New Forms of Assessment in the South African Curriculum Assessment Guidelines: What Powers do Teachers Hold?

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Abstract  
This article opens up a discussion on the power that teachers have in mathematics curriculum at the Further Education and Training level. It is related to the general question: who holds the power in school mathematics education in South Africa? To what extent is the teacher given an opportunity to exercise their power in mathematics assessment? If the teacher is given power, what does that power allow teachers to do, and under what conditions does this happen? The case of mathematics is presented here to illustrate the above complex questions of teacher power in new forms of assessment in the curriculum.

Introduction  
From the vantage point of new forms of assessment, this article is an attempt to unpack the question of teacher power by looking at how teachers are positioned in the National Curriculum Statement (NCS) Assessment Guidelines for Mathematics (Grades 10-12, Department of Education (DoE), 2005). I focus on the new assessment guidelines for two reasons. Firstly it is because it is widely recognised that assessment is the engine of education systems. Conceiving assessment as an engine is a powerful way of thinking about education. Stated more practically, when we look at assessment, we look at an engine: what drives education systems. Education systems run on the fuel of assessment. The engine-power of assessment can be seen for example, in South Africa, in how the outcomes of assessments are not only celebrated, but also how under-performing schools and their administrators are perceived by society. Focusing on assessment is consistent with the view that assessment is an “integral part of teaching and learning. For this reason, assessment should be part of every lesson and teachers should plan assessment activities to complement learning activities” (DoE, 2005, p. 1).

The DoE (2005) states that guidelines assist teachers in the teaching. Teachers are encouraged to use these guidelines as they prepare to teach the National Curriculum Statement. The assessment guidelines are conceived as a critical resource that should be able to assist teachers in their teaching of mathematics in accordance with the national policies. Viewing assessment guidelines as a resource i.e. as tools for looking into learning systems (Davis & Simmt, 2003) and what becomes of learning draws us to a key conceptual backbone of educational thinking in our context of education in South Africa in relation to resources and tools for mathematics education. Adler (1999) points out that “access to a practice requires its resources to be ‘transparent’” (p. 48). Adler also introduces the notion of “visibility and invisibility” in relation to “transparency in the practice of teaching mathematics” and argues that “Resources need to be seen to be used. They also need to be invisible to illuminate aspects of practice. For talk to be a resource for mathematics learning it needs to be transparent; learners must be able to see it and use it” (p. 63). From a perspective of transparency, I analyse assessment guidelines which mathematics teachers are called upon to use as resources in their work. This analysis attends to the complexity of assessment policies and the legitimating power that they are intended to give to mathematics teachers. I describe two key aspects that are constituents of the engine of assessment guidelines, namely “daily assessments” and “programme of assessment”.

Daily assessment  
Two forms of assessment have been proposed in the NCS: continuous assessment and external assessment. Continuous assessment is a form of assessment, which when used jointly with “informal daily assessment” and “formal programme of assessment” (p. 1) is instrumental for: the development of “learners’ knowledge, skills and values”, and the identification of “learners’ strengths and weaknesses”. As it stands, continuous assessment should have a significant role to play in shaping learners’ learning and “proficiencies” in mathematics. However, given that this form of assessment only “counts 25%” of the final mark at Grade 12, does that not mean that there is less recognition at the policy level of the significance of continuous assessment?

A key component of continuous assessment is “daily assessment” (p. 2). According to the DoE (2005), this kind of assessment is essentially formative as it occurs “during learning activities” where the aim is for the teacher to monitor learner progress. Furthermore, it is stated that this monitoring by the teacher “can be done through question and answer sessions; short assessment tasks completed during the lesson by individuals, pairs or groups or homework exercises” (p. 2, emphasis added). The marking of these assessments has a powerful pedagogical dimension. According to the DoE (2005, p. 2),
Individual learners, groups of learners or teachers can mark these assessment tasks. Self-assessment, peer assessment and group assessment actively involves learners in assessment. This … allows learners to learn from and reflect on their own performance (emphasis added).

The DoE states that “the results of the informal daily assessment tasks are not formally recorded unless the teacher wishes to do so” (p. 2, emphasis added). Nevertheless, there is importance attached to these assessments because “teachers may use the learners’ performance in these assessment tasks to provide verbal or written feedback to learners, the School Management Team and parents”. However, given that “the results of these assessment tasks are not taken into account for promotion and certification purposes” puts into question the significance of these assessments.

