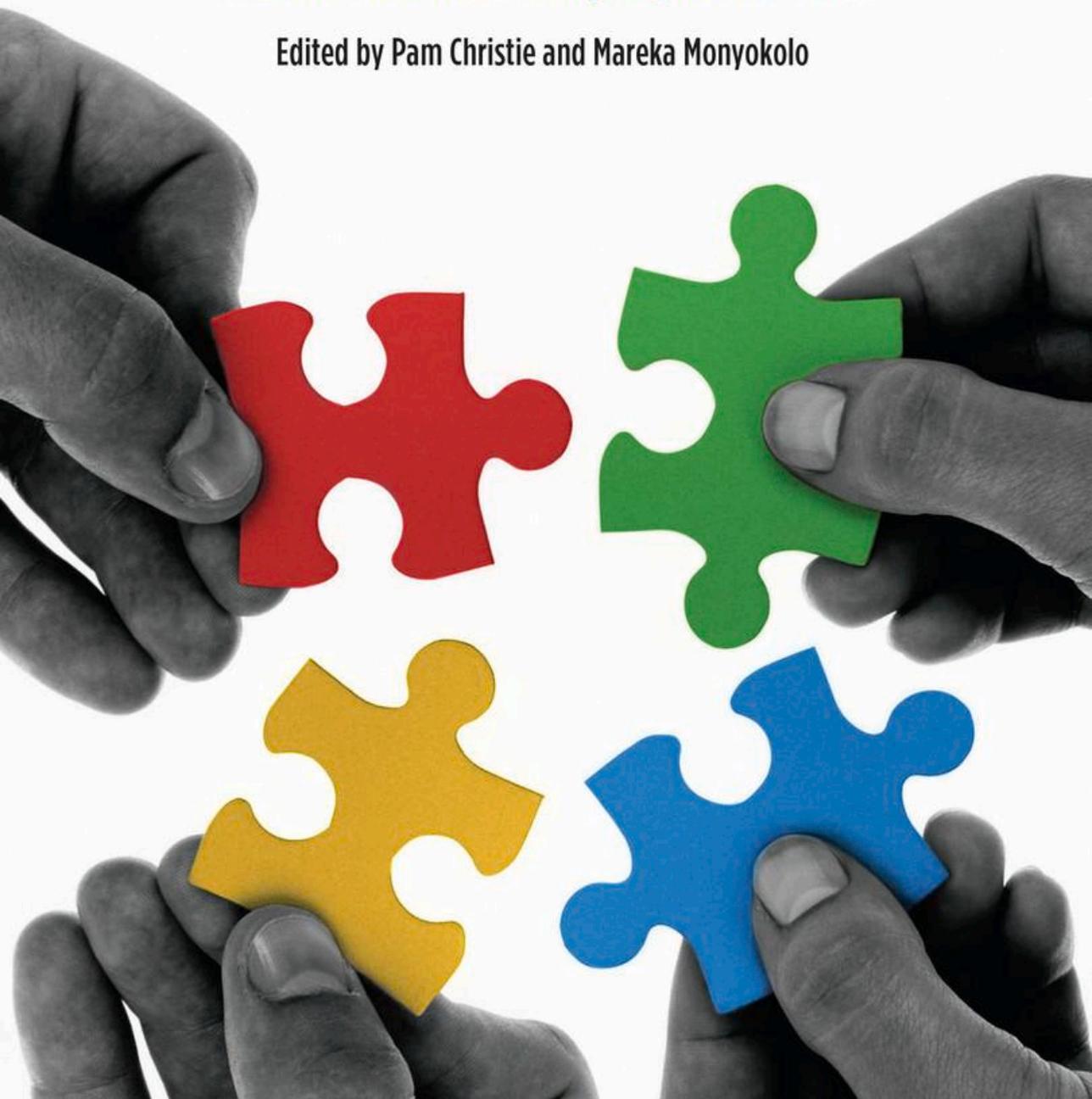


# LEARNING ABOUT SUSTAINABLE CHANGE IN EDUCATION IN SOUTH AFRICA

*The Jika iMfundo campaign 2015–2017*

Edited by Pam Christie and Mareka Monyokolo





# **Learning about sustainable change in education in South Africa**

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Edited by Pam Christie and Mareka Monyokolo

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# Abbreviations

AG	Auditor-General
ANA	Annual National Assessments
ANC	African National Congress
ANOVA	Analysis of Variance
ATP	Annual Teaching Plan
CAPS	Curriculum and Assessment Policy Statements
CES	Chief Education Specialist
CM	Circuit Manager
CMC	Circuit Manager Cluster
CT	Curriculum Tools
DBE	Department of Basic Education
DET	Department of Education and Training
DoE	Department of Education
FET	Further Education and Training
FFLC	Foundations for Learning Campaign
FP	Foundation Phase
GET	General Education and Training
GGR	Group Guided Reading
HoD	Head of Department
KZN	KwaZulu-Natal
KZNDoE	KZN Department of Education
LP	Lesson Plan

## LEARNING ABOUT SUSTAINABLE CHANGE IN EDUCATION

LTSM	Learner Teacher Support Material
MCP	Mathematics Challenge Programme
MLA	Monitoring Learner Achievement
MRR	Monitor, Report and Respond
NCS	National Curriculum Statement
NECT	National Education Collaboration Trust
NEEDU	National Education Evaluation and Development Unit
NGO	Non-Governmental Organisation
NICD	National Institute for Curriculum Development
NSC	National Senior Certificate
NSE	National Systemic Evaluation
OBE	Outcomes-Based Education
PAM	Personnel Administrative Measures
PCK	Pedagogical Content Knowledge
PD	Professional Development
PILO	Programme to Improve Learning Outcomes
PPN	Post Provisioning Norm
Q	Quintile
RNCS	Revised National Curriculum Statement
SA	Subject Advisor
SACMEQ	Southern and East African Consortium for Monitoring Educational Quality
Saide	South African Institute for Distance Education
SA-SAMS	South African School Administration and Management System
SES	Senior Education Specialist
SMT	School Management Team
T&L	Teaching and Learning
TIMSS	Trends in Mathematics and Science Study
TLS	Teaching and Learning Support
ToC	Theory of Change

# Foreword

This volume of research is intended to make a contribution to education system learning so that the sector can achieve the National Development Plan (NDP) goal of ensuring, by 2030, a South Africa where 90% of learners pass mathematics, science and languages with at least 50%. This goal is core to the mission of the National Education Collaboration Trust (NECT) which was formed in July 2013 as a response to the call by the NDP for increased collaboration among stakeholders to improve educational outcomes.



Jika iMfundo in KwaZulu-Natal has been a component of the District Improvement Programme of the NECT since 2014. This programme aims to improve the quality of teaching and learning and the management of schools as well as the effectiveness of the support and monitoring services provided to schools by the districts, with a view to replicating the programmes and lessons learned during implementation in other districts and provinces. The lessons learned are derived from ongoing monitoring by programme and evaluation processes of the NECT, a big part of which is undertaken by external evaluators engaged by the Zenex Foundation.

Four years into the implementation of the programme, the research presents a set of sound suggestions about how change happens in schools and their districts, and poses pertinent questions about less explored cause and effect relationships among various educational processes that precede learning outcomes. The programme's Change Theory makes management and sociological sense in the South African background, particularly given the history of teaching and teachers' political roles during the apartheid era. It thus serves as an important foundation for the national teacher professionalisation agenda which the NECT has been heralding among education partners. The active role of the teacher unions in Jika iMfundo needs no emphasis

– it is a critical ingredient in the advancement of the profession. We celebrate the involvement of a wide range of researchers, especially emerging Black researchers. Such steps contribute to expanding the national research capacity and promote the diversity of voices in the education improvement discourse.

The issues raised in the research are complex and have many sides thus the programme could not answer them all. This is just a start. One of the next challenges is to hear more from case studies crafted by teachers themselves. Opportunities need to be created for practicing teachers to record their experiences and share their views about the future.

It is for these reasons that the NECT welcomes the critical engagement of the academic community with the work of *Jika iMfundo*. Partnerships with scholars enrich our work and the important learning that will assist the NECT, and the country, to achieve its goals. We thank *Saide*, the editors – Professor Christie and Mareka Monyokolo – and all the research teams for the investment of their time and energy in joining our learning journey.



Godwin Khoza  
Chief Executive Officer of the NECT



PART ONE

# Setting the Scene



## Introduction

*Pam Christie*

The chapters of this edited collection present a rich and textured account of the early phase of Jika iMfundo, an education intervention undertaken by the KwaZulu-Natal Department of Education in partnership with the Programme for Improving Learning Outcomes (PILO) and with the support of the National Education Collaboration Trust (NECT). Jika iMfundo, which has curriculum management and coverage as its focus, is the largest school development initiative undertaken in post-apartheid South Africa. It began as a pilot project in two education districts from 2014 to 2017, with a commitment that it will be rolled out to scale across all districts and schools in KwaZulu-Natal (KZN) from 2018 to 2021.

The rest of the chapters in Part One of the book, written by members of PILO, provide an insider picture of the design of Jika iMfundo. They set out PILO's Theory of Change, a description of the operational design of the Jika iMfundo campaign and a case study of its unfolding in school leadership. Part Two comprises chapters based on independent research carried out by experienced South African educationists. These chapters were selected through an open call for proposals managed by *Saide* that were edited independently of PILO. The PILO team checked the research chapters for accuracy of descriptions of Jika iMfundo and PILO, suggesting corrections to factual details where appropriate, but the research findings and their presentation in these chapters are independent of Jika iMfundo or PILO views. What the chapters provide are snapshots of a large-scale intervention in its early stages of implementation; they are not intended to be evaluations of Jika iMfundo but presentations of research findings on specific aspects of a many-layered educational development intervention.

Jika iMfundo is unique in a number of significant ways, as will be evident to readers making their way through the different chapters of this book. One of the most

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significant features is that it builds on an explicit Theory of Change developed by PILO. This Theory of Change, explained in Chapter 2 by Mary Metcalfe, articulates the specific principles on which PILO interventions are based and the criteria by which they may be measured. The comprehensiveness of this Theory of Change points to a sophisticated understanding that educational change involves multiple activities and actors in different parts of the system. It also recognises that achieving coherence across the system is a continuous process that cannot be taken for granted or achieved straightforwardly through government policy mandates. Drawing on documented experience of international and local school change initiatives, as well as PILO participants' own extensive experience in the South African education system, PILO's explicit Theory of Change is remarkable in its comprehensive design and its articulate specifications.

One of the key features of PILO's Theory of Change is that it aims to achieve change at scale by operating *within* formal education departments rather than from outside and to locate responsibility at the level at which it will remain for the changes to be sustainable. This principle of partnership with existing departmental policies, structures and institutions is both innovative and challenging in the South African context. It requires clarity of purpose and strong consistency on the part of PILO, particularly given the known difficulties of the South African education system and the very poor student learning outcomes that education departments themselves acknowledge as intractable problems (and that PILO is well aware of). The insistence that the project is owned by education departments, not PILO itself, is evident also in PILO's determination to use existing departmental resources rather than relying on additional resources from outside and in its insistence that sustainability needs to be built into activities and indicators from the start. Even though it may be easy to conflate the two in reading the chapters of this book, it is important to recognise that PILO and Jika iMfundo are not the same thing. Jika iMfundo is an initiative run by the KwaZulu-Natal Department of Education with PILO as change partner while PILO also engages with other education departments in its work for education change at scale. As Metcalfe's chapter shows, PILO is acutely aware of the complexities of working within the system and the inevitable tensions that arise from the partnership principle are elucidated in the research chapters presented later in the book.

Another key feature of PILO's Theory of Change – and one of its most ambitious features – is its intention to foster professional agency and motivation among participants across the education system. Professionalism necessarily requires accountability and, in this regard, PILO draws heavily on Elmore's concepts of "reciprocal accountability" (accountability that works in multiple directions) as well as "internal accountability" (which Elmore regards as a precondition for meeting the demands of "external accountability") (Elmore, 2004). PILO supports monitoring at all levels as integral to the change process, while also recognising that monitoring runs the risk of fostering compliance rather than professionalism. PILO's intention is to

establish practices of monitoring that build professional relationships of accountability within schools and between schools and districts. In *Jika iMfundo*, the slogan “What I do matters” is coupled with the question “How can I help you?” to provide the basis for “supportive professional conversations based on evidence” in the cross-cutting theme of curriculum coverage. In its monitoring practices, *Jika iMfundo* uses consistent and transparent sets of tools that provide evidence to form the basis of “supportive professional conversations” at different levels of the system, within schools and between schools and districts. Self-report records, together with PILO participant surveys, provide extensive data on the theme of curriculum coverage at school and district levels. In working with concepts of professionalism and accountability, PILO intends to build forms of behavioural change on the assumption that changing practices through curriculum management will provide a basis for professional understanding to develop over time. It is clearly too soon to reach any judgements on *Jika iMfundo*’s effectiveness in meeting its goals of professional agency and accountability but the tensions inherent in these complex issues are discussed in a number of later research chapters.

Can education systems be changed at scale through marshalling key stakeholders around this particular Theory of Change? Is it possible to work for change within existing structures, given their obvious and acknowledged shortcomings? Is it possible to build professional capacity in schools and departments that lack resources and are often poorly functioning? Can professional accountability, as opposed to behavioural compliance, be built by changing monitoring practices? Can self-report data provide a sufficiently reliable basis for gauging the extent and nature of curriculum coverage? Can curriculum management lead to improved curriculum coverage of sufficient quality to enhance student learning and improve learning outcomes? These are key questions which are touched upon in the different chapters of this book. Positive answers would certainly be indicators of PILO’s success in its theory of education system change at scale; however, only time will tell if PILO’s model can be effectively implemented in the *Jika iMfundo* campaign. In the face of this, one of the strengths of PILO’s design is the recognition that educational change takes time – and *Jika iMfundo* is designed on a multi-year time frame. At the time of writing, *Jika iMfundo* is being taken to scale on the basis of a pilot project that has run over several years in two very different districts in KZN which means that the model has been put in place and PILO is already learning from experience.

### **Outline of chapters**

Part One of this book comprises two chapters written by members of PILO, describing central features of the *Jika iMfundo* intervention from insider perspectives. **Chapter 2**, written by Metcalfe, provides a comprehensive account of the design principles of PILO’s Theory of Change and its expression in *Jika iMfundo*. It also provides examples of the multiple interlinking tools and activities that involve teachers, Heads of Department (HoDs), School Management Teams (SMTs) and Principals at school level,

as well as district personnel such as Circuit Managers and Subject Advisers. This chapter is indispensable reading, providing, as it does, an accessible starting point for understanding the Jika iMfundo Campaign in principle and practice. This chapter is paired with **Chapter 3**, written by Witten and Makole which draws on a larger case study of systemic change in education in South Africa to illustrate issues of school leadership in Jika iMfundo. In particular, the chapter explores the challenges facing School Management Teams (SMTs) in the programme and the effects of training on SMT practices. The chapter provides a PILO-based picture of what the successful implementation of curriculum management might look like through the lens of school leadership and, as such, provides insights into PILO's vision of building professionalism by changing practices.

Part Two contains six chapters written by independent education researchers. Each of these outlines its research framework and procedures, providing the warrant for claims made. **Chapter 4** by Schollar provides an important overview of the context of educational development interventions in South Africa, of which PILO and Jika iMfundo are examples. The meta-analysis in this chapter provides a convincing (if depressing) empirically-based picture of the endemically poor outcomes of the South African education system over more than a decade by tracing performance in mathematics in national systemic and international tests. Schollar also provides a worrying analysis of declining performance in National Senior Certificate mathematics between 2008 and 2012 in a sample of well-functioning schools with processes in place for curriculum management and higher levels of teacher professionalism. Why is performance so endemically poor and not improving? Certainly, curriculum coverage is a factor and Schollar supports the premise that improvements in curriculum management are likely to lead to improved student performance. He thus supports what he describes as PILO's "causative proposition", namely, that "improving curriculum management and coverage in terms of both quantity and quality across whole districts through a collaborative and systemic approach will result in improvements in learner performance on an equally large scale."

However, in Schollar's view, incomplete curriculum coverage is not only attributable to inadequate curriculum management or the demands of the Curriculum and Assessment Policy (CAPS). Instead, he suggests, it is due to the progression requirements of national assessment policy, where students are advanced to the next grade regardless of actual competency levels. This he identifies as "a critical confounding variable" that is extrinsic to curriculum management interventions. This variable – the unintended outcome of national assessment policies – is that most classrooms in South African schools are, in effect, multi-grade, in that they include students at different levels of competency as a result of assessment and automatic promotion policies. The effect of having multiple levels of learner competency in a single grade is that it is almost impossible for teachers to teach and assess students in relation to the formal curriculum.<sup>1</sup> In effect, Schollar warns of a ceiling effect to

improvement in classrooms which includes students who have not reached the levels of conceptual mastery required for the grade, thus resulting in large variations in competency levels within the classroom. In such cases, problems of curriculum coverage are not necessarily due to curriculum management, but to the composition of classes – a complexity that arises through the unintended effects of another policy. In other words, the policy context itself throws up contradictions and unintended consequences where policies cut across each other.

The implication of this is that it is vitally important for any evaluation of educational development initiatives in South Africa to consider including evaluations of PILO and Jika iMfundo. In Schollar's words,

programme evaluation designs that fail to take this variable into account when researching causative effects and models run the risk of generating a False Negative; a strategic change model that may, in fact, be inherently effective can still fail to obtain significant impacts because of this variable.

Schollar alerts us to “a tangled web of challenges” that is extrinsic to interventions and may impede their functioning. He sees no simple ways out of this tangle.

Schollar's chapter thus highlights a particular challenge in relation to PILO's determination to work within existing education departments and policy frameworks. The challenge is a sharp and clear one: department policies may produce contradictory effects, with the result that a particular strategy may be driven off course by factors beyond its design. One response to this tangled complexity may be to ensure that the intervention is sufficiently robust and focused to stay the course when departmental policies produce contradictory effects. Alternatively, it may be necessary for educational development interventions to heighten these contradictory effects towards advocacy for policy change. Of course, these and other responses need not be mutually exclusive and PILO is well aware of them and other possible responses.

Complementing Schollar's big picture context for educational development interventions, **Chapter 5** presents a case study of curriculum management in a sample of rural primary schools in the King Cetshwayo District, undertaken by a collective of authors from the University of Zululand – Maphalala, Khumalo, Buthelezi, Mabusela, Gamede, Sibaya and Nzima. The chapter provides a picture of the precarious and unsystematic nature of curriculum management prior to the interventions of Jika iMfundo, as recognised by the KZN Department of Education whose own investigations in 2012 revealed the urgent need to develop strategies for monitoring and standardising curriculum delivery. Setting out the key activities of curriculum management as planning, implementation, monitoring and evaluation, the authors report on focus group interviews conducted with a sample of teachers, HoDs and Principals in eight rural primary schools. These were designed to explore their understandings of curriculum management and their views on the Jika iMfundo intervention. While the

information gathered in focus groups was intentionally conversational, opinion-based and not strongly triangulated, there can be no doubt that the research found clear enthusiasm for the structuring tools supplied by Jika iMfundo. For teachers, the tools provided assistance in planning and gathering evidence of coverage, while for HoDs and School Management Teams, the tools clarified their roles in curriculum monitoring and facilitated the possibility of structured, evidence-based conversations with teachers in curriculum monitoring. A number of participants expressed the view that relationships within schools had improved as a consequence of greater role clarity and a more transparent form of evidence-based monitoring. Indeed, the authors suggest that Jika iMfundo has reinstated accountability in at least some schools.

This is not to say that the *implementation* of Jika iMfundo was regarded by all as unproblematic. Complaints were voiced about the fast pace of CAPS, the challenges of “slow learners” (or, perhaps the multi-grade effect, to use Schollar’s analysis) and the difficulties faced by schools in poor socio-economic contexts with limited resources. While these are issues that are beyond the powers of the Jika iMfundo intervention to remedy, they are the very issues that teachers in these schools confront on a daily basis and with which they need support.

What is perhaps most striking about the findings of this chapter is the extent of the existing problems of curriculum management in schools such as these. Teachers in these schools reported being clear *for the first time* about the benefits of structured planning to cover the curriculum and HoDs reported being clear *for the first time* what their role entailed. The extent to which these basic requirements of curriculum management were not in place speaks to minimal organisational capacity in these schools and signals the absolute necessity of structured support if they are to prepare their students to meet the content and assessment requirements of a nationally standardised curriculum.

Moving from a focus on the complexities of curriculum management to a consideration of accountability in the relationship between HoDs and teachers, **Chapter 6**, by De Clercq, Shalem and Nkambule sets out to examine the way professional reciprocal accountability takes shape in a selection of rural primary schools in the King Cetshwayo District. The authors identify a “challenging tension” that lies at the heart of PILO’s Theory of Change: how to introduce monitoring processes that promote internal reciprocal accountability in contexts where expertise and resources are constrained, where HoDs themselves “have not yet mastered a certain degree of organisational and professional capacity” and where teachers may not have the experience of professional reflection. Can PILO’s aim to build internal accountability and take this to scale be realised under conditions where organisational capacity and resources are limited? This is the challenge identified and explored in this chapter.

To gather information to investigate the operation of internal accountability, the authors focus in detail on three main components of the Jika iMfundo campaign: curriculum planners and trackers; teachers’ weekly reflections on their lessons; and

professional conversations between HoDs and teachers. Research data gathered from 100 participating schools in PILO surveys was supplemented by documentation gathered by Jika iMfundo tools from six differently coded schools. This documentation was then narrowed down to enable closer examination of complete sets of nine terms of planners and trackers filled in by eight teachers with a view to identifying possible changes in teachers' reflections over time. The researchers also analysed four completed HoD forms from the six sampled schools for information about HoD monitoring and reflections on their conversations with teachers.

As in the research findings of earlier chapters, this study found generally positive attitudes towards PILO's tools and, in this case, a reported high take-up of trackers and planners by teachers and more structured conversations between HoDs and teachers. Planners and trackers were found to "clarify, simplify and facilitate the sequencing and pacing of the CAPS content on a daily basis" and also to assist HoDs to monitor teachers' curriculum coverage through a structured and transparent monitoring tool. It would appear that more supportive relationships between HoDs and teachers were indeed being built, not least because of the transparency of tools and practices. Again, findings were that teachers struggled with the pace and congestion of activities in the trackers which aligned with CAPS and, once again, difficulties were articulated with "slow learners". Importantly, the authors report that perception data in the two surveys suggested an improvement in curriculum coverage and also reported clearer roles and relationships.

However, closer examination of completed documentation yielded a more complex picture, particularly in relation to the reflection sections of trackers. Detailed analysis of the eight sets of trackers over nine terms found that the reflection sections were, in the words of the authors, "rather thin", "unspecific" and "vague", seldom containing reflections about actual teaching and how it might be improved. This was particularly the case in schools coded "red" and also evident in "amber" schools. The authors argue that the practice of professional reflection requires teachers to have the capacity to focus on their own teaching and identify problems in their own practice and this, in turn, requires an existing level of professional knowledge and/or additional professional development. Instead of focusing on the strengths and weaknesses of their own practices, "thin" reflections may induce teachers to blame others for difficulties they encounter, such as "slow learners", curriculum pace, or conditions in schools more broadly. Indeed, examination of HoDs' documentation suggests that they perceived this to be happening. In the words of the authors:

With incomplete prompts on the reflection question and by not focusing directly on teachers' competences and knowledge to make their reflections more informed and specific, PILO indirectly encourages struggling teachers (those in "red" and some "amber" schools) to export the blame onto 'slow learners', the overambitious curriculum and challenging school circumstances.

This judgement is perhaps an overstatement in that it attributes a causal relationship where a relationship of correlation and possibility might be more accurate. Nonetheless, it serves as valuable feedback to PILO as it adjusts its activities in response to circumstances on the ground. The point that the authors underline is that professional reflection requires teachers to have proficiency in content knowledge and pedagogy – their instructional practices – and, where this proficiency is limited, it cannot necessarily be developed through a focus on regulatory practices. What is required is deeper engagement with the instructional practices of teachers in relation to CAPS demands and how these may be improved to enhance student learning. An emphasis on coverage addresses the regulative mode but is not sufficient to address the requirements of the instructional mode – the content knowledge and knowledge of pedagogy and assessment that teachers require for reflection-based professional decisions about teaching and assessment for student learning.

Returning, then, to the “challenging tension” outlined at the start of the chapter, the research found that organisational capacity (as reflected in PILO’s coding system) brought differential engagement with *Jika iMfundo* tools, with schools classified as “red” experiencing greater difficulties in establishing the basis for internal reciprocal accountability. This suggests that a certain pre-existing level of functionality may be necessary for curriculum coverage to be achieved. It also suggests that teachers may need stronger and more differentiated support to meet the demands of CAPS and to improve their teaching practices to be effective for both curriculum coverage and improved student learning. In effect, what they suggest is that PILO needs to link its curriculum coverage measures to robust data on student performance to attest to the success of its efforts in building internal reciprocal accountability, curriculum coverage and improved student learning.

**Chapter 7** by Mthiyane, Naidoo and Bertram narrows the focus from overall curriculum management to the role of HoDs. In particular, they explore the complexity of balancing the monitoring and support envisaged by *Jika iMfundo* in the work of HoDs. The research design brings together an analysis of survey data gathered by PILO with in-depth interviews of HoDs in a sample of schools in the Pinetown District that were designed to represent PILO’s classification of schools as green, amber and red (“green” = needing little support; “amber” = needing further support; and “red” = unable to move); to cover primary, combined and secondary schools; and to include fee-free and fee-paying schools. Indeed, all of these variables were found to influence the views of HoDs towards their work and towards the *Jika iMfundo* training and tools.

In many ways, this chapter echoes the positive sentiments towards *Jika iMfundo* expressed in earlier chapters. However, its close examination of the role expectations of the HoD and its disaggregation across different types of schools throw up a more complex picture of *Jika iMfundo*’s operations. The research found a range of views among HoDs about the helpfulness of *Jika iMfundo* tools and training. In summary,

novice HoDs were more welcoming of Jika iMfundo support than experienced HoDs as were HoDs in “amber” and “red” schools, while those in “green” schools tended not to regard the tools as being designed for them or find them particularly useful. HoDs in secondary schools had greater role diversity to deal with than those in primary schools and often found the tools too administratively burdensome to use as envisaged.

While HoDs certainly made positive mention of the curriculum planning and coverage tools, including the guidance provided and the greater clarification of roles, they also raised concerns about the limitations of a “one size fits all” intervention that brings significant administrative requirements along with it. A problem articulated by participants is that, whereas Jika iMfundo focuses on the curriculum management aspects of HoDs’ responsibilities, the actual requirements of the position are much more extensive than this. They also include significant administrative and operational duties, particularly in fee-free schools with limited administrative support. In many cases, the research found that the evidence-based monitoring and regular meetings with teachers required by Jika iMfundo created an unrealistic burden for HoDs, particularly those in secondary schools with larger departments. In the words of the authors: “HoDs from all schools are unanimous that the monitoring tools and trackers are simply too burdensome to complete as Jika iMfundo envisages.”

Regarding CAPS itself, problems with pacing and the challenges of accommodating “slow learners” were mentioned by many HoDs. These problems were, at times, transferred to Jika iMfundo tools, as indicated by comments such as “CAPS is for high flyers” and “the tracker is designed for perfect schools.” The authors’ view is that “it appears that the trackers hope to solve the problem by assuming that the problem does not exist ...”. HoDs also mentioned numerous problems that lay beyond their control, including disruptions to the school day for multiple reasons, post provisioning policies which led to staff changes and shortages and the progression policy which resulted in classes of mixed competency levels. These points highlight the challenges that inevitably arise from PILO’s commitment to working within departments with the limitations of existing policies. That said, researchers also found that a lack of support and training for HoDs from the Department of Education was an acute problem in schools where organisational capacity was lacking and HoDs were inexperienced. This, perhaps, vindicates PILO’s approach, enabling crucial gaps to be identified and filled.

Overall, the chapter posits a challenge for PILO and Jika iMfundo to consider:

Jika iMfundo seems to over-estimate the power that HoDs have as levers of change. They are middle managers who are held responsible and accountable to implement policy and ensure curriculum coverage, but have very little power to make staffing decisions and drive change.

Whereas the Jika iMfundo training and tools may help HoDs in “amber” and “red” schools to meet the technical requirements of monitoring and curriculum management, they do not necessarily help to build professional capacity, particularly given the contextual challenges and the multiple administrative burdens carried by HoDs.

**Chapter 8** by Mkhwanazi, Ndlovu, Ngema and Bansilal begins its research on teacher and HoD perceptions from a different starting point, namely, the documented low take-up of Jika iMfundo trackers and planners by secondary mathematics teachers in both King Cetshwayo and Pinetown districts. Why is this so? To investigate this question, researchers explored the perspectives of teachers and HoDs themselves about what they regarded as challenges that hindered them from using Jika iMfundo tools and what might enhance tool usage. Given that South African students perform extremely poorly on Grade 9 mathematics in Annual National Assessments and that a number of local studies have linked this to low curriculum coverage, the researchers were keen to understand why it was that tools designed to support teachers in planning and tracking coverage were not being used. As well as looking for specific reasons why mathematics teachers were not adopting this particular intervention, the researchers also looked to broader literature to consider teacher responses to curriculum interventions, as well as the influence of organisational coherence and leadership focus on teaching and learning. PILO survey data were used to identify all schools teaching secondary mathematics in the two districts and then to select a sample to reflect schools with highest levels of survey completion. From this sample of 14 schools, researchers conducted 21 semi-structured interviews with teachers and HoDs and also examined classroom materials.

The researchers could straightforwardly confirm that curriculum coverage in these schools was generally inadequate and ANA results were varied but poor. In relation to Jika iMfundo tools, they found an issue of major concern: disparities between teachers’ and HoDs’ reports of tool usage and documentary evidence of this. In short, researchers found a number of instances where teachers and HoDs claimed to be using the tools, but documentary evidence showed they were not. This highlights the need for caution about the reliability of self-reported records for research purposes and the importance of moving beyond these methods to gain more reliable evidence on the implementation of Jika iMfundo. The chapter also shows that teachers and HoDs of Grade 9 mathematics are likely to be dealing with competing demands, including other monitoring processes, in these secondary school contexts where poor performance may reinforce defensive behaviour in the face of failure and a climate of blame.

While only three schools that reported routine use of trackers had documentary evidence to back this up, these were schools with the most extensive curriculum coverage and better ANA results. This enabled the researchers to endorse an important correlation found in other research they cite. In their words:

Although we cannot show a direct influence of the increased curriculum coverage on improved ANA results, what is evident is that the three schools that provided

evidence of curriculum coverage and of a sufficient number of practice activities in the learners' books, are the ones that also have higher averages in the ANA results, thus confirming a positive correlation between curriculum coverage and learner performance.

In exploring the hindrances and possibilities influencing teachers' take-up of *Jika iMfundo* tools, the chapter considers a number of factors: features of the tracker itself; teacher knowledge and attitudes towards the intervention; organisational conditions within schools; and broader socio-economic contextual issues. In terms of the tracker itself, it is significant to note that participants in all of the sampled schools signalled challenges with the overload and pace of the CAPS curriculum which the tools highlighted but did not address. In some cases, by highlighting problems without remedying them, *Jika iMfundo* left teachers feeling demotivated, meaning that the intervention might well have been more of a burden than a support. Researchers also found that teachers did not regard the reflection exercises as helpful or were not completing them. In their words: "This points to the fact that without adequate training and suitable support, it is difficult for teachers to implement a new intervention such as this" – a finding in line with earlier chapters of this book. That said, teachers did find benefit in having access to the *Jika iMfundo* tools which they were able to use as a resource in a number of different ways.

As well as providing insights into the curriculum coverage problems of secondary mathematics, this chapter also provides brief insights into the complex organisational functioning of secondary schools, particularly at GET level which is less tightly regulated than FET. In these schools, the size of departments may work against supportive monitoring by HoDs; changes in staffing may leave areas without specialist teachers; induction of new teachers may be minimal; different interventions may be operating; and resources may be poorly deployed. A tentative finding of this research is that it is more straightforward for interventions such as *Jika iMfundo* to be adopted in schools with existing organisational capacity.

However, this chapter highlights that a crisis, as enormous as that of poor mathematics curriculum coverage and low student achievement, cannot be remedied with this form of intervention, particularly in schools that are not organisationally strong. The magnitude of the problem is beyond the reach of *Jika iMfundo* to remedy through generic tools and training. In Grade 9 mathematics, the cumulative problems of the "multi-grade effect" mean that the majority of the class are "slow learners". By identifying with CAPS, the *Jika iMfundo* tools could not remedy teachers' broader frustrations with CAPS pacing, inflexibility and mismatch with their own judgements about students' conceptual mastery. To the extent that problems are due to CAPS itself, there are limits to what *Jika iMfundo* tools are able to achieve. And, to the extent that "slow learners" are a manifestation of assessment policies that have resulted in multi-grade classes, tools may be perceived as being of limited value.

The final research chapter, **Chapter 9**, switches the research focus from schools to districts which form another terrain of intervention in PILO's interlocking Theory of Change. The chapter by Mc Lennan, Muller, Orkin and Robertson provides a compelling picture of the difficulties of working at district level where the legacy of apartheid continues to influence uneven resourcing; where poverty and socio-economic deprivation loom large, particularly in extensive rural areas; where post-apartheid restructuring has grouped together what were previously separate education departments into siloed bureaucracy; and where attitudes and behaviour have not necessarily shifted from past patterns of suspicion and resistance towards collaboration and trust. In theory, it should be possible for districts to be developmental and to operate as effective levers in improving educational outcomes, as the authors show in the literature review of this chapter. However, the literature review also highlights the difficulties of working at this "middle level" of the system, where work processes may be excessively bureaucratised, capacity may be weak and the task of policy implementation (for which they are accountable) may lead to an excessive focus on compliance.

These points bring to mind Metcalfe's comment in Chapter 2:

The area of greatest learning in the 2015–2017 Jika iMfundo trial-at-scale has been the Teaching and Learning Support (TLS) within the District. We had to reconceptualise what support to teachers means and to operationalise this within the parameters of the available resources.

As both Chapters 2 and 9 show, PILO confronts major difficulties in working within the district system to focus on the goal of curriculum coverage. In the organisational structure of districts, there are separate reporting lines for Circuit Managers and Subject Advisers, which produce strong SILO effects and there are historical and ongoing bureaucratic divides that Jika iMfundo needs to work across in building a common focus on curriculum management. In addition, the large size of districts (both geographically and numerically), together with poor levels of resourcing and insufficient staffing, make it almost impossible for the kinds of professional interactions between district officials and schools that Jika iMfundo aims to build: regular school visits, clear monitoring practices and professional conversations based on evidence.

As with other sites of operation, Jika iMfundo's aim at district level is to embed a different set of practices based on professionalism. The chapter by Mc Lennan et al. provides a snapshot of interventions at district level to reorient practices away from compliance checking towards professional conversations based on evidence about curriculum coverage. Their description of these interventions shows the scope of the task of changing behaviour in this middle level of the system: developing cross-silo and collaborative work practices to address a common core purpose, namely, curriculum coverage and to reorient their ways of working with schools to build professional accountability rather than compliance in monitoring and support practices.

**Chapter 9** presents case study research, premised on “a conceptual assumption that institutionalised daily routines and interactions shape relationships” and that “evidence of developing relationships of trust and support ... will provide a new perspective to the work linking effective districts and improved school performance.” Using data from PILO interviews and reviews, together with informal participant observation and school level assessments by Circuit Managers in two periods during 2016, the research explored three sources of evidence of changed routines:

1. whether meeting discussions within districts and between districts and Principals provided space for issues of curriculum coverage;
2. whether Principals perceived improved relationships with districts and assistance with curriculum management problems; and
3. what the “heat map” tools for Circuit Managers reveal as a “dashboard” for identifying curriculum challenges.

