



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

THE DEVELOPMENT OF A SYSTEMIC EVALUATION MODEL FOR THE BASIC EDUCATION SECTOR

Endorsement:

We, the Principals representing the following five teacher unions: SADTU, NAPTOSA, PEU, NATU, and SAOU; and the Director-General representing the Department of Basic Education, hereby confirm the endorsement of the attached concept document entitled "The Development of a Systemic Evaluation Model for the Basic Education Sector" agreed upon by the National Curriculum and Assessment Task Team (NCATT) on 15 September 2017.

Signed at the offices of the Department of Basic Education by:

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1. INTRODUCTION

The review of Annual National Assessment (ANA) has resulted in a pressing need for a new perspective on national systemic evaluation model in the South African context. The intended outcome of the national systemic evaluation model is to evaluate aspects and components of the Basic Education Eco-System to provide South African schools, districts, provinces, the National Department and all relevant stakeholders within an evaluation model to obtain quantitative and qualitative data in order to improve system interventions.

The purpose of the systemic evaluation model is to evaluate the system holistically through contextual factors at all levels and learner performance.

2. KEY RESEARCH QUESTIONS

The research questions of this evaluation will be used to:

- Monitor system-level performance trends in local and national contexts.
- Evaluate the implementation and impact of policies and programmes.
- Inform educational policies and programmes.
- Identify any areas and factors that enable or constrain performance.
- Obtain important information about the system and school contexts.

*** Research questions to be formulated to address the above.**

3. SYSTEMIC EVALUATION IN CONTEXT

Kanjee (2007:13) sees national assessment as referring to the gathering of "relevant information from an education system to monitor and evaluate the performance of learners and other significant role-players as well as the functioning of relevant structures and programs within the system for the purpose of improving learning.

The Department of Education (DoE) (2003:3) used the term 'systemic evaluation' to refer to the determination of the extent to which the education system achieves set social, economic and transformational goals through the measurement of learner performance as well as the context in which learners experience learning and teaching. This is in line with the Assessment Policy of the South African Education Department which stipulates that such systemic assessment be conducted in three grades of the education system, namely Grades 3, 6 and 9. Accordingly, the DoE stated that "the main purpose of Systemic Evaluation is to benchmark performance and track the progress made towards the achievement of the transformational goals of the education system in respect to access, redress, equity and quality" (DoE, 2003: 2-3). Thus, DoE (2003: 3) outlined the objectives of Systemic Evaluation as to:

- (a) determine the context in which learning and teaching is taking place;
- (b) obtain information on learner achievement;
- (c) identify factors that affect learner achievement; and
- (d) make conclusions about appropriate education interventions.

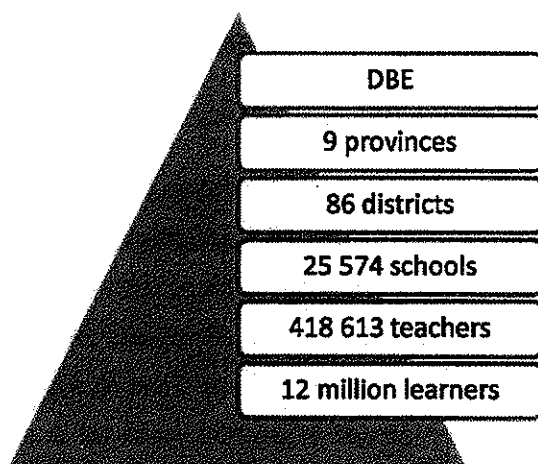
In its conceptualisation of systemic evaluation, the DoE (2003: 3) envisioned the collection of data at two levels:

- The contextual component is set to provide insight into the environment in which teaching and learning take place and to establish the performance of the education system with respect to the principles of access, redress, equity, and quality.
- The learner performance component of seeks to establish trends with respect to acquisition of key knowledge, skills, values and attitudes by learners at different points in the system.

