions of need* is not the equivalent to one pupil "being" in one fixed position of need. The concept is instead a construction of possible *positions of need* to take on or be given in the test situation. One pupil's talk may, in this manner, contribute to several *positions of need* depending on the position the pupil is talking about.

Results

Pupils' thoughts about pressure and stakes were not explicitly requested, but came up in connection with their answers to questions such as "why do you take tests" and in a follow-up question if they, for example, said that they could fail or it could go badly "what will happen then?" In the following, pupils' talk about pressure and stakes will be displayed. The focus of the article is not to quantify individuals' experiences, but rather to examine pressure and stakes in order to display some of the circumstances of pupils' test taking. The context of pressure and stakes is displayed initially in each section by presenting numbers of pupils talking about these things, with a variation of individual prerequisites and school settings. This is followed by a narrative built on pupils' talk. These pupils' statements were chosen as they gave representative information; things that were repeated in interviews or were enlightening or revealing for the researcher. They are from all schools and from different groups of pupils. The names of the pupils are fictional, but each alias refers to a specific

individual. Sofie or Ali in different sections of the text are, for example, the same individuals. Finally, possible positions of need have been construed from the pupils' narratives on pressure and stakes.

Pressure as positive

14 pupils talked about pressure as positive. They all had Swedish as their mother tongue and only one of them was in need of support, although not in mathematics. All received high scores on the test and most of them scored highest in their classes. Sofie and Ellen both talked about the tests as interesting, even if unknown, and the nervousness as stimulating. Sofie referred to the nervousness as something that helped her to focus; "I was nervous, it was a bit nervous and I thought what should I do and the teacher said just do it". Kristian added that this heightened level of concentration was helpful: "Yes, you just go! Concentrate as best you can so that you do not lose your edge". Eric meant that this concentration helped him to be thorough: "So that you are not careless". Ellen stressed that the loneliness and being on her own, contributed to this feeling of positive pressure: "that ... it was not like working in maths class, it was more like ... if you do anything wrong then the teachers won't tell you whether it is wrong or not". Andrea referred to the unknown dimension of the tests as something that made them interesting "Oh ... it felt like how will the test look like and will it be hard or easy?". Harder tasks were no problem, in fact rather stimulating and challenging for some of the pupils who experienced positive pressure. Jessica and William talked about the independence they felt when solving difficult assignments: "Now I must solve this, try to solve this on my own and it worked out in the end". The incentive of having the opportunity to think for a long time about a task was perceived as positive for Alex and Sammy, and Maggie even talked about the affordance of learning in that she could concentrate by taking tests. Some of the pupils who experienced positive pressure were also specific about the benefits of the tests. Ellen said:

The teachers want to see what we can do, so that we will achieve our goals. I think it is important really, it is important to achieve the goals in school and you will do that if you take the test.

Ellen showed great trust in the thought that doing the tests would contribute to her reaching the goals. Sofie was very clear about where the responsibility for this development lies.

... because this test is for ... I think it's for you to see what you know and what you need to practise more. And what the teachers will ...

if they are to give someone more instructions or if they should be clearer on something and so ... so it is really the teachers that get to know if they did well or not.

Despite this and the fact that Sofie scored highest in her class, she referred to the "clever" boys in order to position herself as "someone talented": "Yes, I think I had the least amount of errors in our class, because one other boy that has another maths book since he is so good ... I made less mistakes than him".

Pressure as negative

Negative pressure was quite common in pupils' talk and nearly every other child (48) mentioned it in some way or other. Of these, 21 talked about stakes and 23 were pupils in need of support, which is 60% of the pupils in need. Almost one in two (13/24) multilingual pupil with languages other than Swedish as their mother tongue, talked about negative pressure and were in need of support. This connection was much less common among pupils with Swedish as their mother tongue (16/77). Since the amount of pupils in need talking about negative pressure in the group of multilingual pupils is remarkably large, it is worth mentioning how answers were distributed within this group at large: 8 did not mention any kind of pressure and two mentioned positive pressure, both high achievers. Five pupils in need of support in this group did not mention pressure of any kind. Two pupils did not say much at all, but were not pupils in need of support. Boys in need of support (15/19) talked more often about negative pressure than girls in need of support (8/15). The identification of pupils in need of support was made, aside from the tests or the teacher or themselves identifying them as such, when observations showed that pupils were given support to manage the test or ended up in difficult situations during the test.