In all cases, some evidence could be found of changes in these early stages of change implementation. In terms of meetings, the research found that shifting from compliance and “consequence management” towards professional conversations remains a challenge, though spaces were opening for curriculum matters to be discussed in agendas often dominated by resource concerns and compliance. In terms of Principals’ perceptions, results were also mixed, with differences emerging between and within districts. Though there was evidence that, at times, officials still visited schools in silo ways (thus duplicating contacts rather than collaborating), the research did find evidence of changes in the relationships between Circuit Managers and schools, as well as use of the tools which PILO had developed collaboratively with districts. As with other research chapters, there was evidence that using consistent tools assisted in clarifying roles and responsibilities in an often confusing and compliance-oriented policy framework. In terms of “heat maps”, the authors note their limitations as data sources, but their value as management tools. Heat maps, showing performance of schools coded “red”, “amber” and “green” on a number of management and curriculum coverage criteria, could be aggregated into district “dashboards” and these tools could be used to identify challenges, show emerging trends and give big picture information.

While, in some ways, this is a mixed picture that shows the difficulties of changing established behaviour, at this early stage there is some confirmatory evidence of the conceptual assumption investigated by the research. The changing of institutionalised daily routines, slow and difficult as it is, may bring changes to relationships in districts’ ways of working which itself would be an important contribution to the understanding of education system change. Alongside this, the authors argue that using tools does “allow new routines to be introduced and practiced”; that improving relationships between districts and schools provides a path “towards the building of professional accountability and collaborative commitment to change, despite the context”; and that

“[t]he PILO approach, of building commitment, allows officials to see and understand what can be done despite the prevailing conditions.”

Taken together, the two chapters on PILO in Part One of this book and the seven research-based chapters in Part Two provide insights into the Theory of Change and early operations of Jika iMfundo, 2013–2017, as a contribution to learning about sustainable change in education in South Africa. Part Three of the book, **Chapter 10**, contains reflections by the editors on education curriculum and system change in South Africa.

## References

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## Notes

1. In this regard, it is interesting to note that research findings in all of the other chapters in this book refer to teacher comments about “slow learners” as an impediment to CAPS coverage.

## Jika iMfundo 2015–2017: Why, what and key learnings

*Mary Metcalfe*

This chapter intends to do two things:

- Provide the rationale and the key ideas informing this initiative for change-at-scale.
- Document in some detail the components of Jika iMfundo in order to frame the research pieces that follow and which interact critically with some of these key components. These sections include multiple examples of the detail of the interventions to give life to the abstract descriptions in the text and highlight key system learning from the work in 2015–2017.

The chapter does not report on the monitoring and evaluation of the intervention or the multiple ways in which learning from this trial-at-scale has informed subsequent re-design. The set of research reports in this volume and the external evaluation will be invaluable in informing that process. The tasks of reporting on monitoring and evaluation, and re-design for the 2018–2021 phase will be taken further in subsequent publications.

### **Brief overview of Jika iMfundo in Pinetown and King Cetshwayo, 2015–17**

Jika iMfundo is a campaign of the KwaZulu-Natal Department of Education that has been piloted on scale in 2015–7 in all 1 200 public schools in two districts (King Cetshwayo and Pinetown) so that the model is tested on scale and lessons are learned before phased rollout across the province from 2018. The implementation of Jika iMfundo is supported by the Programme to Improve Learning Outcomes (PILO) and funded by the National Education Collaboration Trust (NECT). The interventions have been designed for implementation at scale with recurrent costing that can be accommodated within the department’s budget.

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The management focus is on all Circuit Managers and Subject Advisers at district level and on all the School Management Teams at school level. The teacher focus is on providing curriculum support materials to teachers from Grades 1–12 (languages, maths and science). *Jika iMfundo* seeks to provide district officials, teachers and School Management Teams with the tools and training needed to have professional, supportive conversations about curriculum coverage based on evidence so that problems of curriculum coverage are identified and solved and learning outcomes improve across the system. It achieves this with a set of interventions at school and district levels. It works from foundation phase to the FET phase by building routines and patterns of support within and to schools that will have a long-term and sustained impact on learning outcomes.

The overarching strategic objective is to improve learning outcomes. The Theory of Change to achieve this objective is that, if the quality of curriculum coverage improves, then learning outcomes will improve. In order for curriculum coverage to improve, the following behaviours associated with curriculum coverage must improve: monitoring curriculum coverage, reporting this at the level where action can be taken and providing supportive responses to solve problems associated with curriculum coverage. These are the lead indicators that must change before we will get change in the lag indicators of curriculum coverage and then learning.

The goal is to make behaviours supportive of quality curriculum coverage routine (embedded and sustained) practices in the system. The tools and materials developed have been collaboratively developed with the intention of driving meaningful and substantive engagement around identifying problems and actively seeking the solutions together as well as providing support in relationships of reciprocal accountability.

### **Jika iMfundo: The programme to improve learning outcomes (PILO) model and change at scale**

*Jika iMfundo* is an education intervention that has been run as a campaign between 2015 and 2017 in all 1 200 public primary and secondary schools in the two districts of King Cetshwayo and Pinetown in KwaZulu-Natal. The intervention has been designed and implemented by the Programme for Improving Learning Outcomes (PILO). *Jika iMfundo* aims to achieve improvements in learning outcomes across the system by simultaneously focusing on the capacity of different levels of the system – the school and the district – to monitor and respond to problems of curriculum coverage. The logic has been that, if more learners have the opportunity to learn by successfully covering more of the curriculum, the more overall learning outcomes will improve.

The Programme for Improving Learning Outcomes (PILO) is a change partner of the KwaZulu-Natal Department of Education and other stakeholders in the *Jika iMfundo* campaign. The campaign has been supported by the National Education Collaboration Trust (NECT) since 2014. The support of government and the private sector through the NECT has been critical in enabling this pilot-at-scale.

PILO is a public benefit (non-profit) organisation with the long-term aim of developing methodologies for change at scale that will contribute to significant and sustainable improvement in the public education system. With support from a range of donors and after broad consultation and learning across the community of education practitioners between 2011 and 2013, PILO undertook a collaborative design process with both officials and teacher unions in KwaZulu-Natal (KZN) from 2013. This resulted in the Jika iMfundo design framework (or model) being finalised and implementation began in all 1 200 schools in two KwaZulu-Natal districts from 2015.

Jika iMfundo is the name of a campaign designed on the principles of the PILO model. The campaign belongs to the KwaZulu-Natal Department of Education, the NECT and stakeholders subscribing to the campaign. It has been implemented over three years in King Cetshwayo and Pinetown with PILO as the change partner. The campaign will continue after the exit of PILO through the deepening of practices introduced in the campaign. Whenever Jika iMfundo is used in this chapter, it refers to the KZN site of learning for PILO and the various activities and interventions implemented as part of the campaign. Wherever PILO is used, it refers to design and re-design considerations which have informed the work of Jika iMfundo – but which considerations are being practiced and informed across other sites of intervention outside of KZN. Jika iMfundo is thus a term used to describe the set of interventions in KZN schools. PILO is used to describe core elements of the learning of PILO that informed the design of Jika iMfundo and continues across multiple provinces. Jika iMfundo is one application of the emerging PILO model as this is explored and refined through carefully monitoring and reflecting on experience on a district scale.

PILO will continue to be the change partner to the KZNDoE in the provincial rollout of Jika iMfundo which will take place across all 6 200 schools of the province between 2018 and 2021 in a phased process of implementation beginning with uMgungundlovu, uMkhanyakude, iLembe and uMzinyathi in 2018. This means that, in 2018, Jika iMfundo will be implemented in 3 150 schools in the province. A map of the province indicating the districts is shown below together with its national boundaries and international borders. All districts are contiguous with local government districts, but the metropolitan area of eThekweni is divided into two education districts, uMlazi and Pinetown.

The work of PILO is broader than its work in KwaZulu-Natal. PILO is also a change partner in other provinces.<sup>1</sup> A similar application of the model was implemented in the “*A re Tokafatseng Seemo sa Thuto*” campaign in the John Taolo Gaetsewe District of the Northern Cape between 2015 and 2016 where PILO was the change partner of the Northern Cape Department of Education and the Sishen Iron Ore Company. Lessons learned have enhanced the model.

Each application of the PILO model provides an opportunity to learn from “the ground” and to refine the model for change at scale. PILO gathers monitoring information that assists in assessing if the interventions are being implemented as

intended and to monitor changes in the behaviour of educators and officials in order to shape the interventions formatively. There are intensive processes of internal reflection and refinement of the model and its modalities of implementation across school and district contexts. Alignment is maintained in the change process by deepening understanding of challenges and adjusting design in response to reflection on these challenges and changes in practice across different contexts. In KwaZulu-Natal, there has been significant system learning that has required redesign. These learnings and the resultant refinements have provided proof of concept of the central design elements of the Jika iMfundo model: that systemic change requires support in tools, training and systemic reinforcement that are rooted, not in empty compliance, but in professional, supportive conversations that are evidence-based and which identify and solve problems.

The importance of the scale of the intervention cannot be over-emphasised. Change at scale is a pressing necessity in South Africa and has distinct methodological requirements. Change at scale is required because of the urgency of finding solutions



**Figure 2.1** Map of Kwazulu-Natal showing education districts and neighbouring provinces and countries

that can achieve impact on scale in the South African context. Poor educational outcomes undermine sustainable development economically, socially and politically. Much of the investment that has been made by the CSI and donor sectors in many small or medium scale interventions has had limited systemic impact. Where changes have not been embedded in the routine practices of schools or district officials and where the change has not been adopted into the working culture and operations of the system at every level, these changes have not endured.

PILO's conception of change at scale requires a methodology and design that fulfils at least ten necessary conditions.

Firstly, the change must be **consistent with government policy priorities** and assist in making the policy intentions of government routine in the work of officials and schools. All of the design elements of Jika iMfundo reinforce components of key government policy documents.<sup>2</sup> In assisting government and its stakeholders to execute policy intentions, it was understood that,

improved teaching and learning [can] not be brought about by fiat, testing, or blaming but requires investing in the capacity of the system to do better (Levin, 2010, p. 27).

Much policy and bureaucratic fiat is characterised by magical thinking – the assumption that the pronouncement results in changes in schools without a plausible link of causation involving on-scale activities of support. In particular, given the pace and scale of system changes in South Africa, it is underestimated how much schools and districts have been subject to “a large number of initiatives, some of which seemed to them to be competing for their energy and attention” (Levin, 2010, p. 28).

The work of assisting in the execution of government's policy intentions does provide evidence and deep learning about design and resourcing challenges within government policy that could inform policy and its implementation. These include: the ambitious scope and pace of CAPS and its perceived inflexibility; the tension between progression policy and the limits of the possibility of differentiation within the pace of CAPS; the challenging scope of supervision responsibilities of Heads of Department at school level relative to their teaching load; the impossible scale of supervision for Subject Advisers who are often responsible for teachers in many hundreds of schools; the non-alignment between the institutional structure of schools as primary and secondary and the Inter-Sen curriculum structure particularly as this translates into the neglect of the Senior Phase and the support of teachers responsible for Grades 8 and 9; and the pervasive shortage of textbooks – particularly in Grades 8 and 9 – and reading material and other resources. All of these policy and resource considerations undermine the achievement of government's strategic goals.

Evidence of these challenges is being rigorously gathered for constructive policy engagements with government at provincial and national levels. Where the work of

PILO produces insights that could inform the policy and implementation process, these are shared with government and other stakeholders in appropriate fora.

Secondly, responsibility for implementing the change must be **located where the responsibility will remain** for sustaining the programme. Jika iMfundo in King Cetshwayo and Pinetown has been and will continue to be a campaign owned by the districts themselves and by the schools for improvement within these schools. The second phase of Jika iMfundo in Pinetown and King Cetshwayo from 2018 will be driven and monitored by the two districts, supported by the provincial education department as part of the provincial rollout and supported by PILO at both provincial and district levels. The changes achieved so far will need to be further reinforced by the district and province. Schools and officials, which are struggling to adopt the new practices, will need further targeted support.

Thirdly, the programme of change must focus on the **embedding of the new behaviours within the professional repertoire** of the educators and officials. Policy intentions and instructions do not change behaviour. These are filtered through what educators and officials already understand and believe, what they are convinced will work in their context and what they think is possible. There is a core principle informing the PILO approach to embedding new behaviours: the PILO model is built on a positive appreciation of how **educators and officials exercise agency** in their daily choices. Compliance alone is insufficient as an engine of meaningful and enduring change. Passive compliance is alienating to professional agency and sense of responsibility. Change requires personal purpose and commitment. This principle is key to the design of interventions that remind participants of moral purpose, of their agency, of those contextual matters over which they have influence and can exercise mastery, and make a difference with a sense of urgency, while communicating a compelling vision of change consistently in leadership practice and action.<sup>3</sup>

Moral purpose is an important starting point. It has been invariably our experience that teachers are motivated by a desire to achieve learner success and wellbeing. However, moral purpose is not enough on its own.

Levin (2012) argues,

Real improvement is only possible if people are motivated, individually and collectively, to put in the effort needed to get results. Changed practice across many, many schools will only happen when teachers, Principals and support staff see the need and commit themselves to make the effort to improve their practice and when students and parents see that the desired changes will be good for them too (p. 13).

Levin emphasises “positive morale” which requires that people have “real involvement in the changes rather than being on the receiving end of order they don’t agree with or don’t know to carry out” (2010, p. 66). This principle was significant in informing design

and practice. For example, at district level, officials themselves designed the shared tool that was developed to guide their interactions with SMT. At school level, the SMT and teachers were encouraged to take the tools offered and adapt them to their needs and to improve existing tools and practices.

Fourthly, personal agency, or purpose, is not enough to produce mastery. Personal commitment to a vision of a better practice has to be **supported by tools, by training and by systems which support the adoption of these behaviours as routines** that are core to the work of the district and school, and which are reinforced by the experience of success in how these make it easier for educators and officials to succeed in their work.

Fifthly, a **broad alliance of key stakeholders is necessary to ignite and sustain change**, especially in education. Influence is distributed within systems and the more different centres of influence maintain alignment to a shared purpose and urgency, the greater the contribution to success. This is true of provincial, district and school levels. A broad alliance committed to change stabilises the system and maintains momentum through its inevitable setbacks and disruptions.

Focus Group research conducted for PILO (Perold, 2012) showed that education stakeholders in KZN were ready for change. They were committed to teaching, regarded education as a critical success factor for South Africa and were extremely concerned about poor learner performance in their schools. Many were also frustrated and demoralised because they felt that they are unable to bring about change and felt burdened by compliance demands and lack of support (Perold, 2012). Maintaining alignment of purpose in the alliance of stakeholders within schools, within districts and between stakeholder groupings was sustained by this core commitment to learner performance and a vision of change that they could believe in.

Teacher unions, especially SADTU, were fundamental partners in the coalition for change in Jika iMfundo. Regular reporting and consultation meetings are convened with the teacher unions at provincial, regional and branch level. These meetings are invaluable as an opportunity to co-design and as a source of monitoring information which guides implementation. The SADTU 2017 conference adopted a resolution on the expansion of Jika iMfundo building on positive reports in conference and made an explicit commitment to ownership of the rollout. While engagement with SADTU was most regular because of the size of its membership in the province and the number of its structures, the other key unions were also consulted and kept informed. When the campaign was introduced to schools in a sign-up process, messages of support from the unions were shared and SADTU sent representatives to the venues.

Jika iMfundo is being run as a campaign to be joined by all role players. The by-line, “*what I do matters*”, represents the appeal to moral purpose and recognition of the agency and impact of professionals. Jika iMfundo was the integrating theme across all elements of the intervention which included: the Curriculum Planners and Trackers assisting teachers to plan teaching and assessment and to track curriculum coverage; the SMT training for HoDs, Principals and deputies; the content training for HoDs

and subject and phase leaders at school level; and the work at district level. This gave coherence to the central messages of both “what I do matters” and the vision of focusing on improving curriculum coverage in order to improve learning outcomes. This goal was one to which all role players at different levels could relate in terms of an organising principle for their work. The reason that curriculum coverage was chosen as the focus is covered in the next section where the professional complexity of the concept is unpacked.

Sixth, **monitoring and tracking must be integral to the change process** within the school and the districts so that insights from evidence are used to respond to problems timeously and at the appropriate level. School management teams regularly track teachers’ curriculum coverage reports so that they can respond with the correct support. District teams gather and aggregate school level curriculum management data so that they can prioritise and respond to challenges at school level. The indicators monitoring the intervention were constructed to be systemic, not only for the life cycle of the intervention, but also for teachers, SMTs, the district and province to use for ongoing, systemic and routine monitoring and support. More than this, the improvements must be visible to the educators and officials. They must be able to track, validate – and celebrate – their own success because success motivates. Levin, in his 2010 seminal text on school improvement, concludes,

One of the fundamental lessons of research on human motivation is that people will do more of what they think they are good at, or can become good at (p. 235).

The change programme of Jika iMfundo uses tracking success as a motivator to “stay the course” and “accelerate the pace”.

In working at these macro and micro levels simultaneously, Jika iMfundo seeks to align the support-pressure balance within the school and between the school and the district. This is to propel technical “capacity building” constantly with the energy of human agency and the belief that, with the investment in effort, learners will have more chance of success.



Figure 2.2 Jika iMfundo logo

Seventh, PILO's approach to change is rooted in two conceptions of accountability: reciprocal accountability and internal accountability. **Accountability is reciprocal rather than hierarchical and internal accountability precedes external accountability in well-functioning institutions.** Both concepts of accountability are drawn from Elmore (2000, 2006, 2010) and are central to PILO's approach to professional practice and agency.

Witten, Metcalfe and Makole (2017) describe PILO's approach to accountability:

Central to PILO's theory of change is the relationship between the different components and key actors in the system. A defining element of these relationships is the concept of accountability as proposed by Elmore (1999, 2006, 2010) ... He suggests two types of accountability that are required for effective school improvement. The first is ... 'reciprocal accountability' – which, in its simplest form, means that, for every unit of change performance that is required, an equivalent unit of support and capacity should be provided to those responsible for the change. ... In PILO's approach to its work, the essential question of 'How can I help you?' is central to its approach in improving curriculum coverage and the extent to which this professional disposition and approach permeates throughout the system will be instrumental in determining its success.

The second type of accountability that Elmore suggests is important for school improvement is that of 'internal accountability', which occurs within an organisational unit like the school or a team. Elmore argues that it is the '... degree of coherence in the organization around norms, values, expectations and processes for getting the work done ...' (Elmore, 2010, p. 6).

Schools are unlikely to be able to respond to external accountability without practices of internal accountability. City, Elmore, Fiarman and Teitel (2010, p. 37) argue that schools with "a chronically weak institutional culture ... have no capacity to mount a coherent response to external pressure, because they have no common instructional culture to start with". Jika iMfundo seeks to establish a common instructional culture of curriculum management of tracking, reflecting, reporting, monitoring and collaborative problem solving. The strong theme of professional judgement in all the components of the campaign is an internal and external professional accountability based on rigorous evidence with strong mechanisms of (reciprocal) accountability.

In "Schools that Work" (Christie, Butler, & Potterton, 2007), Christie draws on the work of McLaughlin (1987) who notes that

change to the smallest unit of the system – teachers and learners in classrooms – is hard to reach from the top, given the multiple layers of education systems. Change at the level of this smallest unit requires a strategic balance of pressure

and support. Pressure alone seldom changes people's beliefs (though it may be used to bring behavioural change). Support alone allows other priorities to take precedence. Change involves both people's capacity and their will and while the former may be changed relatively easily (e.g. through good training or 'capacity building'), the latter (involving beliefs and motivation) is far harder to shift. It would be a mistake to interpret McLaughlin's point as behaviourist; what she is advocating, rather, is that change be viewed as a process of negotiation rather than imposition. In changing school practices, it is necessary to work with both the macro-logic of systemic level concerns and the micro-logic of schools, teachers and classroom.

**Eighth, the primary site of teacher professional development in South Africa is inevitably the school.** Teachers may, or may not, have regular opportunities to participate in professional development opportunities provided by their employer, by their union or by professional associations, in professional learning communities across schools or other activities that are self-driven. The further teachers work from where they live, the distances they need to travel and their personal resources all constrain how frequently these opportunities may be taken. Schools are the places where teachers interact with colleagues professionally on a daily basis and formally or informally share challenges and explore solutions. PILO has therefore sought to strengthen internal institutional practices that support the functioning of the school as a Professional Learning Community.

There is much in the education literature that supports this approach. OECD research has shown that the more teachers collaborate, the greater is their belief in their ability to teach, engage students and manage a classroom (OECD, 2016, p. 199). The 2016 TALIS report argues that Principals "have the means of improving teacher quality through actions such as fostering a professional learning community" and evidence is given for a strong association between teacher characteristics, specifically, teachers' self-efficacy, with the implementation of professional learning communities (OECD, 2016). Mourshed, Chijioke and Barber (2010) found that, in improving systems, teachers and school leaders work together to embed routines that nurture instructional and leadership excellence in the teaching community, making classroom practice public and developing teachers into coaches of their peers (p. 21–22).

Timperley (2007) identifies seven elements "as important for promoting professional learning in ways that impacted positively and substantively on a range of student outcomes." One of these is active school leadership in which leaders "actively organised a supportive environment to promote professional learning" (Timperley, Wilson, Barrar, & Fung, 2007, p. xxvii). City et al. (2010) argue that professional development must be "deliberately connected to tangible and immediate problems of practice to be effective." City has also argued that "teachers learn in settings in which they actually work, observed and being observed by colleagues confronting similar problems of practice"

(p. x). For a school to build practices that enable it to function as a professional learning community, internal accountability systems and practices must be characterised by a culture of professional, supportive, evidence-based conversations. Like City et al. (2010), Talbert and McLaughlin (1994) argue that “privacy norms characteristic of the profession undermine capacity for teacher learning and sustained professional commitment” (p. 124).

For Elmore, the organisation of the school and its practices of accountability must, by design, create processes of teacher improvement which take teachers out of the isolation of self-contained classrooms into collective learner – and learning – focused reflection that is normative and builds professional knowledge. Jika iMfundo seeks to promote professional learning communities at school level by creating the organisational arrangements and routines that promote collaboration and the de-privatisation of professional practice.

Jika iMfundo’s emphasis on teacher collaboration is supported in an analysis of highly performing schools in South Africa – the 2017 National Education Evaluation and Development Unit (NEEDU) report, *Schools that Work II: Lessons from the ground*. In the Jika iMfundo training and coaching, forms of teacher collaboration referred to in the report were explicitly taught and were focused on the identification and solving of curriculum coverage problems. At the level of the teacher and the teaching team, this focus is on identifying problems of pedagogy and their impact on coverage. At the level of the SMT, it is curriculum management to improve coverage.

Ninth, in order to be sustainable, the change must be systemic. If attempts are made to change an element of the system but that change is not reinforced systemically, the system will undermine the embedding of the desired change. Peurach (2011) argues:

The logic of systemic reform held that ambitious outcomes would not be realised with piecemeal, uncoordinated reforms. Rather, the problems to be solved were understood to be many and interdependent (p. 6).

Jika iMfundo was designed to be coherent and mutually reinforcing across the practices of district officials and schools. It was realised that the long-term sustainability of changes at schools would need to be sustained by the support of district officials, not countermanded. It is for this reason that Jika was implemented across all schools in a district and with the support of the province. All elements were co-designed with the responsible officials at provincial level and taken forward under their line-authority. This approach is being deepened in the 2018 phase of rollout with Jika iMfundo activities being led within the responsible provincial Chief Directorates and integrated into their annual performance plans.

Tenth, the design must be scrupulously **costed to be replicable at scale** within the resource constraints of government. A pilot for scale must be costed for replicability on an even greater scale. This is especially true for the human resource components

of any model. In the case of Jika iMfundo, the interventions proposed initially had to be re-appraised and rigorously remodelled so that they were implementable within the resource constraints of the human resource provisions in the KZN districts and the supervision resource constraints within schools.

This design principle is critical to understanding and reviewing Jika iMfundo. The “dosage” of the intervention is extraordinarily light relative to many interventions. We would love to have done more to support the educators and SMT members, but the rule of thumb was that, if there were not the resources within the system to do this on scale, it could not be part of Jika iMfundo. The experience of so many excellent “pilot” interventions is that they are resource-intensive and not designed for scale and are therefore not, sadly, scalable.

Because of this discipline, it is now possible for the recurrent funding of the provincial rollout of Jika iMfundo across all 6 200 schools of the province between 2018 and 2020 to be met from the provincial budget,<sup>4</sup> while the costs of the change-support interventions (short-term) will be met by the NECT. The NECT evaluation framework of the 2015–2017 Jika iMfundo interventions characterises the PILO model thus:

The [PILO] Model emphasises a low-intensity (in terms of cost per school), management-focused intervention across all schools in the district. This is a behavioural change model that encourages the empowerment of the agency and motivation of HoDs, Deputy Principals and Principals. The Whole District Model also does not import any additional human resources into the school and district education ecosystems, but rather aims to reconstruct how existing [education role players] go about their job to improve learner outcomes.

Lastly, to effect change across a system is ambitious in itself and the **scope of change must be relentlessly focused and consistent** with the key elements of the theory of change. There should be no more “elements of change” than can be told as the story of and motivation for change by participants at every level – teachers, School Management Team members and officials. If there are more elements of change than can be told as a simple, compelling story of change, this will mean that focus and coherence is dissipated. For Jika iMfundo, the simple story was, “we are improving learning outcomes by improving curriculum coverage.” This was a compelling narrative that bound the different role players at different levels of the system to a shared programme of action even within a complex system with complex challenges. This narrative has inspired the collective action of stakeholders in the provinces where PILO has historically worked or begun to work.<sup>5</sup>

This focus had to be sufficiently clear and consistent to be maintained over time whatever the urgent and intrusive system challenges nibbling at attention and energy. PILO’s early diagnostic and focus groups showed that officials and schools were weary of change initiatives that had been poorly implemented without real change; “quick fix”

solutions with unrealistic time frames; being over-burdened with multiple instructions and few resources; plans being abandoned because of new and competing priorities; and of the multiple parallel and competing instructions filtering through the different silos in the education system.

Consistency and focus on a clearly understood and limited set of change objectives is key to stamina and focus. Most of all, underlying these objectives must be the principle that the official/educator must believe that the effort is worthwhile because the outcome will help them with the real challenges that they face in their work. Given these critical conditions for success and the building of confidence to sustain change, constant vigilance to change management processes is critical to the design and implementation of *Jika iMfundo*.

### **Curriculum coverage as the object of change in *Jika iMfundo***

The *Jika iMfundo* focus on curriculum coverage as the object of change must be understood across several dimensions and curriculum coverage itself must be understood as a multi-dimensional phenomenon. Each of these dimensions is central to the design of the CAPS Planners and Trackers, to the training of School Management Teams (SMTs) and to the work of district officials.

Firstly, curriculum coverage provides a lens for exploring the dynamics of the instructional core, which are learning-teaching-content, and that changes must take place if learning is to improve. Elmore (2008b) argues that the only way in which learning outcomes will improve is through improvement in “the complex and demanding work of teaching and learning” in the instructional core, by “influencing what teachers do and when they make the practices they are being asked to try work in their classrooms”. In his view, the influence that SMT members have on “the quality and effectiveness of classroom instruction is determined not by the leadership practices they manifest, but by the way those practices influence the knowledge and skill of teachers, the level of work in classrooms and the level of active learning by students” (Elmore, 2008b, p. 1). The focus on curriculum coverage – with a particular emphasis on evidence of learning and its supportive management by the SMT – gives the SMT a direct “line-of-sight” into the instructional core.

Secondly, curriculum coverage provides the disparate components of the system with a common “message” of what needs to change. Teachers, SMT members and district officials all understand the fundamental necessity of improving curriculum coverage if learning outcomes are to improve and they understand the contribution of the role they perform in achieving this goal. The shared project of achieving curriculum coverage to which each component of the system is invited to participate is understood as integral to their collective core commitment – improving learning. This is maintained as the core moral and professional focus, and motivation throughout the implementation of the project. How these become routine in the institutional practices of each set of role-players is covered elsewhere in this volume.

Thirdly, curriculum coverage provides a vehicle for a SMT and the teachers it supports to establish routine practices of monitoring, identifying and solving problems of coverage as a key step in a journey of professional conversations that will be generative of increased professional development through reflection and collaboration on the basis of the real pedagogical problems in the classroom. The routine and structured monitoring of curriculum coverage is a “way into” an examination of learning and, as a consequence, into the privatised space of teaching practice that is related to this learning. This approach recognises that the primary site of teachers’ professional growth is the school. The SMT training and coaching invests heavily in guiding the SMT to supervise supportively so that teachers are open to sharing their challenges and revealing their inadequacies.

Fourthly, curriculum coverage is quantifiable, despite the complexities of quantification (as will be discussed later). Quantitative data, which can be aggregated (as well as deconstructed qualitatively), make system level diagnostics above the classroom possible at school and district levels. Aggregated data that are routinely and regularly monitored, with reporting to the level at which action can be taken, can be used to respond supportively to problems identified. The *Jika iMfundo* pilot has enabled learning about ways to create dashboards of coverage information that can be regularly monitored, reported to the level where action can influence change and that action can be taken in a regimen of reciprocal accountability. Hargreaves and Braun (2013) argue that accountability contributes to improvement when there is “collaborative involvement in data collection and analysis, collective responsibility for improvement and a consensus that the indicators and metrics involved ... are accurate, meaningful, fair, broad and balanced.” This is as true within the school as within the greater system. Their view that, “when these conditions are absent, improvement efforts and outcomes-based accountability can work at cross-purposes, resulting in distraction from core purposes, gaming of the system and even outright corruption and cheating.” In this next section, we will show how this “gaming” operates in relation to measures of curriculum coverage at schools and district levels.

Fifthly, curriculum coverage is a collective project that is amenable to work on scale and improvement on scale within the existing capacity of the system. Design for system replicability is a central goal of the intervention. Whilst social and economic factors erode learning potential, material constraints hamper education delivery and teacher knowledge and skill undermine their ability to deliver the intended curriculum. The planning and monitoring of curriculum coverage is within the zone of the short-term potential capability of all schools that have the capacity and desire to absorb the intervention. Improving curriculum coverage is a professional matter for which School Management Teams of officials can assert their agency, no matter how challenging their circumstances. Indeed, the routines of internal accountability and a culture of professional development are a necessary basis for further professional learning within the school.

The sixth point is that curriculum coverage is an acknowledged problem, a central concern of government and a key policy goal of the DBE’s Action Plan 2019 (2015a) as Goal 18 specifies: “Ensure that learners cover all the topics and skills areas that they should cover within their current school year.”

The DBE indicator for this goal is:

The percentage of learners who cover everything in the curriculum for their current year on the basis of sample-based evaluations of records kept by teachers and evidence of practical exercises done by learners (DBE, 2014, p. 13).

In 2011, performance against this the indicator was 53% of learners nationally (DBE, 2014, p. 40). The national target for 2016 was that this should be 66%. Learning deficits are cumulative in character. The DBE Macro Indicator Report (2013a, p. 63) indicates:

Poor learning outcomes can be traced to differential ‘input indicators’ or characteristics of school and teacher practices. The report showed, in particular, that incomplete coverage of the curriculum and inadequate teacher subject knowledge are examples of the problematic ‘inputs’ to educational quality.

The findings of the 2011 DBE School Effectiveness Survey (DBE, 2013b) are instructive in terms of coverage trends across grades and subjects. Unfortunately, there is no more recent study from which to draw. No large-scale survey with verification of documentation has been undertaken since 2011. The table below shows curriculum coverage (defined as completing the minimum number of exercises per week, for Grades 8 and 9.

Grade	Subject	% Completing Minimum Four Exercise Per Week		Average # Written Exercises Per Week	
		KZN	National	KZN	National
6	Mathematics	40	31	2.8	2.5
	Language	13	7	1.8	1.5
9	Mathematics	4	6	1.7	1.8
	Language	0	0	1.1	1.0

**Table 2.1** Curriculum Coverage Survey Grades 6 and 9 mathematics and EFAL  
*Extracted from DBE (2011a).*

In summary, these results indicate that coverage should be a grave concern for both KwaZulu-Natal and the country as a whole. In KwaZulu-Natal,

- only 13% of Grade 6 learners had covered a minimum of four language exercises per week and the average number of written language exercises per learner per week was 1.8 (DBE, 2016, p. 71).
- 40% of Grade 6 learners had covered a minimum of four exercises per week and the average number of mathematics written exercises per learner per week was 2.8 (DBE, 2016, p. 75).
- for Grade 9, no learners covered a minimum of four language exercises per week. This result was consistent across all provinces. The average number of written language exercises per learner per week was 1.1 (DBE, 2016, p. 79).
- for mathematics, 4% of Grade 9 learners had covered a minimum of four exercises per week (the national score was 6%) and the average number of mathematics written exercises per learner per week was 1.7 (DBE, 2016, p. 83).

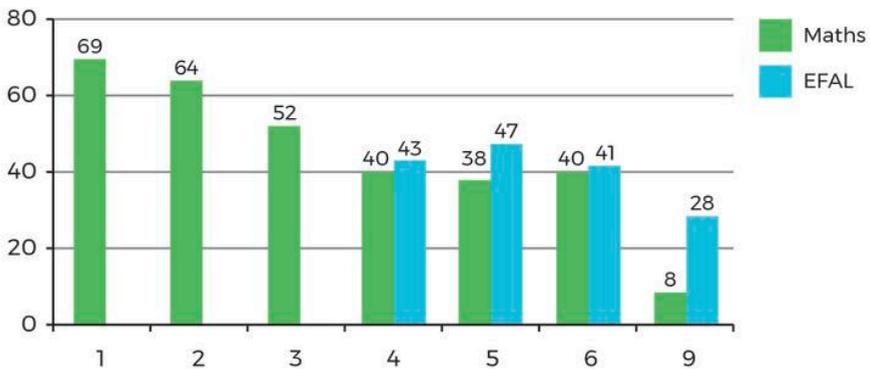
Several observations can be made. Firstly, the number of written exercises completed each week (as a measure of curriculum coverage) in 2011 was far below the specification of the official curriculum nationally and in the KZN province. Secondly, the achievement of the set target of exercises was abysmal in language in particular and declined in both subjects between Grades 6 and 9. Thirdly, verification of learner exercise books is possible for written work, but not in respect of oral work which is a critical component of language study.

The Annual National Assessment (ANA) provides a proxy indicator for curriculum coverage. The construction of the ANA is “aligned to the coverage of work as indicated in the CAPS for the first three terms of the academic year” (DBE, 2014, p. 29). Figure 2.3 has been constructed from the 2014 ANA Report (DBE, 2014) to illustrate the ANA results comparatively across grades in mathematics and EFAL in 2014 in KwaZulu-Natal.

It is evident that the curriculum coverage deficit, in terms of the mastery of the official curriculum, is pronounced by the end of primary school. In the 2014 Annual National Assessment, in Grade 6, the average percentage mark in both mathematics and English First Additional Language (EFAL) (which is the medium of instruction in the majority of schools) was in the region of 40%. Such poor curriculum coverage, as measured by learner performance, is progressive and cumulative in both its causes and in its effects. This means that a teacher beginning the year with the Grade 7 mathematics class cannot assume that the concepts from previous years have been mastered. Learners in Grade 9 achieved only 8% and 28% for mathematics and EFAL in Grade 9. As learners proceed to Grade 10, they carry with them a massive deficit in the “opportunity to learn” that cripples their chances of success and makes the task of the teacher, in responding to the range of learning levels, overwhelming. The poor performance in EFAL negatively affects opportunities to learn in all subjects where this is the medium of instruction.

