Every child is a National Asset

DBE Research Agenda

8 October 2019

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Research Agenda:

Purpose

- Seeks to **guide** and **coordinate** research undertaken in the sector
  - Without restricting what is considered valid research
  - Not intended to be "exclusive"

- Sets out the main research questions which are a **priority** for the Department
  - Should improve evidence base required by government
  - Should be useful for researchers desiring to focus on policy matters

- Aims to **assist with coordination and collation** of research within the sector
  - Helps promote policy influence of research in more inclusive ways

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Research Agenda:
Design: Development

- Medium-term period 2019 - 2023

- Designed with inputs from managers within the DBE, as well as from external stakeholders from various tertiary/ research institutions

- Will be updated annually

- Need to ensure focus remain on the priority areas

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Research Agenda:
Design: Themes

- Agenda is broken into 11 thematic areas:

  - Teacher development
  - Teacher support
  - LTSM
  - Teaching language/ reading
  - Teaching mathematics/ numeracy

  - Grade R and pre-Grade R
  - Heterogeneous classrooms and learning
  - ICTs
  - Sector planning and budgeting
  - Accountability
  - Infrastructure

- Each thematic area has a few Main Research Questions, each with sub questions.

- Examples of ongoing research under each Main Research Question is also given (as we become aware of more studies, this section will be updated)

Research Agenda:
Research Coordination, Monitoring and Evaluation

- RCME in the DBE is responsible for coordinating such research through the agenda, as well as facilitate coordination between researchers

- This coordination and collaboration will be facilitated in order to share ideas and resources, as well as ensuring that the broader spectrum of research questions are addressed.

- In order to facilitate this process, researchers are encouraged to submit a short paragraph describing their potential research question

Research Agenda:
Provincial and other inputs

- Document has been published and is available on this link:

  https://www.education.gov.za/Portals/0/Documents/Publications/Researc h%20repository/Research%20Agenda_V1.pdf?ver=2019-07-31-135117-690

- Deadline for inputs in the next publication will be 15 October 2019.

  - All 23 HEIs have been sent the Research Agenda

- Request provinces to also provide us with any inputs by 15 October 2019

- Recommend provinces adopt the agenda as a national agenda, provincialise it and share it with universities to inform university and share with students

Consultations

- Before developing a draft we asked DBE and several external researchers:
  - Please identify THE 1 or 2 broad areas/topics for research on basic education that you think will be of critical importance in the sector over the next 5 to 10 years.
  - Please suggest 2 or 3 specific research questions that could address policy or programme design in the next few years.
- After developing a first draft, we presented it to:
  - SMM
  - BMM
  - Programme Managers and Branches in DBE
  - Provincial Education Departments
- Further revisions were then made.
- Today is both a launch of the first iteration, as well as a consultation for revisions/additions for the next update.

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Research Agenda: Teacher Development

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Teacher development	What is the most cost-effective way of delivering and supporting in-service training in different contexts and for different subject areas?	What are the cost implications of coaching at scale and what is the most effective way for provinces to employ teacher coaches?	**1.** DBE. 2017. Early Grade Reading Study; **2.** DBE. 2018. Second Early Grade Reading Study.	On-going
		What is the minimum dosage of coaching that is required?		On-going
		What role can Communities of Practice play in teacher development?		On-going
		Can virtual coaching be an alternative to on-site coaching?		On-going
		Can a coach be used to catalyse a Community of Practice in schools that can be sustained in the long-term using existing resources in the system, such as an HOD?		On-going
		What school conditions need to be in place to sustain these effects?		On-going
	Do the existing implementation efforts, including the various methods or models in CPTD, respond adequately to the Integrated Strategic Planning Framework for Teacher Education and Development in South Africa, 2011–2025?	How effective has the content of the CPTD been in Maths, Science, Languages (Home Language & English First Additional Language) in the Foundation Phase, and the Further Education and Training Phase in line with the curriculum?	On hold: DPME. Implementation Evaluation of the Integrated Strategic Planning Framework for Teacher Education and Development.	None
		To what extent are the operational procedures and resources appropriate to ensure success of CPTD at the school, district, provincial and national level? Are there any operational bottlenecks?		None
		How are innovations including ICTs used to deliver CTPD? How effective are these and how could they be enhanced based on available resources and international benchmarks?		None
		What informs the CPTD at the school, district and provincial level? To what extent is the CPTD reaching the intended population?		None
		Are PEDs in a position to deliver the existing Integrated Strategic Planning Framework for Teacher Education and Development given their budget constraints?		None

Research Agenda: Teacher Development (Continued)