Overall, it is envisaged that the systemic evaluation could draw the required data from the major components of the Education System, namely the teachers, education officials, provisioning officials (e.g. those providing teaching/learning support materials and allied services), as well as learners.

According to Dunne, Long, Craig and Venter (2012: 2), whilst classroom-based assessment is generally fine-grained and topic specific, external systemic assessment is generally broadly banded, and attempts to cover the curriculum. Thus, the major purposes of systemic assessment are seen as “to assess the current performance and variability within a particular cohort of learners, according to some sort of external benchmark of desired proficiency, and to monitor progress, also according to some external standards for change and performance improvements over time” (Dunne, et al., 2012: 2). To Marx, et al (2004), the purpose of systemic assessment is “to identify systemic issues that are needed for success: curriculum design, development and enactment; teacher professional development; and creating and sustaining policy and management structures that support reform.”.

4. UNDERSTANDING THE MODEL FOR SYSTEMIC EVALUATION.



The Systemic Evaluation model that is proposed builds on the model of systemic evaluation implemented in 2003 and the lessons drawn from the Annual National Assessment (ANA).

The following is adopted as the definition of systemic evaluation for the South African context:

Systemic Evaluation refers to the determination of the extent to which the education system achieves set social, economic and transformational goals through the measurement of learner performance as well as the context in which learners' experience learning and teaching.

The purpose of the systemic evaluation model is to evaluate the system holistically through contextual factors at all levels and learner performance. The reporting frameworks will analyse the context of teaching and learning that affect learner performance. The two frameworks of context against which the learner performance will be analysed are the following:

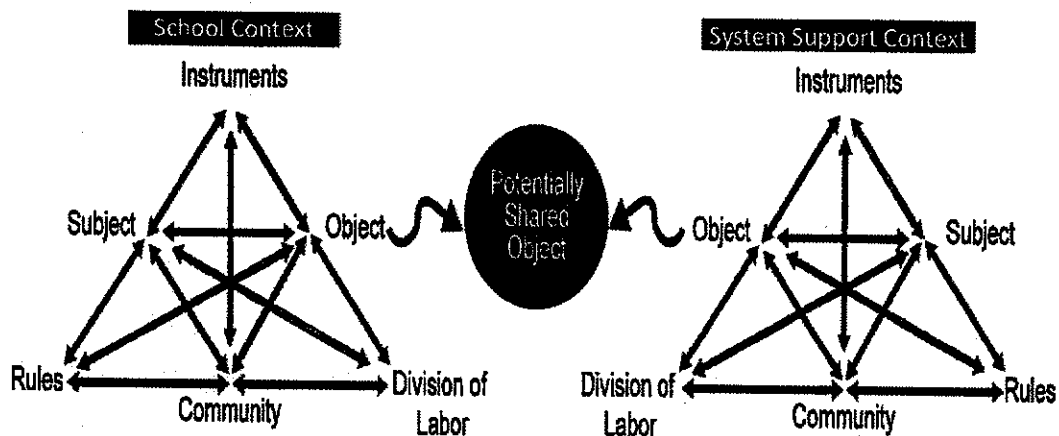
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- (a) School context (Whole-school evaluation); and
- (b) System Support (District, provincial, national and the policy environment).

The two frameworks of context may be better understood if they are theoretically viewed as interacting activity systems linked by a "potentially shared objective (or goal)" which is to improve the quality of learning outcomes set out in the medium term strategic framework and action plan of the DBE.

The argument made is that an evaluation of these two contexts is better understood not just as two types of activity systems that historically co-exist in the education landscape but as two interacting systems of educational activity structurally defined by their individual subcomponents and by the nature of activities occurring within and across systems. It is important therefore to link this argument to a theoretical framework that provides a handle on these matters. Activity theory (AT) is proposed as a suitable theoretical lens for understanding the school context and the system support as interacting activity systems.