The DBE Action Plan 2019 (2015a) states that curriculum coverage is improving from its 2011 baseline of 53%:

This has occurred in the context of better guidance, through the Curriculum and Assessment Statement (CAPS) and national workbooks, on what work should have been covered by specific weeks of the year. The key challenge in the coming years will be to move from systemic research to practical tools that can be used by all districts and school Principals to monitor curriculum coverage. There is a real risk that must be managed, namely, the risk that monitoring leads to a ‘tick box approach’ to the curriculum, where teachers seem to comply with timeframes, but there is too much compromising in terms of depth and actual learning. In this regard, it has become increasingly clear that there is not enough good guidance offered to teachers on how to deal with a multitude of abilities within the same class. Decisions on when to move from one topic to the next in the curriculum, when some learners are still clearly struggling with the previous topic, are extremely difficult decisions for teachers. Support and guidance for teachers here is crucial (DBE, 2015a, p. 43).



**Figure 2.3** Average percentage marks in ANA 2014 KwaZulu-Natal by grade: Mathematics and EFAL

It is precisely in the areas identified as challenges that PILO is working:

- [The development and testing on scale of] “practical tools that can be used by all districts and school Principals to monitor curriculum coverage”
- [Moving away from] “a ‘tick box approach’ to the curriculum, where teachers seem to comply with timeframes, but there is too much compromising in terms of depth and actual learning”
- [Developing system capacity and routines, on scale, for] “good guidance offered to teachers on how to deal with a multitude of abilities within the same class. Decisions on when to move from one topic to the next in the curriculum, when some learners are still clearly struggling with the previous topic, are extremely difficult decisions for teachers. Support and guidance for teachers here is crucial.”

The challenges of monitoring curriculum coverage problems, coverage compliance that compromises depth of learning and teacher support for solving coverage problems have been central to design of Jika iMfundo and to the learning from the intervention.<sup>6</sup>

Lastly, curriculum coverage was chosen as the object of change because of its manifest impact on “opportunity to learn”. The work of William Schmidt has shown that, while public schooling is seen as “the great equaliser” (Schmidt, 2010, p. 12), great inequalities exist in public education systems and that unequal educational outcomes are clearly related to unequal educational opportunities. He argues that “educational equality in the most basic, foundational way imaginable – [is] equal coverage of core academic content” (Schmidt, 2010, p. 12). He has shown that “whether a student is even exposed to a topic depends on where he or she lives” (2010, p. 13). He also shows that “socioeconomic status and opportunity to learn are both independently related to achievement” (2010, p. 16). This is of profound significance. Whilst Bernstein’s famous dictum that “education cannot compensate for society” may frame the challenges in which education works for social justice, opportunities to learn can compensate for socio-economic status. Schmidt defines “opportunity to learn” as curriculum coverage and concludes that,

the implication of our conceptual model is that by adopting focused, rigorous, coherent and common content-coverage frameworks, the United States could minimize the impact of socioeconomic status on content coverage (Schmidt, 2010, p. 16).

The Annual National Assessments can be seen as proxy for curriculum coverage, understood as mastery of the official curriculum. These results show a close correlation between coverage as performance and socio-economic quintiles. In the tables below, quintile one includes the poorest households and quintile five the most affluent. The achievement gap in mathematics at Grade 1 is 13%. By Grade 6, this has increased to 22%.

Jika iMfundo has trialled, on scale, the adoption of “focused, rigorous, coherent and common content-coverage frameworks” and tools and training to support focused system routines for identifying and seeking solutions to problems of coverage. As a system intervention, it has the potential to increase opportunities to learn across all quintiles, but some design elements focus on schools most needing support to overcome socio-economic challenges. For example, the subjects focused on include English First Additional Language (rather than First Language) as this automatically prioritises poorer communities as this coincides with race and class.

Jika iMfundo is but one contribution in the wide range of factors that constrain improvements in learning. The seminal Coleman study in the USA, *Equality of Educational Opportunity* (1966), found that personal and family characteristics had a greater influence on performance than characteristics of schools. While education inequalities are firmly rooted in societal inequalities and achievement is more closely tied to family background than to school resources, this does not mean that quality differentials in schooling do not matter. Coleman concluded that “it is for the most disadvantaged children that improvements in school quality will make the most difference in achievement” (1966, p. 22). The imperatives of both justice and efficiency require that what happens in schools and how schools are resourced must be interrogated to understand how schools’ practices might be changed to mediate greater success of the poor.

The Coleman report found that schools do make a difference for disadvantaged students, primarily through teacher quality, resources and curriculum (Christie, 2008, pp. 167–168): “A given investment in upgrading teacher quality will have the most effect on achievement in underprivileged areas” (Coleman, 1966, p. 317). Schmidt has similarly argued that opportunities to learn (by increasing curriculum coverage) can compensate for socio-economic status. This is the focus of the Jika iMfundo campaign.

	<b>Gr1</b>	<b>Gr2</b>	<b>Gr3</b>	<b>Gr4</b>	<b>Gr5</b>	<b>Gr6</b>	<b>Gr9</b>
Quintile 1	65.1	59.2	52.5	32.8	32.1	38.1	10.1
Quintile 2	66.6	60.2	52.9	34.3	33.4	39.6	8.7
Quintile 3	67.4	60.4	53.9	35.6	34.5	40.4	8.2
Quintile 4	71.2	63.5	58.0	40.4	41.2	46.1	9.2
Quintile 5	78.4	71.4	68.9	52.9	55.0	60.3	21.6

**Table 2.2** Average % mark in mathematics by grade and poverty quintile, annual national assessment 2014 (DBE, 2014, p. 89)

### **Curriculum coverage: A complex and collaborative professional judgement based on assessment**

What is “curriculum coverage”? As highlighted in the DBE Action Plan, it is not teachers “ticking” what they have taught as a compliance exercise. The understanding of curriculum coverage, as only reports of what is taught, is an inadequate descriptor of coverage. In this impoverished notion of curriculum coverage, coverage can improve – but at the expense of learning. Teachers’ reporting on what they have taught is a necessary and important component of the professional judgement of teachers of curriculum coverage, but it is only a first step towards the larger professional process of judging and reporting coverage as a function of what learners have learned as an indicator of curriculum coverage. Assessment practices – formal and informal – are at the heart of the monitoring of curriculum coverage and engagement with learners’ work as a practice is central to the professional practices and conversations introduced and deepened in *Jika iMfundo*.

Many monitoring surveys (including the Department of Basic Education’s 2011 School Monitoring Survey) focus on a partial definition of coverage – that of tasks completed and assessed, with physical checks of learner workbooks. This is a limited proxy for the measure of curriculum coverage without a parallel analysis of learning. For example, this approach might show a situation where none of the exercises for the last three weeks of a term had been attempted, but there may have been evidence of term 1 work having been done in term 2. Could this non-CAPS-compliance be the result of a considered and evidence-based professional judgement that key concepts in Term 1 needed more attention? Could this be an example of a teacher exercising agency and choosing a curriculum pacing that she considered to be in the best interests of her learners? This would be consistent with a study by Reeves and Muller (2005) referred to in the DBE Technical Report for the School Monitoring Survey (DBE, 2013b) which showed that,

... learners in Grade 5 and 6 are spending more time on subtopics that they were expected to have covered in earlier grades than they do on subtopics at the level expected for their grade. This shows evidence of slow curricular pacing across the grades and that learners are studying topics lower than grade level expectations (p. 57).

Other explanations are also possible:

- Could teaching-time have been lost in term 1 for a range of possible reasons? Is this a management problem creating coverage problems?
- Could the teacher be so concerned about the children performing poorly at the bottom end of a normal distribution curve that she was prepared to compromise the appropriate pace for children at the average to upper end of performance and did not have the necessary pedagogical skills of differentiated instruction to provide for this range?

- If the subject was English, could it be that the teacher’s professional judgement was that the level of fluency was so poor that she needed to spend more time developing oral fluency?
- In some subjects, such as mathematics, where teachers’ content knowledge is weak, could a similar pattern be an indication of teachers’ lack of confidence in the content that was not taught and the gaps be an avoidance mechanism?

What are the considerations that a teacher must manage in assessing coverage and how does a teacher make these judgements in her professional interaction with the guidance given by CAPS? The teacher interacts with the expected pace of progression of teaching of the content specified by CAPS by making judgements of what learners have learned. In making judgements and decisions regarding the pace of teaching in order to meet expectations of curriculum coverage in the specified time-frame, the teacher is influenced by her judgements of how many learners are performing at what level of achievement as specified in CAPS and at what levels of cognitive complexity. Teachers know that there will be a range of achievement from “not achieved” to “outstanding achievement” in a class – particularly given the wide range of difference in mastery of prior knowledge, given current progression policy and generally large classes. If the majority of learners in a class are achieving at a level below “adequate”, the teacher will need to make a judgement that, even if the time allocated for that concept is exhausted, the coverage problem will need to be solved. Her professional judgement will need to take into account:

- The cyclical nature of CAPS and opportunities that exist later in the year to revisit the concepts.
- How available time can be adjusted to allow for more time to consolidate the concepts relative to the weighting of the concept in CAPS and this judgement will be made relative to how much time has elapsed and how much time remains.
- How the relative importance of the concept in the foundational progression of the concept informs the prioritisation of that content relative to the work that still needs to be completed and, in some cases, this consideration of the relative prioritisation of the concept/skill means that it can be omitted.

Many considerations inform the judgements teachers are making but these judgements are too often made in privacy and not shared. A compliance-driven approach makes these judgements invisible and the “gaming” strategies that teachers are forced to employ include:

- Testing what they have taught rather than the full set of concepts and skills that CAPS requires.
- Testing at a cognitive level below CAPS expectations but at which the learners can succeed.

Teachers consistently report that they construct assessments on the basis of what they have taught, not what they should have taught. Indeed, this is consistent with the pedagogical compact of trust between learner and teacher. The work of teachers in relation to assessment, as an essential element of monitoring curriculum coverage, includes:

- how to prioritise “coverage” relative to the time available and the learners’ level of performance
- deciding what will be assessed
- deciding the cognitive level of the informal assessment task
- deciding how to “pitch” the content and the level of assessment relative to their expectations of the performance of the class. It is not likely that teachers will set an assessment task that they know the majority of their class will not achieve. It is for this reason that routine provincial or district “common tests” are both a cause of teacher resentment, but also may not reflect learner performance rather than what teachers have taught. Learners proceeding at a pace that is less than expected may “pass” the components of the test actually taught, but “fail” the common assessment because it includes new content.

These are collective, not individual, judgements because such decisions will have an impact on teaching in subsequent grades.

It is especially important to deepen understanding of the expectation of CAPS in relation to cognitive levels. In Fleisch’s (2007) summary of the research on pedagogy and achievement, he concludes that teachers who teach poorer schoolchildren tend to have lower expectations of what learners can achieve and tend to interpret the official curriculum to support their lower expectations and that children collectively achieve to the low expectations of their teachers.

Teacher judgements are invisible when they are not made in contexts of professional collaboration because of a compliance mind-set that insists that the curriculum must be declared to be covered at all costs. Teacher judgements and troubling problems can only be tested and resolved in a professional and supportive conversation in which the teacher feels “safe” to reveal professional decisions usually made in “private”. That is the purpose of the professional supportive conversation with the teacher and making it public in the immediate professional community must be the starting point for exploring the collective solution to the problem of curriculum coverage.

The concept of *professional interaction* with CAPS rather than *compliance* with CAPS is a discomfiting thought for many educators driven by a compliance mind set. The compliance requirement results in compliance reporting of what officials wish to hear rather than what is the reality of the classroom. Jika iMfundo invests substantially in making incomplete coverage visible as the first step in identifying curriculum coverage problems and in supportive professional interactions as the necessary condition to solving these.

The professional judgement of individual teachers is best exercised in the community of teachers whose work is affected by that decision. Teachers are members of a professional community whose collective work of achieving curriculum coverage affects other teachers. Where a teacher in one year is unable to complete the teaching of all concepts and skills necessary for a teacher in subsequent years to achieve curriculum coverage (because incomplete coverage has cumulative effects over time), decisions about solutions to curriculum coverage problems cannot be taken by individual teachers without reference to teaching teams.

The management of assessment and the use of assessment information to inform decisions regarding curriculum coverage is central to the Jika iMfundo programme. The SMT, as a whole, has a responsibility to monitor what was taught, what was assessed and what percentage of learners performed at a level that is adequate. The SMT has a responsibility not only to monitor “coverage” in this way, but also to support the Heads of Department (HoDs) in their leadership of solving curriculum coverage problems. Monitoring only that assessment has been “done” is a poor curriculum management practice. A SMT needs to assess the content of the assessment relative to the demands of CAPS. Where coverage has not been achieved, the SMT should know this before assessment is conducted. SMTs need to monitor that the assessment is at the cognitive level required for progression to subsequent CAPS content. The SMT needs to be able to monitor both if assessment has been set on the required content and also the level of difficulty (including) cognitive demand. This monitoring and the professional, evidence-based and supportive conversations that are part of the monitoring, identify problems in order to provide support in the resolution of these problems.

These practices of planning, monitoring and responding to assessment are an integral part of the Jika iMfundo CAPS planners and trackers given to all teachers each term and to the SMT training. These skills and practices are built incrementally over the three years. The work that is done at district level with Circuit Managers and Subject Advisers similarly builds the skills and attitudes required for professional, supportive conversations about curriculum coverage that are based on the evidence of both what teachers report of their teaching and assessment as a window into learning.

Curriculum coverage improvement that results in the improvement of learning outcomes must be the outcome of professional development processes that impact positively on teacher practices and the exercise of professional judgement in the instructional core. Supportive accountability mechanisms within the school that routinely support change in these practices are one way of building professional agency to improve curriculum coverage – understood as improving the quality and depth of learning while extending coverage of the scope of the intended curriculum. Teacher capability is strengthened by an institutional culture and practice that collaboratively monitors, supports and solves problems of curriculum coverage. The work of PILO in the Jika iMfundo programme and the development of monitoring tools used routinely in the school and the district to identify problems for the explicit purpose of assisting

teachers to solve these problems can be a valuable contribution to the DBE's desire to have "a workable methodology for tracking curriculum coverage in any class in a school" (DBE, 2015b, p. 44).

Having a workable methodology for tracking curriculum coverage in a school must be a central task of improving the system – and this methodology must be a core practice of teachers, the SMT and officials who support them. If the reporting of any indicator is going to be useful to educators, it must assist them to solve the problems they face and add value to their daily work of improving learning. It will not help to improve learning if it only adds another layer of burdensome compliance reporting – but with no support consequential to this reporting. The monitoring of coverage, as defined by learners learning, is a key indicator of the outcome of processes in the instructional core and must enable the core function of the SMT to support teachers to solve pedagogical problems associated with poor coverage. The role of the SMT and district staff is to receive and verify reports for the purpose of providing meaningful support. If such routines are systemic, the monitoring and evaluation of Goal 18 of the DBE Action plan will provide for regular system knowledge and responsiveness as envisaged by the DBE's Action Plan 2019 (2015a). The Trackers used by the teachers provide exemplars of assessment with cognitive level each term and the SMT training guides the HoDs to review coverage by discussing examples of learners' work.

The practices implied in the overview of curriculum coverage above are what drive the design of the *Jika iMfundo* resources, tools, training and coaching. The theory of change posits that, when these practices are in place, curriculum coverage will improve because problems in coverage are "de-privatised" and brought into an institutionalised space of collective reflection and collegial support.

### **A note on curriculum coverage, progression policy and the complexity of classrooms**

Professional judgements about coverage are made in the context of a progression policy which allows for learners to repeat only one grade per phase. This results in learners being "progressed" without having achieved at the necessary level to master the concepts in that year. The DBE (2011b) National Policy Pertaining to the Programme and Promotion Requirements of The National Curriculum Statement defines progression as

... the advancement of a learner from one grade to the next, excluding Grade R, in spite of the learner not having complied with all the promotion requirements provided that the underperformance of the learner in the previous grade is addressed in the grade to which the learner has been promoted (p. x).

The rationale for the progression policy as provided in the DoE Guidelines for Inclusive Learning programmes (2005) is:

The developmental needs of learners should not prevent them from progressing with their age cohort as the value of peer interaction is essential for social development, self-esteem, etc. The 1998 policy on Assessment allows for learners to spend a maximum of one extra year per phase. An additional year over and above what the policy currently states may be granted by the head of education of the province. This would mean that learners experiencing barriers to learning may be older than their peers (p. 19).

This progression policy depends on the capability of the system to support “progressed” learners. For Grades 4–6, the DBE (2011b) National Policy Pertaining to The Programme and Promotion Requirements of The National Curriculum Statement document states,

A learner who is not ready to perform at the expected level and who has been retained in the first phase for four (4) years or more and who is likely to be retained again in the second phase for four (4) years or more, should receive the necessary support.

When learning barriers are identified in the classroom, the CAPS documents refer teachers to support structures at school and district level and the DoE Guidelines for Inclusive Learning Programmes (2005). For example, the CAPS maths Grades 4–6 indicate that,

[t]he key to managing inclusivity is ensuring that barriers are identified and addressed by all the relevant support structures within the school community, including teachers, District-Based Support Teams, Institutional-Level Support Teams, parents and Special Schools as Resource Centres. To address barriers in the classroom, teachers should use various curriculum differentiation strategies such as those included in the Department of Basic Education’s Guidelines for Inclusive Teaching and Learning (2010).

A teacher seeking assistance would find limited advice in the DoE Guidelines for Inclusive Learning Programmes (2005).

The consequence of the progression policy means that, in terms of learners’ needs, many classes are, in fact, multi-grade in terms of learner performance while teachers are required to adhere to the CAPS content for one specific grade. They are asked to achieve this through lesson plans and teaching while providing for differentiated learning and scaffolding assessment activities. This is a huge demand of teachers when the ANA results for KZN in 2014 indicate that, in Grade 4, only 40% of learners in maths and 43% in EFAL are mastering the required content and that these figures remain more or less constant from Grades 4 to 6. This suggests that the 60% who are not mastering the content must be progressed and the teaching and assessment must

be CAPS compliant. In the context of the reality of the multi-level performance of learners in one class, this requires the exercise of professional judgement and collegial collaboration in interacting with CAPS.

### **The design of the set of Jika iMfundo interventions**

The overarching strategic objective of Jika iMfundo is to improve learning outcomes. The theory – or logic – of change to achieve this objective is that, if the curriculum coverage improves (using a complex notion of coverage as not what teachers say they have taught, but what learners have learned at the required level), then learning outcomes will improve.

The monitoring and evaluation framework for Jika iMfundo was developed in 2013 with the support of the Zenex Foundation. The first phase examined the conceptualisation and design of the proposed programme and assisted in focusing and developing “whether programme goals and objectives were well formulated, whether programme activities and outputs were clearly specified and whether expected outcomes and associated indicators were specified” (Mouton, 2014). This clarificatory process preceded final programme design, the process evaluation process and monitoring, and outcome evaluation and impact assessment. This laid the basis for subsequent stages of process evaluation – “assessing if implementation and delivery of programmes were as scheduled ... If programme activities were implemented properly and how are these received and experienced by the target group” (Mouton, 2014).

The monitoring and evaluation process led to a logic model where the outcome and impact evaluation was based on the premise that, in order for curriculum coverage to improve, the following behaviours associated with curriculum coverage must improve: monitoring of curriculum coverage (not of what teachers have taught, but of what learners have learned); the reporting of this at the level where action can be taken; and the provision of supportive responses to solve problems associated with curriculum coverage. These are the behaviours (monitored as lead indicators) that must change in order to achieve an improvement in curriculum coverage (the lag indicator) and, from that, to realise an improvement in learning outcomes. The theory of change underpinning the Jika iMfundo monitoring and evaluation framework posits that the change in the lead indicators (changes in curriculum coverage management practice) is a necessary precursor to the improvement in curriculum coverage that follows (or lags).

This chapter will not provide a comprehensive overview of the monitoring and evaluation framework or process. These elements of the framework are introduced here to explain the framing of the lead indicators regarding the practices of teachers, HoDs, Principals and district officials in the theory of change underlying Jika iMfundo. The logic of cause (intervention) and effect (programme outcomes or benefits) in the monitoring and evaluation framework of the programme are that, in order to improve curriculum coverage, necessary (but not sufficient) conditions are:

- **Teachers** are to consistently plan, track and report on curriculum coverage and reflect on teaching and learning
- **Heads of Department** are to regularly check teachers' curriculum tracking and learners' work, work with teachers to improve coverage and assist teachers with problems in relation to the curriculum coverage
- **Principals** (and Deputies) are to meet HoDs regularly to review the quality of coverage and tracking; take action to improve coverage; and supervise the overall management of curriculum in the school
- **Circuit Managers** are to engage with schools to identify and solve key problems around the management of curriculum coverage
- **Subject Advisers** are to train and support HoDs to supervise and support teachers in curriculum coverage
- **District officials** are to work across silos to ensure data-driven problem solving and support to schools.

Without achieving the systemic adoption of these key practices, it is unlikely that curriculum coverage (defined as learners' demonstration of learning) will improve and without improved curriculum coverage, or "opportunity to learn" (Schmidt, 2010), it is unlikely that systemic measures of learning outcomes will improve.

In the monitoring and evaluation framework, these key practices are **lead indicators** for the lag indicator of improved curriculum coverage. Curriculum coverage, as a **lag indicator** of that behaviour change, if successful, becomes a **lead indicator** for the **final lag indicator** and the goal of the intervention – improvements in learner outcomes. This is shown diagrammatically in Figure 2.4.

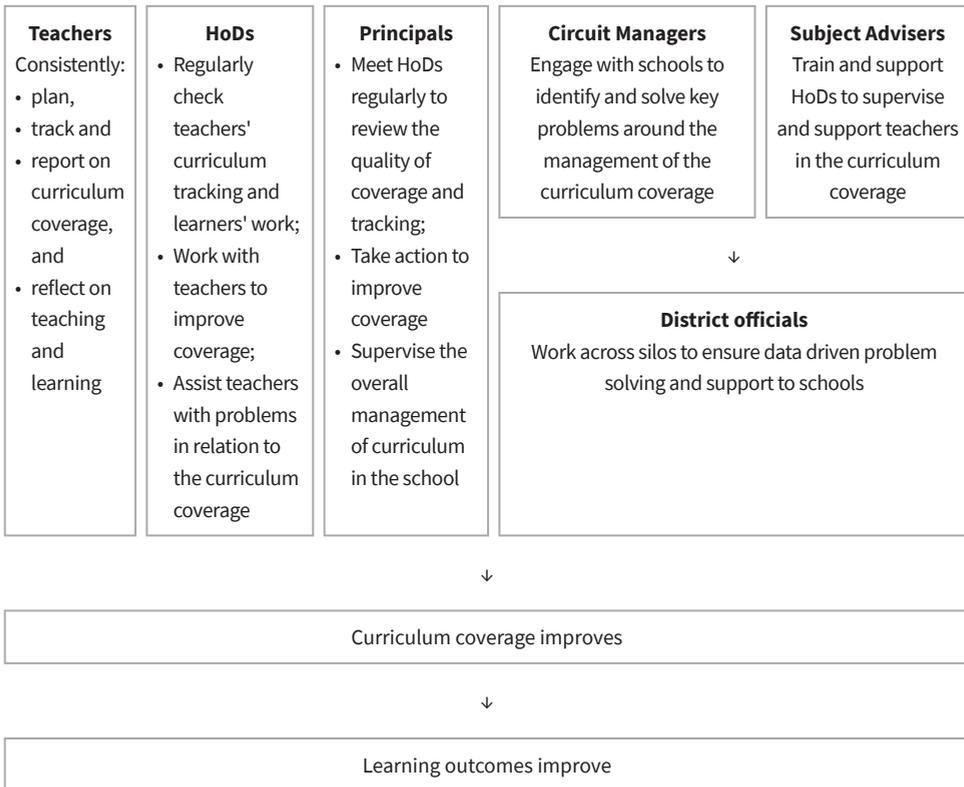
The achievement of each of these elements of the causal sequence (behaviour change, improvement in curriculum coverage and improvement in learning outcomes) is not simultaneous, but is sequential with an assumption of causal sequence. The consolidation of each lead indicator leads to improvement in its lag indicators and the impacts of each should have a cumulatively positive effect over time. The more curriculum coverage improves from one year to the next, the more likely it will be that the learner will be able to cover the curriculum in subsequent years. The monitoring and evaluation of these indicators to measure progress in 2015 to 2017 will only be of initial improvement. On-going consolidation of these changes, if sustained, will progressively, over subsequent years, result in even greater improvement.

These are necessary, but certainly not sufficient, conditions for improving both curriculum coverage and learning outcomes. So many extraneous factors (or "validity threats" in Mouton's language) can negatively or positively impact either of these "lag" indicators. But, what is certain is that these practices and the collaborative culture and climate that must support them are certainly necessary conditions to lay the institutional basis for improving curriculum coverage.

In the face of these daunting structural challenges, the approach taken in designing

the Jika iMfundo intervention was to focus on what could be changed, within human agency, in the short-term and on-scale. Teachers continue to teach despite the material constraints and despite the real impact of poverty on the learning-readiness of the children that they teach. They continue to do so without substantive opportunities to improve their content or pedagogical knowledge on-scale. The design of the intervention was premised on providing:

- teachers with support to navigate planning for teaching and assessment with minimal resources
- instructional leaders at school level (heads of department and subject or grade leaders) with opportunities for considering key conceptual challenges in that phase and subject at the start of each term (the “Just-in-Time” training)
- instructional management leaders (Heads of Departments and Principals and their deputies) with both the professional understanding of CAPS and its assessment in order to lead the management of the curriculum, as well as the adaptive and technical tools to put in place routine behaviours of curriculum management.



**Figure 2.4** The Jika IMfundo Theory of Change for monitoring and evaluation

In making these design choices to achieve change at scale, we are aware that these modest interventions cannot compensate for the overwhelming contextual disadvantages. We have therefore not set ambitious goals for improvements in learning outcomes. We do however believe that improvements in the supportive management of curriculum and its coverage will result in modest improvements in learning relative to schools where such practices are absent and that they will lay the institutional basis for ongoing improvement.

The behaviours – or as PILO names them, key practices – described in these lead indicators are surprisingly modest because they are fundamental cogs of practice generally assumed to be in place in schools and districts but without which aspirational education improvement instructions and goals are hollow. Relative to the torrent of instructions that pour onto the desks of school and district leaders, these may seem trivial and are certainly taken for granted. We would argue that, in choosing these practices for this massive investment, we have chosen “those changes that have the most potential for the most students with the least effort” (Levin, 2010, p. 68).

Whilst it may be true that, relative to many of the other ambitious policy dicta, the achievement of these practices should be a simple matter, we have found that this goal is deceptively ambitious, firstly, because of ingrained ways of behaving that are resistant to change despite a will to do so and because considerable system and individual capacity building is necessary. Levin (2010) concludes that,

... where performance is weak, so is people’s knowledge or skill as to how to do better. Improving system performance requires a large and sustained effort to improve skills (p. 234).

Secondly, there is a range of objective systemic factors that makes their realisation difficult, in particular, time, resources and a lack of focus in the system which intrudes with contradictory, and possibly urgent, but definitely less important, demands. These will be discussed in the next section.

### **The components of the Jika iMfundo interventions**

The set of interventions that comprise the Jika iMfundo campaign have been constructed to provide district officials, teachers and School Management Teams with support by providing tools and training for institutionalised practices. These will have a positive change on the behaviours (or key practices) necessary to increase curriculum coverage in all classrooms through professional, supportive and evidence-based conversations about curriculum coverage between teachers, between teachers and the SMT and between the district staff and the SMT. The goal is to make these behaviours routine (embedded and sustained) in the practices of teachers, Heads of Department, Principals and district officials. The tools and materials have been collaboratively developed with department officials with the intention of driving meaningful and

substantive engagement around identifying problems and actively seeking the solutions together, as well as providing support in relationships of reciprocal accountability. These interventions intersect and are mutually reinforcing across the sites of intervention.

PILO has learned a great deal from the trial-at-scale in 1 200 schools in King Cetshwayo and Pinetown between 2015 and 2017. On the basis of that learning, many of these interventions are being improved and refined. What we have learned and how the component interventions will be improved will not be discussed in this chapter. The chapter has as its purpose the recording of the interventions in this period to inform the research pieces that follow. The considerable success of the project will be built on in the next phase of the rollout from 2018.

The sites of intervention are the district and the school. At district level, the role-players included in the interventions are Circuit Managers (supervisors of school managers) and Subject Advisers (phase and subject-specific curriculum and pedagogy experts supporting teachers). At school level, the role-players are the Principal (and Deputy), the Heads of Department and the teachers. Each role player is provided with (or adapts) a set of tools that institutionalise the desired key practice. The adoption of each key practice and its tools is supported by training or coaching (or other processes such as co-creation).

#### *Teachers (Grades 4–12)*

Teachers often repeat their own experiences as learners without access to other models of practice which can be scrutinised as resources for the exploration of alternatives. Poor practices are handed down in generational cycles which must be disrupted by critical and collaborative reflection. Confidence in transitioning to unfamiliar methodologies and in expanding repertoires of practice must be supported in school routines that nurture instructional and leadership excellence, make classroom practice public as a basis for collaborative and reflective professional dialogue and develop teachers into coaches of their peers. Collaborative practices are key to self-sustaining system improvement. This potentially accommodates differing skill levels of teachers and avoids the restriction of compliance-driven control which de-professionalises and de-skills more highly-skilled teachers while providing sufficient structure for less-skilled teachers. It grounds teacher support in a critical pedagogy in which the agency of the teacher is not numbed, but respected and nurtured. This takes time. Quick-fix solutions (dismissed as “microwave” courses by teachers) cannot succeed. A long-term view with continuity of implementation built in to routines and rhythms of school organisation can provide this basis.

The Jika iMfundo initiative seeks to take the first steps towards assisting the SMT to put in place the routines required to make collaborative professionalism possible at the school level and the rigour necessary to deepen these practices progressively over time. This is essential because the system has little capability to provide support external

to the school. This point cannot be overemphasised. Hargreaves defines collaborative professionalism thus:

Collaborative professionalism is about how teachers and other educators transform teaching and learning together to work with all students to develop fulfilling lives of meaning, purpose and success. It is organized in an evidence-informed, but not data-driven, way through rigorous planning, deep and sometimes demanding dialogue, candid but constructive feedback and continuous collaborative inquiry. The joint work of collaborative professionalism is embedded in the culture and life of the school, where educators actively care for and have solidarity with each other as fellow professionals as they pursue their challenging work together and where they collaborate professionally in ways that are responsive to and inclusive of the cultures of their students, themselves, the community and the society (Hargreaves, 2017, p. xi).

In order to lay the basis for the achievement of this ideal systematically and starting from the core principle of working within the capacity of the system, teachers are supported by the Jika iMfundo Curriculum Planners and Trackers. These were developed in close consultation with the Curriculum Section of the Provincial Department and the responsible curriculum officials in both districts. They were trialled and then revised on the basis of feedback from school visits and focus group discussions. The Planners and Trackers were distributed to all teachers in all grades in key subjects (maths, EFAL and natural/physical science) and are systemically reinforced by the School Management Teams (SMTs) and the district staff. The support of the teacher unions is visually prominent in the logo of the teacher unions on the cover.

The Jika iMfundo Curriculum Planners and Trackers help teachers to:

- plan the coverage of the curriculum content each day and each week of each term
- align the CAPS content planning to the textbook used
- align planning to other available resources such as the DBE workbooks
- track curriculum coverage by keeping a record for each class of when the learners have mastered the content
- reflect on curriculum coverage on a weekly basis
- use the tracking and reflection together with learner work as a part of an evidence-based one-on-one curriculum coverage conversation with the Head of Department (or her delegate).

This diagrammatic introduction to the use of the trackers in the front pages of the Tracker orientates the teacher to the use of the trackers – both for planning and for tracking, reflecting and reporting.

**A. ABOUT THE CURRICULUM AND ASSESSMENT PLANNER AND TRACKER**

**1. Your quick guide to using this planner and tracker**

**What is Jika iMfundo and where do I fit in?**

What you do matters! What you do every day as a teacher can change the life-chances of every child that you teach. Jika iMfundo is a campaign that supports teachers by providing CAPS planners and trackers so that teachers can plan to cover the curriculum, track progress, and seek help when they are falling behind.

**But who will help me?**

Jika iMfundo will work with your school management team (SMT) and assist them to have supportive and professional conversations with you about curriculum coverage that will be orientated to identifying and solving problems.

*I have looked at the planner and tracker. It goes too fast!*

The CAPS planner and tracker is an expanded ATP. It helps you pace yourself as if you were able to cover everything in the ATP/CAPS. When you fall behind because time has been lost, or because the learners are progressing slowly, you need to confidently discuss this with your teaching team without feeling blamed. The pace of coverage will be determined by the pace of learning. That is why coverage must be tracked by the teacher and the SMT.

**How do I use the planner and tracker?**

See the "Quick 5-step Guide to Using the CAPS Planners and Trackers" on the opposite page.

**Figure 2.5a** Quick guide to the tracker and its purposes

**QUICK 5-STEP GUIDE TO USING THE CAPS PLANNERS AND TRACKERS**

1. Find the textbook that YOU are using.
2. Use the planning page each week to plan your teaching for the week. It will help you link the CAPS content and skills to relevant material in the textbook, the teacher's guide, and other materials such as the DBE workbook.
3. Keep a record of the date when you were able to complete the topic. It may be different from the date you planned, and for different classes. Write this date in the column on the right for your records.
4. At the end of the week, reflect and check if you are up to date. Make notes in the blank space.
5. Be ready to have a professional and supportive curriculum coverage conversation with your HoD (or subject or phase head).

The CAPS planners and trackers also provide guidelines for assessment with samples, and may also have enrichment and remedial suggestions. Read the introduction pages carefully for a full explanation.

*If this is a campaign, who is part of it?*

All teacher unions in KwaZulu-Natal support Jika iMfundo because they believe it will help teachers in their work. The district director, circuit managers and subject advisers are leading Jika iMfundo in your district because they believe that we can improve learning if we improve curriculum coverage. You, as a teacher, and your colleagues on the staff and the SMT of the school are invited to join Jika iMfundo. Because what you do matters.

If you see mistakes in the planners and trackers, please send details of these to [admin@pilo.co.za](mailto:admin@pilo.co.za).

If you would like to be kept informed about developments in Jika iMfundo, send the following information to [admin@pilo.co.za](mailto:admin@pilo.co.za):

- your cell phone number
- the grade/s you teach
- the subject/s you teach.

We will add you to a WhatsApp group that will operate in your circuit.

**Look for Jika iMfundo on Facebook.**

**Figure 2.5b** Quick guide to the tracker and its purposes

The Planners and Trackers for Grades 4–12 are constructed by aligning the CAPS requirements to each of the eight approved textbooks for that grade and subject<sup>7</sup> for every day and week each term. Each page of the Tracker provides an overview of the work for the week (if the teacher is keeping pace with CAPS) sequenced for the textbook she is using. It references the CAPS topic and page in the CAPS document; the page on the learner book (LB) and the relevant learner activities (LB act); the page on the teacher guide (TG) to assist in lesson preparation; the related pages in the DBE workbook and the additional resources required. It also indicates the pages in the additional mental mathematics (MM) resource provided. This information is all related to the “*planning*” function (super-imposed as [1] in Figure 2.6).

It also provides columns to record when the particular CAPS concept or skill was taught to each class. This information is all related to the “*tracking*” function (super-imposed as [2] in Figure 2.6). The column is necessary to make visible the “*problems*” in coverage-pace per class. The existence of the columns invites the acknowledgement that the CAPS-specified pace is not necessarily achieved.