Sofie talked about the risk of committing errors as something uncomfortable, and that this would happen if she was not being thorough; "It was because if, if I was not right and it would be good if I was not careless with the tests". Both high and low achievers (Anna – Emmanuel and Ali) expressed that they had felt anxiety. This was felt in the body, as when Emmanuel said: "I was nervous, my hands shook. It felt like they would write wrong". Only the high achiever Anna expressed stressful thoughts in shape of a fear of maybe not being able to retrieve her knowledge when needed. And this even though she was sure that she is good at maths, since the adults had said so:

But later on, then I also had a little panic ... so that I could barely, then I was still nervous so that I panicked because you could write it. But exactly when you needed it the most and you needed ... to write the answer ... remember the answer. Then it might have flown away and when you do not need it, that is when it comes back, so I got a little bit irritated about that.

Anna also vividly described how stressed out she was during the test and how she tried to handle these feelings. The stress could, for instance, be about believing that the test would be too hard and that the situation would demand concentration and hard thinking. Ali was of the same mind: "It is hard and you have to think really, really hard and that might be tough". Ali also described finishing as a relief from this pressure: "Finally I am done, and now I am free". Both Ali and Anna said: "What if I make errors?". Anna also worried about being able to finish in time. Emmanuel doubted that he had the skills required for a good result. "Will I manage this?" (was afraid not to). This could partly be due to the unknown situation. Anna said: "Beforehand I did not know what to expect, what the test would say and you were not prepared or anything so you did not know what would come in the test".

Anton instead talked about the seriousness of the test occasion and being tested as the thing creating negative pressure: "You want to be right and you think that you must be – must be right; It feels a bit like life and death". The content of the test could contribute to the negative pressure on which Wilma had a lot to say:

Well, I have not been super clever at weighing and such; and then it felt like everything would be wrong and it felt like I did not know anything and then the pupils in fourth grade said that it was really hard.

Peter on the other hand did not mention the test or the test occasion but referred to negative pressure as connected to the fact that he was monitored by authorities "forever": "Thinking was hard, you could not find your concentration as easily as in other tests. There are files where they will save my paper and it will be saved forever".

Things at stake

A modified definition of stakes in a high stakes test by Putwain et al. (2012) has been used to analyse and discuss the pupils' stories about stakes: The real or imagined consequences for *educational progression/ability setting, educational access* and *pupil's status*. A total of 27 pupils talked about stakes, of these 22 were in need of support and 21 talked about negative pressure. Almost all of the pupils talking about stakes and

negative pressure (16 of 21) said that they were afraid of being forced to retake grade three if they did not pass the test. In addition they talked about other losses. Only three of the pupils naming losses were identified as not achieving the goals after the tests and thereby recognised as being in need of support due to the tests, although they possibly needed reassurance on the issue of perhaps losing something as a result of the test scores. Eight of the pupils talking about negative pressure said that the consequences of a bad test would be emotional negativity such as being embarrassed, sad or disappointed. Girls more often (10/16) said that they feared not keeping up with their peers, losing their social context; this was more common in the middle class school. Girls also talked about stress due to a perceived time limit during the tests. This finding about girls fits well with findings made in earlier research: indications that girls are more sensitive towards the social practice of test taking (Elwood & Murphy, 2002). Whilst male pupils, regardless of school or pressure, more often talked about stakes related to grades and thereby drawing on their future opportunities. Whilst pupils, regardless of school or gender, talking about negative pressure more often talked about the tests having an impact on their jobs in the future.

Several pupils talk about *educational progression/ability setting* as something that might be at stake in connection with the tests. Sara implied that she could lose knowledge that is of importance for managing life: "If you must go somewhere, or buy things at a store ...". Hanna also wondered what would happen if school did not detect her lack of skills: "Otherwise I and my friends might come up to the seventh grade or the gymnasium with severe problems in maths that should have been revealed earlier. Tests are really good, although not very much fun".