One might consider these assessment proposals as liberating given that: a) a range of strategies, not just a single one, are suggested for monitoring learner progress; b) the teacher or learner can mark these assessments, so it does not matter who marks them; c) there is a taken-for-granted assumption that learners should learn from and reflect on their performance as they engage with assessment tasks; and d) “The results of the informal daily assessment tasks are not formally recorded unless the teacher wishes to do so”. With respect to (a), we need to ask the question: how do teachers decide what form of assessment task should be given to learners and when should this happen? If teachers decide to give learners “homework exercises”, how do they decide which form of tasks should be allocated for homework? Therefore, while we are told: “teachers’ lesson planning should consider which assessment task will be used to informally assess learner progress”, it is not clear how the teacher needs to select or plan for these tasks particularly given that there are several forms of regulatory tasks that are seemingly transparently available and made known to teachers. With respect to (b), it is important to ask the question: how are teachers able to decide which tasks should be marked by learners, and which ones can only be marked by teachers? With respect to (c), we need to ask the question: what “opportunities to learn” (Weber, Maher, Powell & Lee, 2008) mathematics are presented in the tasks and learners’ performance in these? How are these learning opportunities evident in tasks, and can teachers anticipate these? In what ways can teachers be able to think about the nature of these opportunities and at what time they might arise? A similar question needing to be asked with respect to (d) is the following: how do teachers decide which assessment results are useful to record and which ones are not? In all these questions lie tensions and dilemmas which undermine the power of teacher decision making because of the contradictory nature in which opportunities to make decisions are framed.

Of pedagogical importance in the NCS guidelines is the importance of feedback. It is stated that “teachers may use the learners’ performance in these assessment tasks to provide verbal or written feedback to learners, the School Management Team and parents. This is particularly important if barriers to learning or poor levels of participation are encountered”. Aside from the question of what kind of feedback is more appropriate and for what purposes, there needs to be engagement with the issue of what kind of feedback needs to be given to parents. In relation to this, how do teachers decide to use verbal rather than written feedback? If written feedback is given to parents particularly the kind of feedback that is consistent with the taxonomy and rating scales proposed (see p. 6 in the NCS mathematics assessment guidelines), how do teachers ensure that parents are able to understand what the feedback means? I ask this question while acknowledging the fact that there does seem to have been a paradigm shift in assessment in South African education that is resonant with the widespread wave of reform that is shaping current theoretical thinking in assessment (Davis & Simmt, 2003).

It seems quite clear here that teachers have a considerable amount of flexibility in the nature and extent of the assessments that should constitute “daily assessment”. However, it is surprising that these daily assessments are accorded very little importance if any at all. According to the DoE, “the results of these assessment tasks are not taken into account for promotion and certification purposes” (p. 2). Why should teachers take daily assessments seriously when little value has been placed upon these?

**Program of assessment**

On the other hand, there is assessment that appears to fall under what is called “Program of assessment” which seems to be more valued than daily assessment.

Teachers should develop a year-long formal Programme of Assessment for each subject and grade. In Grades 10 and 11 the Programme of Assessment consists of tasks undertaken during the school year and an end-of-year examination. The marks allocated to assessment tasks completed during the school year will be 25%, and the end-of-year examination mark will be 75% of the total mark (DoE, 2005, p. 2).
What is entailed in “tasks undertaken during the school year”? How much control does the teacher have in the nature of what these tasks look like? How are these tasks different from “daily assessment” tasks? Whatever these tasks are, it is clear here that because they are developed by the teacher, the teacher has a fair amount of control over how these need to look like. In fact, because assessment of these tasks “counts 25% of the final grade or year mark”, it means that the teacher should take these more seriously than the daily assessments. However, it appears that the teacher has little control over the number of assessments of this form (Morais, 2002). This is because, according to the DoE (2005, p. 3, emphasis added), “If a teacher wishes to add to the number of assessment tasks, he or she must motivate the changes to the head of department and the principal of the school”. In addition, “The teacher must provide the Programme of Assessment to the subject head and School Management Team before the start of the school year”. The latter point means that once the teacher has developed the program of assessment, that program is no longer in their control, given that they need to provide a motivation for changing their own plan of assessments” once submitted to school management, learners and parents (p. 3).

From the above, there seems to be an emphasis on the “number of assessment tasks” in the Program of assessment, rather than on the nature of those assessments. What is the main reason for asking teachers to submit a plan of assessment to the subject head and the school management team? It is obviously clear that the aim in the NCS guidelines is to ensure that there is a regulatory mechanism that should guide the instrumentation of assessment in schools. However, to what extent does this regulatory mechanism address issues of quality in the way it has been stated? And how would the school management team, learners and parents judge the quality of these assessments? An interesting development in the NCS assessment guidelines is the fact that there is an attempt to move away from tests and examinations as providing the only means of providing feedback on learners’ progress.

The remainder of the assessment tasks should not be tests or examinations. They should be carefully designed tasks, which give learners opportunities to research and explore the subject in exciting and varied ways. Examples of assessment forms are debates, presentations, projects, simulations, literary essays, written reports, practical tasks, performances, exhibitions and research projects (DoE, 2005, pp. 3-4).