1. Plan									
Fabulous Mathematics Week 4									
Lesson	MM	CAPS concepts and skills	CAPS pp.	LB act.	LB pp.	TG pp.	DBE workbook	Resources (No.) in the resource number in MM Activities and Printable Resources book	Class
									Date completed
17	LB p. 7 Act. 12	Using flow diagrams		2 no. 3–6	45–48	27–30	No. 13 (pp. 40–41)	MM from LB	
18	LB p. 7 Act. 12	Numeric patterns using tables		3	49	30	No. 14, 15 (pp. 42–45)	MM from LB	
19	LB p. 7 Act. 12	<b>Whole numbers: Multiplication and division: Multiplication</b>	52–55	1	51–52	32	No. 16 (pp. 46–47)	MM from LB, counters	2. Track
20	LB pp. 7–8 Act. 13	Multiplication: Multiples of 10, 100 and 1000; commutative property		2–3	53–54	33	No. 17 (pp. 48–49)	MM from LB, numbers grid (No. 3), times tables chart (No. 2)	
21	LB pp. 8–9 Act. 14	Division (2-digit by 1-digit numbers); division with a remainder		4–5	54–55	33–34	No. 16 (pp. 46–47)	MM from LB	
22		Catch-up on work not completed; remediation of concepts which weaker learners have not fully understood and enrichment cards for the learners who are on track.						Remediation and Enrichment Activities: (see toolkit book)	
<b>Reflection</b>									
Think about and make a note of: What went well? What did not go well? What did the learners find difficult or easy to understand or do? What will you do to support or extend learners? Did you complete all the work set for the week? If not, how will you get back on track?					What will you change next time? Why?				
3. Reflect					4. Discuss and seek assistance				
<b>A professional, supportive conversation based on evidence</b>									
HOD:					Date:				

Figure 2.6 An example of a page in a Tracker and Planner, Mathematics Grade 4 (With numbered annotations indicating purpose)

Each page invites reflection on the week's teaching – the “*reflection*” function (superimposed as [3] in Figure 2.6). The prompt questions differ relative to the subject and time of the schooling year. Each page is “signed off” by the Head of Department as the first step in initiating the “professional, supportive conversation based on evidence aimed at the ‘*discussing and seeking assistance*’ function.” The SMT training provides the Head of Department with the adaptive tools for this conversation to take place in a supportive atmosphere and in the spirit of reciprocal accountability and with the technical tools to manage this process administratively. It also provides “conversation prompts” to deepen the shared reflections. Reflection tools are provided for the teacher to consider what learners are doing in preparation for the conversation and the SMT training emphasises that the conversation should start with a description of what the learners are doing (drawing on City et al., 2010) rather than what the teacher does which deflects the conversation from what is often perceived as “personal” to a discussion of the learners.

The Trackers also include exemplar assessments with memoranda and cognitive levels. These assist the teaching team in benchmarking their teaching against the content-coverage of CAPS and the expected range of difficult and conceptual levels across test items. They also assist the non-specialist HoD to monitor assessment against CAPS expectations.

A key purpose of the Planner and Tracker is to be a tool for personal professional development through reflection and collaboration. The reflection is the basis for the HoD to structure a professional and supportive supervision conversation with the teacher on the basis of evidence, including the evidence of the learners' work (in workbooks or exercise books) in order to reflect on learning and to identify and find solutions to problems of curriculum coverage. The SMT training supports the HoD to develop the supervisory skills needed to sustain this. The Curriculum Planner and Tracker also helps the teacher plan assessments with examples and resources and provides enrichment activities and remediation activities.

To reiterate the issues discussed above, all of the national monitoring information shows that curriculum coverage is a problem. This has cumulative consequences – well expressed in the 2011 School Monitoring Survey (DBE, 2013b):

If teachers do not teach a topic which is supposed to be covered during the school year (in whichever learning programme/subject) then how will learners be able to perform on a test that is based on curriculum implementation expectations? More importantly, however, is the issue of progression: If the required number of topics in a learning programme is not covered, learning of the topic will, in subsequent years, be even more challenging for the learner. The accumulated deficit will therefore widen as the learner progresses through the grades, because the basics were not covered sufficiently well or not covered at all.

This point was reiterated to underscore the constant refrain of teachers that they cannot keep up with the Trackers, expressed as “the Trackers go too fast”. This means that they are not keeping up with CAPS, as the Trackers are paced by CAPS. From the inception of PILO, the intention has been to track in order to *identify* and *solve* problems of curriculum coverage. The training and coaching has sought to maintain a delicate balance between encouraging a variety of strategies to increase the pace of curriculum coverage and the necessity of making professional judgements as to what to do when coverage in a term or a year cannot be achieved. Many schools still protest that Jika iMfundo is unreasonable in its coverage expectation. It has been necessary to communicate that, through tracking and reporting, Jika iMfundo is seeking to establish an evidence-base about curriculum coverage so that professional and supportive conversations can assist the teacher to make professionally-defensible decisions about prioritisation within the curriculum.

As with all Jika iMfundo tools, the Planners and Trackers are artefacts provided to support the teachers’ professional practice and their goal is the capability to have a professional conversation about curriculum coverage based on evidence. The Planner and Tracker can scaffold this capability to the extent that the teacher needs it. Teacher support is provided directly through the materials and systemically through the support given by the HoD or the lead teachers in the phase/subject.

Given the reality that many teachers may not have the pedagogical knowledge to teach the material prescribed by CAPS, the Planners and Trackers can, to some extent, support their engagement with the material. They also need support with the content therefore Jika iMfundo worked with the Subject Advisers to plan and deliver “Just-in-Time” (JIT) content workshops, on content identified by the advisers for the first three terms of each of the three years. The system only has the capacity, even with supplementation of additional trainers, to provide this JIT training for every grade and so these were offered for phase grouping – intermediate, senior and FET. Concepts/topics were chosen that could be treated in terms of the development of the concept within the phase. The workshops were attended by the HoD and by the “lead” teacher in that subject and phase (not a formal position). The workshops were typically attended by approximately 40 participants, constructed to maximise participation and were of 5–6 hours duration.

For each of the first three terms of each year from 2015 to 2017, an average number of 3 160 participants (for both districts) attended the JIT, as shown below per subject and phase. The number of schools invited remained constant.

Monitoring was done of the participants’ self-reported satisfaction with the content and its delivery, as well as their confidence in using the Trackers. This monitoring information was captured electronically.

*Foundation Phase Teachers*

For the Foundation Phase, where the teachers do not have the content support of textbooks, Jika iMfundo provides a set of resources, called a “toolkit” to support the teachers in covering the curriculum. This includes Lesson Plans,<sup>8</sup> graded readers in both isiZulu Home Language and English (FAL), as well as a range of posters and materials, including learner workbooks in maths. As with the Grade 4–12 material, these were developed in close consultation with the Curriculum Section of the Provincial Department and the responsible curriculum officials in both districts. They were trialled and then revised based on feedback from school visits and focus group discussions.

Emphasis was placed on the Foundation Phase because learning deficits are cumulative in character. The DBE Macro Indicator Report (2013a) indicated that,

... low access at higher levels of education is mainly a symptom of weak education quality in the earlier parts of the school programme ... low scores in these local and international assessments reflect that our children are taking too long to acquire fundamental literacy and numeracy skills (p. 2).

PHASE AND SUBJECT	# SCHOOLS INVITED	% SCHOOL ATTENDANCE (AVERAGE)	# PARTICIPANT TRAINING SEATS FILLED (AVERAGE)
Grades 4–7 maths	628	83%	845
Grades 4–7 EFAL	465	76%	795
Grades 8–9 maths	380	74%	290
Grades 8–9 EFAL	335	63%	200
Grades 8–9 natural science	335	62%	350
Grades 10–12 maths	306	70%	250
Grades 10–12 EFAL	350	72%	220
Grade 10–12 physical science	342	64%	210
Average participants per term			3 160

**Table 2.3** Grade 4–12 Participants attending each JIT session across both districts, 2014–2017

The lesson plans are instructional tools for the teachers who interact with them according to their professional judgement. Pedagogically, they may promote new approaches to teaching and may challenge existing practices.

The lesson plans typically include a comprehensive section explaining the alignment of the lesson plans with CAPS and the component of CAPS for that subject; broad guidelines for using the lesson plans; comprehensive methodology guidelines; a record of key vocabulary; phonic words and their meaning; and printable resources. The lesson plans are only one component of a toolkit which provides all the resources needed to deliver the lessons, including posters and readers.

The lesson plan gives an indication of time required (as stipulated by CAPS), the content/concepts/skills taught, the resources required and an outline of the focus of the lesson with suggestions in sequence. This is a resource for the teacher when planning for the lesson – in terms of organising resources and preparing the content, and planning assessment and homework activities. It also assists the teacher to meet the requirements in CAPS for the amount of time and lessons to be offered each week in various components in each grade and term.

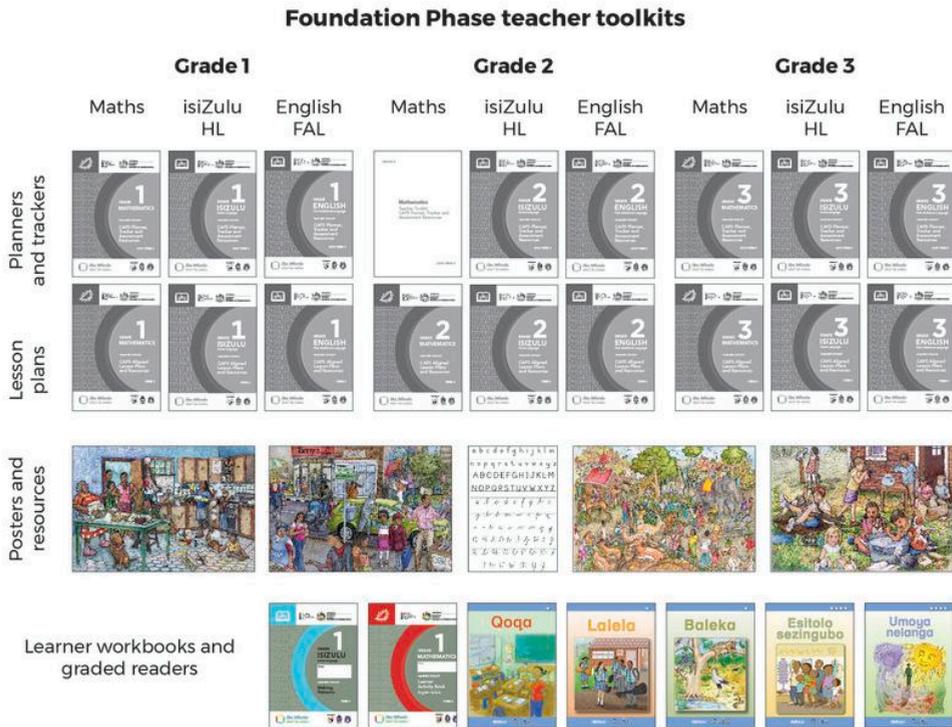


Figure 2.7 Foundation phase teacher toolkit

Planning is further assisted by the CAPS Planner and Tracker which, in the same way as the Grade 4–12 Trackers, tracks against the LPs rather than a learner book/textbook for each week.

Considerable assessment resources are provided in the Tracker to assist the teacher with preparing and managing assessment. These include:

- The assessment programme for the subject and grade for the term
- The programme of assessment as it relates to the lesson plans
- Reading assessment exemplars
- Assessment activities in the lesson plans and how they relate to the CAPS rubrics
- The CAPS rubric for the term
- A checklist for the term to record learner marks on which teachers indicate which specified skills their learners have achieved
- A sample mark sheet to record learner marks so that they will accord with SA-SAMS.

This list of resources is illustrative of the complex professional tasks of a Foundation Phase teacher. The tools and resources assist in structuring teaching towards CAPS compliance but both CAPS and the lesson plans also introduce pedagogical approaches with which the teacher may be unfamiliar. In order to support teachers in exploring new pedagogical approaches, the use of the new material is supported by the Heads of Department who attend training on key methodological issues every term – the JIT for the Foundation Phase.

The delivery of the Foundation-Phase “Just-in-Time” Training was the responsibility of the Foundation Phase Subject Advisers. This is consistent with the intention of the pilot-at-scale which was to demonstrate that change is possible on scale within the existing capacity of the department.

The PILO foundation phase team responsible for the development of the lesson plans worked closely with the Subject Advisers in deciding on the topics/focus for

## C. RESOURCE LIST

The resources below are part of the toolkit provided with the lesson plans. You will also need various other resources as noted in the lesson plans.

- **Printable resources** (See Section G)
  - Reading word sheet: Look-and-say words
  - Phonic word sheet: Homework words
  - Flashcard templates: Phonic letters/sounds
  - Flashcard templates: Look-and-say words
  - Posters: A4-sized *School and Home* posters
- **Posters:** Class-sized *School and Home* wall posters
- **CD:** *EFAL*
- **Readers:** *Living Things* and *Sunny Days* for Group Guided Reading
- **Term 1 Planner and Tracker**

Figure 2.8 C Resource List graphic

the workshops and in developing the training material. This was done by bringing all the Subject Advisers into one venue for two or three days to work through the draft material and to improve it, where necessary, before the Subject Advisers proceeded with the training. The PILO experts were seen as a resource for the advisers and worked under their authority. The Subject Advisers found this process extremely professionally empowering.

The high ratio of Subject Advisers to schools (1:100 or more) meant that Subject Advisers could not always reach all of their schools. Additional trainers are provided by PILO working in support of the advisers with whom responsibility remained.

This training was intended to assist the HoD in her role as pedagogical leader and, as such, the materials focused on the pedagogy underlying the lesson plans and their alignment to CAPS. The HoD and a lead teacher from the school in the subject (languages or maths) attended the training and used the facilitators’ and participants’ packs to report back to the foundation phase teachers as part of their leadership work.

For the last term of 2014 (preparing the schools to receive the toolkit) and for each of the first three terms of each year from 2015 to 2017, the number of participants who attended the Foundation Phase JIT was in the region of the figures shown in Table 2.4 (for both districts), averaged across the 10 JIT sessions.

As with the Grade 4–12 JIT, monitoring was done of the participants’ self-reported satisfaction with the content and its delivery, as well as their confidence in using the trackers and lesson plans. This monitoring information was captured electronically.

Heads of Department (HoDs) are supported in two ways: subject and phase specific content training, as described above, and SMT training and coaching in management and leadership.

	<b># SCHOOLS INVITED</b>	<b>PERCENTAGE SCHOOL ATTENDANCE (AVERAGE)</b>	<b>NUMBER OF PARTICIPANT TRAINING SEATS FILLED PER SESSION (AVERAGE)</b>
Mathematics	710	90%	1 140
Languages (isiZulu and EFAL)	656	86%	1 000
Average total training seats per term			2 140

**Table 2.4** Foundation phase participants attending JIT per term across both districts

*SMT training and coaching**Scale and modality of training*

The engine of the change process of Jika iMfundo is the SMT training and coaching. Before outlining the purpose, content and approach of the training and coaching, the scale and modality will be explained.

As with JIT, SMT sessions were held for each of the first three terms for the three years. The HoDs attended two SMT sessions a year for the three years, one of which was with the Principal/Deputy Principal. The Principals/Deputy Principals attended two SMT training sessions a year for three years, one of which was with the HoDs.

SMT attendance each term was, on average, 1 700 participants for each SMT Module across both districts. Sessions were participative, with no more than 40 participants. The training was presented by PILO's coaches and generally the Circuit Managers would attend, even if briefly, to give the session the stamp of their ownership in their opening or closing remarks. The sessions were generally 5–6 hours with a large proportion of the day spent in group activities that provided opportunities to address practical problems of leading the curriculum collaboratively. The attendance at the training of schools functioning at different levels of confidence meant that the activities were an opportunity for schools to learn from each other. Jika iMfundo coaches were explicitly and frequently reminded that the wisdom and experience would be within the participants present and the purpose of the session was to access that and make it visible so that it could be shared.

*Content and approach of the SMT training*

The content and approach of the SMT training was informed by:

- the need to orientate schools towards a culture of internal and reciprocal accountability
- the theory of change established in the monitoring and evaluation framework
- the set of target key practices that Jika iMfundo sought to establish incrementally as routine
- an understanding of Jika iMfundo as a “campaign” that had to establish and maintain the desire to improve learning by improving curriculum management practices that would positively impact on curriculum coverage
- the necessity of building personal agency to achieve this change in the face of the overwhelming challenges schools face
- the need for technical “tools” that would assist the SMTs with the “how to do” the multitude of the “what to do” of compliance instructions
- professional knowledge related to CAPS management
- the need for adaptive leadership practices necessary to drive and inspire the change at school level
- practical solutions to the challenges of time needed for supervision.

The content of each SMT session was informed by feedback from challenges in adopting the key practices in schools. Persistent challenges and problems identified were revisited across multiple sessions.

*A school culture of internal and reciprocal accountability*

The culture of the education system tends to be hierarchical and authoritarian and is characterised by command and compliance both within schools and between the districts and the schools. Supervisory relationships often have an attitude of triumphant fault-finding. This culture results in deceptive compliance reporting and challenges that educators conceal. This is alienating and inimical to personal and professional growth. The SMT training and coaching is consciously rooted in an approach which embeds the desire to improve in moral purpose and is constructed to shift school cultures towards the deepening of autonomy and of agency in order to establish a culture of professional collaboration and support in the school as a basis for ongoing professional development.

Recurring themes in the training and coaching focus on the routine practice of professional, supportive conversations about curriculum coverage, based on evidence, which are conducted in a “safe space” with an attitude of “How can I help you?” tools, provided in the training and reinforced in the coaching, plan and structure evidence-based conversations. A deepening shift towards these practices fundamentally changes relationships to support collegiality which is generative of professional learning. Core concepts were taught that aimed to inform the changed practice. These included: reciprocal and internal accountability; distributive leadership; the centrality of the instructional core in system improvement; the de-privatisation of the personal professional space; building the phase or subject as a professional learning community; and the value of reflective, collaborative professional practice.

*Jika iMfundo as “campaign” and building personal agency despite challenges*

Each session of the SMT training began with a recommitment to the campaign, a reminder of the goals, the story of change and the agency driving the effort of change. Often, this was done as reflection and an implied recommitment in order to focus on the session mindful that, despite challenges, there are issues within their person control that matter.

*SMT “Technical Tools” to create school routines of supportive accountability*

These tools were constructed in conversation with officials and schools with good curriculum management practices to assist with the “how to do” in relation to the “what to do” of compliance instructions. The SMTs were given tools in the training session which were reinforced in subsequent sessions and in coaching sessions in order to support the development of the key supervisory practices of:

- scheduling routine checking of teachers’ curriculum tracking and learners’ work
- having structured and supportive conversations with teachers to improve coverage

and to assist teachers with problems in relation to the curriculum coverage.

Technical Tools included a range of tools that could be used in the schools to plan, track, report, identify and collaboratively solve curriculum coverage problems. It was stressed that these tools were to be adapted by the school and that their only purpose was to support the routine practice of professional supportive conversations about curriculum coverage based on evidence in order to act on problems and provide differentiated support.

Some tools assisted HoDs with the task of planning the management tasks associated with curriculum coverage by providing an overview reminder of purpose and process and suggesting keys for tasks to be scheduled, with a simple calendar for planning. This helped HoDs to plan systematically and is also part of the body of evidence they would use in their professional and supportive conversations with the Principal or Subject Adviser regarding curriculum management in their departments. Schools were encouraged to customise the tools to their own circumstances.

Another tool provided a format for the structuring of conversations so that they focused on key practices and guided the conversations to the identification and solving of problems, based on evidence of learners' work. This would take place in a supportive and constructive manner with space for a commitment from both the teachers and the HoDs about what each will do to achieve the improvement agreed upon. Another tool provided a checklist for the HoDs to use in reflection – what is working and what needs work – in preparing for the overview of their curriculum management for their conversations with the Principals of the schools.

### *Professional knowledge*

Work was also done on practically understanding the SMT responsibility in terms of the management of CAPS. This included the ways in which professionals can interact with the guidance given by CAPS in making judgements regarding pacing and sequencing. The tools also included tools for planning and monitoring formal assessments in terms of CAPS compliance.

### *The need for adaptive leadership practices necessary to drive and inspire the change at school level*

Adaptive tools to support “the practice of mobilizing people to tackle tough challenges and thrive” (Heifetz et al., 2009, p. 14) were provided to build confidence in mobilising, leading or enabling change. These tools included the Johari Window; Covey concepts relating to judgements of urgency and importance; confronting the challenges of supervision; techniques for managing difficult conversations; building teams; creating safe spaces; understanding positional and substantive authority; and adopting a growth mind set.

The practical challenges of supervising are evident in these statements made in

discussion with SMT members and district officials and emphasise that injunctions to “supervise” will not be met without addressing the adaptive skill required to lead and the practical problems faced by over-burdened HoDs.

I am afraid to show areas of weakness or need in the work of my colleagues	I am supervising people that are my friends	I find it hard to have difficult conversations and tend to avoid these	I cannot shift patterns of interaction with people that were previously my peers	I find it difficult to give negative feedback about people
I cannot find the time to look at what the people I am supervising are actually doing	I don't feel that I add any value to the work of the people I supervise	My colleagues distrust the process through which I was appointed or placed.	I am struggling to get people to accept my authority	I feel that the people I supervise don't respect me
I am unable to take criticism from the people I have to supervise	Everyone stamps and signs; nobody gives feedback. So, I find it difficult to be the only one commenting and giving feedback on the work of those I have to supervise.		I am afraid people might think that I am policing their work	
Some of the people I supervise know more than me	I work in a totally dysfunctional school, and people have accepted the situation, and say I am going to do as they do soon.	I specialised in one subject, but I have to supervise others, in which I have not specialised.		
I know my job, but I find it difficult to relate to people.	I teach in the Foundation Phase, and I am a class teacher. There is no time for me to supervise.	I find it difficult to do my job because department officials gave us mixed messages about what we have to do.		
I was trained in the 'what' but not in the 'how' of my supervisory role.	I have never been trained as a curriculum manager. I do not feel confident supervising the work of others, particularly because I come from the same school.	The principal dictates what I have to do in my phase. Sometimes what the principal expects me to do is not in line with departmental policy.		

**Figure 2.9** Comments of HoDs: Why supervision is difficult

*Practical solutions to the challenges of time needed for supervision*

Our work has shown that an additional structural constraint inhibiting the internal capacity of the system to provide supervision is the supervisory span of control relative to time. At school level, the material conditions are such that HoDs have little time to fulfil their supervisory functions.

The workloads of educators are regulated by what is commonly referred to as the “PAM” – the Personnel Administration Measures – which prescribe the “Terms and Conditions of Employment of Educators Determined in Terms of Section 4 of The Employment of Educators Act 1998”.<sup>9</sup>

	TEACHER (Post Level 1)	HoD (Post Level 2)
Primary School	85-92	85-90
Secondary School	85-90	85

Teacher and HoD workload allocation (as per Terms and Conditions of Employment of Educators Determined in Terms of Section 4 of The Employment of Educators Act 1998)

The difference in teaching allocation between a teacher and a HoD is minuscule – as little as 2% and, at most, 7% of their working time. Yet, the duties and responsibilities of a HoD from the PAM (DBE, 2016, p. 11) are considerable and curriculum management is but one aspect of their work. Depending on the size of the school and the span of control of the HoD, fulfilling these responsibilities is arguably well nigh impossible, as few of these responsibilities are single-step processes.

What is the “span of control” of a HoD? How many teachers might she be responsible for? The post allocation for HoDs is dependent on the number of learners.<sup>10</sup>

SCHOOL TYPE/ NUMBER OF HoDs	1	2	3	4	5
Primary	150	320	520	880	-
Secondary and Combined	150	200	455	770	1050

HoD “span of control” taken from the SADTU KZN (2017)

Primary schools get a Deputy once the enrolment reaches 520 and a second Deputy at 1040. Secondary and Combined schools get a Deputy once the enrolment reaches 455 and a second Deputy at an enrolment of 910. No more than four HoDs can be allocated to a primary school and five to a secondary school, even if the enrolment is far higher.

In terms of teachers, this is regulated in terms of Post Provisioning Norms (PPN) which use the DoE’s (1996) *Post distribution model for the allocation of educator posts to schools*. In KZN, funds permitting, schools are allocated a school clerk when enrolment

reaches 600 and the educators are responsible for entering and managing the schools' SA-SAMS database. Complexities of post-distribution aside, these are some of the scenarios – at opposite ends of the size spectrum – that arise from the allocation of teachers, HoDs and Deputies relative to learner numbers. Finding time for effective supervision of teachers that has the potential to assist them in their professional growth would be more than a challenge, particularly for FP HoDs who would inevitably be teaching for 100% of the school teaching time. In the majority of cases, HoDs in secondary schools carry the additional burden of supervising subjects that they are not teaching and in which they may not be confident.

The impossibility of these ratios relative to the reduction in teaching loads to accommodate the considerable additional administrative and supervisory responsibilities leads to an inability to prioritise and focus. There is insufficient staffing-time for the system to operate in a way that does more than superficial and, essentially, compliance monitoring. This would be true of schools at both ends of the size spectrum.

Learning from our implementation monitoring, we substantially amended our strategies during implementation to provide the tools, strategies and dispositions required so that supervisors could have professional, supportive conversations about curriculum coverage based on evidence by using situational techniques for supervising large teams. These included strategies of delegation; using distributive leadership strategies; time management; and prioritisation. Within the current allocations or responsibilities of HoDs (which are administratively greater than curriculum management) relative to the time available, these are the only measures possible to make the system work within resource allocations that are essentially unworkable for effective performance of the leadership responsibilities.

### *Coaching*

Coaching sessions followed training sessions and were held on school sites with the whole SMT – sometimes in clusters of schools experiencing similar challenges. Each PILO coach was responsible for approximately 110 schools, so attention to schools had to be carefully planned and prioritised. In targeting which schools should participate in the coaching, coaches were guided by requests from schools, from insights gained from coaching sessions and by requests from the Circuit Managers. Investment of the resource of coaching time was prioritised towards schools with the capacity to absorb the intervention. These schools were often explicitly set up as Professional Learning Communities of SMTs which would continue meeting after the three-year period of training and coaching. The broad analysis used in the segmentation process was to divide schools into 3 categories:

- *Green Schools* – that adopt the target behaviours confidently and are able to progress in the use and adaptation of the tools provided independently with ongoing participation in the training

- *Amber Schools* – that have a clear intention and motivation to adopt the target behaviours and attempt to do so, but need assistance
- *Red Schools* – that are unable to adopt the practices because of greater dysfunctionality in the schools (often to do with contested leadership).

These categories were not static and the intention was to work with the schools which had the greatest capacity to support the intervention and shift them from “amber” to “green”. In the first year, there were some schools that were “red” simply because they had not attended any of the training but which, after a small investment in coaching, rapidly became “amber” or even “green”.<sup>11</sup>

“Green” schools would not necessarily have attended the coaching sessions and many schools that were “amber” would have attended more than one. The average number of participants per session was in the region of five in Pinetown and seven in King Cetshwayo, but this would be an average across individual school and cluster sessions.

Coaching provided the climate and support structure for improving the method, theory and practice necessary to establish routines of professional, supportive, collaborative conversations about curriculum coverage based on evidence as a foundation for identifying and solving problems. The coaching gave participants a safe space to discuss their challenges; helped build relationships; gave participants a sense of accomplishment because they set their own learning goals; and developed new skills and knowledge required to perform at higher levels. Coaching was conducted in cluster sessions as a conscious strategy of building sustainable professional learning communities across SMTs.

	# Cluster Coaching Sessions	# Schools Coached	# SMT Members Coached
Jan-March 2016	31	149	205
April-June 2016	188	378	828
July-Sept 2016	100	133	427
Oct-Dec 2016	82	82	107
Jan-March 2017	107	211	920
April-June 2017	144	315	771
July-Sept 2017	27	35	35
TOTAL	679	1303	3293

**Table 2.5** King Cetshwayo 2016–2017 SMT coaching: Number of sessions and schools and participants coached

*Districts*

Mc Lennan (in this volume) has provided a thorough analysis of the literature on district functioning and its challenges and has focused, in particular, on the role of Circuit Managers. She has also provided a comprehensive account of the work of Jika iMfundo in Pinetown and King Cetshwayo from 2015 to 2017. There is no need to add further to this work.

The work of Subject Advisers (SAs) requires explication as this is an under-researched and under-documented area in South Africa. The area of greatest learning in the 2015–2017 Jika iMfundo trial-at-scale has been the Teaching and Learning Support (TLS) within the district. We had to reconceptualise what support to teachers means and to operationalise this within the parameters of the available resources.

The official model is not fit for purpose. TLS, as currently structured and resourced, is under-conceptualised and poorly understood in the education system. While we worked closely with the SAs in the process of developing and reinforcing the use of the “Just-in-Time” training and in developing a draft tool to assist in the planning and reporting of visits, not as much progress as hoped for was made in the pilot-at-scale in King Cetshwayo and Pinetown even though a great deal has been learned which can inform the next phase of implementation which will include Pinetown and King Cetshwayo. This section will not outline all the activities undertaken with SAs because there is no research piece on this work. It will however provide an overview of the challenges in this area.

	# Cluster Coaching Sessions	# Schools Coached	# SMT Members Coached
Jan-March 2016	99	381	957
April-June 2016	76	271	733
July-Sept 2016	67	115	142
Oct-Dec 2016	60	95	617
Jan-March 2017	77	102	762
April-June 2017	155	212	848
July-Sept 2017	25	25	69
TOTAL	460	820	3171

**Table 2.6** Pinetown 2016–2017 SMT coaching: Number of sessions and schools and participants coached

There are several features that either contribute to or are a consequence of the “Cinderella” status of SAs:

- The DBE *Policy on the Organisation Roles and Responsibilities of Education Districts* (2012) focuses exclusively on Circuit Managers. There is passing reference to Subject Advisers.
- There is ambiguity about the reporting line of the Subject Advisers. While Subject Advisers are located physically in the district, their official reporting line is to the Curriculum Section of the province.
- The highly silo-ed internal professional-identity-driven structure and working arrangements makes it hard for them to operate as part of a cross-functional team. Subject Advisers cannot contemplate playing a role outside of their narrow phase- and subject-specific identity. This means that translating their commitment to working across silos into conversations at school level with HoDs, who are not working in the Subject Advisers’ subjects, has been extremely difficult. Other than in Foundation Phase where there is a strong sense of professional community, Subject Advisers tend to define their professional community as the broader network of similar phase and subject-specific people outside of the district. In the district, they are largely disconnected and isolated in their direct phase and subject-specific concerns. The natural community of an FET subject specialist is her fellow subject specialist in other districts. This observation is consistent with McLaughlin and Talbert’s (1993, p. 8) framing of professional learning communities in terms of boundaries and strength. From their work with secondary school teachers, they argue that professional communities differ from one another in boundaries and culture defined by an inclusiveness driven by shared priorities and strength determined by a common discourse.
- The mismatch between institutional and curriculum arrangements and the definition of the scope of work of Subject Advisers, as FET or GET, has resulted in FET Subject Advisers being responsible for both primary and secondary schools because they serve Grades 4–9 which spread over both primary and secondary schools.
- The discrepancy between the requirements of the role and the impossible scale of the responsibilities renders their work meaningless. The “performance area responsibilities” of SAs assume that they play a key role in supporting teachers by providing professional support and advice; ensuring that teachers receive a regular flow of curriculum information; monitoring curriculum management; and ensuring curriculum compliance. This requires effective working relationships with teachers in their subject area of which there would be an estimated average of four in each school.
- Apart from the direct teacher support, there are a variety of networking and coordination responsibilities.

Table 2.7 gives a snapshot of the number of Subject Advisers, by phase and subject, relative to the number of schools supported in Pinetown and King Cetshwayo in 2015. The use of the term “snapshot” is key because the number of Subject Advisers changes constantly. Advisers retire, resign or are promoted and the posts are vacant possibly for long periods until they are filled. The figures below were accurate in early 2015, but some have been filled and others are now vacant but even if three times as many Subject Advisers were appointed in all categories, the conclusion that there is a lack of system capacity to support teachers meaningfully would remain.

The ratio of Subject Advisers to schools cannot be understood without analysing the posts relative to the NQF band, the phase and the subject. The misalignment between the structure of the curriculum phases and the institutional design of schools leads to a situation that, while the FP and FET advisers are responsible for three grades in primary and high schools respectively, the intermediate and senior phase advisers are responsible for Grades 4–9 which are spread across both primary and high schools. In King Cetshwayo, one subject adviser was responsible for 696 schools and six grades. In Pinetown, one natural science adviser was responsible for 556 schools and three grades. The FET phase also has unacceptably high ratios. One subject adviser for EFAL supports 173 schools in Pinetown. Foundation Phase ratios are also too high for meaningful support – advisers are each responsible for nearly 100 schools. Being responsible for a school means three grades, with possibly several teachers per grade. This summary of resource availability does not take into account distance to be travelled between schools and between the school and the district office.

Table 2.8 from the Auditor-General of South Africa: KZN (2017, p. 22) shows, firstly, that the figures for Pinetown and King Cetshwayo are not atypical for the province, and secondly, that even in this thorough review of the work of Subject Advisers, the phase specialisation distinction was missed and so the average number of schools per adviser is incorrect. The maths and English FET advisers would be visiting high schools only, while the GET maths and English FET advisers would be visiting both primary and secondary schools. While it is difficult to disaggregate further without the numbers of Subject Advisers by FET and GET, the numbers will not be dissimilar to those on Table 2.7 above.

If Subject Advisers did nothing else but visit schools for the 40 weeks of the teaching year and managed to do three per day, they would not get through all the schools for which they are responsible. Apart from such an exercise being practically impossible on the current model, the visits would have little value.

Given the paucity of time to visit schools, it is not surprising that the AG KZN established that the majority of school visits were no less than one hour in duration (see Figure 2.10).

The monitoring tools completed by the Subject Advisers did not cater for the requirements mentioned above. The performance agreements of Subject Advisers also do not prescribe the frequency and nature of school visits.

Band Phase	Institutional location	Grades responsible	Grades for which advisers are responsible	Subjects	Pinetown		King Cetshwayo			
					DCES	SES # Schools	DCES	SES # Schools		
GET	Foundation Phase	1-3	1-3	Foundation Phase	1	3	383	1	4	470
	Intermediate Phase	4-6	4-6	English FAL	1	3	556	0	3	696
	Senior Phase	7-9	7-9	Maths	0	3		1	0	
				Natural science	1 (Sick leave since 2014)	1		1	2	
FET	FET Phase	10-12	10-12	English FAL	1	1	173	0	2	226
				Maths	0	0		0	2	
				Physical science	1 (Acting)	2		1	1	

**Table 2.7** Snapshot of Subject Advisers (SA) numbers relative to schools Pinetown and King Cetshwayo, 2015

The resource constraints of Subject Advisers are further restricted by system weaknesses.