In order to monitor and govern the pupils' progress in learning, pupils sometimes referred to the Swedish Schools Inspectorate, to me or to the Principal as being in charge. Samuel described the process between the school and the governance exercised by the tests like this: "They send it (the test results) away to the Swedish National Agency for Education and they correct the tests and send them back ... the National Agency for Education is in charge". The lack of educational progress could also concern the level of knowledge of Swedish pupils at large, as Amanda had heard on TV:

Because, there has been a lot of discussion on TV ... that pupils have worse ... what is it called ... worse answers ... how do you say it... worse answers on the tests, not right. The grades are beginning to be IG (fail) and G (pass) and so and it should not need to be like that ... so they might ... the municipality might check up and such.

For the individual, this loss of educational progress might lead to limited choices in the future in terms of not such a good job or even standard of living, as Albin says: "Then you might get bad grades when you leave school and then you might not get a good job, you can't fix money to get an apartment and pay for the rent and electricity and water".

Educational access is something that could be at stake even closer in time. Examples of this include when pupils mention not being permitted to continue to fourth grade, which would mean a loss of friends and of social group membership. Another kind of loss in this category could be that the tests would give the pupil bad grades in the future, or even hinder them from getting jobs. As Simon said: "I would not like to stay another year...If you do not make one single thing right on the test, then I think you will have to stay over a year". However the pupils trust the adults to make wise choices, as Hanna explain: "... because they only want what is best for us, so that we can choose what we want when it is time to get a job". Elvira even expressed that you might have to go a grade lower in order to retake the Ntm3. But only if working more at home with maths does not work first. Jenny described how sad this would be, to leave all your friends: "It is not very much fun, losing all your friends".

Pupil's status at stake mainly concerned the fear of being intimidated or feeling ashamed of bad results or lacking knowledge in the subject in front of peers. Ali expressed being sad and feeling ashamed for not knowing enough: "If you don't pass, you will be sad and feel that it did not go well and all that kind of stuff". Sam and Olle were boys who did not express negative pressure, but they still talked about peers that had left and moved away. They were not quite certain if the tests had something to do with it. Social group membership being at stake was talked about by all kinds of pupils, although the tendency was more common among girls. Sofie expressed several times that she was afraid not being permitted to continue to grade four Her membership was at stake: "If you did not get the right answer, maybe then you would have to retake the class. It felt like that". At the same time she understood that this might not be the case: "I know that it is not like that, but I just got – it felt like I would get – a heart attack, a little". The feeling of maybe losing her social context grew while she was waiting for the results: "It felt that waiting for results was like waiting for clearance, would I have to retake the class or would I be moved up to fourth grade". Social status could also be at stake if the test revealed lack of knowledge. Linnea said that someone may tease you if your results were bad and for Lynn it was rather a question of revealing lack of ability: "Well, then you would have showed that you don't know, and that's not funny".

Ali implied that knowledge could be lost if they did not take the tests since he made the assumption that taking the test generates learning in mathematics in itself. Along with losing knowledge, his dignity would be at stake if he did not learn more which could lead to a feeling of shame. His social status could be threatened:

I think you can embarrass yourself sometimes if you do not know it (maths)...also if we do questions and so on and they say how much is one times one or ten times ten and then you don't know, then you might embarrass yourself.

Pupils' talk added up to a multitudinous narrative about pressure and stakes that together indicate or imply needs that have been construed into some possible positions of need that pupils might move in or out of in the context of the Ntm3. These will be summarised and discussed in the following, concluding section of the results.

Positions of need during Ntm3

Twenty-three of the pupils who talked about experiencing negative pressure were also pupils in need of support to various degrees. The identification of these in this study could mean, besides being about the test or the teacher identifying them, that they identified themselves as such and were given support to manage the test or ended up in difficult situations due to the test. The teacher or the test identified 18 of these as being in need of educational support because of not meeting standards. This means that 12 pupils with expressed feelings that could indicate a position of need were not recognised as being in need of support or adaptations as a result of low achievement or teacher evaluation. Reaching goals is central to the definition of being in need of special support in the Swedish Education Act (SFS 2010:800).