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
	To what extent are teachers adequately prepared in pre-service training?	Are teachers adequately trained to teach reading effectively?	**1.** DHET. The Primary Teacher Education Project (PrimTEd) **4.** NEEDU. 2012. National Report 2012. The State of Literacy Teaching and Learning in the Foundation Phase	On-going
		Are teachers trained adequately to deal effectively with diverse classrooms?		None
		What role can internships and mentorship play in preparing teachers more adequately for the classroom?		On-going
		How can teacher development be standardised across different platforms and regions?	**1.** DHET. Teaching and Learning Development Capacity Improvement Programme.	On-going
		Are teachers trained adequately to deliver on the outcomes of learner achievement?	**1.** DHET. Teaching and Learning Development Capacity Improvement Programme.	On-going

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Research Agenda: Teacher Support

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Teacher support	Are school Heads of Departments (HODs) in a position to fulfil their role as a crucial lever towards effective curriculum delivery?	Are Departmental Heads adequately prepared to support teachers effectively?	**1.** DBE. 2017. Who becomes an HOD?	Some
		To what extent do Departmental Heads supervise the subjects they have studied for?		Some
		What are the binding constraints preventing Departmental Heads from fulfilling their role?	**1.** DBE & DPME. 2017. Implementation Evaluation of the National Curriculum Statement Grade R to 12.	Some
		How effective and influential do Departmental Heads perceive their roles to be within a school?		None
		Are Departmental Heads adequately supported by the district and province?		None
	Are Subject Advisors in a position to effectively support curriculum delivery?	What are the Subject Advisor: Teacher ratios across phases and subjects?		None
		How satisfied are teachers with the support that they receive from the district?	**1.** DBE. 2018. School Monitoring Survey 2017. Qualitative Survey.	Some
		What are the binding constraints preventing Subject Advisors from fulfilling their role?	**1.** DBE. 2017. Implementation Evaluation of the National Curriculum Statement Grade R to 12.	Some
		Are Subject Advisors adequately qualified and trained to fulfil their role?		None
	What is the impact and cost of utilizing teacher assistants?		**1.** DBE. Rural Education Assistants Project	On-going
	What would the impact of providing teachers with psychosocial support and motivation be on learning Outcomes?			Some

Research Agenda: LTSM

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Learning and Teaching Support Material	What is the role of textbooks in the 21st century?			None
	What are the cost of retrieval and the top-up of textbooks vs new textbooks supplied each year?			None
	Are there sufficient reading material in the foundation phase classrooms?	Are teachers incorporating the reading material effectively in their lessons?	**1.** DBE. 2017. Early Grade Reading Study; **2.** DBE. 2018. Second Early Grade Reading Study; **3.** NECT. 2018. Primary School Reading Improvement Programme	Some
		What is the most basic package of resources needed for a child to learn to read in each language?		On-going
		How to align the DBE workbooks with other required LTSM such as posters, textbooks, readers etc.		None

Research Agenda: Teaching Language/Reading

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Teaching Language/ Reading	Is the EFAL curriculum effectively preparing learners for Grade 4 transitioning?	How should English as First Additional Language be taught in the early grades?	1. DBE. 2018. Second Early Grade Reading Study	On-going
	How to effectively teach Home Language in African languages?	Can mother tongue instruction be implemented up to Grade 6?		Some
		When and how should EFAL be introduced?		Some
		What are the reading norms and standards for African languages?		On-going
		What are the key factors to increase internal validity in cross-language assessments in a South African context?		Some
		How to teach sound decoding skills in African languages during the foundation phase?		Some
		What is an effective phonics approach for African languages?		Some
		How are lexicons built up in agglutinating languages?		Some
		What do vocabulary development trajectories look like in African languages?		Some
		What kinds of word knowledge do African language children develop in the preschool years, the Foundation Phase and the Intermediate Phase?		Some
		Develop standardised thematic 'word banks' for teachers to draw on in different domains.		Some
		Find ways of doing viable research on word frequencies in children's books in African languages.		Some
		How to develop teachers' own vocabularies in the different African languages?		Some
		How to develop and deepen teachers' own critical reading skills so that they can develop critical reading skills in their learners		Some

Research Agenda: Teaching Numeracy/mathematics

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Teaching numeracy/ Mathematics	How can learners be supported in Mathematics classrooms?	Do learners learn Mathematics best in their Home Language or EFAL?		On-going
		What is the impact of mother-tongue Mathematics instruction in the Foundation Phase to learning Mathematics in English as the LoLT in the Intermediate Phase?		None
		Is clustering the curriculum a better approach for deeper conceptual understanding in Mathematics than a spiral curriculum? I.e. What are the effects of resequencing the curriculum or introducing a curriculum waiver?		
	How to effectively teach Mathematics? (Focusing on the Foundation Phase)	How can teachers be best supported to teach Mathematics in a Multilingual classroom?		Some
		How can translanguaging practices be facilitated in a Mathematics classroom and how can teachers be supported to do this?		None