The Auditor-General (AG) of South Africa, in his Education Sector Report for 2015–16, identified the functioning of districts as a matter requiring further investigation. This was taken forward by the AG KZN in the report referred to above. The recommendations of this national report indicated, in respect of Subject Advisers, that

- “PEDs should revise their recruitment processes to ensure that vacancies are filled timeously. The department should plan and use the existing resources optimally while vacancies are being filled.
- “Curriculum coordinators and Circuit Managers should plan and coordinate their school visits.
- “Job descriptions, performance agreements and work plans should be revised to include key performance areas on the nature and frequency of curriculum support to schools.
- “Standard operating procedures and templates to record curriculum monitoring and support by Subject Advisers during school visits should be revisited to ensure

	SA Maths (A)	SA English (B)	Number of schools/district (C)	Ave. no of schools/ SA for Maths (C/A)	Ave. no of schools/SA for English (C/B)
Amajuba	6	4	249	42	62
ILembe	3	5	430	143	86
Pinetown	4	5	532	133	106
Sisonke	6	3	452	75	151
Ugu	4	1	502	126	502
Umgungundlovu	6	3	544	91	181
Umkhanyakude	6	3	544	91	181
Umlazi	6	2	518	86	259
Umzinyathi	4	3	501	125	167
Uthukela	5	4	456	91	114
Uthungulu	7	5	669	96	134
Zululand	8	5	751	94	150

**Table 2.8** Average number of schools per subject advisor for mathematics and English for 2014–15

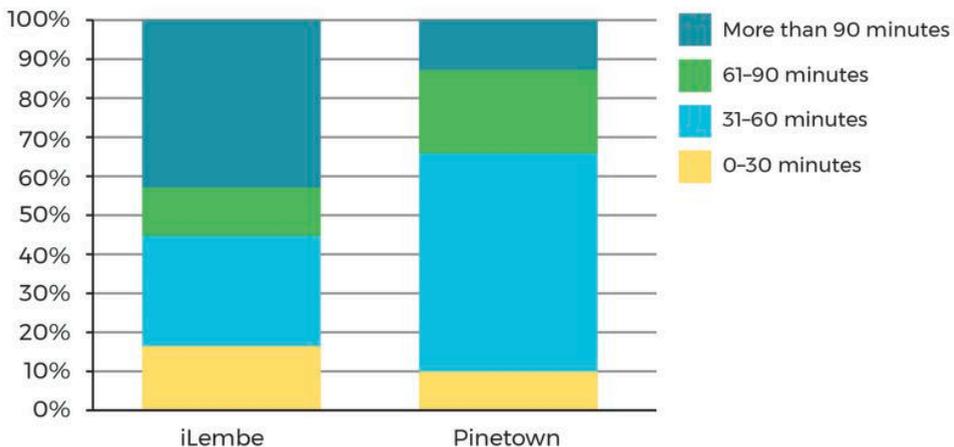
(Auditor-General of South Africa: KZN, 2017, p. 23)

*Provided by the KwaZulu Natal Department of Education from Persal*

complete and standardised curriculum support.

- “The Provincial Department should provide training and guidance in terms of the roles and responsibilities of Subject Advisers.
- “PEDs and education districts should provide adequate guidance and support during the development of the education district and school improvement plans to ensure timely, appropriate and complete plans.
- “Management information systems and processes should be developed and implemented to:
  - identify schools on which education districts need to focus
  - track and assess the monitoring and support provided to schools by education districts
  - measure the changes in the educational outcomes that are attributable to the curriculum monitoring and support actions of the education districts.
- “PEDs should address the lack of proper filing and archiving systems. This will ensure that documentation and information are readily available to support transactions and management decisions.”

These recommendations were then pursued in the KZN study of 2017 which carefully considered them.



**Figure 2.10** Duration of subject advisor visits with an educator during school visits (per selected district)  
 (Auditor-General of South Africa: KZN, 2017, p. 23)

AREA	KEY FINDINGS	KEY RECOMMENDATIONS
Resources to provide curriculum support	<ul style="list-style-type: none"> <li>• There was an uneven distribution of schools per Subject Adviser resulting in inconsistent curriculum support to schools. Other initiatives were put in place as compensating measures.</li> <li>• Subject adviser posts were vacant due to budgetary constraints which delayed the filling of these positions.</li> </ul>	<ul style="list-style-type: none"> <li>• The department must assess the extent of the inequitable allocation of Subject Advisers per district. It must ensure that a plan to address the disparities is developed and implemented to inform the reallocation of Subject Advisers to provide equitable curriculum support and monitoring to schools in the province.</li> <li>• The department should document and keep records of the number of Subject Advisers for each phase, to assist with the work allocation of the Subject Advisers across the phases.</li> <li>• The department's decision on budget allocations to districts should consider the activities and level of support districts plan to provide to schools annually, given the department's strategic objectives and priorities.</li> </ul>
Impact of visits and systems of monitoring and reporting	<ul style="list-style-type: none"> <li>• When Subject Advisers identified shortcomings during school visits, recommendations were not always provided to the school on how to rectify them. In addition, these shortcomings and recommendations were not always included in the school improvement plan.</li> <li>• No evidence was provided to indicate that Subject Advisers assisted and supported educators by providing guidance on how to address shortcomings identified during school visits. The Subject Advisers also did not agree on time frames to implement corrective action and for future monitoring activities with the educators.</li> <li>• The management information systems and processes to evaluate the frequency, adequacy and outcomes of on-site curriculum support to schools did not enable effective monitoring.</li> </ul>	<ul style="list-style-type: none"> <li>• The department should consider implementing a comprehensive management information system to ensure that:             <ul style="list-style-type: none"> <li>• Information is updated in a timely manner</li> <li>• The system enables identifying root causes contributing to poor performance</li> <li>• Historical information is available for the department to assess trends in performance</li> <li>• Information is easily accessible</li> <li>• Education districts should maintain formal records of the work performed during school visits.</li> </ul> </li> <li>• The department should develop programme indicators and targets to measure and report on the performance of districts in providing curriculum support and monitoring.</li> </ul>

Key Findings and Recommendations, Auditor-General of South Africa, Kwa Zulu Natal. 2017. *Performance Audit Report on the Curriculum Support and Monitoring provided by education districts to schools at the KwaZulu-Natal Education Department.*

The more detailed report of findings indicated that,

- no evidence was provided to indicate that Subject Advisers assisted and supported educators by providing guidance on how to address shortcomings identified during school visits. The Subject Advisers also did not agree on time frames to implement corrective action and future monitoring activities with the educators. In addition, some of the required information was not always completed on the monitoring tool used by the Subject Advisers during site visits to schools.
- the monitoring tools completed by the Subject Advisers during school visits did not assess the following:
  - Learner difficulties identified
  - Whether the educators had intervention strategies for learners with barriers to learning and/or learning difficulties
  - The appropriateness and effectiveness of the educators' intervention strategies for learners with barriers to learning and/or learning difficulties
  - Whether additional intervention strategies for learners with barriers to learning and/or learning difficulties were recommended by the Subject Advisor.

In a detailed analysis of the response of schools to 12 SA visits, the AG report found that, as a consequence of 10 of these visits, they could find no evidence of any deficiency or recommendation identified by the Subject Advisor being incorporated into work or plans after the visit. For the remaining two visits, they found that the school improvement plan did include lesson planning and presentation which should assist with lesson preparations.

The work of Jika iMfundo going forward will build on the learning of the pilot on scale and on the consensus achieved that

- the relative neglect of Grades 8 and 9 must be redressed
- the reactive effort in Grade 12 needs to be counterbalanced in the long term by a proactive strategy of focused support more continuously through the 12 grades
- there is a need to move away from a narrow compliance focus to substantive engagement and a need to move authoritarianism, blame and negativity to meaningful professional engagement and support
- monitoring simply for compliance for control will not change what happens. The emphasis of the work of SAs should be on support for improvement
- the SAs need to work more closely with the HoDs
- curriculum management cannot be neglected, but should be a focus of the Subject Advisers' visits
- roles, responsibilities and relationships between CESSs, DCESSs and advisers need strengthening.

The work planned for SA in the next phase will address these challenges.

## **In conclusion**

It has been a privilege to work so closely within the system and with so many schools and to have had the opportunity of understanding, in much more detail, the challenges of their work. We have had the opportunity to gather evidence for key system insights that will contribute to the policy and implementation process and will be shared with government and other stakeholders in appropriate fora.

We have learned a great deal about the complexities of change at scale and deepened our understanding of why change fails. We have learned that magical thinking and magical reporting in a compliance culture drive non-compliance underground and make it invisible, as more senior role-players are told what they want to know rather than what the real problems are. We have learned that personal agency is undermined in a demoralised system, attention is difficult in a complex, busy system as efforts are invested in wrong and unplanned priorities and accountability becomes amorphous in an underperforming system. The system needs to build agency, attention and accountability so that officials can do the good work that will build belief in their effectiveness and success – this has transformed agency.

We have learned that supervisory relationships within schools and to schools are completely under-resourced and there is little meaningful support for teachers with problems of pedagogy and that these problems are seldom shared professionally.

But, we have also learned that there is a huge hunger and determination for improvement and that it is possible to provide the tools and training to create the institutional routines to make support meaningful at school and district levels.

The Jika iMfundo project in KZN represents an enormous private and public investment in education change. There will be a NECT-led evaluation, but there are multiple components which will not be exhaustively scrutinised in that process. This set of research papers have been written because PILO wishes to make secondary data on the implementation of Jika iMfundo available to researchers for independent analysis and critique so that lessons can be learned as the project continues and is further rolled out; weaknesses are corrected; and areas that require strengthening are identified. This analysis needs to be in the public domain so that lessons learned are shared as soon as possible, given the growing attention on systemic improvement, and so that the shared learning informs further enquiry and practice.

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## Notes

1. PILO is currently working with the Gauteng and Free State Departments of Education.
2. In particular, the DBE Action Plan 2019 (2015a) and The DBE National Learner Attainment Strategy (2015b).
3. The change management work of PILO has been greatly influenced by the work of John Kotter.
4. The current costs of the intervention are less than R25 per learner per year.
5. The Northern Cape and currently Gauteng and the Free State.
6. Space does not allow for this chapter to examine the ways in which the assumptions within and the implementation of CAPS and other curriculum policies may contribute to coverage problems.
7. The DBE issues a list of no more than eight textbooks per grade and subject that are approved for schools to purchase and schools choose from this list.
8. The Jika iMfundo Lesson Plans were re-versioned from the Lesson Plans produced for the Gauteng Primary Literacy and Mathematics Strategy by agreement between the two Heads of Department.
9. Originally published in 1999 and gazetted February 2016.
10. These figures are taken from the SADTU KZN (2017).
11. PILO employed coaches from 2016. In 2015, the coaching team was managed by Performance Solutions South Africa, the organisation responsible for the Principals Management Development Programme.

## Leading to improve learning outcomes in the Jika iMfundo campaign

*Allistair Witten and Kaizer Makole*

### Introduction

The systemic change initiative in education, called the Jika iMfundo Campaign, is being implemented in two school districts of the KwaZulu-Natal (KZN) province of South Africa. This campaign, located in the provincial and district offices and driven by a change partner, the Programme to Improve Learning Outcomes (PILO), represents an important step in the country's quest for an effective methodology that will enable it to undertake change at scale in seeking to improve the quality of public education.

This initiative is unique in the sense that it pays careful attention to the *process* of change as well the *outcomes* it seeks to achieve – with this dual focus allowing it to serve as a “policy enabler” that provides a detailed roadmap for the realisation of policy goals. The study of the work of PILO, through the implementation of the Jika iMfundo Campaign in the two districts of KZN, thus offers important insights and lessons that can deepen our understanding of what education change means in the South African context, what its effects are and the implications of these for policy and practice.

In this chapter, we explore the effects of the Jika iMfundo Campaign through the lens of leadership, focusing specifically on leadership practice at the level of the school. PILO's Theory of Change (ToC)<sup>1</sup> focuses on increasing curriculum coverage that will, in turn, lead to improved learning outcomes. One of the components required to achieve this goal is the role of the School Management Team<sup>2</sup> (SMT) in supporting and strengthening teaching practice in the school. We refer to this as *instructional leadership*.

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In this chapter, we will consider how instructional leadership is exercised in the school and explore some of its effects.

We begin the chapter by providing some background to the research topic. Following this, we review the literature on instructional leadership and consider its definition in the context of school improvement in South Africa. The next section will describe the research methodology that we followed to collect the data for the study. We then present the findings and discuss their importance for practice and policy in South Africa.

## **Background**

This study on leadership is located within a broader study of systemic school improvement in South Africa. While there is a significant body of international research and literature on this subject in places like the USA and elsewhere (Furhman, 2003; Fullan, 2007; Muller & Roberts, 2000), this is a more recent research focus in South Africa that has been growing since 1994 (Taylor & Jansen, 2003; Sayed, 2001; Crouch & Mabogoane, 2001; Anderson, Case, & Lam, 2001; Gilmour, 2001; Taylor, Muller, & Vinjevold, 2003; Harley & Wedekind, 2004; Fleisch, 2006). The Programme to Improve Learning Outcomes (PILO) is one of the current initiatives that focus on systemic education change in South Africa. The intervention is regarded as a “trial at scale” and concentrates on building systemic alignment and coherence around the core goal of improving curriculum coverage in schools – an area consistently identified by research as one of the main reasons for poor learning outcomes in schools (Taylor & Moyana, 2005; Oosthuizen & Bhorat, 2006; Hoadley, 2010; National Education Evaluation and Development Unit [NEEDU] Report, 2013).

One of the key enablers of improving curriculum coverage in schools is effective leadership (Leithwood & Jantzi, 2005; Waters, Marzano, & McNulty, 2004; Leithwood, Seashore-Louis, Anderson, & Wahlstrom, 2004). In South Africa, the role of school leaders in contributing to improving the quality of education in the country has received ongoing attention. This is especially in relation to the roles and responsibilities of Principals, Deputy Principals and SMT members in supporting and strengthening the core functions of teaching and learning in the school (Bush, Glover, Bischoff, Moloji, Heystek, & Joubert, 2006; Hoadley, Christie, & Ward, 2009).

Schools are, however, complex organisations to lead and manage (Senge, Cambron-McCabe, Lucas, Smith, & Dutton, 2000). As educational institutions, they are located at the intersection of a number of societal influences that are political, economic and social in nature (Fiske & Ladd, 2005; Moloji & Strauss, 2005; Christie, 1999). Schools do not function in a vacuum, where they are insulated from these influences – they are, in fact, affected by them. Leaders therefore have a key role to play in mitigating the effects of working in complex environments and establishing the enabling conditions for effective teaching and learning in their schools.

This is particularly relevant in the context of KZN, where many schools are

characterised by poor infrastructure, inadequately trained teachers and a lack of resources. Teachers also have to deal with learner violence, teenage pregnancy, and alcohol and substance abuse at school (Naidoo, 2011; Grant, Gardner, Kajee, Moodley, & Samaroo, 2010). Furthermore, many of the communities served by the schools have high adult illiteracy rates, are located in peri-urban and remote rural areas where learners have to walk long distances to schools and experience the debilitating effects of isolation, poverty and social inequality (Dehaloo, 2011; Pillay, 2005). Research has shown that in communities like these where the social and developmental needs of learners are more pronounced, good leadership has a significantly greater effect on the lives of the learners (Leithwood et al., 2004).

This study on school leadership is undertaken as part of a larger case study of the PILO and its work in two school districts of KZN. The core focus of PILO's work is on improving curriculum coverage in schools. PILO has mapped out a clear rubric of interconnected relationships and behaviours at the school and district levels with a view towards routinising these as systemic practices that would contribute to the achievement of its goals. For the teachers, this involves consistent planning, tracking, reporting and reflecting on their teaching. As part of the change intervention, Grades 1 to 3 have been provided with lesson plans and supporting materials and Grades 4 to 12 received curriculum planners and trackers.

Besides assisting with curriculum coverage, the tracker is also used as a tool for professional development as it allows teachers to reflect on practice around both the quantity and quality of curriculum coverage. This then becomes the basis for a supportive supervision conversation with the HoD, using evidence of records and learners' work to consider how teaching practice can be supported and strengthened.

The Jika iMfundo Campaign also places strong emphasis on School Management Team (SMT) training – especially in the areas of instructional leadership and supervision – to develop the skills, competencies and dispositions required to strengthen teaching practice in the school. The change initiative provides tools and training for HoDs, Deputy Principals and Principals to enhance the role of the SMT in supporting the work of the teachers around curriculum coverage. In this study, we explore the effects of the training and support provided to Principals and SMT members in relation to their roles as instructional leaders in schools.

## **Reviewing the literature on instructional leadership**

### *International understandings of instructional leadership*

A significant body of literature exists in the USA relating to the changing role of the Principal as an instructional leader (Hallinger & Murphy, 1986; Murphy, 1994; Elmore, 2000; Portin, Schneider, De Armond, & Gundlach, 2003). Instructional leadership has a strong focus on *teaching and learning*, with a view to improving these interrelated processes (Robinson, Lloyd, & Rowe, 2008). Earlier scholarship in the USA focused

on the role of instructional leadership as one of the key elements to improve student outcomes (Hallinger & Murphy, 1986; Murphy, 1994). Some researchers suggest that instructional leadership is a critical aspect of a broader leadership approach, but agree that it focuses on the quality of teaching, modelling effective teaching practice, supervising the curriculum and making available quality teaching resources (Portin et al., 2003). Other scholars show that instructional leadership revolves around the following key roles and responsibilities (Blasé & Blasé, 2002; Seashore-Louis, 2003):

- Developing and promoting an instructional vision (revolving around teaching and learning) in the school
- Building and managing a collaborative school culture that is conducive to having conversations about teaching and learning
- Allocating resources to support and enable instructional practice
- Supporting teacher growth and development
- Focusing on the monitoring and assessing of instruction
- Establishing a school climate in which discipline is connected to instructional issues.

Elmore (2000) regards the Principal as the key actor in leading instructional improvement in schools. He asserts that “leadership is the guidance and direction of instructional improvement” (p. 13) and argues that this definition gives focus to the role of the Principal in the school. Rather than seeing instruction as one of the many (and often disconnected) activities that the Principal has to do in a school, the focus on instruction locates teaching and learning as *central* to the work of the school Principal. Elmore points out that, once the focus is on leading instructional improvement, everything else that the leader does should be *instrumental* to it. In other words, all the other leadership activities in the school should be connected to and supportive of the teaching and learning processes. All school improvement processes should therefore be directly and deliberately linked to the classroom processes of teaching and learning. However, Elmore notes that these processes cannot be adequately managed by Principals as individuals and require “distributed” leadership where expertise, knowledge and guidance are shared across a broader group of people at the school (Spillane, Halverson, & Diamond, 2004). Given the above, the role of the Principal and SMT members in exercising instructional leadership in the school becomes central to supporting and improving teaching practice and, ultimately, learner academic performance.

#### *Conceptualising instructional leadership in South Africa*

In South Africa, traditional conceptualisations of leadership are rooted in the public management approach (Knight, 1993; Bisschoff & Kamil-Sayed, 1999) and research that has examined the emerging phenomena of instructional leadership in South Africa is sparse (Luswata, 2001; Williams, 2001). Public management conceptualisations of leadership are rooted in the Newtonian or “mechanistic” paradigm of leadership and

management in which public bureaucracies are understood as operating like machines, with predictable and linear cause and effect relationships, certainty and consistency in outcomes and a hierarchy of control in order to achieve desired results (Senge, 1994; Wheatley, 1999; Meadows, 2002; Beck, 2013). The more recent “New Public Management” approach that emphasises effectiveness, efficiency and service quality is founded on the principles of Taylorism, where rules are applied as a top-down control mechanism, with adherence and compliance being regarded as essential means for achieving goals. This thinking and practice have traditionally informed the role of Principals as managers in schools, where the focus is on control, compliance with policy and the hierarchical arrangements of power and authority. In essence, good leadership in schools in South Africa has been equated with effective bureaucratic management, with very little attention being paid to how management practices are connected to improving teaching and learning in the school.

The bureaucratic style of management in South African schools was further entrenched during the previous dispensation of segregated and unequal education. Schools, especially the ones serving urban township and rural communities, formed part of a broader network of state-controlled agencies that were carefully monitored and where relationships with community groups and non-governmental organisations were restricted (Asmal & James, 2001). The management of these schools was characterised by rigid hierarchical structures that centralised control and entrenched authoritarian practices in the schools and districts (Witten, 2009).

South Africa’s transition to democracy further contributed to the dominant bureaucratic management approach in schools. This period was characterised by the dramatic transformation of all sectors of the state and led to a wave of policy enactments (in education, health, social services, etc.) that caused a tremendous amount of confusion, uncertainty and anxiety for the leaders and members of the institutions who had to implement them (Witten, 2009). This was particularly true for school leaders. Research in the USA shows that school Principals, when faced with large amounts of uncertainty and anxiety from the external environment, tend to focus on the school’s bureaucratic functions in efforts to “buffer” teachers and schools from these outside influences (Goldring, 1990; Goldring & Hausman, 2001). They do so by establishing hierarchical and rigid administrative structures that are often not conducive to collaborative work. Research in South Africa supports this finding that school Principals responded to the uncertainties of decentralisation, as well as the expanded range of responsibilities that have been placed on them by developing management styles in which power becomes more centralised around them (Knight, 1993; Bisschoff & Kamil-Sayed, 1999). In situations like these, broader participation in school-level decision making takes on symbolic rather than authentic forms (Grant Lewis & Naidoo, 2004). The impulse of bureaucratic control in education thus has deep historical roots and remains embedded in the practice of school leadership in South Africa today.

While government has recognised the need to improve learning outcomes, studies

show that inadequate training and professional development opportunities for school leaders remain a challenge and, in cases where these do occur, there is a strong focus on teaching about policy rather than on instructional leadership (Sayed, 2000; Mestry & Grobler, 2002). Bush et al. (2006, p. 11) note the limitations of bureaucratic control with regard to how teaching and learning is supported and managed in schools and state that “there are no accounts of how school Principals and other school managers, exercise ‘instructional leadership’ in their schools and seek to develop an effective culture of teaching and learning.” The findings of a study by Hoadley, Christie and Ward (2009) provide some important insights into instructional leadership in the South African context. Their study shows that the instructional focus, in terms of managing the curriculum and engaging in the teaching and learning processes, is dispersed across the School Management Teams and is not solely the work of the Principal. Instead, most of the Principals in their study focused on creating the enabling conditions for effective instruction by concentrating on the organisational and cultural aspects of the school (Hoadley et al., 2009).

The above studies lay the groundwork for further research that seeks to understand how Principals and SMT members connect their roles and work to supporting and strengthening teaching practice and improving learner performance in schools. This study attempts to shed some light on these important aspects of instructional leadership in schools.

## **Methodology**

### *Research questions*

This study on school leadership forms part of a bigger case study on systemic change in education in South Africa. The broader study focused on describing and exploring the change processes and their effects at three key levels of the system: the district (Circuit Managers, Subject Advisers and other officials); the school (the SMT members – Principals, Deputy Principals and HoDs); and the classroom (the teachers). For purposes of this study, we will focus on the effects of the training on members of the SMT.

Given the above, the following research questions guided the study:

1. What are the effects of the training on the practices of members of the SMT?
2. What are some of the challenges experienced by SMT members in fulfilling their roles of supporting teaching practice in their schools?

### *Selection of sites and participants*

Data collection on the PILO intervention took place in the two school districts of Pinetown and uThungulu. In order to explore the effects of the PILO change process and interventions on the schools, the research team worked with the PILO team members and district officials to identify the institutions that were invited to participate in the study. Eight schools from each district were selected to participate in the study

(four primary and four high schools). The schools were chosen based on their levels of involvement in the PILO interventions.

Four of the selected schools were identified as “early adopters” which means that they displayed high levels of involvement in the programme, while the other four schools showed less of an uptake and involvement in the intervention. The purpose of using these two categories of schools was to document the effects of the training and identify some of the challenges to the initiative. Interviews were conducted with the Principals, HoDs and teachers from each of the schools, as well as the PILO coaches working in the schools.

#### *Data collection methods*

The research team conducted individual and focus group interviews with the participants in the study and used questionnaires that were developed around the two key research questions. Members of the research team also observed SMT training sessions, district-school meetings and SMT meetings. The observations served to deepen the team’s understanding of the context in which the intervention occurred and the effects of the change processes at the district and school levels. Field notes were compiled during the observations and used during the research team meetings to raise further questions that would be asked during follow-up interviews.

The research team also collected and reviewed a range of documents related to the PILO intervention. These included reports, reviews, articles, meeting notes and other artefacts that provided a deeper understanding of the nature of the intervention; the processes involved in its implementation; and the effects of the intervention. The team requested permission from both districts to conduct the study and obtained consent from all the participants involved in it.

#### *Data analysis*

The research team used the inductive approach to read and review the interview transcripts and identify categories of codes that could be developed into themes with multiple meanings (Strauss & Corbin, 1998). The use of open coding also encouraged “continuous revision and refinement of categories” in search of similarities, contradictory points of view and the development of new insights that were gathered from appropriate quotations from the participants in the study (Thomas, 2006). This process further allowed new explanations to emerge and enabled the research team to establish linkages between the research objectives and the data (Thomas, 2006).

A thematic analysis was also used to identify emerging themes (Smith, 1992; Braun & Clarke, 2006). The members of the research team immersed themselves in the data and identified categories of concepts for the teachers, Heads of Department, Deputy Principals and Principals at schools. Following this, the team looked for similarities and differences in the texts within and between each group. These formed the categories around which the themes would be developed (DeSantis & Ugarriza, 2000).

*Validity*

A number of strategies were used to minimise threats to the descriptive, interpretive and explanatory validity of this study. The same interview protocol was followed for all the participants and the linkages between the research and interview questions were checked for consistency (Bryman & Burgess, 1994). The team also transcribed all the interviews and focus groups in order to increase accuracy and emphasised triangulation between the data collected from the different sources. In addition, careful attention was paid to detail, both in the transcriptions of interviews and focus groups and in the descriptive field notes of the observed interactions.

The research team also strived for “analytic openness” (Creswell, 1998) and sought to make explicit the analytic framework through which it arrived at the findings from this study. This, together with the multiple strategies to minimise the validity threats outlined above, contributed to the credibility of the conclusions reached in the study.

*Limitations*

This study was exploratory in nature as it sought to develop a deeper understanding of the effects of the Jika iMfundo Campaign on instructional leadership in schools. Furthermore, due to the small sample size, the study refrains from making generalisations about school leadership across the two districts of KZN or other parts of the country. Its value however lies in identifying possible topics related to instructional leadership that can form the basis of future research.

*Significance of the study*

Any initiative aimed at improving learning outcomes in schools has to consider the role of school leaders in creating the enabling conditions for effective teaching and learning and strengthening teaching practice in the school. This study makes a contribution to emerging research and literature on the topic of instructional leadership in South Africa’s schools.

*Findings*

Seven final themes were generated from the categories derived from the data transcripts of the respondents. These themes relate to the effects of the Jika iMfundo Campaign on the roles of the SMT members as instructional leaders in their schools. Five of the themes revolve around specific aspects of instructional leadership in schools, while the other two focus on some of the challenges experienced by the Principals and SMT members in their work at the schools. These are discussed below.

*A strengthened focus on curriculum management*

One of the more pronounced effects of the Jika iMfundo Campaign on Principals and SMT members has been the refocusing on curriculum management as central to the work of the SMT. Most of the participants in the study shared this view and indicated

that the SMT training modules, as well as the tools that were used to strengthen supervision, led to a change in practice and a stronger focus on managing the curriculum in their schools. Some Principals noted that previous training relating to Curriculum 2005 left them confused and uncertain about their roles in managing the curriculum whereas the current training increased their knowledge of curriculum policy and improved their ability to plan, organise, monitor and evaluate the activities and effects of teaching and learning in their schools.

Other Principals commented that the activities of curriculum management were becoming institutionalised in their schools and made them more aware of what was happening in classrooms. One Principal noted:

... Now, I am aware of all issues affecting curriculum delivery, and I am in a position to account from an informed position due to frequent reporting and tracking ...

Another Principal noted that she was better organised and has been able to plan more effectively around supervising the work of the HoDs:

... As a newly appointed Principal, I have done a schedule for my SMT – when to check them because you cannot just sleep and say ‘tomorrow I am going to check your work’ ...

A third Principal spoke about the usefulness of the supervision and planning tools in improving curriculum management at the school:

... At the present moment, I am able to provide evidence of work as there are tools that I use and everything is recorded in the SMT files ...

Better planning also strengthened curriculum management in schools. A number of Principals and HoDs described the importance of developing a school year plan that contained a complete and functional teaching schedule and timetable, a schedule of learner assessment tasks and a calendar for tracking teachers’ and learners’ workbooks to ensure that teaching and learning is taking place on a daily basis and according to the schedule of the planner.

What is also noticeable in the data is that the Principals have made a clearer delineation between the roles of focusing on instruction and managing the administrative duties of the school. Some argued that, while it was important for a school to have a good financial and infrastructure management system, their core business was to improve learning outcomes in their schools.

*An increased awareness of the “hard” and “soft” leadership skills required for instructional improvement*

A number of participants in the study mentioned that the SMT training made them realise the importance of their leadership roles in building confidence and re-energising teachers to strengthen teaching practice in their schools. They believed that, while the technical tools for supervising, planning, monitoring and supporting the work of teachers form part of an important management function, building relationships of trust in the school where teachers feel part of a team and are acknowledged and supported, is just as important in achieving the school’s improvement goals.

A few Principals mentioned that the SMT training and their interactions with the coaches made them more sensitive to the social and psychological challenges that learners and teachers experienced in their schools. This caused them to become more responsive to their concerns and needs. One participant noted:

... The teaching of the iceberg assisted us to be sensitive to other people ... this is something that has improved a lot (in the school) ...

Other SMT members agreed that the training encouraged them to be more open in terms of communicating and sharing information and strengthened their ability to listen and assist their colleagues. A Principal shared the effects of these practices in her school:

... When people know everything about the school and what is happening, they have a sense of ownership ...

The SMT training also made the school leaders more aware of the relationship between the technical or “hard” skills of leadership and the culture of compliance that often serves to frustrate school improvement efforts. A number of them noted that they had gained a deeper understanding of how important it is to build relationships that would motivate teachers to achieve their goals.

*The role of supervision as a professional and collaborative engagement*

An essential aspect of instructional leadership is the ability to monitor, guide and support teaching practice in the school. This is also referred to as supervision and participants in the study acknowledged that this aspect of instructional leadership needed to be strengthened in their schools. One of the reasons for this is the isolated context within which teaching occurs – many teachers prefer to close off and safeguard their workspaces which prevents them from sharing good practices and working collectively to improve learning outcomes in their schools. The Jika iMfundo Campaign has placed a strong emphasis on professional collaboration, as essential to improving curriculum coverage that has become a thread that runs throughout the SMT training,

the work of the coaches in the schools and the interactions between the school and the district.

The SMT members mentioned how the training helped them revisit the concept and practice of supervision in their schools. One Principal noted that:

... It has been professional and effective ... looking back on the SMT training that we had whereby Jika iMfundo has explained all things like conducting difficult and professional conversations (as part of the supervision process) ...

The HoDs in some schools also mentioned that they were improving their supervision skills and that the SMT and school departmental meetings have become more effective and relevant. One HoD stated:

... Our meetings are shorter, to the point and have quality agendas. We share ideas and ensure that everyone is on the same page ...

One Principal commented on some of the attitudinal changes that he was beginning to see in the supervisory relationships of the members of the SMT:

... [the HoDs] are learning to work more closely together with the educators. They are becoming more sympathetic to the challenges of the teachers and polite and encouraging when dealing with them ...

One of the elements of a change in relationships noted by a HoD has been their approach to teachers which has been “*more constructive*” and “*less judgemental*”. The HoD also spoke about becoming more aware of the personal and emotional states of teachers when engaging with them. The teachers confirmed this view, commenting that the HoDs have become more capable of approaching educators “*correctly*” and were “*more available*”, “*approachable*”, and “*supportive*”.

Some teachers also mentioned that their perceptions of the SMT members as instructional leaders have changed, with one teacher noting:

... I’m beginning to see the HoD in a different way now. Before, she would come to fill in the schedules required by the department and moderate the papers. Now, she is talking more to me about my teaching and we are looking at the work of the learners. This has helped me to identify areas where I must strengthen my teaching ...

Based on the above data gathered from the interviews, there seem to be changes in supervision from being a compliance practice based on hierarchical authority, to one that is beginning to take the form of a developmental, professional and collaborative engagement.

*Setting the direction for pursuing instructional goals*

Participants spoke about the usefulness of the training in providing the “roadmap” or giving them clearer direction in achieving the school’s improvement goals. An important aspect of this is about achieving clarity of practice and purpose as instructional leaders. As the Jika iMfundo Campaign was being implemented, stakeholders across the system reported that they understood their own roles and responsibilities, as well as those of others in the change process better. Some teachers pointed out that the campaign has assisted them to understand the roles that the HoDs and Principals play more clearly, especially in supporting and strengthening teaching practice. One teacher mentioned:

... We know what our roles and responsibilities are from reading about it in our job descriptions, but we never fully understood the role that the HoD played in supervision at the school. I now understand that it is about supporting our work of teaching and looking for areas where we need help and where we can improve.

A few Principals and district officials indicated that it is not only the HoDs who had benefited from role clarification (through the SMT training and support from the coaches). They noted that everyone involved has become clearer about their roles and responsibilities in working towards the outcome of improving curriculum coverage for learners in the two districts. One district official stated:

Once the role of the SMT became clearer in relation to our role in the district, it allowed us to develop a common language and work around a common purpose. I think this also built mutual accountability between ourselves and the schools ...

A Principal mentioned that being clearer about her role and responsibilities as an instructional leader made it easier to lead and manage the school. She stated:

The Jika iMfundo has given me the direction because, before the campaign, we were just coming to school and will check the lesson plan without connecting it to the annual teaching plan ...

Another Principal supported this view by adding:

... Now we have direction. The teacher in the classroom knows on which date she would do what and when to assess the learners ...

*Providing support and opportunities for professional development*

Data from the respondents show that effective instructional leadership in schools has to be underpinned by professional development and support for teachers. This accords

with Elmore's (2000) concept of "reciprocal accountability" which involves *providing support* and *building capacity* (where needed) at the different levels of the system. This form of accountability adopts the principle that, for each unit of improved performance that is required, there should be the provision of a reciprocal unit of support and capacity. In other words, asking the teachers, Principals and SMT members to improve their practice without helping them to acquire the skills and providing the resources for them to do so will not lead to achieving the desired outcomes.

The HoDs in a number of schools observed an improvement in the support given to them by their Principals/Deputy Principals. They experienced the Principals as being more helpful by providing them with useful and much-needed information and assisting with some of their supervisory challenges. Some teachers also commented that their Principals were engaging more frequently with them, reviewing their work and providing them with feedback about what they were doing well and where they could improve. In one focus group, a teacher stated:

... The Principal has become more connected to us. She is talking a lot about the curriculum and how we are managing it. She has become more 'hands on' and is encouraging the HoDs to help us where they can ...

Data from the schools, as well as the PILO coaches, reveal that the HoDs have a greater "*development orientation*"; they visit the teachers more frequently and are more collaborative and open to hearing about the challenges they encounter in the classroom. In addition, one of the HoD focus groups reported that the SMT members shared the knowledge and skills gained at the Jika iMfundo training interventions with the educators. One HoD described how professional and collaborative engagement played out in the supervision relationship:

... You tell her about her strengths and, at the same time, you ask her how you can support her ...

#### *School-based challenges to instructional leadership*

SMT members identified a number of challenges that often have a negative effect on instructional leadership in the schools. Among the more common of these are the significant number of learners with barriers to learning; poor district support; inadequate teacher content knowledge and pedagogic skills; an unfavourable post-provisioning model in the rural school contexts; and inadequate school infrastructure. One Principal mentioned that:

... we have a challenge of overcrowding that does not have anything to do with the Jika iMfundo Campaign. It is one of the contextual factors ...

The challenge of overcrowding is a common one in many of the schools. Principals and HoDs noted that this situation discouraged effective teaching and learning, as the learners were cramped together and the teachers were unable to attend to their individual needs. Some complained that they received instructions from the district office to admit learners, even when the school was full. One Principal stated:

... We are a very big school but we do not have enough space. Floor space is our challenge and when you are trying to contact the department they just have their own way of working ...

Another Principal noted how the shortage of teachers affected instructional practice:

... There is a shortage of teaching manpower and SMT members are overloaded and not able to monitor some teachers ...

Many Principals and teachers also complained that inadequate support and resources from the Education Department sets them up for failure as they are expected to perform on par with well-resourced schools and are chastised when they underperform. One Principal commented on the lack of educational redress, stating:

... Look at my school, there are no resources but I am expected to perform like a school in a well-resourced area, whereas here I have to think about everything ...

Although government prioritises textbook provisioning, some schools still receive inadequate supplies and, where they do have sufficient stock, the learners are not allowed to take these home for fear of them being lost or misplaced. This also impacts negatively on curriculum coverage, as opportunities to consolidate the work through homework exercises are lost. In some instances, school budgets only allow for the purchase of textbooks in certain priority subjects which means overlooking the purchase of textbooks required in other subjects. A HoD at one school mentioned:

... We do not have enough resources, i.e. textbooks in some subjects, because we are told to prioritise mathematics and science subjects ...