When the pupils talk about pressure and stakes, they do not mention the need for support that is intended and expressed in the instructions to the test. One example is needs caused by disabilities that demand adaptations of the test. Instead a personal story about feelings of discomfort emerges rather than issues of equity, agency or the right to achieve. From the results, at least three different positions of need might be construed: The *position of fear*, the *position of hurt* and the *position of unfamiliarity*. Below the three positions of need are summarised with a brief explanation based on the indications of need in the narrative about pressure and stakes.

- *The position of fear.* Fear of not knowing the mathematics, retrieving knowledge, losing social group membership, educational progress in life and access to the next grade.
- *The position of hurt.* Feelings of shame, sadness or discomfort because of not passing or not having enough knowledge.
- *The position of unfamiliarity.* Not knowing about the skills, the mathematical content or the test appearance.

The *position of unfamiliarity* could, in the pupils' narrative, make the pupil go from uncertainty about the tests structure or routines to uncertainty about their ability or derive from uncertainty about their ability. An educational need here could be to obtain knowledge about what these skills are before the test. Or to make clear that pupils will obtain knowledge about their skills with guidance from the tests. There could be an underlying assumption here that the tests show the pupils' skills in mathematics in total. This is connected to pupils' thoughts about things being at stake. Here information about what the tests are testing could be helpful; that they only measure some of the goals in the curriculum and cannot reveal "all that is true" about a pupil's ability. Insights into how the results will impact the pupils' continued learning in the school could also remove pressure. Knowledge about your ability could increase the risk of test anxiety, as also Ahmed, Minnaert, Kuypers & van der Werf (2012) have shown. This requires that the teacher find out whether pupils lack these insights. The test situation enhances the focus on scores which might lead to a heightened risk that teachers will miss understanding how pupils think or feel about themselves (see also Urhahne et al, 2011). This also applies to the *position of hurt*.

Discussion

Findings in this article indicate that pupils regard the tests as fun and/or important and that there are experiences of positive pressure during the tests. But in addition to this, quite a different story is told. Nearly half of the pupils talk about the tests as something placing them under negative pressure and many pupils talked about stakes in connection with the tests. This does not indicate how *much* negative pressure and if it is too much. In addition, it is not possible to know if more pupils experienced negative pressure but did not talk about it. In the methods used for this article, great efforts were made to manage power dynamics and help pupils to talk freely about the tests (Silfver et al., 2013). One of the challenges of this method is that when interviewing pupils

who are fluent in languages other than Swedish, my language skills as an interviewer may form a hindrance. These pupils expressed themselves in fewer words when we used Swedish than they might have done in, for example, Arabic, French, Somali or Hebrew; they also moved to other schools more often and were lost from the sample.

Main conclusions

There are three main conclusions to draw from these results. First of all, although Ntm3 is not a high stakes test in the meaning that pupils or teachers lose their place in class or their employment depending on the scores, in some pupils' minds the Ntm3 is a high stakes test. When pupils talk about stakes, they also talk about negative pressure. Negative pressure in turn is more commonly talked about among pupils in need of support and especially boys within this group. Among the multilingual pupils, nearly half were in need of support and talked about negative pressure. This conclusion might be reflected on the basis of the annual evaluations in Sweden, that show an increase in ninth grade students not meeting standards in mathematics (e.g. Swedish National Agency for education, 2009) and international surveys of Swedish pupils showing decreasing levels of knowledge in mathematics (Swedish National Agency for education, 2010d). The trends in these reports show that boys and pupils of immigrant origin are overrepresented in the group of pupils who do not achieve the stated goals in mathematics. When focusing on achievement, the same trend cannot be observed in third grade (2010 and 2011). There is only a marginal difference between boys and girls, although boys managed Ntm3 better than girls in both 2010 and 2011. Grades in mathematics in the ninth grade over the last ten years show another pattern among boys and girls. The percentage of boys achieving the highest grade is lower than that for girls, and the number of boys not achieving a grade at all is also greater. Both high and low achievers have decreased during the last ten years (information retrieved from National Agency of Education's database SIRIS³). Parental educational level and immigrant origin were, as early as the third grade, the factors with most influence on achievement (Swedish School Agency for Education, 2010b, 2010c, 2011b, 2011c). When listening to pupils' talk about pressure and stakes, the tests seem to affect groups of pupils differently. Especially the combination of being in need and being a boy or being multilingual is revealed as something which increases the risk of negative pressure. Something which implies that the school has to pay attention to these pupils' experiences in the test situation in order to give all pupils an equal chance to achieve later on in school. These findings might be connected to earlier

conclusions about the lack of equality in the Swedish school system (The Swedish National Agency for Education, 2012; Swedish Schools Inspectorate, 2014).