Research Agenda: Pre-Grade R and Grade R

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Pre-Grade R and Grade R	What is the extent of the inequality at the starting gate?	How do we measure schools readiness and cognitive development in Grade R and the start of Grade 1?	.	On-going
		Are we preparing 4 and 5-year-olds adequately for formal schooling?		None
		What are the long-run benefits of providing quality education prior to Grade 1?	**1**. DBE & DPME. 2015. The impact of the introduction of Grade R on learning outcomes	Some
	How do we effectively deliver the curriculum in Grade R?	What is the best mode of delivery of the Grade R curriculum?		Some
		What is the best mode of supporting the implementation of the Grade R curriculum?		Some
	What is the most cost-effective way of delivering pre-Grade R in South Africa?	Which models of pre-Grade R delivery is most effective and feasible to take to scale?		None
		How do we identify learners at risk early to provide adequate remediation?		None

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Research Agenda: Heterogeneous classrooms and learning

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Heterogeneous Classrooms and Learning	What are the patterns of learning across grades?	How much learning takes place in a year at different grade levels?		Some
		How much catch-up is possible under optimal circumstances?		None
		At what stage are learners too far behind to achieve proper learning, and does this vary by subject?		Some
	What are the effects of the large disparity in performance among learners in the same classrooms?	Are teachers teaching at the level of the children or the level of the curriculum?		None
		How do learners learn in heterogeneous classrooms?		None
		How does the promotion policy affect this problem?		None
	What options exist to support effective teaching in these conditions?	What options exist for ability grouping on occasions (Teaching at the right level?)		Some
		What options exist for catch-up programmes in the later grades?		Some

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Research Agenda: ICTs in education

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Information and Communication Technology (ICT)	What role can ICT play in improving the quality of teaching and learning?	What are the constraints and opportunities of using technology to support teaching and learning?	**1.** DBE. 2018. Second Early Grade Reading Study;	On-going
		Can ICT play a role in assisting with the learning backlogs?	**1.** NECT. 2016. The status of ICT in education in South Africa and the way forward.	Some
		Schools of the future		

Research Agenda: Sector planning and budgeting

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Sector planning and budgeting	HR Planning	How do we ensure that we have a sufficient number of teachers over the medium to long run?		None
		What are the implications of the aging teacher cohort for recruitment, post-provisioning and the budget?	**1.** DBE. 2015. Basic Education Remuneration Issues.	Some
	Sector budgeting	What are the implications of technology and population trends to education provision and the implications for planning and budgeting?		None
		What are the costs and benefits involved in the publishing of textbooks by the state versus commercial institutions?		None
		How do the constitutional mandates of the DBE and PEDs align with federal budgeting?		None
	What data are required for education policymaking and planning?	What data are required in terms of demand, cost, financing, performance and efficiency?		None
		Are SA-SAMS and LUTRITS providing us with the information needed?		None
		What assessment data is necessary to develop Reading Norms, or to determine learning trajectories over time?		None
		What assessment data is necessary to understand the disparities in learning in primary school?		None

Research Agenda: Accountability

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Accountability	How can we enhance accountability at a school level?	To what extent does the existence of school fees promote accountability mechanisms in the school?		None
		How can the DBE achieve the NDP vision of mutual accountability between schools and communities through the dissemination of school performance information?		
		What administrative tools are available to school managers? Are these tools enhancing or hindering effective school management?	**1**. DBE. 2007. Ministerial Committee on Schools that work. **2**. NEEDU. 2017. Schools that Work II	Some
		What does current practice, especially in poorer schools, tell us about optimal management strategies at the school level?	**1**. NEEDU. 2013. National Report 2013. Teaching and Learning in Rural Schools.	Some

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Research Agenda: Infrastructure

Thematic areas	Main Research Questions	Sub Questions	Examples of research in South Africa	Status of research
Infrastructure	Financial implications	What are the key cost-drivers related to the building of schools?		
		What are the alternative funding modalities for school infrastructure?		
		The role of public-private partnerships (PPPs) in the provision of school infrastructure		

Gaps?

- Entire themes?
  - E.g. Assessments
- Sub-questions?

RCME Contact

Research@dbe.gov.za

Additional Themes

- Indigenous knowledge systems

- Learner experiences and attitudes (including school safety, violence)

- Career guidance; pathways from school to work; technical skills and technical schools; does the market value non-academic qualifications? Teacher supply for technical schools and subjects?

- Teacher morale

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LTSM

- Play equipment for pre-schools – what is needed and what is available?

- Digitisation of textbooks, and sequencing phasing digitized textbooks in with phasing out paper books

Infrastructure

- Appropriateness of infrastructure at Full service schools

- Infrastructure for children in ECD

- Maintenance issues

- Sanitation

- Labs

- Land expropriation and spatial issues

ICTs in Education

- Practical implementation plans for ICTs in education (teacher training, maintenance, etc)

- Local suppliers of ICT and content – state of readiness

- Community and parent views on ICTs

- Safety and security issues around ICTs

- Connectivity: different implementation modalities and costs; reasons for non-connectivity