#### *External, environmental challenges to instructional leadership in schools*

A number of participants in the study identified learner absenteeism as a major cause of poor learner performance. One of the contributing factors to this is the lack of learner transport to schools, especially in the rural areas. One Principal noted that the Department of Education has been struggling to address this issue in the province effectively. The HoDs also pointed out that absenteeism is sometimes caused by learner or family circumstances – learners from child-headed households are often away from

school during month end, as they have to go to banks to collect their social grants or stipends. One teacher observed that many girls also do not attend school during their menstrual cycle, as they cannot afford sanitary towels. A number of SMT members and teachers agreed that learner absenteeism is a serious concern for the schools participating in the Jika iMfundo Campaign as it has a negative effect on curriculum coverage.

Another challenge for learners is the effects of their living conditions on their learning and development. Some of the teachers reported that many learners are not able to complete their homework because conditions in the home are not conducive for studying and there is very little supervisory support for them at home due to the low education levels of their parents. For many parents and community members, the struggle for survival is a daily preoccupation and the responsibility for learning is acceded to the school. One of the teachers pointed out that:

... There is also a lack of parental involvement as most of learners stay with the grandmothers who cannot help them with the schoolwork ...

A HoD at another school echoed the sentiment of a number of other educators:

... A lack of responsibility and accountability of parents is another problem that we experience, where you find that homework is not done and parents do not assist ...

Other challenges of context that affect children's learning and development, as reported in the interviews, include low levels of parental involvement in schools due to distance and time; the difficulties associated with child-headed and single-headed households (including those where many of the learners are cared for by grandparents); ill-health and the burden of disease; drugs and alcohol abuse; and teenage pregnancy. Research has established a strong correlation between socio-economic status and educational attainment and quality (Van der Berg & Burger, 2003) and the challenges of context, especially in relation to poverty and social inequality, that will have to be attended to over the longer term.

The themes discussed above respond to the research questions that focus on the effects of the Jika iMfundo Campaign on instructional leadership and some of the challenges that frustrate the efforts of leaders in supporting teaching practice and improving learning outcomes in schools. Data from the study show that the Jika iMfundo Campaign has strengthened the focus on curriculum management in schools and reinforced the importance of leadership in building relationships and motivating teachers to change their practices. The data also highlighted a renewed focus of SMT members on supervision as a professional, supportive and collaborative engagement designed to improve teaching practice in the school. The use of the supervision tools

also contributed to a clearer understanding of the roles and responsibilities of instructional leaders which enabled them to provide clearer and stronger direction in pursuing the goal of curriculum coverage in their schools. The data also confirmed the importance of providing support and opportunities for professional learning and development to teachers which is central to the concept of “reciprocal accountability” in schools (Elmore, 2000). The last two themes focused on the obstacles to instructional leadership and highlighted the school-related, as well as the external challenges and complexities that affect leadership in schools.

In the concluding section, we identify three important implications of these findings for understanding and strengthening instructional leadership in schools.

## **Conclusion**

### *Moving from bureaucratic management to a focus on instructional leadership*

The Jika iMfundo Campaign in KZN, which focuses on curriculum coverage in order to improve learning outcomes in schools, has emphasised the role of school leadership as essential to achieving this goal. The implementation of the initiative and the use of tools in the schools have shifted leadership practice to focus more on the essential activities of teaching and learning in the school. This logic presupposes that all other school-based activities are instrumental to and should serve this core focus.

A strong bureaucratic management orientation continues to permeate school leadership in South African schools which promotes policy compliance without substantive and critical engagement around how these policies translate into effective practice and the achievement of its goals. The practice of instructional leadership, as shown in the Jika iMfundo Campaign, thus necessitates a shift in focus from bureaucratic management (where teaching and learning is incorporated as one of the many management activities) to centralising instruction. In so doing, the campaign highlights possibilities for *how* this shift in leadership focus and orientation can be made.

### *Balancing the agency of instructional leadership with the enabling conditions required for change and improvement*

One of the underpinning concepts of instructional leadership is the notion of agency, defined simply as the ability of an individual or group of people to act in a situation and change it. The Jika iMfundo Campaign has underscored the importance of people as the key agents of change and improvement and has focused on providing support and building their professional capacities to do so. What will be required to strengthen instructional leadership in many of the schools will be a more concerted effort to create the enabling conditions that will address some of the intractable challenges to improvement.

This is not the work of an individual leader or a single school. Instead, it will

require a broader, systemic response that not only provides the resources and tools for improving curriculum coverage at the level of the classroom, but also addresses the challenges related to school and district infrastructure and capacity that hinder or frustrate the efforts of Principals, teachers and the SMT members to improve the quality of teaching and learning in their schools.

*Instructional leadership as a systems-wide construct*

While this study has focused on instructional leadership at the level of the school, what will be required to improve curriculum coverage at scale is the adoption of instructional leadership as a systems-wide construct – where the roles and responsibilities of the education stakeholders across the district, provincial and national levels are defined and aligned to support teaching and learning at the levels of the school and classroom optimally. This will require a more coherent system of engagement and support for schools around instructional improvement, which can come in the form of providing direct support (strengthening pedagogy and content, etc.), as well as indirect support (creating the enabling conditions for more effective teaching and learning), to schools.

Centralising instructional leadership as a systems-wide construct will have implications for how the work of supporting schools is undertaken. For example, Circuit Managers or Subject Advisers at the district level should primarily think of themselves as instructional leaders rather than just bureaucratic managers. This shift in conceptualisation accompanies a shift in practice and will define their roles and responsibilities, as well as highlight the skills, competencies and dispositions required for them to undertake their work in schools effectively.

The refocusing of instructional leadership will also require that more attention be given to developing *systemic instructional coherence* where professional roles and responsibilities; organisational cultures, systems and structures; resources; and stakeholder relationships across the different levels of the system are arranged in a clear and organised manner to mutually reinforce each other in connecting to and supporting teaching and learning in the classroom.

Lastly, the extent to which an instructional orientation can take root and become an essential feature of the system will depend on the amount of *noise* in the system – the distractions that serve to divert the focus or dilute the efforts aimed at improving learning outcomes. These are many and, amongst others, may include political influence and interference; rigid and self-serving bureaucratic structures; and the lack of capacity and resources to sustain the work of change.

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## Notes

1. A ToC is a set of assumptions that underpins a simple 'if-then' dependency and informs the actions that will be taken. PILO's ToC is based on the assumption that improving learning outcomes will be achieved by improving curriculum coverage which, in turn, requires a change in the associated behaviours, practices and support required to achieve this core goal.
2. The SMT comprises the Principal, Deputy Principal, Heads of Department (HoDs) and other teacher leaders in the school.



PART TWO

# Research



## Curriculum management, improving learner performance and the rise of multi-grade classes: A tangled web of challenges to the design, operation and evaluation of educational development programmes in South Africa

*Eric Schollar*

### **Introduction**

The seemingly endemic persistence of very poor outcomes of the education system, despite the allocation and rationalisation of an increasing level of national investment, continues to be a significant obstacle to personal, social and economic development in South Africa.

In seeking to improve these outcomes – to improve learner performance on a national scale – one of the central responses of National and Provincial Departments of Education has been to pay an increasing level of attention to improving curriculum management and coverage. Equally, independent development foundations and non-governmental organisations, typically operating in conjunction with departments of education, have increasingly adopted improved curriculum management as an essential component and outcome objective of their developmental initiatives.

The Programme for Improving Learning Outcomes (PILO), currently operating in KwaZulu-Natal (KZN) as a constituent part of the National Education Collaboration Trust (NECT), is a significant example. PILO proposes that improving curriculum management and coverage in terms of both quantity and quality across whole districts through a collaborative and systemic approach will result in improvements in learner performance on an equally large scale. The “means” and “ends” logic of PILO’s causative proposition is both simple and clear: the greater the degree to which learners are exposed to the intended curriculum, the more likely they will obtain improved performance scores on instruments

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that assume they have covered the whole of the curriculum.

This chapter takes, as its starting point, agreement with the fundamental logic of the PILO model and its causative proposition. It concludes by identifying a critical confounding variable that has a substantial effect on the likelihood of learners' achievement of significant performance which is extrinsic to the inherent value of the PILO programme, or of any other programmes that share a focus on curriculum management as their key "lever of change". This variable refers to the rise, on a national scale, of the heterogeneous distribution of learner competencies within and across grade levels that currently predict the age cohort of learners rather than their expected attained competency levels. In effect, the great majority of classes, at all grade levels, have become multi-grade classes in which it is very difficult, if not impossible, for teachers to consistently teach and assess learners at the correct complexity level for the whole of the curriculum. This situation, in the final analysis, is an unintended outcome of national assessment policy rather than district, school or teacher level dysfunction of one kind or another.

A consequence of classrooms being, in effect, multi-grade is that it is likely that improvements in curriculum management, essential as they are, will suffer from a "ceiling effect" in achieving improvements in learner performance as learners reach the limits of their attained "schooled capacity". Learners at, for example, a Grade 5 or 6 level of content competence in mathematics will inevitably find it insuperably difficult to benefit from instruction pitched at Grade 9 level without extensive and sustained remediation.

Programme impact evaluation studies run the risk of generating a false negative with regard to a strategic model if they do not take this "confounding" variable into account when collecting and interpreting obtained performance scores. A genuinely effective treatment programme that improves curriculum management may nonetheless fail to obtain significant impacts because of the countervailing effect of this variable.

We note here that, as long as English is used as the Language of Learning and Teaching in the huge majority of South African schools and universities, the ability to comprehend, speak, read and write this language is obviously a very powerful influence indeed on the learning of any subject. It is a necessary, but not sufficient, condition for the development of competence in any subject. That it is not a sufficient explanation for poor learner performance is logically demonstrated by the fact that strongly literate people, whose home language is English, are not necessarily also high performers in other subjects, especially mathematics and science. For this reason and for the sake of both convenience and brevity, this chapter largely confines itself to data and discussion around mathematics which is used as a critical proxy for all subjects taught in English.

### **Poor outcomes of the education system**

Improvement in the quality of the outcomes of the South African education system is regarded as a critical component of national development. Actual real expenditure on education has continued to grow since the watershed year of 1994 and, as Van der

Berg (2007, p. 871) points out, South Africa's "public education spending ratio of 6% of GDP is high by world standards". South Africa spent R213.7bn on basic education in the 12 months ended March 2016, or about 15% of the total budget and the allocation is projected to rise at an average of 7.4% annually over the next three fiscal years, according to the National Treasury.<sup>1</sup>

Fiscal redistribution after the transition from apartheid has resulted in significant transfers of resources to historically disadvantaged sectors. A number of significant policy changes have been introduced into the general system ranging from the establishment of equitable funding and provisioning norms for schools through the National Norms and Standards for School Funding policy, to the rationalising of teacher supply through "right-sizing" and, crucially, the introduction of the new OBE curriculum in 1998 (Curriculum 2005), along with its subsequent iterations in the form of the National Curriculum Statement (NCS), the Foundations for Learning Campaign (FFLC) and the Curriculum Assessment Policy Statements (CAPS).

Until the first report of the National Systemic Evaluation (NSE) on the outcomes of the primary sector was available (DoE, 2003), we had only one standardised indicator for the effects of these increased inputs and policy changes on the outcomes of the education system in the form of the matriculation examinations at the end of Grade 12. In short, outcome measurement for both primary and secondary sectors demonstrates that the persistence of near endemic underperformance in mathematics and science, in particular, has proven exceptionally difficult to ameliorate.

The results of the matriculation examinations are the most public reflection of the performance of the system and are surrounded by a great deal of popular, political, practitioner and academic debate. Even if different actors have different perspectives on whether results are improving or not, they all continue to agree that learner performance in English, mathematics and science, in particular, continue to lag far behind the expectations of our own curriculum.

To provide another perspective on the concept of performance at matriculation level and to "control" for systemic and operational dysfunctions which tend to obscure the intrinsic educational effect of the intended curriculum, it is valuable to look at the performance of schools that are highly educationally functional. To obtain data of this sort, Mouton and Schollar (2014) analysed performance between 2008 and 2012 in the matriculation mathematics examination by learners from 159 high-performing public state schools in all nine provinces. These schools are representative of the schools that produce the overwhelming majority of all matriculation passes for all races outside of the independent school sector (Van der Berg, 2007).<sup>2</sup>

To generate this sample of schools, the researchers used information from the Mathematics Challenge Programme (MCP) which targeted the highest performing state schools. A list of these schools, based on data provided by the DBE, was compiled and schools included on the list were invited to apply for self-designed support from the MCP. The list was not based only on absolute scores obtained by learners; selection

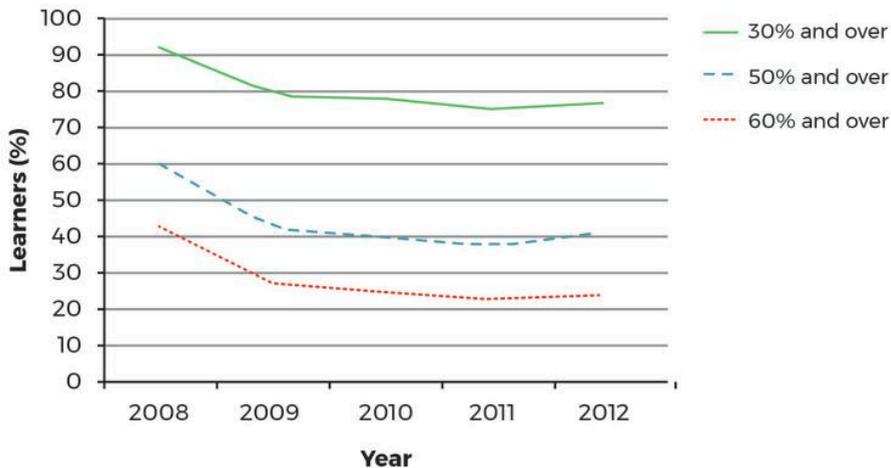
also placed an emphasis on black schools from either former homeland Departments of Education or the pre-1994 Department of Education and Training (DET) that had, despite significant odds, managed to perform well above average in terms of both quantity and quality of matriculation passes in mathematics. These schools have demonstrated an ability to process input resources more efficiently than many other schools, despite sharing historical differences with them and, therefore, it was assumed that investments in these schools could be expected to improve the quality of their outputs further.

The eventual invitation list of 159 schools for the initial year (2008) constituted four broad categories of schools:

- Top-performing black schools based on scores alone (45 schools)
- Black schools that increased participation (22 schools)
- Schools catering historically to white learners that were demonstrably transforming in racial terms. This included some of the best known and highest performing of the ex-Model C schools (38 schools)
- Schools catering historically to Indian and coloured learners (54 schools).

In terms of a performance baseline for inclusion, all the schools invited had, in previous years, produced 20 or more Indian, coloured and black African higher grade maths candidates and were schools in which either two-thirds of these learners passed maths at higher grade, or had 20 or more learners with higher grade maths passes.

These figures were matched by similar declines for each of the four racial groups that were not caused by demographic changes. Additionally, the great majority of learners at these schools had completed most, if not necessarily all, of their secondary schooling



**Figure 4.1** Proportion of mathematics matriculation learners obtaining scores at different levels of quality in high-performing public schools: 2008–2012

prior to Grade 12 at the same school; declines were therefore not caused by learner mobility.

It is evident that, even in the best performing schools, learner performance is not improving but has actually worsened since 2008 especially at the higher levels of quality. Just under one quarter of all learners at the best performing mathematics schools in the country do not achieve even the current pass mark of 30% and less than one quarter is capable of achieving a high-quality pass mark of 60%.

The study clearly confirmed that these schools were atypical of the great majority of state schools. They are educationally functional schools with much more effective school and curriculum management systems, higher levels of teacher professionalism, provide many more weeks of instruction over a year, provide learners with vastly more opportunities to learn,<sup>3</sup> and cover more of the curriculum. These conditions very clearly *do* explain why learners in these schools perform very much better than learners in the rest of the South African school system but they cannot *also* explain why performance in these schools is, nevertheless, declining. In fact, the opposite should be true if the by now conventional reasons, based on educational functionality, provided a comprehensive and sufficient explanation for underperformance over time. Clearly, they do not do so.

The NSE (mentioned earlier) has provided invaluable and reliable early data on a national scale about what has been happening to performance levels at other levels of the system through instruments standardised against the Assessment Standards of the National Curriculum Statement to track learner achievement at Grade 3 and 6 levels.<sup>4</sup> The first cycle of testing for the NSE was conducted at Foundation Phase level (Grade 3) in 2000 (Department of Education, 2003), while the second cycle was conducted at Intermediate Phase level (Grade 6) in 2005 (Department of Education, 2005). Both cycles concluded that the majority of learners were performing very poorly in numeracy and mathematics; the national mean score of the Grade 3 group was 30% and that of Grade 6 was 27%.

In the 2005 cycle, learner performance at Grade 6 level in mathematics was also reported against a four-point assessment scale. The conclusion was that an astonishing 80% of all learners were performing below the minimum expected competence level (“partly achieved”) for that grade (see Table 4.1).

South Africa has, in addition, participated in a number of large-scale international comparative studies that seek to benchmark academic performance across groups of countries:

- Monitoring Learner Achievement Study (MLA) (Chinapah et al., 2000)
- Southern and East African Consortium for Monitoring Educational Quality (SACMEQ) (Moloi & Strauss, 2005)<sup>5</sup>
- Trends in Mathematics and Science Study (TIMSS) (Howie, 2000; Mullis, Martin, Gonzalez, & Chrostowski, 2004).

It is evident that these studies all provided data that are not recent; both SACMEQ and TIMSS have since completed further assessments. Their results do show some changes with regard to South African performance levels but they are not sufficiently significant to challenge the fundamental conclusions drawn from the earlier studies. The substantive point, in terms of the argument of this paper, is that the conditions I sketch have their origins a long time ago – this is no transient problem that can be expected to disappear over a few years. In fact, later evidence, especially from the ANA but also from ongoing educational and evaluation research, continues to support these conclusions; the conditions to which I refer have a consistent and sustained evidence base over more than a decade.

In short, it has become increasingly evident over the last one and a half decades that the performance of the majority of South African school learners lags far behind the expectations of our own curriculum. In addition, all three of the early comparative studies (MLA, SACMEQ and TIMSS) demonstrated that South African learners were achieving performance levels well below those of their counterparts in both Africa and the rest of the world.

The MLA was carried out in 12 African countries in 2000 and tested samples of Grade 4 learners in 400 schools in all nine provinces of South Africa. These learners performed poorly when compared with their counterparts in the rest of Africa, obtaining a mean of 30% compared with the mean of 47% in the other 11 countries. Over 40% of learners obtained a score of below 25% and almost 90% scored below 50% (see Table 4.2).

	Test score range	% of learners
Not achieved	1–39	81
Partly achieved	40–49	7
Achieved	50–69	8
Outstanding	70–100	4
Total		100

**Table 4.1** NSE: Grade 6 mathematics learners at different achievement levels of NCS (%)

SACMEQ monitors the quality of education in 15 African countries. This chapter uses data from two assessments that were undertaken at the Grade 6 level. The first was in 2000 in which the South African sample consisted of learners selected from 169 schools in all nine provinces. The second assessment in 2007 greatly increased the scale with a sample from 392 schools. This study introduced a shift away from the conventional method of measuring learner achievement in terms of mean scores, instead also used the RASCH model (Andrich & Douglas, 1982) to measure learners against statistically expected levels of performance on a hierarchy of eight levels of competency from the simple to the complex. The method allows reliable comparisons of levels of achievement against an objective scale across different contexts, countries and schools. The equivalent South African grade levels for the SACMEQ competency levels, as shown in Table 4.3, were described by the then-Director of the NSE (Moloi, 2006).

Range	Proportion of sample
0 to 24	43.9
25 to 49	45.8
50 to 74	8.8
75 to 100	1.5
	100

**Table 4.2** Mathematics score ranges of South African sample: MLA (%)

SACMEQ level	SACMEQ Description	NCS Grade level
VIII	Abstract problem solving	++7
VII	Concrete problem solving	+7
VI	Mathematically skilled	7
V	Competent numeracy	6
IV	Beginning numeracy	5
III	Basic numeracy	4
II	Emergent numeracy	3
I	Pre numeracy	2 and below

**Table 4.3** Comparison of SACMEQ competency levels and NCS grade levels

The report on the 2000 assessments showed that 85% of South African learners in Grade 6 reached only the lower four levels of competency in mathematics on the SACMEQ continuum and that 52% of them were achieving scores at the Grade 3 competency level or lower (Moloi & Strauss, 2005). The figures obtained in 2007 showed that this condition persisted over the intervening seven years (Figure 4.2).

There was some improvement in the lower proportion of the learners who were achieving scores at Grade 3 level or lower (SACMEQ competency levels 1 and 2) in 2007. This is certainly encouraging but rather more significant for this analysis is that the means in both studies cluster around competency level 2 – emergent numeracy – and that over 80% of learners in Grade 6 obtained scores in the lower four levels of competency (i.e. were below the minimum expected standard for that grade) in both cycles.

TIMSS, like SACMEQ, also provides information on benchmarked distributions in learner data and the proportion of learners who did not meet the minimum expected competence levels in mathematics for their grade levels. The figures obtained by both studies were strikingly similar to those obtained in the NSE (see Table 4.4).<sup>6</sup>

The fact that the same figure was obtained by three different studies, using four different instruments administered to four different national samples, in four different

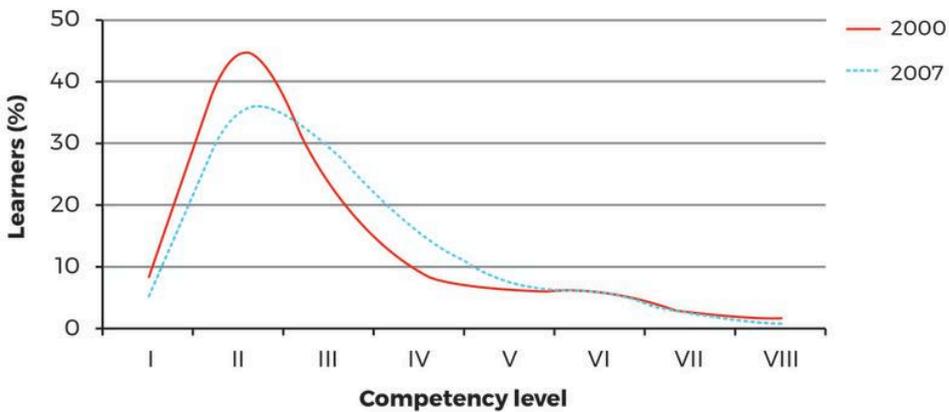


Figure 4.2 Grade 6: Distribution of scores by SACMEQ competency levels – 2000 and 2007

NSE	SACMEQ	TIMSS	
Grade 6: 2005	Grade 6: 2000	Grade 6: 2007	Grade 8: 2003
81	85	85	82

Table 4.4 Proportion of learners who did not achieve minimum expected standards (%)

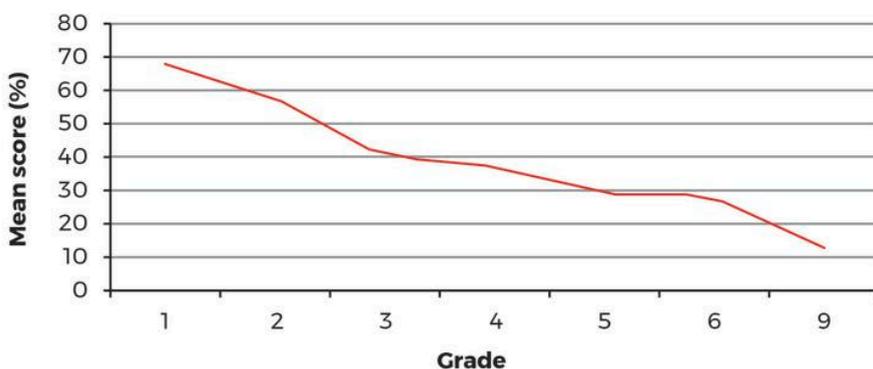
years from 2000 to 2007 and at two different grade levels, greatly increases the reliability of the evidence for the conclusion that around 80% of learners in primary schools are below the minimum expected competency level for the grades in which they are enrolled.

The most recently available national performance figures from different levels of the system, both primary and secondary, are derived from the Annual National Assessments (ANA). A number of cogent arguments have been raised with regard to the reliability of trend measurement using ANA data collected through test instruments that are not capable of yielding reliable comparative information from one year to the next. Nonetheless, the ANA data are the only available information we have about national performance at different levels of the system from year to year and are of immense potential value. Irrespective of the longitudinal reliability of each instrument, the data for each year are still of real interest. Scale alone helps to control, to some degree, random variations in teacher attitudes and behaviour during testing and scoring though we can safely assume that the “error tendency” will be to inflate the scores.

A recent review of the ANA data by Simkins (2013) provides grade-by-grade detail to the finding based on the NSE, SACMEQ and TIMSS studies (see Figure 4.3).

Learner mean scores decline precipitously from Grade 1 onwards and, by Grade 3, the figure is already well below what can reasonably be regarded as a conventional or realistic “pass mark” of 50%. By Grade 6, the mean has dropped below even the currently applicable pass mark of 30% and the national mean for Grade 9 was, astonishingly, just over 10%!

Simkins provides a particularly depressing analysis of performance in mathematics at Grade 9 level by showing that a staggering 92% of learners obtained scores of under 30% in 2012 with only 2% obtaining a score of 50% or higher! Given an enrolment in



**Figure 4.3** Mean learner mathematics score: ANA, 2012

*Adapted from Simkins (2013, p. 12).*

Grade 9 of 1 096 113 in 2012, this means that only about 47 000 learners obtained a score of 30% or higher and about 24 000 a score of 50% or higher (Simkins, 2013, p. 12). He concludes that the necessary implication is that most learners do not learn all of the required content specified by the intended curriculum each year. “Gaps accumulate and progressively undermine performance” (Simkins, 2013, p. 2).

Spaull is even more explicit about the educational consequences of this rapid decline in actual competence level against curriculum expectations at primary level on, eventually, the outcomes of the matriculation mathematics examinations:

The learning deficits that children acquire in their primary school career grow over time to the extent that they become insurmountable and preclude pupils from following the curriculum at higher grades, especially in subjects that are vertically demarcated like mathematics and science (2013, p. 8).<sup>7</sup>

These are all startling findings that imply a virtual collapse of organised grade/standards-based mathematical education and assessment in this country. In terms of the argument of this paper, we have established the evidence for concluding that around 80% of South African learners are below the minimum expected competency level for the grades in which they are currently enrolled. The obvious implication is that because learners from multiple grade competency levels are enrolled in the same classes, the majority of classes have, in effect, become multi-grade.

### **Causes of poor learner performance**

The problem of underperformance in mathematics – or, indeed, in other subjects like English and science – has not, of course, gone unnoticed since 1998. This is not the place to provide a systematic review of the voluminous literature on this topic but it is necessary to place the concept of curriculum management as a response to poor performance in its historical context.

An early synthesis of research findings by Taylor and Vinjevoold (1999) note factors like poor school management, a low work ethic among many learners and teachers and the poor conceptual knowledge of teachers of the subjects they are teaching. Along with these factors, the abolition of a prescriptive syllabus of study, along with standard textbooks, in favour of underspecified work programmes for teachers and the use of a wide variety of learning materials received mention, as did a poor understanding and use of learner-centred methodologies by teachers.

Christie and Potterton (1999) suggest, *inter alia*, that the development of the capacity of Principals to provide school leadership was critical. Regular and extensive disruption to schooling and the persistence of educational dysfunction in many schools has remained a significant concern since pre-1994. Jansen (2013) examines the nature and social history of the different forms of the culture of learning in schools and how they influence both teaching and learning. Sectors of the national system still vary in their

ethos of schooling which produces different levels of quality of outcomes in different schools.

Taylor, Muller and Vinjevoll (2003) provide an extensive meta-review of a number of programme evaluation studies that clearly support the conclusion that learners were gaining little from the introduction of the new curriculum. Fleisch (2007) provides an extensive review of existing research on learner performance and casts his net of explanation/causation widely to include a range of social and economic factors (health, nutrition and widespread disease, poverty, child labour, change in family structures and home support, expenditure and resources), as well as school-based ones such as the language of learning and teaching, textbooks and the pacing, coverage and sequencing of the curriculum, teaching methods and the teachers' grasp of subject content.

In one way or another, all of the causative explanations for poor learner performance, singly or in combination, suggested in these meta-reviews, are intuitively plausible *per se*. Hungry or sick learners are unlikely to perform well. The culture of learning in schools is manifestly a significant factor in planning and sustaining systematic instructional programmes. A poor work ethic on the part of teachers will clearly influence learner performance negatively. Socio-economic status is undoubtedly related to performance to some degree. Poor teacher content knowledge cannot but be a barrier to effective instruction. A chaotic management system is unlikely to maximise time-on-task. And so on.

The multiplicity of explanations and the fact that many are "sub-sets" of others, while some refer to the macro systemic level, some to the meso community/school level and others to the micro classroom level, makes it next to impossible to design or "discover" a causal model encompassing *all* of them. Therefore, we are necessarily forced to be selective in designing research programmes and theoretical models that seek to establish significant empirical linkages between causation and learner performance.

In terms of empirical work toward the development of comprehensive theories explaining underperformance, there is an increasing number of high-quality studies working within the econometric production function school (Van der Berg, 2007; Gustafsson & Mabogoane, 2010). These studies seek to define or discover a model which explains a sufficient degree of variance in learner performance to produce a significant increase in the efficiency of the systemic relationship between inputs and outputs. This is a relatively new development in educational research in South Africa where quantitative, experimental and econometric work has come late to the field and qualitative non-experimental work largely dominated research before and after the turn of the century (Seekings, 2001).

Much of the early research work was necessarily concerned with structural and contextual input variables when seeking causal explanations for performance on large (national) scales. Crouch and Vinjevoll (2006), for example, note that many other countries, besides South Africa, have experienced large increases in access to schooling

in pursuit of equity. They conclude that the low performance levels of the country are not explainable in terms of an unduly fast expansion of schooling. Van der Berg (2007) shows that relatively high levels of expenditure, both in absolute per capita terms and in terms of the proportion of the GDP allocated to education or even the provision of relatively well-trained teachers, do not have simple linear relationships with performance. The effect of input resources was seen by Van der Berg (2007) and Seekings (2001) as being conditional on the efficiency of the conversion of input resources into educational outcomes.

Gustafsson and Mabogoane (2010), in their wide-ranging review of the economics of education literature, refer to a growing realisation that improving learner performance is a rather more serious and elusive problem than was generally assumed. Their review shows that measures of poverty, resource provision, race, class sizes and teacher supply still left some 30% of the variation in the performance of South African schools unexplained. In terms of reducing existing residuals in explaining learner performance, Gustafsson and Mabogoane (2010) note that some early production function research (including Crouch & Mabogoane, 1998) argues that there was a need to develop more reliable and usable variables on school and curriculum management and on teacher quality, “before we could explain the residual, or unexplained, part of South African production functions” (Gustafsson & Mabogoane, 2010, p. 14).

### **Curriculum management and coverage**

As one of the “missing” variables to which Gustafsson and Mabogoane (2010) refer in explaining variances in learner performance, curriculum coverage has a strong intuitive and logical relationship with learner performance. As we have already noted, incomplete curriculum coverage inevitably has an effect when learners are tested on instruments that assume they have covered the whole curriculum. Furthermore, this factor is likely to have a cumulative and accelerating effect, especially in mathematics and science.

In the years since 2000, the issue has received increasing attention from programme evaluation researchers many of whom were associated with JET Education Services.<sup>8</sup> Roberts’s (2005) study in Uitenhage, for example, found that, by October, there was written evidence in learners’ books that teachers had only covered 40% of the topics listed in the National Curriculum Statement. Taylor and Moyana (2005) show that, by October, 44% of Grade 3 teachers in their study had covered 25% to 50% of topics for the grade while another 39% had covered between half and three-quarters of the curriculum.

Taylor, Muller and Vinjevold (2003) note the incompleteness and slow pace of curriculum coverage in classrooms and acknowledge that learners tend to fall further behind with each grade. Furthermore, Roberts (2005, 2006) and Taylor and Moyana (2005) find that a high proportion of lessons were not offered at the correct grade level in terms of curriculum content. Roberts and Schollar (2006) show that only 32% of Grade 3 lessons were pitched at that level, while Taylor and Moyana (2006) find that only 10% of

language and 21% of mathematics lessons were at the correct grade level. Several of the lessons that these researchers observed were pitched two grade levels below that which was expected. Taylor, Muller and Vinjevd (2003, p. 105) comment that "... a very low level of cognitive demand as a matter of routine [is] likely to reinforce the effects of poor planning and pacing ... in systematically depriving ... children of the learning experiences intended by the curriculum."

In analytical terms, the variable *coverage* is extrinsic to the inherent educational quality of a given curriculum or a particular intervention programme although it logically strongly influences the magnitude of curriculum or intervention effect. Deaton (2010, p. 425), using the analysis on the macro level of the extent to which foreign aid increases economic growth as an example, refers to this sort of problem as "... the familiar problem of simultaneous causality; the effect of aid on growth, if any, will be disguised by effects running in the opposite direction ... [like] ... poor economic performance ...". To paraphrase Deaton and apply this to education: the inherent potential effects of a curriculum or intervention programme on the improvement of learner performance will be disguised by effects running in the opposite direction ... like incomplete curriculum coverage.

The DBE and all nine of the Provincial Departments of Education have recognised the critical role played by curriculum management and have made significant efforts to improve the consistency and quality of this management, chiefly in the form of the provision of common work schedules and the formal institutional monitoring of these schedules by both School Management Teams (SMTs) and by departmental officials. Perhaps, most significantly, the CAPS programme places great weight on the sequencing, pacing and content to be provided to learners within the school year. It will also be noted that the National Education Evaluation and Development Unit (NEEDU) of the DBE decided very early that curriculum delivery should constitute the primary object of their investigations into understanding and improving the outcomes of the national education system.<sup>9</sup>

Along with state-based institutions, significant independent development agencies, for example, the Zenex Foundation, have laid an increasing stress on the improvement of educational functionality in general and on curriculum management in particular, in designing and selecting programmes to receive support. As far as other current large scale agencies are concerned, the National Education Collaboration Trust (NECT),<sup>10</sup> a collaborative state-private sector initiative, has placed curriculum management at the centre of their developmental programme introducing, inter alia, tools designed to systematically monitor and track the planned versus actual delivery of the curriculum at a pace sufficient to cover all of it.

As we noted at the outset, the programme operated by PILO is strongly focused on the improvement of curriculum management and coverage as the key "lever of change" employed to improve learner performance on large scales. This has been a wholly appropriate strategic choice that is based on extensive educational research and

experience and is directly aligned with and supportive of current educational policy and practice in South Africa.

There is, consequently, a strong logical and intuitive basis for assuming that significant improvements in curriculum management are very likely to result in significant improvements in learner performance – more learners would cover more of the curriculum each year. Since these improvements in management are, at least theoretically, achievable on large scales through the increasing degree of standardisation produced by common, paced and monitored work schedules, especially through CAPS, it appears that the goal of significant improvements in learner performance on a national scale at all levels of the education system may perhaps not be as distant as we feared.

### **Obstacles to qualitative improvements in curriculum management**

In practice, the improvement of curriculum management and coverage has proved somewhat more complex than simply developing common work programmes and insisting that schools and teachers adhere to them. In recent years, and in a number of field research studies, officials, practitioners and researchers have become increasingly aware that apparent and reported improvements in the coverage of the curriculum do not necessarily result in substantive improvements measured through empirical indicators. The most common example of this disjunction is the comparison of reported degrees of curriculum coverage with the written work actually completed by learners.