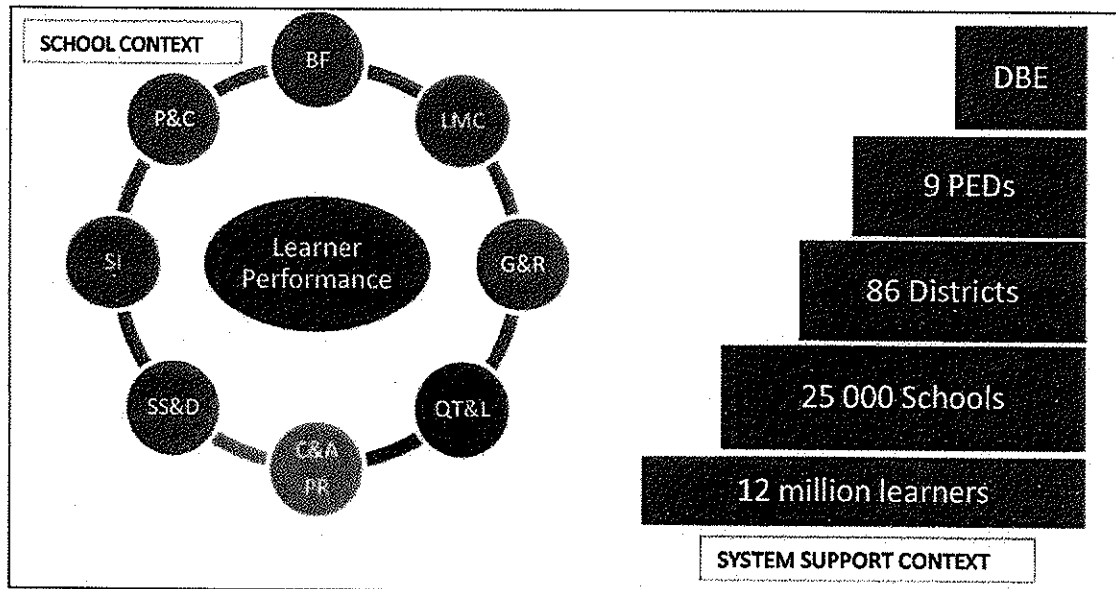
AT is a socio-cultural perspective that has been used to explain the structure and alignment of activity systems, and offers a way to understand tensions within and between them. Significantly, the issue of context in relation to human activity is foregrounded. In this systemic evaluation, there is a context of learner achievement in relation to conditions of school learning and the levels of support advocated through policy that needs to be understood and explained. From an AT perspective, context is not simply a container or a 'situationally' created experiential space but is an entire activity system, integrating the participant, goals, tools (and communities, their rules and divisions of labour) into a unified whole (Engeström, 1993). In particular, the activity system becomes the unit of analysis. An AT model for the two activity systems is indicated below.



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The AT model involves the consideration of two interacting activity systems with a “potentially shared object”, that is focused on the challenges and possibilities of inter-organisational learning (Engeström, 2001). In this systemic evaluation, the Improvement of learner achievement and the learning context is considered a shared object between two activity systems, namely, the system support and the school.

This is indicated in the diagram below



The system support indicators of the learning context and learner performance will include an analysis of specific national programmes and how they have been mediated at provincial and district levels on specific areas. This will include amongst others:

- a) Policy formulation and mediation;
- b) Teacher input on policies and support;
- c) Teacher development strategies;
- d) School safety strategies (including scholar transport);
- e) Education management and governance;
- f) Infrastructure support;
- g) Teaching and learning support materials; and
- h) Health and care support for learners.

The school context indicators on learner achievement will be based on eight of the focus areas extrapolated from the policy on Whole-School Evaluation (DoE, 2001). These include:

- a) Basic Functionality of schools;

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- b) Leadership, management and communication;
- c) Governance and relationships;
- d) Quality of teaching and learning, and educator development;
- e) Curriculum and Assessment provision and resources;
- f) School safety, security and discipline;
- g) School infrastructure; and
- h) Parents and community.