We see here that opportunities are being created, as learners engage with assessments, to “research” and “explore” mathematics as a discipline: what it means, and perhaps how it applies to learners’ everyday lives. However, while opportunities are being opened up for assessment, it is not clear what these proposals mean for schools and learners who come from disadvantaged contexts. So the power question here concerns research for what purposes (Murray, 2002) and who benefits from such research.

One clearly robust ways in which mathematics can be excitingly explored is to involve learners in technological contexts. For example, one assessment standard in Learning Outcome 2 states that we know that learners are able to investigate, analyse, describe and represent a wide range of functions and solve related problems when contexts. For example, one assessment standard in Learning Outcome 2 states that we know that learners are also required to “use available technology to calculate the regression function which best fits a given set of data), and representing results graphically using histograms and frequency polygons” (p. 24). Given the flexibility and efficiency of technologies such as handheld graphing calculators, the proposals being suggested in the curriculum guidelines are commendable given that they have the potential to allow learners to work efficiently with mathematical ideas and computations involving these. However, while the teacher might plan his/her assessment in keeping with these technological opportunities, one needs to recognise whether in disadvantaged contexts such as rural township schools would be able to afford these. In such a case, the choices for the teachers are further limited in terms of their selection of assessment tasks and tools that could be used to enhance learners’ engagement in these. While technological tools may add a conceptually and didactically powerful dimension to teaching, when the conditions in which teachers teach mathematics are hostile, the power of teaching tools becomes limited.

Emerging contradictions
The above analysis of the assessment guidelines has indicated that teachers are given some power and flexibility over what goes on in the daily assessments that learners engage with in their mathematics activities. The teacher is given power to choose from a range of strategies for monitoring learner progress. Once assessment tasks have...
been undertaken by learners, the teacher can decide whether to mark them or whether learners should mark their own written work. Particularly interesting, the teacher can choose whether to record the results of the assessments or not. “The results of the informal daily assessment tasks are not formally recorded unless the teacher wishes to do so”. While it appears that the teacher is given power over assessment at the informal daily level, this power is highly limited for two reasons. First, the results that emerge from the teacher’s exercise of such power over assessment are not given much political significance. Secondly, it is not clear how the teacher is to exercise such power. Because of these reasons, I propose that while the intention of the NCS is to allow teachers freedom to work in ways they find themselves in their contexts, such freedom is only an imagination. The question then becomes, why should the NCS provide these opportunities for teachers to exercise their freedom or power over assessment when in fact the same NCS knows that teachers will eventually have limited power? What is the aim of the NCS in having such proposals? I suggest that the NCS finds itself in this predicament because of an attempt to align itself, as can be expected, to the principles of outcomes-based education, OBE.

According to Spady (1998), there are three key assumptions to OBE. “All students can learn and succeed, but not on the same day in the same way; successful learning promotes even more successful learning; and schools control the conditions that directly affect successful school learning” (emphasis added). It is the third assumption that is more pertinent to “blind spots” (Le Grange, 2004) and the closed assessment box I am opening here. It seems that the NCS is attempting to give teachers more power over daily assessment because teachers, as critical constitutive agents of schools, control the conditions that directly affect successful school learning. We are talking here about the day-to-day work of teachers as learning managers in their own classrooms. It is the centrality of the teacher that the NCS seems to be rightly uplifting here. According to Todd and Mason (2005), “The most effective factors [for improved learning] depend on the teacher, and other distal variables have an impact to the extent that the teacher exploits their potential in enhancing learning” (p. 229). Todd and Mason continue to suggest that “The challenge for South African teachers is to maximize these proximal factors that have been identified in the research, in spite of the difficulties they face because important distal variables remain unsatisfied”. Is the way the NCS assessment guidelines are stated an attempt to satisfy the “proximal” factors associated with effective learning to which the teacher is a central part? The analysis presented above points to the affirmative. I suggest here that a further elaboration of the rationale and conceptualisation of daily assessments is necessary in order for South African education policy to “maximize the ability of teachers to exploit… proximal factors” which according to Hattie (1999, in Todd and Mason, 2005, p. 227) are concerned with teachers coming to “know what our students are thinking so that we can provide more feedback…and develop deep understanding”. The key issue centres on recognising the need to have “teachers who understand their discipline well, and who care about their students and what they know”. For it is such teachers who “will be better able to set challenging goals and to provide well-directed feedback” (Todd & Mason, 2005, p. 227). I posit that mathematics education in South Africa can only be able to obtain such kind of teachers if policies are developed and implemented in such a way that they recognise the power that teachers have over daily assessments in addition to, and more importantly, sensibly recognising the value of these assessments.

References