A second conclusion in this article is that even a pupil who experiences positive pressure and achieves high scores might be in need of support. After changes in the Education Act (SFS 2010:800) these pupils are today conceptualised as in need of *guidance* or *adjustments*, rather than *in need of special support*. There is a certain risk of schools not identifying these pupils in connection to these tests since achievement is in focus rather than needs in learning.

Sofie makes a good example of this as well as Anna. In Sofie's case, both she and her teacher underestimated her abilities. Anna is a high-performer but with a high degree of test anxiety. She performs everything the testing discourse demands of her in terms of being a good test taker and student. But she has the needs for reassurance and information regarding the test situation and her abilities, needs that are not easily detected. Without the recognition of these pupils' needs, their progression in learning could be affected. There might be an educational assignment connected to the *position of unfamiliarity*: to make clear to pupils what the test looks like and how it is carried out, what the pupil might expect from the situation and from themselves; and finally how the results will be managed by the teacher. A third conclusion in this article is that the tests reinforce a comparison and sorting of pupils. This is gendered in that boys talk about consequences for their future as adults more often than girls, while girls seem to be more sensitive towards the social dimensions of testing as they mention being moved away from their class as a consequence of the tests more often than boys. Following from the definition of high stakes used in this article: the real or imagined consequences for *educational progression/ability setting*, *educational access* and *pupil's status* – it is possible to state that educational access or progression and social status are at stake through the tests, since the pupils believe that this is the current state of affairs.

Reflections on positions of need

A position of need is not the same as each pupil being in one position but rather positions of need are construed from the pupils' conversations. Pupils give voice to a testing discourse in which issues of truth, knowledge and power govern what can be talked about and from what position. Some positions of need are possible to take on, or might be given to, a pupil in the context of Ntm3. One pupil might both be talking from a position of shame and a position of fear. It is rather from the position

that a pupil expresses a feeling of negative pressure, high stakes and hence need that constitutes the position of need. Positions of need might potentially lead to stressful feelings for the pupil if the need is not met. Some positions of need are not easily detected and might shift over time and between occasions, the feelings involved can, however, be talked about and information can be given about the test or the abilities tested which might relieve this negative pressure by supplying pupils with expectations that are helpful rather than stressful. Tests may be good opportunities to talk about feelings of not remembering, not knowing and of embarrassment. Such conversations would most probably be positive both for achievements in the test situation and for the progressing learning situation. It might also brief the teacher on what to support. Test instructions on how the teacher might relate to these issues and what is important to consider when dealing with young test-takers could help. The performance of tests should be discussed as aspects of social justice and equity, as these things could affect access to test taking for groups of pupils on a system level. Gendered aspects of pupils' perception of what is at stake in the test also need to be considered.

Last but not least, being a pupil in need of support and/or being multilingual with a mother tongue other than Swedish, seems to bring with it special circumstances in the test situation. Pupils' experiences of negative pressure and stakes must be considered and handled in the situation. A need in the test situation may therefore never be narrowed down to being about disabilities or not reaching goals. A future task for research would be to look into how positions of need appear, develop and come into play in both the test situation and the regular maths class and what strategies and methods might be used to manage them.

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Notes

- 1 The project entitled *What does testing do to pupils*, undertaken together with Gunnar Sjöberg, Eva Silfver and Mikaela Nyroos, is financed by the Swedish Research Council.
- 2 Version 2.42b – a program for coding and analysing video and audio data (<http://www.transana.org>).
- 3 The National Agency for Education online information system on results and quality (<http://siriskolverket.se>).

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