The most recent data to which the author has access are derived from the longitudinal evaluation of a large-scale current multi-province intervention programme. Since the author is involved in the evaluation and since the most current report is not yet in the public domain, only a brief summary is provided and the intervention is not identified. By the end of 2016, just over 80% of Principals in participating schools in four provinces reported that their teachers were up-to-date with common work programmes and the overwhelming majority of HoDs reported that curriculum plans were consistently monitored. An analysis of learner workbooks, on the other hand, found no supporting evidence for these reports.

Before presenting this data, some mention of a perceived tension between quantity of coverage (how *many* pages were completed?) and quality of coverage (how *well* was it presented?), is necessary. In short, we argue that improvement in quantity is a necessary, if not sufficient, precondition for improvement in quality. In fact, it is likely that improvements in quantity, as an objective and readily researched indicator of improved curriculum management, will show a great deal of multi-collinearity with improvements in quality. This is not to imply that indicators focused specifically on quality are of no value or educational interest, but when they have been used by the author in the course of programme evaluation research, they have clearly not contradicted the conclusions based on the (more easily collected) data about quantity.

In terms of neurocognitive science, the consistent practice of newly learned

information is central to the transfer of this information from short-term to long-term memory (learning). Without consistent and extensive practice, it is difficult, if not impossible, to develop the fluency, automaticity and accuracy that is the basis of conceptual and cognitive competence and creativity in any subject and, especially, in language, mathematics and science.<sup>11</sup>

Returning to the study under discussion, by the time data were collected for this study – from 660 learner workbooks in 115 schools in four provinces – there had been 31 weeks of schooling between January and September with six public holidays during school term time. Therefore, there had been a maximum possible total of 149 days of schooling during which classroom instruction *could* have been provided and written work *could* have been completed. The assumption is that one page reflects, at least, one day of schooling. This is a conservative assumption – if learners produced, for example, three pages of work in one day, we count three days of work and it is possible that the figures of pages per day provided in Table 4.5 are, if anything, actually *overstated*.

It is very difficult indeed to believe that any of these learners are covering the curriculum to any significant degree of quality. To take one of the most extreme examples and to use an example that is not based on mathematics, learners in EFAL in Grade 9 completed only 31.5 pages of written work.

The CAPS statement dealing specifically with writing for this grade states that

[f]requent writing practice across a variety of contexts, tasks and subjects enables learners to communicate functionally and creatively ... [and] ... produces competent, versatile writers who will be able to use their skills to develop and present appropriate written, visual and multi-media texts for a variety of purposes. ... Learners ... are expected to write particular text types independently.

	Pages	Pages/day
EFAL Grade 3	49.6	0.3
EFAL Grade 4	51.5	0.3
EFAL Grade 9	31.5	0.2
Maths Grade 3	73.0	0.5
Maths Grade 4	85.3	0.6
Maths Grade 9	89.9	0.6
Science Grade 9	26.0	0.2

**Table 4.5** Mean total number of pages completed per learner by the end of September and the mean number of pages per learner completed per day over 149 days (n)

Source: Author

They will also employ the writing process to produce well organised, grammatically correct writing texts. ... Good writing is a skill that needs to be developed and supported. Although reading is an important source of input, it is only through writing, that writing skills are developed.

The CAPS statement goes on to list the kinds of written texts that learners are required to produce. Drafting and editing narrative, descriptive, argumentative, discursive, reflective and expository essays, along with official formal and friendly informal letters, agenda, minutes, speeches, interviews, giving instructions, formal and formal reports, develop advertisements, give directions, write an obituary, write a CV, write a diary – and so on.

It is plainly absurd to argue that just this *one* section of the EFAL curriculum could be covered effectively in a total of 31.5 pages of written practice.

Part of the discrepancy between reported coverage and analysis of learner workbooks is very likely indeed to be caused by the practice of compliance with formal curriculum management requirements, for example, providing one or two exercises on a curriculum topic, recording that topic as “covered” and moving immediately onto the next topic. Also likely is the practice, recently observed by Schollar (2016), of starting each term of CAPS reporting on Week One of each term, irrespective of which week had been reached in the previous term. This seriously overstates the degree of coverage reported to departmental officials and intervention programme staff by discarding the incomplete sections of the previous term’s content. By the end of the year, it is possible for a school to be 12 or even more cumulative weeks behind but reporting they were only three or four weeks behind – actually referring to Term Four only.

Both practices, along with simple deception,<sup>12</sup> make it very misleading indeed to rely only on reported figures for coverage. However, once again, these essentially operational problems are *relatively* easily solved through improved management by officials and by HoDs and, especially, by the cross-checking of school reports against learner workbooks; both solutions are already part of the practice of a number of practitioners and departmental officials.<sup>13</sup>

While I do not suggest for one moment that operational and managerial changes are, in practice, simply and easily achieved by increased supervision, they are *relatively* easier to achieve simply because they are more readily understandable and more susceptible to standardised procedures than are more complex and abstract issues affecting curriculum coverage. They are also essential to achieve if we are to meet the national objectives of the education system. No matter what curriculum we adopt, it will still have to be systematically delivered in full each year to each grade level before we can expect to achieve the potential impacts it might have on learner performance.

More substantively and with wider implications, many teachers in both high and low performing schools are increasingly arguing that incomplete curriculum coverage is primarily caused by the unreasonable demands, especially of pacing, of the curriculum

itself. This argument has become so widespread that it has been taken seriously and there is a growing recognition by educationalists and researchers that there are good grounds for a revision of the CAPS programmes.<sup>14</sup>

I do not doubt that CAPS would benefit from a review and some “tweaking” of its content, sequencing and pacing. However, I would argue that before we embark on (yet another) fundamental revision of our national curriculum – especially if it involves significant alterations to the complexity, pitch and “quantity” of content to be taught – there are other fundamental issues to be resolved.

The most immediate issue to consider is the number of weeks in the instructional year available within which to deliver the curriculum. In the research experience of the author, one of the biggest and most consistent differences between high performing and low performing schools is the higher number of weeks of instruction provided to learners in the former. Mouton and Schollar (2014) show that a sample of high performing schools provided between 35 and 37 weeks of classroom instruction over the year. On the other hand, it is common for the majority of schools to provide much less; common work schedules typically allocate two weeks per term to assessment (i.e. eight weeks of a 40-week school year, or 20% of the year) and there are multiple unplanned disruptions to schooling. These disruptions can be caused by late starts to terms and, especially, the absurdly extended period far too many schools use for “assessment” at the end of Term Four. Also significant are disruptions caused by meetings called by departmental offices,<sup>15</sup> and by in-school training. Other instructional days are lost to events like bereavements, sports, health and cultural days, teacher union activity and so on. The upshot is that, in many schools, learners receive much less than 32 weeks of classroom instruction – in many schools the actual figure is, in fact, very much lower.

The DBE and Provincial Departments are increasingly aware of the need to improve time-on-task in our schools and to minimise the unplanned disruption of schooling but there is no doubt that they still have a mountain to climb in this regard. Nonetheless, it is still an operational issue and one that is *relatively* simple to remedy through standardised demands for instructional time and effective monitoring of compliance.

The point of the argument here is that it is manifestly unreasonable to consider reducing the demands of CAPS with regard to the pacing of the delivery of content without *first* establishing, equalising and institutionalising the number of instructional weeks required to deliver it. No doubt an enormous operational task in practice but, once again, *relatively* easy to achieve through standardised requirements and systemic monitoring.

The picture becomes rather more complex when we consider the issue of curriculum management, coverage and pacing with regard to the improvement of learner performance in high performing schools which already maximise, plan and monitor the instructional weeks they provide for learners.

In the study to which I referred earlier in this chapter, Mouton and Schollar (2014) found that, while the highest performing schools in matriculation mathematics

were manifestly much more educationally functional than the great majority of (state) schools, the performance of learners at these schools nonetheless declined between 2008 and 2012. Teachers in these schools were asked to nominate the most significant barriers they experienced in improving both the quantity and quality of matriculation passes in mathematics. By far the most common response was the poor prior education of learners who eventually arrive in Grade 12 with significant existing and cumulative backlogs in content knowledge. This barrier was nominated as significant by 62% of these teachers and obtained a weighted value of 73% across all of the teachers.

Teachers generally reported that the competency demands and pacing of presentation in terms of conceptual and procedural content knowledge were both much higher in CAPS than in previous iterations of the curriculum. However, poor prior content knowledge, necessarily accompanied by promotion of learners to Grade 12 who had not grasped pre-Grade 12 content, made it very difficult to teach this content at the required pace while, at the same time, paying attention to learners who were well below the minimum expectations of learners at this level.

In this case, therefore, incomplete curriculum coverage was *not* caused by inadequate curriculum management – or by the excessive pacing demands of the curriculum. It was, instead, a consequence of a national assessment policy that progresses learners from one level of content complexity to the next almost irrespective of their actual attained competency level.

Just how widely divergent school level assessments and eventual departmentally approved pass rates can be was vividly illustrated for the author during a research visit to a school in Khayelitsha in October of 2017. Unfortunately, these data were also obtained during (baseline) research for the evaluation of an intervention programme operating across three provinces and are not yet in the public domain and, hence, cannot be formally acknowledged.<sup>16</sup>

During discussion of the issue of assessment, the Principal of this school printed out the results of internal school-based assessment in June of 2016. The (very well managed) school treats June assessments as diagnostic and lays stress on obtaining real judgements of learner competency free of any consideration of the pass/fail criteria based on national and provincial policy that they know will be applied at the end of the year. In Grade 8, the school tested 286 learners and, applying a pass mark of 50%, found that only 37 (13%) satisfied the competency levels described by the assessment standards of the NCS. In Grade 9, the corresponding figures were 240 tested and 34 (14%) “passed” the internal school assessment. Once these learners were assessed at the end of the year, over 95% were promoted to the next grade!

This is the second fundamental issue that must be addressed before we decide to embark on a wholesale revision of the content and pacing of CAPS. It is also the key issue to which we have returned throughout this paper as a contextual confounding variable affecting the achievement of significant impacts on learner performance by

educational curricula and intervention treatments – the rise, on a national scale, of classes which are effectively multi-grade.

### **The effect of multi-grade classes**

The opening section of this paper went into some detail to show that a great deal of reliable research over an extended period converged around an astonishing finding that around 80% of learners were below the minimum expected competency level for the grade in which they were enrolled. It also argued that gaps in content knowledge are cumulative and accelerate from one grade to the next manifesting, ultimately, in dismal performance in matriculation. It also argued specifically that this represented a collapse of grade/standard based mathematical education in South Africa. The implication for current public and private efforts to improve and sustain the quality of outcomes in schools, irrespective of the theoretical, managerial, operational or methodological approaches they employ, is significant indeed.

Consider, for example, a hypothetical “average” teacher of Grade 6 mathematics who is expected to teach and assess learners against the appropriate performance standards of the curriculum for Grade 6, with the necessary assumption that all of the learners in the class have “sufficiently mastered” the content and performance standards of the previous grades. In practice, using rounded SACMEQ figures and the South African grade equivalents, the teacher of an “average” Grade 6 mathematics class of 40 learners would instead have 34 learners who had *not* achieved the required minimum performance standards – with 16 of them at a Grade 3 competency level or lower. On the other end of the scale, there would be only six learners who had achieved a competence level at or above minimum expectations for Grade 6 level. Yet the teacher is expected to teach and assess learners *as if* they had all actually reached this level and were ready to move onto new content.

The consequence from the point of view of the learner is that a child at a Grade 3 level of subject competence may be expected to learn from Grade 6 lessons and materials and to solve problems that are based on operational procedures, number ranges and so on that are required at this grade level. There appears to be an implicit but universal assumption that learners taught at the correct level of complexity for the grade in which they are currently enrolled will, somehow, be able to rapidly “catch up” two, three or even four years of missed content and procedural competence while *simultaneously* learning the more complex content for the current grade.

All of the recent and current curriculum development initiatives at provincial and national levels, as well as those operated by independent foundations and agencies, have explicitly shared the idea that instruction, assessment and teaching/learning materials should be based on the assessment standards of the curriculum for each grade level. While this is intuitively and conventionally the obvious thing to do, the evidence I have reviewed very strongly indicates that it is based on an incorrect assumption. Learner abilities are distributed heterogeneously within the different grade levels that are, in

turn, currently age-based rather than competency-based; the horse has already bolted, at least for the currently enrolled cohorts of learners.

The inescapable conclusion is that the great majority of South African classes on a national scale have become, in effect, multi-grade in terms of ability and that teachers are faced with an enormous range of learner abilities in mathematics, science and other subjects, from the virtually innumerate or illiterate to the small pool of the genuinely competent in every class they teach. This makes it next to impossible to teach to, or assess, all of the learners at the appropriate grade-based assessment standards of the curriculum and the likely result, in practice, is that learners of *any* level of ability are not exposed in full to the conceptual progression made explicit in the national curriculum.

In fact, the evidence suggests that, even if we did succeed in improving curriculum management to the point where the whole curriculum at the correct complexity level was delivered to all grades/classes each year, we would still not have solved the “meta” question of curriculum management and learner performance in its broadest sense. Covering the whole curriculum at the correct grade assessment/competency level is likely to further *disadvantage*, rather than assist, the great majority of learners who are below the minimum expected competency level for the grade in which they are enrolled.

### **Conclusions and Implications**

The implications of the argument of this paper for PILO and for other programmes which aim to improve learner performance through improved curriculum management, are significant.

It is axiomatic that, for *any* curriculum, in whatever context, to have any chance of achieving positive impacts on learner performance, it must first be delivered effectively in practice. The establishment and institutionalisation of effective management, planning and monitoring systems is, therefore, a critical operational goal of its own. Current systemic attempts to improve curriculum management and, especially, monitoring of planned coverage, should not only continue but be intensified and spread on as wide a scale as possible through the routine structures of the respective departments of education and schools.

PILO, correctly in my view, places a great deal of attention on achieving these sorts of critical operational changes. To do so, their programme has adopted an approach that combines the systematic monitoring of curriculum coverage in both quantitative and qualitative terms with collaborative and participative responses to these monitoring data. Although I have referred to these sorts of changes as *relatively* easy to achieve because they are readily understandable and susceptible to standardisation, I have acknowledged that it is much easier to say than to do in a context as challenging as the South African school system. Consequently, if PILO were to succeed in achieving genuine improvements in curriculum management and coverage across whole districts and if these improvements resulted in improvements in learner performance, the programme would provide a developed model of change that could be adopted and tested on ever larger scales.

The close collaboration of PILO and departmental structures and officials is an important element of the PILO approach. They are dealing with what is, at base, a systemic set of problems that simply cannot be solved, or have solutions that can be sustained within the routine system, without the transfer of the substantive programme to the department itself and without its eventual institutionalisation in provincial, district and school practices. The fact that the PILO programme is presented and operated as an “official” element of departmental policy and practice serves two purposes: firstly it confirms to schools that this is not a typical NGO “project” that will come and go; and secondly, it helps to ensure that departmental policies and practices are aligned with and embedded in the PILO programme as far as curriculum management and planning is concerned.

Even given the limitations imposed by multi-grade classes, it is still likely that increasing curriculum coverage on a large scale will result in improvements in learner performance on an equally large scale. In short, the more of the curriculum covered by learners, the more chance they will have of improving their performance. However, this effect will very quickly have a “ceiling” beyond which further improvements will be difficult to achieve, given the multi-grade variable.

This chapter has argued that an essential part of the improvement process must be a determined effort on the national, provincial and district levels to increase, standardise and institutionalise the number of weeks in the school year during which classroom instruction is provided to learners. In short, the more time teachers have to deliver the curriculum, the more chance they have of covering more of it. In terms of classroom instruction, there should be a determined effort to increase the amount (and, eventually, quality) of the opportunities for written practice presented to learners. Improvements in this regard are also likely to result in improvements in performance. In short, the more opportunity learners are given to practice newly learned content, the more likely they are to improve their performance.

However, we are still left with the one unsolved confounding variable that will continue to depress the performance of all learners in all of our schools, at all grade levels and in all subjects, irrespective of anything else that is achieved. In my view, the effect of enormous variations in learner competency levels within and across grades and the effective reduction of all classes to multi-grade classes is the single most significant confounding contextual variable across the national school system. The effect of this variable is sufficiently significant to make it very difficult, if not impossible, for educational development programmes to achieve and sustain high levels of impact on learner performance. Equally, programme evaluation designs that fail to take this variable into account, when researching causative effects and models, run the risk of generating a False Negative; a strategic change model that may, in fact, be inherently effective can still fail to obtain significant impacts because of this variable.

For *existing* cohorts of learners, there appears to be no other feasible and achievable short-term solution that can support *both* low *and* high performing learners other than

the introduction of diagnostic testing combined with some kind of “streaming”. The only research into this sort of option of which I am aware is my own doctoral research (Schollar, 2015) which shows that learner baseline scores could be doubled in a short time through a combination of diagnostic testing, learner workbooks designed to cover multiple grade competency levels to which learners were directed as a result of diagnostic testing and direct instruction using scripted lesson plans for teachers.

For *future* cohorts of learners in a grades/standards-based system, it is essential that National Assessment Policy ensures a more even and predictable flow of learners of roughly the same age and competency level from grade to grade. If, from Grade One onwards, learners are selected for “promotion” to the next grade against realistic competency standards, the currently impossible demand placed on teachers to cover the whole of the curriculum at the appropriate grade competency level will be reduced at each succeeding grade level. On the other hand, Assessment Policy could dispense with age altogether and focus only on competency as a criterion for “promotion” to the next grade. This, in essence, is what OBE posited as a fundamental principle back in 1998; each learner learns at his/her own pace.

There are obvious problems with and objections to both possibilities but there is no way we can continue to avoid acknowledging the effects of the spread, on a national scale, of such enormous variations in learner competencies.

In the *long term*, to be both equitable and effective in producing the skills and competencies for all learners required by a developing and transforming economy, any solution requires a more flexible and multi-path process through schooling. In short, many people, of whatever race, class or historical background, are unlikely to derive personal benefit from a school system aimed almost exclusively at preparation for university education.

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## Notes

1. <http://www.fin24.com/Economy/sa-spends-more-on-education-than-us-uk-and-germany-20170105>
2. Just under half of the learners were black, the rest white, coloured and Indian.
3. Research showed that learner workbooks in these schools have a much higher number of pages completed than in the usual state school. In fact, they have generally completed all pages in several workbooks. This difference, and the much higher number of weeks of instruction provided to learners, are probably the most obvious differences between high and low-performing schools in South Africa. The two factors are obviously related; the more weeks of instruction provided, the more opportunity to complete class work.
4. We are not here referring to the recently introduced Annual National Assessments (ANA) administered by schools themselves but to the original NSE that collected rather more reliable data through the use of random samples and the external administration and scoring of test scripts.
5. Southern and Eastern Africa Consortium for Monitoring Educational Quality [SACMEQ]. Retrieved from: <http://www.sacmeq.org/sacmeq-projects/sacmeq-iii>

6. The MLA did not provide information of this sort and is excluded from the comparison though it is clear that the findings of that study do not suggest a contradictory conclusion.
7. This runs parallel to the findings of the USA Coleman Report of 1966: "Whatever may be the combination of nonschool factors – poverty, community attitudes, low educational level of parents – which put minority children at a disadvantage in verbal and nonverbal skills when they enter the first grade, the fact is the schools have not overcome it" (Coleman et al., 1966, 22).
8. <http://www.jet.org.za/>
9. <https://www.education.gov.za/NEEDU.aspx>
10. <http://nect.org.za/>
11. Learning to play a musical instrument is perhaps the clearest example of this argument. Great musicians have achieved an astonishing mind-body coordination and creative expression through extended periods of repetitive practice. The basic principle applies just as well to learning to ride a bicycle, performing mathematical operations or producing sustained pieces of written text.
12. Reporting a topic as covered when it has not been treated at all.
13. The capacity of departmental officials to carry out verification exercises is limited by their own numbers, as well as teacher resistance to "fault finding".
14. I am not aware of any formal literature on this issue and am referring here to personal and professional conversations with curriculum specialists.
15. Even when these meetings are planned for after school hours, travel time, especially in rural areas, can still result in the loss of instructional time.
16. I am certain there will be no objection to identifying both of the current evaluation studies to which I refer in this paper to the commissioning editor, should verification be required.



## Lessons learnt through Jika iMfundo programme in managing school curriculum in King Cetshwayo district: The Programme to Improve Learning Outcomes (PILO)

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### Introduction

This chapter reports on the findings of a study of the interventions in curriculum management initiated by the Jika iMfundo programme in two education districts in the KwaZulu-Natal (KZN) province. The chapter begins with a brief discussion of what curriculum management entails based on a survey of literature, before addressing some of the problems experienced with respect to curriculum management in KZN. This provides a context for understanding the interventions introduced by Jika iMfundo to improve curriculum management and strengthen curriculum coverage in schools. The chapter then outlines the research undertaken in a sample of schools in a rural

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education district, King Cetshwayo, to provide an account of the Jika iMfundo intervention and participants' perceptions of it. The chapter discusses some of the difficulties mentioned by participants and it concludes by summing up the curriculum management challenges and achievements in these schools that have engaged with the Jika iMfundo intervention.

The KZN Department of Basic Education has a total of 12 education districts. King Cetshwayo, located to the north of uThukela River is one of these. The King Cetshwayo District Municipality (previously uThungulu District Municipality) is located in the north east of KZN, covering the area from uMfolozi River in the north to KwaGingindlovu in the south and inland to Nkandla. As Figure 5.1 shows, the district is home to five local municipalities: City of uMhlathuze, uMlalazi, Mthonjaneni, Nkandla and uMfolozi. There are nine towns in the district, namely, Empangeni, Eshowe, KwaGingindlovu, KwaMbonambi, Melmoth, Mtunzini, Nkandla, Ntambanana and Richards Bay.

King Cetshwayo is one of the two districts that participated in the Jika iMfundo pilot project in KZN which sought to develop strong curriculum management skills to strengthen support to teaching and learning in line with the aims and objectives of *Schooling 2015*.

### Curriculum management

Scholars in the field of education have provided various definitions of curriculum management, from narrow to broad. The KZN Department of Education (2008) describes curriculum management as encompassing planning, implementation, monitoring and evaluation. This definition is in line with Cameron, Owen and Tee (2007) who describe



Figure 5.1 The King Cetshwayo District Municipality

curriculum management as consisting of four stages, namely, planning, teaching, assessing and evaluating curriculum objectives. These definitions, however, do not provide specific information about what exactly is being planned, implemented, monitored and evaluated in the process of managing the curriculum. Hoadley, Christie and Ward (2009, p. 375) identify important school curriculum management variables that are linked to improved student outcomes. These include: regulation of time; monitoring and support for planning delivery in relation to curriculum coverage; the procurement and management of books and stationery; and the quality of tests and monitoring of results.

Curriculum management is defined by Stansbury and Huenecke (1973) as a process that is based on four points: (1) it involves the identification and establishment of goals; (2) it requires the formulation of a process to guide educational and instructional specialists (teachers) towards the attainment of the mentioned goals; (3) it is the establishment of managerial techniques to assist in the implementation of the identified process; and (4) it includes constant evaluation and re-evaluation of the validity of the identified goal, process and management techniques. However, Maringa (2016) posits that curriculum management includes planning, developing, monitoring and reviewing the educational programme of the school to ensure a match with school goals and appropriate allocation of resources. Furthermore, Hoadley et al. (2009) emphasise that curriculum management is about managing systems and procedures, as well as people, to ensure productive teaching and learning and to promote increased levels of learner achievement.

Khumalo (2014) observes that, in the last two decades, enormous pressure has been placed on the field of education to deliver improved student performance. In the United States, in particular, the *No Child Left Behind* legislation of 2000 includes accountability measures and hefty demands on managing the curriculum for effective teaching and learning. The trend in the last decade has been the linkage of specified management processes to the curriculum and the focus on instructional leadership (Graczewski, Knudson, & Holtzman, 2009; Tam, 2010).

School Principals are often challenged by the diverse roles which they have to play as managers of schools. Leadership in curriculum management is not only confined to the Principal, it is also delegated to the School Management Team (Deputy Principals, Heads of Departments) and teachers tasked with the academic programme of the school. This can only happen in an environment that promotes distributed school leadership and in a school system where everybody assumes collective responsibility. The school Principal is however a key figure around whom much of the school's activities revolve and therefore, to a great extent, he/she determines the school's success or failure with regards to the management of the curriculum. As an educational leader, he/she should lead the curriculum management function.

The school Principal, together with his/her School Management Team (SMT), has a crucial role to play in managing the school. The Principal has diverse duties to perform.

According to Portin, Shen and Williams (1998, p. 6), the role of the Principal deals, amongst other things, with budgeting, maintaining the school buildings and grounds, improving the instructional programme, working with staff to identify a vision and mission for the school and building a close relationship with the community.

School leadership is also responsible for the management of resources to support effective curriculum delivery. Inadequate textbooks, furniture, laboratories and classrooms may contribute to poor learner performance, particularly since the teacher may often be the only source of information for students who do not have resources for their independent study. The use of the learning resources can also be a challenge for teachers who are unqualified or under-qualified because they have weak content knowledge and pedagogical content knowledge and the resources could be misused without serving their purpose of enhancing learning. Again, this is a curriculum management issue that needs to be addressed by Principals and SMTs. Another challenge associated with the management of LTSM is a lack of security measures in rural schools to protect the few resources the schools have, as these schools experience thefts and burglaries.

#### *Collaborative model of instructional leadership*

For a school to coordinate these key areas of curriculum management in schools successfully, Tienken (2010) proposes a Collaborative Model of Instructional Leadership. He believes that the Principal, as instructional leader, has to create a collaborative learning environment and shift away from the top-down management to a more distributed leadership. According to distributed leadership, the expertise of ensuring that quality teaching and learning takes place in a school does not reside only with the Principal but throughout a school in teachers, support staff and the School Management Team as a whole. The Collaborative Model of Instructional Leadership encourages consultative dialogues within the school to determine the needs of the learners and teachers and would then design appropriate teaching strategies to ensure that learning takes place. Tienken (2010) argues that leadership and professional knowledge must be disseminated in various platforms within the school, through the SMT and regular staff meetings.

Tienken (2010, p. 23) proposes that, when educators work collaboratively with one another, they are able to identify common gaps and plan teaching strategies that are responsive to the needs of the learners to improve learning. The Collaborative Model of Instructional Leadership may be used to ensure that systems and procedures in schools are well managed to promote teaching and learning that would increase the levels of learner achievement.

The Principal however remains the centre of all activities and ensures success in the school as an instructional leader. The Principal has the responsibility of creating an enabling environment for teaching as a key activity in the school and needs to create sustained conversations through regular meetings to ensure that all the teachers are

empowered to work towards the same goal. Strong instructional leadership combines pressure to perform, assistance and support so that the schools are enabled to move corporately toward accomplishing the learners' achievement goals, giving attention to important data, nurturing collaboration and building productive school environments (Tienken, 2010, p. 24).

#### *South African studies*

Limited research has been conducted on South African leadership, especially in studies that link the management processes to the curriculum. Hoadley et al. (2009) and Shoba (2009) note that the knowledge of how Principals manage the curriculum in South African schools is limited. Since the implementation of the post-apartheid curriculum, several empirical studies have focused on curriculum implementation (Labane, 2009) and on the role of the SMT in managing the curriculum (Shoba, 2009). Maphalala (2006) provides an overview of curriculum management issues in the context of curriculum change in South Africa. In Taylor's view, inefficient use of resources "is a central problem in South African schools and one which we know least about" (2007, p. 536). It would seem that the majority of South African Principals do not regard the oversight role relating to curriculum and teaching as their main task, but feel that responsibility for this lies with HoDs. Perhaps, as a consequence of this perception, Principals do not spend the majority of their time on aspects of instructional leadership but rather on administrative duties and learner discipline (Hoadley et al., 2009, p. 381).

The study by Hoadley et al. (2009) discovered that issues that adversely affect teaching and learning in schools include: low time-on-task and content exposure; poor curriculum coverage; low teacher-expectations; and insufficient use of textbooks. These deficiencies may be linked to the school leadership. Research suggests that there is a strong correlation between curriculum management and learner achievement in schools. Curriculum management is about managing systems and procedures, as well as people to ensure successful learning and teaching and to promote increasing levels of learner achievement (DoE, 2009). Research by Christie (2010, p. 696) confirms that "if schools are not competently managed, the primary task and central purpose of the school – teaching and learning – is likely to suffer." Hence, management needs to be actively engaged in curriculum coverage. A study by Van der Berg, Taylor, Gustafsson, Spaul and Armstrong (2011) observes that curriculum coverage is one key area of school functionality stemming from instructional leadership that could be more effectively monitored. Principals of schools requiring attention in this area could be required to report regularly on curriculum coverage.

The uneven state of curriculum delivery in South African schools highlights the need to conceptualise curriculum management variables at school level. One of these variables is the challenge of unqualified and under-qualified educators, as well as a high educator turnover in rural areas.

In 2016, KZN was found to have 2 875 teachers who were either unqualified or under-

qualified, the majority being in the rural areas and the deeply affected districts being Zululand, uThukela and King Cetshwayo (Savides, 2017). These teachers are sometimes referred to as “out-of-field” teachers (teaching a subject that teachers are under-qualified or even unqualified for). “Underqualified” refers to two categories: practising teachers who are university graduates practicing as teachers and experienced, but without professional teaching qualifications or teachers who may have both academic and professional teaching qualifications, but their qualifications may be viewed as inadequate due to curriculum or policy change (Mukeredzi, 2016). There can be no doubt that quality teaching is directly and negatively affected by large numbers of out-of-field, unqualified and underqualified teachers and this poses a particular problem for curriculum management. The Department of Education has been accused of not having proper up-to-date data of teacher profiles (qualifications and subjects) which informs demand and supply (Bernstein, 2015).

KZN is counted amongst the provinces with the highest number of unqualified and under-qualified teachers who may not be in a position to deliver curriculum content as expected. The strategy in place is for Subject Advisers to support unqualified teachers so that they can function optimally in their daily teaching activities, over and above the support they get from the School Management Team (SMT). Curriculum implementation is an ever-constant challenge, particularly in rural schools, and school managers are required to be proactive in managing change and educator development.

### **Curriculum management in KZN**

In 2012, the KZN Department of Education developed its Curriculum Management and Delivery Strategy (Department of Education, 2012, p. 8). In this process, the then MEC of Education in KZN, Mr E.S. Mchunu, conducted oversight visits to twelve education districts in the province “to assess progress with regard to implementation of the curriculum in schools.” What emerged from these visits was that KZN had no common and effective strategy for the monitoring of curriculum delivery across the twelve districts and no instrument designed to inform the system early enough of the extent to which learners are achieving learning objectives. The visits found that there was poor time on task; poor supervision and monitoring of curriculum implementation at the classroom level by the School Management Team; and a lack of content knowledge among teachers. To remedy this situation, the Curriculum Management and Delivery Strategy was developed “to standardize the approach and to promote uniformity in curriculum implementation and support in the province”, in the hope that “a common strategy that will compel schools to make use of each and every minute of teaching time effectively.” Three of the six elements that guide the KZN strategy are:

- Supervising the taught curriculum at classroom level
- Monitoring and evaluating the curriculum implementation
- Providing support services and resources to teachers.

The recognition that poor curriculum management contributes to poor learning outcomes was the starting point of the partnership between the KwaZulu-Natal Department of Education and the Programme for Improving Learner Outcomes (PILO) in the development of the Jika iMfundo initiative. Jika iMfundo is a campaign of the KwaZulu-Natal Department of Education that has been piloted on scale in 2015–7 in two districts, King Cetshwayo and Pinetown, so that the model is tested on scale and lessons are learned before rollout across the province from 2018. The implementation of Jika iMfundo is supported by the Programme to Improve Learning Outcomes (PILO) and funded by the National Education Collaboration Trust (NECT).

The management focus is on all Circuit Managers and Subject Advisers at district level and at all the School Management Teams at school level. The teacher focus is on providing curriculum support materials to teachers from Grades 1–12 (languages, maths and science). It seeks to provide district officials, teachers and School Management Teams with the tools and training needed to have professional, supportive, conversations about curriculum coverage based on evidence so that problems of curriculum coverage are identified and solved and learning outcomes improve across the system. It achieves this with a set of interventions at school and district levels, from foundation phase to FET phase, which provide tools and training to build routines and patterns of support within and to schools that will have a long-term and sustained impact on learning outcomes.

Teachers are provided with CAPS Planners and Trackers which assist them to plan teaching and assessment, track the pace of teaching and assessment against CAPS expectations, reflect and identify pedagogical problems related to coverage and to report these to the HoD in a professional and supportive climate so that problems can be identified and solutions collaboratively agreed upon.

Heads of Department are provided with the tools and training to supervise and support teachers in curriculum coverage. Principals are provided with tools and training to monitor and support HoDs in their curriculum management responsibilities.

Circuit Managers and Subject advisers are given tools and training to have curriculum-focused conversations with educators that use the evidence gathered in the school so that problems can be identified and solutions found.

## **Research methodology**

### *Research approach*

This study was designed to reveal how the management of selected schools in King Cetshwayo district understands the task of curriculum management following the Jika iMfundo intervention and what steps they have taken in response to Jika iMfundo as an operational system of curriculum management. Our research approach was qualitative, in line with Maree's (2007) notion that qualitative research may be viewed as an inquiry process of understanding where a researcher develops a complex, holistic picture,

analyses words and reports on detailed views of informants, and conducts the study in a natural setting.

Specifically, the project sought to gather participants' views in response to the following questions:

- What has been the impact of Jika iMfundo Programme on curriculum management to improve the quality of teaching and learning in King Cetshwayo District?
- How do school Principals involved in Jika iMfundo Programme understand their roles as curriculum leaders?
- Does the school leadership know about actual curriculum coverage in their schools?
- What do participants say about the nature of curriculum planning, implementation, monitoring and evaluation after the Jika iMfundo intervention programme?
- What do teachers say about the kind of supervision and support they receive to sustain the Jika iMfundo programme pillars?

The study targeted eight primary schools which were involved in the Jika iMfundo programme in the King Cetshwayo District. A purposive sampling procedure was used to identify schools according to the Jika iMfundo colour codes: green, amber and red. Eight schools were chosen, according to the Jika iMfundo colour code classification of schools, three "green" schools (schools that are classified by the district as working well), three "amber" schools (schools that are progressing gradually) and two "red" schools (schools that are not progressing much).

The study involved eight Principals, four Deputy Principals, 11 Heads of Departments and 16 teachers as participants. The table below provides a breakdown of participants in terms of schools' "colour coding" and positions/post-levels. In total, 39 participants were involved in the study. The aim was to get as much information as possible from diverse participants in order to triangulate information later for validity and reliability purposes.

<b>Number of Schools per Colour Code</b>	<b>Principals</b>	<b>No. of Deputy Principals</b>	<b>No. of HoDs</b>	<b>No. of Teachers</b>
3 Green schools	3	2	4	6
3 Amber schools	3	1	4	6
2 Red schools	2	1	3	4
8	8	4	11	16

Colour code classification of participating schools

#### *Data Sources*

This study used a variety of data sources to determine participants' perceptions of the Jika iMfundo programme in managing the school curriculum. Data were collected

through separate focus group interviews with Principals, Deputy Principals, HoDs and teachers and documentary analysis was also undertaken. To achieve a measure of triangulation and for validation, we cross verified information received through interviews and document analysis.

#### *Focus group discussions*

Four focus group sessions were conducted by the research team as follows:

- Group 1: Eight Principals and four Deputy Principals
- Group 2: 11 HoDs
- Group 3: Eight teachers
- Group 4: Eight teachers.