5. KEY DESIGN FEATURES OF THE SYSTEMIC EVALUATION MODEL

It is proposed that the Systemic Evaluation model for 2018 and beyond is a tri-annual systemic evaluation that will be conducted on a sample of Grade 3, 6 and 9 learners. The purpose of this assessment is to monitor learner trends and report on the quality of learning outcomes in the context of the factors that influence learner performance. The assessment instruments will allow for international benchmarking and trend analysis across years, with confidential items and questionnaires that will be independently administered.

Contextual questionnaires that will be developed will be informed by a set of criteria from the two indicator frameworks i.e. school context factors and system support factors, that have been designed and advocated to support improved learner achievement and learning conditions.

5.1 System support

At the level of system support, factors that have a specific focus on improving the learning context will be included in the systemic evaluation cycle. For example, programmes within the evaluation period and the support thereof, from the system level and the school level, can be narrowed, for example:

- a) Strengthening curriculum implementation (CAPS),
- b) Progression of learners,
- c) Reading across the curriculum,
- d) Integration of ICT.
- e) The in-service training programmes of teachers

Questionnaires on system support will be designed to generate data on how effective these programmes have been and whether they are positively contributing towards the improvement of learner achievement and the context of learning. Questionnaires will be administered to relevant district



managers and staff in all 81 districts, as well as a select group of policy makers and mediators at provincial and national levels.

5.2 School context

At the school level, instruments will be structured according to the criteria listed earlier, and an indicator framework outlined in the Whole-school evaluation policy. Instruments will be administered to learners (Grades 6 and 9), teachers, parents, school management teams, and the school principals.

In addition to the administration of structured questionnaires, interviews will be held with relevant stakeholders, including subject teachers, heads of departments, and the principal. The whole-school evaluation process entails a triangulation of various data sources that includes questionnaires, interviews, classroom observations, and document analysis.

5.3 Learner assessments at Grades 3, 6 and 9

The focus of the assessment will be on key competencies and on end of phase outcomes. The tests will be phased based to allow for reporting on learning outcomes at the end of Grades 3, 6 and 9. This implies that in the Grade 3 learner assessment, the majority of test items will come from Grade 3 but will also include Grade 1 and Grade 2 test items. The weighting of the questions for the different grades in a phase will be according to the ratio of 70:20:10 in favour of the target grade (i.e. in the Grade 3 assessment, 70% of questions will come from Grade 3, 20% from Grade 2, and 10% from Grade 1).

Two subjects will be assessed (Mathematics and Languages) in the Language of Teaching and Learning (LoLT). Both Mathematics and Languages are foundational to further learning; hence it is vital that these two subjects form the basis of the learner tests. The same tests will be used in subsequent test cycles, with a few items being replaced. This will allow for comparability of performance from one cycle to the other.

In order to ensure coverage of the curriculum, the matrix design to test development, will be explored. This will allow for various forms of the test to be set and administered, thus covering all aspects of the curriculum.

The tests may be adapted for special schools whose learners sit for the National Senior Certificate, following discussions with experts and school managers in this sector.



Both the tests and the contextual questionnaires must be developed by an independent agent comprising of assessment and questionnaire design experts.

The tests will be administered to a sample of learners once every 3 years. This implies that the first level of sampling will be the school and within each school, a sample of learners will be selected per grade (i.e. Grades 3, 6 and 9). The factors to be considered in determining the sample and the actual selection of the sample learners will be conducted by experts in the field of sampling.

The tests must be kept confidential and hence field workers will be assigned to each school, to administer the test and collect the test after its administration. The marking, processing, analysis and reporting will be done by the independent assessment agent and this will ensure the credibility of the study.

The reporting will be based on monitoring progress against quality learning outcome. The contextual data relating to schools, parents, teachers and learners will be used to explain the trends observed in the statistical data. National, district and diagnostic reports will be produced to indicate how learners are doing on curriculum competencies in the phase. This will entail interpreting the learner performance against the contextual factors. Both the system factors and the support factors must be linked to the learner performance data

6. UTILISATION OF DATA EMANATING FROM SYSTEMIC EVALUATION

The data from the sample-based Systemic Evaluation results should be used to *inter alia*:

- (a) Improve operational systems at national, provincial and district levels with a view to support the quality of teaching and learning.
- (b) Enable education stakeholders to interpret the information presented and use it to develop interventions to improve teaching and learning and system functioning.
- (c) Guide all levels of the Department in setting targets in relation to the national benchmarks for learner performance.
- (d) Provide information for the system to benchmark performance and to provide a measure to track progress of learners over time
- (e) Investigate additional contextual factors that are affecting learner performance.
- (f) Interventions should be customized according to individual/cluster context

Follow-up interventions by the DBE should be multi-layered, focusing on those parts and levels of the system that are shown to be under-performing. The following responsibilities should inform the intervention strategies:

National level

- (a) Develop a national intervention plan and strategy arising from the data
- (b) Construct a management plan for the interventions based on the results
- (c) Monitor national progress on learner achievement in mathematics and languages against set targets.
- (d) Use the National Assessment results as a systemic tool for the development and review of policy.
- (e) Write and amend guidelines on the utilisation of results as necessitated by circumstances.

Provincial and District levels

- (a) Analyse the quantitative and qualitative data per District
- (b) Develop improvement plans to address systemic challenges
- (c) Support Districts in preparing development programmes
- (d) Monitor schools and Districts to evaluate the effectiveness of intervention strategies

Learner performance data will be used to determine *inter alia*:

- a) How well are learners learning in the education system (with reference to general expectations, the aims of the curriculum, or preparation for life)
- b) Whether there is evidence of particular strengths and weaknesses in learners' knowledge and skills
- c) How certain sub-groups of learners in the population perform, for example, boys and girls, learners in urban and rural locations, learners from different language or ethnic groups, and learners in different regions of the country.
- d) What factors are associated with learner performance? That is, to what extent does learner achievement vary with the characteristics of the learning environment (for example: school resources, teacher preparation and competence, teacher support, policy interpretation and implementation, and type of school) or with learners' home and community circumstances
- e) How does the performance of learners change over time (has the learner's achievement improved, stayed the same, or declined in the time period covered by the introduction of important education reforms and support).
- f) Which teacher classroom practices and attitudes have a high impact on learner performance

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7. PROPOSED IMPLEMENTATION PLAN

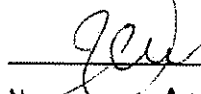
Table 3: Proposed timeframes and key activities

YEAR	ACTIVITY
2017	(a) Finalise concept document on Systemic Evaluation (b) Invite experts to assist in the design features of the Systemic Evaluation (c) Develop Terms of Reference for the Independent service provider (d) Publish Tender (e) Establish Advisory Committee to exercise oversight over the Systemic Evaluation Project.
2018	(a) Tender evaluated and awarded (b) Conduct pilot study of the model. (c) Conduct pilot study of contextual questionnaires (d) Conduct main sample study in October 2018.
2019	(a) Conduct analysis in 2019
2020	(a) National and provincial systemic evaluation reports completed


8. CONCLUSION


The above model once finalised will mark an historic first for the systemic evaluation of the system context and learner performance. The more granular details of the model will be subject to refinements and adjustments advised by international experts and researchers in the fields of large-scale assessment and system evaluation. Further, an advisory committee should be set up to advise on, amongst others, the sampling criteria, frameworks and indicators, integration and triangulation of other survey data (e.g. TIMSS, PIRLS, SACMEQ), analysis and reporting, and accommodation of learners with special needs.

Signed on behalf of DBE


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Signed on behalf of Organised Labour


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