Teachers who taught mathematics, sciences and languages formed part of the study as the Jika iMfundo programme focuses on these subjects. The focus group discussions were conducted in a research workshop format that took the form of a dialogue. Since dialogue is more spontaneous than more formal ways of interaction, the assumption was that it would generate more profound, naturally occurring data (Silverman, 2001, pp. 286–287). The researcher posed pre-defined open-ended questions which the group responded to, as would be the case in a semi-structured focus group interview. However, the participants were given considerable freedom to explore topics beyond the questions posed by the researcher. The entire workshop was tape-recorded for analysis at a later stage. Rubin and Rubin (as cited in Arksey & Knight, 1999, p. 33) suggest that discussions are a way of uncovering and exploring the meanings that underpin people's lives, routines, behaviours and feelings. The focus group discussions served the purpose of explaining contextual variables that were operating in the school system that impacted on the curriculum delivery. These contextual variables shed light on the actions of various stakeholders, their interrelationships, successes and challenges within the school system. Quotations cited from focus group discussions are used as a source of triangulation.

While we specifically chose focus group methodology to generate discussion and allow participants the freedom to raise issues of their own, we recognise that this methodology does not enable individual views to be probed in depth or in detail.

#### *Document analysis*

According to Bowen (2009), document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around the phenomenon under investigation. Analysing documents incorporates coding content into themes similar to the way that focus group or interview transcripts are analysed (Bowen, 2009). In this study, various types of school documents were analysed that included: teachers' files; lesson plans; year plans and timetables; meeting agenda; trackers; workbooks; CAPS documents; minutes of the meetings; and reports as sources

of information that revealed insights into the curriculum delivery and management. The insights gleaned from the documents related to areas of curriculum planning; content coverage; pacing of learning; Jika iMfundo strengths and weaknesses; school routines; curriculum support; monitoring; and evaluation.

#### *Site visits*

Four schools were visited by the research team. Site visits were intended to reveal the actual context in which the curriculum is designed and delivered in a school system. The research team had to observe the school premises, playgrounds, restrooms, offices and classrooms in order to comprehend the conditions under which teachers and learners operated in these schools. Site visits were conducted in two “red” colour coded schools to deepen the understanding of their challenges in context. These were informal observations that served to familiarise the research team with the schools in the context of the Jika iMfundo intervention, given that interviews were not conducted in schools but at a central venue.

#### *Analysis of data*

Qualitative data were analysed through thematic analysis. Recorded interviews were subsequently transcribed and analysed according to the phenomenological steps in the analytical frameworks of Giorgi, Fisher and Murray (1975), where we:

1. read each transcript to get an overall sense of the whole
2. re-read the transcripts and identified transactions in the experience (each transition signifying a separate unit of meaning)
3. eliminated redundancies in the units of meaning and began to relate the remaining units to one another
4. transformed the participants’ language into the language of science
5. synthesised the insights into a description of the entire experience of leadership practices.

After the transcriptions and interpretation of data was done, responses were arranged according to each question asked and for each category of participants. Researchers (team members) were encouraged to print the arranged responses in order to analyse them using the analytical frameworks of Giorgi et al. (1975) discussed above.

#### *Ethical considerations*

Confidentiality, anonymity and privacy were respected. The participants were assured that they would remain anonymous regardless of the information they would have provided. The consent of all participants was sought. The purpose of this research was clearly explained to the participants and they were informed that they had a right to withdraw from the research at any point and their data would then be excluded from the report. Permission from the District Education Department and the schools was

sought. Informant feedback/member checking was held with the participants where feedback was provided both to verify data analysis and to comment on its meaning and interpretation. Draft reports were provided to the participating schools to verify the research findings. Ethical clearance to conduct the study was sought from the University of Zululand.

## Findings and discussion

### *Attitudes towards Jika iMfundo*

In focus group interviews, enthusiasm for Jika iMfundo was clear. Broadly speaking, teachers reported that they enjoyed working with the toolkits and other resources provided to them. Discussions suggested that Jika iMfundo had broadened the teachers' and SMTs' knowledge on how to *plan, implement and monitor* the curriculum through the use of tools to ensure content coverage towards more effective teaching and learning. Discussions also suggested that Jika iMfundo has, for the first time, brought about uniformity, synchronisation and streamlining of curriculum management within schools, circuits and the district. Mention was made of improved stability and better relations amongst some teachers and SMT members; greater clarity on the roles of SMTs and teachers; reducing role ambiguity and providing role clarity; and teacher development in relation to refocusing teachers on teaching and learning (T&L) to assist learners. Issues of effective curriculum management and improving the leadership capabilities of Principals were also raised. Jika iMfundo's approach to evidence-based approaches and accountability was endorsed, with participants noting that everyone was able to monitor their own work and take corrective action. If an individual lagged behind, they would be able to seek and access support from colleagues. The collaborative nature of Jika iMfundo meant that no individual could succeed working alone and that the monitoring system required cooperation amongst colleagues.

The enthusiastic response to the Jika iMfundo intervention evident in focus group discussions did not however mean that teachers had the same interpretations of the programme. To some participants, it signalled "movement" from one place to another; to some, a "transition"; and to others, a "change". One participant equated it to a "*fast car*". Generally, it was seen as a way of transforming education for the better, in a sense, representing a paradigm shift in managing schools and particularly the curriculum.

A common remark from participants was that Jika iMfundo helped them to deal with CAPS. In particular, it was seen as a programme that brought a practical approach to the implementation of CAPS. One participant revealed that, prior to her participation in Jika iMfundo, she could not understand CAPS documents. This participant said that Jika iMfundo is "*a document that unpacks CAPS*". Another participant said that it "*eases the burden of CAPS*" and "*cut it into pieces*". Yet another participant saw it as a document that "*makes the process of teaching and learning easy*" and other pointed out that it was "*there to rectify CAPS*". From these participants' views, it seems that Jika iMfundo has

offered solutions to at least some of the curriculum problems they were experiencing. It was said that even experienced teachers sometimes struggled to unpack the curriculum and teach all the content or topics they were expected to teach, partly due to the number of topics that need to be covered in a year or the bulkiness of the curriculum and the teachers' lack of content knowledge.

However, there were a few participants who believed that *Jika iMfundo* was another curriculum statement different from CAPS. One participant pointed out that "*Jika iMfundo means that we are changing from one system of education to another*". To those who compared it with CAPS, *Jika iMfundo* was seen as a better programme than CAPS.

#### *Curriculum planning and coverage*

In previous sections, we have pointed out the critical role that curriculum planning at various levels has on the achievement of curriculum coverage. Most participants in the different focus groups agreed that, before *Jika iMfundo*, there was no proper curriculum planning. Time on task is also very important in a curriculum delivery and management environment. Allocated time available for teaching and learning needs to be planned for and used effectively. It is for this reason that the school must have a timetable which is followed by all teachers. Allocated time also requires that teachers and learners are always punctual for the task of teaching and learning. It also requires that the support of schools by the district and head office must be timely. Teachers, as well as HoDs and SMT members all commented on how the *Jika iMfundo* initiative assisted them with curriculum planning and coverage, including time allocation.

#### *Views expressed by teachers*

The majority of teachers were of the view that *Jika iMfundo* has introduced better curriculum planning which had a positive impact on teaching and learning. They noted that, as a result of participating in the *Jika iMfundo* programme, the behaviour of teachers had changed, in that they were conscious of the importance of being ready and prepared for lessons. They attributed their readiness and preparedness to "*clear instructions*", "*uniformity*", and "*ready-made lesson planning*" which saved them time on planning and made teachers focus more on "*time on task*".

It would appear that, before the introduction of *Jika iMfundo*, curriculum implementation was left to individual teachers to decide. In the words of one participant: "*I used to start with any topic I was comfortable with.*" Another stated that teaching "*was led by feelings and there was no clear direction.*"

In discussions, it emerged clearly that teachers had struggled with time management and had not necessarily understood the importance of following the school timetable to ensure curriculum coverage. According to one of the teachers, "*In the past I used to begin the day with whatever I feel like teaching but now I stick to the timetable because I now understand its importance and I'm always prepared for everything I need to teach on a given date, because we have a lesson plan designed for us.*" Furthermore, a number of teachers

expressed appreciation of the fact that they now understood the importance of being organised and of using teaching and support material to facilitate the understanding of the content by learners.

Several teachers stated that they felt more confident as a result of training workshops and supportive tools. One teacher explained: *“In the past I did not know how to teach guided reading, after the workshop and tools offered by Jika iMfundo, I now do it with confidence.”* Another teacher added that, in the past, *“I used to overlook speaking and listening skills as I did not know how to teach them, now I know.”* Foundation Phase teachers mentioned that they felt better able to cover all the topics in the curriculum because of the support they received from HoDs and from Jika iMfundo facilitators.

That said, concerns were expressed about the time that Jika iMfundo required of them, forcing them to spend more time on planning rather than teaching. For instance, one teacher commented as follows: *“To me, Jika iMfundo has a lot of work in a short space of time. As the colleagues have said, it is difficult for the slow learners, it is a fast car.”* This teacher felt that more time in administrative work took time away from teaching. There was too much paper work and teachers were therefore no different from the administrative staff. Teachers tended to spend most of their time on lesson planning, assessment activities and marking. There is no doubt that even teachers, who were supportive of the Jika iMfundo tools, experienced time pressures. As one stated, *“No, there is no time, but we always create some time because we don’t want just to move forward. You manipulate the time somehow.”*

A number of teachers expressed their appreciation for the guided lesson resources and tools. One of the teachers noted that:

Jika iMfundo puts you straight to the point when it comes to curriculum delivery. It is properly planned, no unnecessary divert. Assessment is there and clear. We use them as is. But also, it depends on the level of your learners, as a teacher, you could change [it] here and there.

#### *Views expressed by HoDs*

In the focus group interview with HoDs, it became clear that they believed that curriculum coverage had improved as a result of better planning. Not only teachers, but also SMT members and particularly HoDs, talked of “curriculum coverage” as their end goal. They also mentioned that Jika iMfundo helped them to manage curriculum coverage better, particularly through the use of the curriculum management tools provided by Jika iMfundo. Using the tools made planning easier for HoDs, particularly with regard to scheduling times for meetings with teachers to discuss progress and challenges with regard to curriculum implementation. The tools also appear to have brought about improved communication through formalising tasks. The Planner and Tracker tools helped the HoDs to work collaboratively with teachers in a number of issues, including class visits, topics to be covered in class and the number of prescribed

assessments, thus minimising clashes in as far as working relations are concerned. HoDs were also provided with guidelines as to how to conduct one-on-one sessions with teachers. HoD tools helped them track, not only teachers, but also learners' work to check if what the teacher indicated as completed in the tracker was indeed done in class. One HoD confirmed as follows: *"I now know what to track and how to track it."*

All HoDs maintained that they now had tools for almost everything that happened in a classroom environment. One HoD said: *"Now we know how to have [a] professional conversation, we know what is expected of us, in fact, everybody know[s], there is a great deal of transparency."* According to this participant, HoDs were now equipped with skills that helped them to be able to track the curriculum, remarking that: *"When I check teachers' and learners' work, I know exactly what I'm looking for."* Another stated: *"The materials tell you how are you going to visit the teachers, how to do one-on-one conversation, what are you expected to ask the educators."*

One of the participants who had twenty years' teaching experience, five of those as the HoD, said that she now understood that planning is key. She noted that *"we now plan as a team and share ideas on what we want to achieve as a phase."* She had come to regard teamwork as a contributory factor to effective planning. Another HoD stated: *"We sit down, do the planning with the teachers and the due dates and they submit to the HoDs."*

Commenting on the usefulness of formal lesson plans and materials, one of the HoDs said that *"we saw it as good thing because, as you know, teachers are very lazy to make lesson plans. Teachers are happy, they know what they are going to do today, tomorrow and on and on."*

Similarly, one of the Principals expressed the view that teachers now had more time to sit as teams or groups and discuss exactly how to teach and assess a particular topic and brainstorm ideas. He stated that *"the ready-made lesson plans tell them what to teach and this leads to them covering the curriculum because one thing that make learners to fail due to curriculum that was to covered."*

It would appear that the information collected through tools such as the Planner and Tracker helped the SMT as a whole to be aware of challenges faced by teachers as soon as possible, as they collected trackers every Friday. This meant that problems did not pile up and, as a result, the turnaround time to solve the problems became shorter.

#### *Comments on teacher reflections*

A teacher noted,

What I like with Jika iMfundo is that the officials told us that we can divert from the tracker if we see that it is not assisting, but explain the reason on your reflection. We are allowed to do that by explain[ing] when and how you are going to fix that challenge, hence there are classes. At the same time, at foundation phase, morning and extra classes are not allowed, it is difficult.

A HoD added,

As HoD we have to make sure that we assist the teacher by making sure they write the reflection at the end. Thereafter we need to read and discuss these reflections. We then have a one-on-one conversation because maybe it is the way of presentation on teachers' side. He/she should change the way of presentation. Sometimes the problem is on the learners' side.

A Principal offered this perspective:

Jika iMfundo emphasises on reflection of the practice. As management, we also do reflection since there are tools that we get from the workshop. On your reflection, you will know what and why you have not achieved the target and will know how you will achieve it next time.

Evidence indicates that teachers and HoDs believed that management of curriculum coverage has improved. The Jika iMfundo tools provide clear processes for planning, design, reporting and recording, and teaching assessment. Even though teachers mentioned feeling burdened with paper work and administrative work, they also mentioned that they were able to work smarter and more efficiently. Through scheduled formative assessment tasks, including teacher observation and teacher-learner interactions, teachers were provided with tools to enable them to monitor learners' progress and enhance learning.

#### *Curriculum monitoring*

As mentioned earlier, monitoring is a critical element of curriculum management. Its functions are to track teaching and learning processes toward the realisation of stated objectives and also to enable corrective measures to be put in place. Ideally, formalised monitoring should increase a sense of accountability amongst both teachers and management.

Curriculum monitoring is at the heart of what SMT members are responsible for, especially the HoDs, as they are first in line in the School Management Team. They currently use standardised monitoring tools whilst, in the past, teachers used their own non-standardised tools and they were not equipped on how to monitor curriculum coverage. One HoD revealed that *"in the past, I did not know how to check properly if teachers were doing their work."* Furthermore, participants complained that they did not know what to check for when monitoring the curriculum. According to this participant, HoDs, as the first in line when it comes to curriculum coverage, were not empowered, noting that *"all I could think about was criticisms one used to get from inspectors, when they came for curriculum monitoring."* Another one echoed that they now felt empowered by the intervention. From the participants' responses, one can conclude that HoDs, in the past,

did not monitor curriculum coverage properly as they did not have the skills, knowledge and tools to do that.

One HoD expressed: *“I collect trackers every Friday, conduct class visits and check exercise books for the learners and will take the recording to the Principal or Deputy Principal.”\*\* There are weekly meetings held by the SMT in this school that did not happen in the past. HoDs were also able to plan for teamwork: \**“In the Foundation Phase, we finish work at 13h00 and we, as the educators, sit together and help each other up until 14h00 and we do that on a daily basis.”**

Focus group discussions showed an awareness of curriculum management as an extended process running through the school from teachers, to HoDs, to deputies and Principals and beyond the school to the district. HoDs were mindful of the fact that the feedback they were given by teachers was not only for their own consumption, but would also be taken up to the Deputy Principal and the Principal, as part of reporting, and from there to district officials. They also showed an understanding of the importance of record keeping and writing reports on the successes and challenges facing them in different phases. All-in-all, they felt that they had increased confidence in their ability to discharge their duties as required or expected. It also became clear from this research that SMT members, and particularly HoDs, had a deeper insight as to their roles in school.

While it is not possible to generalise from such a small sample of schools, it would appear that, in the case of these schools, participants consider that *Jika iMfundo* has reinstated accountability which had been eroded within the education system. The standardised tools and the use of evidence-based discussions with teachers brings transparency to the relationships between teachers and HoDs. In the monitoring process, teachers report what they have done to HoDs and HoDs are able to verify, through a number of documents, whether teaching and learning does take place. They are able to focus on the quality of the work covered in relation to CAPS and not just quantity i.e. the number of activities learners have in their exercise books. It also helps them to follow up on areas where teachers have indicated in the tracker that they need assistance. HoDs have the opportunity to make sure that those aspects are addressed, either by teachers within the grade/phase or by external help which could be in the form of colleagues from neighbouring schools. Through the use of more regularised conversations, *“the discussion is professional and never personal.”*

In the words of one of the Principals, *“these tools make it easy to track where the educator on how he/she is doing. We are able to sit down as SMT and manage the curriculum, what is the downfall, what is challenging and how to overcome.”* Another Principal pointed out,

The one-on-one meeting with the educator, it's when you reflect back on what transpired when you were having class visits ... We are able to give advice and the teacher will tell why it is not the way it was expected. At the same time, you can offer support because immediately you can identify challenges. It improves relations among us as staff.

Moderation tools were also mentioned to be useful in evaluating the reliability of evidence provided by teachers pertaining to teaching and learning. Teachers, SMTs and district officials indicated that moderation tools are user friendly and accessible to all role functionaries in schools.

In the schools in this sample, it would seem that the relationships between teachers, Principals and district officials have changed for the better, through greater role clarity and that the common stated purpose of curriculum coverage has improved. It would appear that tools have enabled relationships to be more regularised and to be more supportive than in the past. A HoD described this:

The visits by the district officials are guided by the monitoring tool rather than perceptions and the process is developmental rather than judgemental and works less on issues of compliance.

### **Challenges encountered by schools in dealing with Jika iMfundo**

#### *CAPS vs Jika iMfundo?*

Researchers noticed that participants often mentioned CAPS and Jika iMfundo as two programmes being implemented at school concurrently. A Principal explained: *“What I noticed is that colleagues thought it was a change of the curriculum altogether. They said we had NCS, CAPS and now Jika iMfundo was a new curriculum, not the way of implementing the curriculum as it is.”* Another stated: *“We were confused because we were still looking at CAPS documents, teachers thought Jika iMfundo was another programme but, at the end, it was clear that this programme was there to rectify CAPS.”*

One of the HoDs clarified the relationship as follows:

Jika iMfundo has come with improvement, for example, I used to compare NCS with Jika iMfundo, NCS is general and that Jika iMfundo is specific. Looking at the timetable of NCS, it does not tell you when to teach. For example, Jika iMfundo there are language components and there is reading, group guided reading and writing. When you go to NCS, it doesn't tell you clearly that today you are going to teach reading. That is why we have children that do not know how to write because teachers were doing what they like to teach and there was no document which tell them that 'today you have to teach this'.

Another said:

Before we go on seeing that Jika iMfundo explain when and how to do what, it specifies, but to me, even NCS tell us the same. No NCS is not on detail, it only tells you per term you have to cover this, but with Jika iMfundo it tells you day-to-day for the whole week what you are going to do, what are the resources to use,

what to assess. It tells you even day 1, day 2 what to assess.

The distinctions between CAPS and Jika iMfundo could have been discussed with all the schools taking part during the inductions and the road shows which were provided in preparation for implementation.

#### *Challenges related to CAPS*

A common remark from participants was that they could not keep up with the pace of Jika iMfundo due to the number of activities that had to be done on a given day. One participant revealed that she could not teach all the activities and support the learners, especially the slow learners, at a same time. There was not enough time for proper teaching and individual support was not possible. This participant revealed that *“there are too many activities per day, especially in isiZulu, in a limited time but we try to squeeze the activities together.”* Another participant said that there was too much work for both teachers and learners: *“We are expected to use both the workbook and exercise book. For teachers, that calls for too much marking.”* Another participant said that not all the learners had learning material: *“Most of them don’t have material like exercise books, pens and pencil as they lose them on daily basis, so they sometimes don’t write class work and homework.”* Yet another participant said: *“Jika iMfundo focuses on speed rather than quality, the tracker leads and not the child. Tracker is a like a robot, it opens and closes.”*

Participants confirmed that some learners could not keep up with the content covered in class and struggled with different topics in the curriculum. One of topics mentioned was “phonics in isiZulu”. From findings, it is clear that teachers struggled with content or curriculum coverage and learners who were not able to keep up with content.

The other problem highlighted by participants is the challenge of not recording their lesson coverage on time because they would still be dealing with slow learners. One participant said: *“... not that we are not teaching.”* Another participant confirmed that, at the end, they finished the syllabus as required: *“We are slow but, at the end, we cover everything.”* From what teachers are saying, the problem is not that they were not recording, it is just that they were not covering the curriculum. They also tried to catch up by having afternoon classes, especially in the Foundation Phase, from 13h30 to 14h30.

The other problem identified by teachers is the difficulty related to reflection on their work. Some teachers felt there was no need for reflection. One of the teacher said: *“I don’t understand why we need to reflect after each and every lesson.”*

Another of the challenges of Jika iMfundo, as seen by the teachers, is that trackers need to be aligned with the school calendar. For instance, a tracker may indicate five days of activities in a particular week, only to find that there are three school days in that week. That results in a backlog for both teachers and learners. The other challenge is that of the shortage of resources like workbooks, especially in rural schools, and when this is coupled by the lack of electricity, then no printing can be done to supplement the

material. The usage of both workbooks and exercise books was not a welcome move for some of the teachers as they felt that it required a lot from them in terms of marking and, as far as they were concerned, this represented a duplication of activities.

#### *Location of the school and lack of parental involvement*

The themes that arose from focus group discussions were the effect that the location of the school had on its functionality and, specifically, the socio-economic context of a particular community as the schools from quintile one were attracting students from families that were struggling financially.

A closely related theme that participants mentioned was the lack of parental involvement in their children's education. It is clear that there is a relationship between the location of the school and parental involvement. According to the teachers, the curriculum that is in place requires active involvement of parents and guardians as they are expected to help learners especially with homework. If learners are not helped at home, it becomes a problem for the teachers as they have to start from the previous day's work which was supposed to be done with the help of parents at home. Another point raised was that of parents who are not literate thus they cannot help their children. Other challenges were that learners may come from child-headed families and that some live with their uneducated grandparents who cannot help with the school work. Teachers also indicated that they needed skills on how to deal with parents of slow learners because they did not want to be told that their children were under-performing.

The KZN Curriculum Management and Delivery Strategy (2012, p. 23) also identified "*strong parent and community support [as] one of the key factors for effective teaching and learning.*" We may well extend the argument by Christie (2010) that "situated approaches" are needed when dealing with schools because different schools face different/unique situations that affect the day-to-day running of a school at the core of which lies teaching and learning.

#### **Conclusion**

The research, on which this chapter is based, sought to investigate the theme of curriculum management and, more specifically, the views of participants in a sample of rural schools in the King Cetshwayo District on the impact of the Jika iMfundo intervention to improve the quality of teaching and learning. Noting that curriculum management entails planning, implementation, monitoring and evaluation and that curriculum leadership needs to spread from the Principal to HoDs and the support they give to teachers, we set up focus group sessions for a sample of Principals and Deputies, HoDs and teachers in eight schools to gather information on these themes. While our sample is too small to allow for broad generalisation, the contextual insights offered by the research provide valuable perspectives on the operation of the early phase of Jika iMfundo in a rural district of KZN. We recognise also that, while the focus group methodology we used has benefits in eliciting free-ranging views, it is stronger

in showing common themes and concerns than in providing deeply-probed individual views. The individual views we have presented were gathered in the context of focus group conversations, not individual interviews. Our findings need to be interpreted in this light in terms of the strengths and weaknesses of the methodology.

Our findings show the generally positive response of teachers, HoDs and Principals to the systematic approach to curriculum coverage that *Jika iMfundo* brought into schools. Indeed, responses suggest that, prior to this, there was little systematic curriculum planning in these schools, with teachers often making individual choices about what to teach and when. The introduction of planners and trackers, as hands-on guides to planning and recording curriculum coverage, meant very practical assistance to teachers in planning and monitoring their coverage of the CAPS curriculum. This is not to say that the use of *Jika iMfundo* tools was always unproblematic as some teachers were unclear about the relationship between CAPS and *Jika iMfundo*; the tools added an administrative dimension that some teachers felt took time away from actual teaching; reflection tasks were not always considered to be valuable; and contexts of poverty were seen to have real effects on the functionality of these schools. Importantly, while the *Jika iMfundo* tools could assist with planning CAPS coverage, many teachers expressed continued unhappiness with the pace of teaching that curriculum coverage required, particularly in classes of mixed competence and what they termed “slow learners”.

Turning to curriculum monitoring, our research suggests that the *Jika iMfundo* tools for HoDs introduced a more structured approach to their work with teachers. Many HoDs said that they knew, for the first time, what their role entailed and how to engage with staff in evidence-based discussions. There is more transparency about what is required and more opportunity to work collaboratively. Principals also mentioned the regularisation of tasks through the tools in positive terms. Thus, our research tentatively suggests that the *Jika iMfundo* intervention has been able to improve relationships within the sample schools, perhaps restoring the authority relationships that are necessary for schools to focus on teaching and learning.

The aim of the *Jika iMfundo* programme is to develop strong curriculum management skills for the support and implementation of the curriculum by teachers, HoDs, SMTs and Principals. The reports from teachers who participated in this research study indicated that *Jika iMfundo* has come at the right time.

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## Teachers' and HoDs' accountability on curriculum coverage: PILO's contribution to the theory of change in education

*Francine De Clercq, Yael Shalem and Thabisile Nkambule*

### Introduction to PILO and its Theory of Change

The Programme to Improve Learning Outcomes (PILO hereafter), an education NGO, started the Jika iMfundo improvement campaign in KwaZulu-Natal (KZN) in 2014 as a large-scale provincial educational intervention whose form and focus were rather different from those of other Provincial Departments. Jika iMfundo is holistic in its targets – to improve the work of districts, Principals, School Management Teams (SMTs), Heads of Department (HoDs) and teachers in more than 1000 primary schools in two KZN districts. It aims at improving the curriculum coverage in these schools and is based on the belief that such long-term sustainable intervention requires the development of a collegial professional culture in the education system.

PILO's philosophy is to encourage all stakeholders at school and district level to work together more professionally, to develop new relationships and practices which will assist in improving coverage of the Curriculum and Assessment Policy Statements (CAPS). PILO is committed to providing capacity building to shift the practices of these stakeholders and make them accountable to each other to foster reciprocal accountability.

This chapter examines one part of the program that focuses on HoDs and teachers. In particular, we examine how the forms of internal reciprocal accountability expected from HoDs and teachers take shape on the ground in a selection of primary schools in the King Cetshwayo rural district of KZN. We unpack the conceptualisation of this

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part of the program and analyse the perceptions of HoDs and teachers (who are the core stakeholders in this model of change) regarding the components of the Jika iMfundo Campaign that address their professional relationships and practices: the professional form of HoD monitoring; teachers' use of curriculum planners and trackers; teachers' mandated reflections; and the nature of the professional conversations between HoDs and teachers leading to professional development (PD) actions.

Our hypothesis is that there is a challenging tension in the conceptualisation of this part of the program that focuses on HoDs and teachers with the aim of promoting internal reciprocal accountability in a thousand schools in contexts where expertise is lacking and resources are constrained. This tension arises because the programme expects to develop a new monitoring process for developmental purposes which is fair, transparent and effective and to build a supportive collegial and professional culture in schools with teachers and HoDs *who have not yet themselves mastered a certain degree of organisational and professional capacity*. How can HoDs, who have insufficient professional knowledge, quickly adopt a totally new supportive monitoring role and have collegial professional conversations with their teachers to understand the professional development that is needed to improve curriculum coverage? Conversely, how can teachers start to reflect professionally on their teaching strengths and weaknesses without direct training and capacity-building exercises from knowledge experts? We suggest that this tension is structural – it is built into the conceptualisation of this part of the program – and will play out in specific ways when implemented in a poor social school context. This tension is exacerbated by the scope and scale of the Jika iMfundo intervention, mobilised by PILO, which targets the institutional culture and practices of HoDs and teachers in a thousand schools in two KZN districts with rather limited resources.

In this chapter, we explore how this structural tension has played out, drawing on PILO data from a sample of primary schools in one of the two districts involved in the Jika iMfundo intervention. Our analysis suggests that HoDs in the research sample managed the structural tension by providing supportive monitoring which was broad and generic at the expense of providing specific instructional support targeted at the level of teacher practices; whereas teachers managed the tension by complying with what they saw as the main expectation which is better curriculum coverage. The chapter shows that, at this stage of the Jika iMfundo intervention, structural constraints, as well as the magnitude of the scope of the Jika iMfundo project, have tended to give rise to compliant behaviour at the expense of deep reflection on what learners find difficult and why and what support teachers need in order to support learners.

### **Research processes**

The data used in this chapter were collected by PILO from 100 sampled schools in the King Cetshwayo KZN district where PILO worked. PILO conducted a school review with HoDs and teachers in November 2015 and a school survey of curriculum coverage

in August 2016. The 2015 school reviews were based on interviews with teachers and HoDs about the teachers' use of the trackers and the relationships of HoDs and the Deputy Principal, while the 2016 curriculum coverage surveys consisted of interviews with HoDs on the teachers' use of trackers as well as their improved curriculum coverage. For our analysis, we used the PILO data from the 40 primary schools in the King Cetshwayo district. There were some similar questions in these two school surveys about the use of trackers, although the 2016 curriculum coverage surveys also included questions on curriculum coverage. This means that, at the time of writing, there were only two sets of large-scale school data that were partly comparable over time. The PILO data were mainly about the perceptions of HoDs and teachers and that, even though they had to substantiate them with some hard evidence, survey responses depended on HoDs' interpretation of the evidence they saw.

To supplement this perceptual data, we collected some "hard evidence" from a sample of six primary schools in one of the rural districts of KZN, representative of PILO's grading system: one "green" school (schools that work well); three "amber" schools (schools that are progressing gradually) and two "red" schools (schools that are not progressing much). We asked each of the PILO coaches of these six schools to collect documents from two teachers teaching Grade 3 English Literacy as FAL, since this is a key subject at Grade 3 given that English becomes the LoLT by Grade 4. We received a large set of curriculum planners and trackers from 2015, 2016 and term one of 2017 (covering nine school terms), filled in by 12 Grade 3 teachers of English as FAL from the six sampled schools (around 150 filled pages with teacher reflections at the bottom). Our analysis focused mainly on the complete set of nine terms of planners and trackers filled in by eight teachers only, because we wanted to understand the change in teachers' reflections over these nine terms and the materials provided by the other four teachers did not cover all nine terms. PILO also provided another piece of scanned written evidence: four completed HoD forms of "the tool 2" from our six sampled schools which asked about HoD monitoring and reflections on their conversations with teachers. Requests for permission to use the PILO data, as well as collect new documents from the six sampled schools, were authorised by the KZN Education Department and Wits University approved the ethics application for this research study.

Before expanding on our research findings, we provide a brief discussion of theories of change and accountability in education change management and how these are developed in PILO's Theory of Change and the activities of *Jika iMfundo*.

### **Theories of Change**

When conceptualising a large-scale intervention in the education system, whether of thousands of schools and/or of a few district offices, the change management model used explicitly or implicitly has to be studied. To have a Theory of Change is crucial to guide the selection of change tools used to move institutions and individuals from

where they are to where they need to be. The change management literature debates various theories of change to identify the most useful change tools. Since the late 1980s, McLaughlin and Fullan have studied the change process in organisations like schools. Broadly speaking, the debate revolves around the balance between demand and supply, or what others (McLaughlin, 1987; Fullan, 2001; Darling-Hammond, 2004; Elmore, 2004) call “accountability” and “support” which is differently applied in the institutions, depending on the kind of change and the nature of the institutions to change.

Educational accountabilities take different forms depending on the developmental capacity of schools. They are:

- bureaucratic – accounting to the line of authority, by following policy, rules and procedures;
- political – accounting to the politically elected bodies;
- professional – accounting to the specialised knowledge of the profession, by making appropriate judgements; and
- performance-based – accounting for results to the superior line of authority.

Accountabilities may also operate internally and externally. Hargreaves and Shirley (2009, p. 110) define internal accountability as “when individuals and groups willingly take on personal, professional and collective responsibility for continuous improvement and success for all students.” External accountability is about making schools or other institutions account to the department and the public for their performance, often measured in terms of learners’ results.

It is easy to imagine that tensions can emerge from a combination of different accountabilities as they have slightly different goals. According to Elmore (2004), external accountability will not have much positive impact on learners’ results without the prior existence of some organisational capacity in the school or some internal accountability. Therefore, external accountability has to work, support and be aligned with internal accountability. O’Day (2004) argues that the best accountability impact comes from the combination of bureaucratic and professional modes of regulation because of their complementary foci and aims. Barber and Phillips (2000) believe that the best influence of the change tools occurs when pressure and support are fused in one tool, even if the calibration of pressure versus support has to change according to the capacity of the institutions or schools. This form of accountability is particularly appropriate for schools which have achieved certain organisational capacity. Internal accountability, particularly for schools with poorer organisational capacity, should be combined with what Elmore (2004, pp. 244–245) calls “reciprocal accountability” which means “For each unit of performance I demand of you, I have equal and reciprocal responsibility to provide you with a unit of capacity to produce that performance, if you do not already have that capacity.” This suggests that internal reciprocal accountability differs in terms of the kind of support and accountability mix that different school contexts require.

There are various forms of support for schools, ranging from better resources, improved working conditions, quality teacher development, support to improve the schools' professional culture or other forms of support which focus on teachers' professional knowledge. There is a debate about quality support, addressing the kind of support most urgently needed and how to ensure that it is effective in its impact on what it is intended to improve, as well as its sustainability over the long term. Guskey (1986) argues that, contrary to previous models of teacher change and development, which first focused on the need to change teachers' cognitive beliefs, the changing of teachers' behaviours and practices is firstly needed to impact on and change teachers' cognitive beliefs. This would mean engaging teachers in their context, with activities and teaching materials which are required for their practice. Clarke and Hollingworth (2002) have developed a more sophisticated model of teacher change by showing that change is a circular process that involves the constant dynamic interaction involving teachers' changing practices, beliefs and outcomes. In broad terms, the literature on teacher development calls for a shift from a cognitive model in which teachers learn new professional knowledge in a decontextualised form (course or workshops) to a situated learning model which, according to the social-cultural perspective, suggests that "learning needs to take place in the same context in which it needs to be used" (Bertram, 2014, p. 94). Research that we conducted in Gauteng schools raises questions as to whether the situated model can explicate the formal knowledge which informs the activities teachers are expected to master (De Clercq & Shalem, 2014; Shalem et al., 2016; Shalem, 2018).

The Jika iMfundo Campaign is based on PILO's notion that it is best to start from where teachers (and school management) are in terms of their practices and gradually build their professional capacity while making school personnel account for and improve on their professional practice of curriculum coverage. PILO intends to change the behaviours, routine practices and working relationships between district and school personnel, HoDs and teachers, through a multi-faceted support and training intervention which aims to generate reciprocal and internal accountability among and between district and school personnel. This, PILO hopes, can be achieved by mobilising all stakeholders to work towards the common goal of external accountability in the form of better curriculum coverage.

Curriculum coverage is endorsed by some school effectiveness research as an important contributory improvement factor in South African schools because it provides learners with better time-on-task or better opportunities to learn (Taylor, 2011). PILO (Metcalf, 2015) relies on a multi-faceted capacity-building exercise of district and school personnel by encouraging, through the use of many innovative and valuable tools, a change in their professional culture and capacity to impact on some of the practices, beliefs and performance of district and school personnel (SMTs, HoDs and the teachers) in the medium term. Drawing on Fullan, Rincón-Gallardo and Hargreaves (2015), we would define PILO's notion of professional culture as a collaborative culture

that combines individual responsibility, collective expectations and corrective action. It also aims to build professional capacity as a step towards greater internal accountability. The challenge in PILO's Theory of Change is that it is rooted in accountability norms which are not often found in poorly resourced schools, namely, "coherence in the organization around norms, values, expectations and processes for getting the work done ..." (Elmore 2006, p. 7).

#### *Conceptualisation of the Jika iMfundo campaign*

There are three main components to the Jika iMfundo program which target teachers and HoDs:

- curriculum planners and trackers
- teachers' weekly reflections on their lessons
- professional conversations between HoDs and teachers to identify areas for assistance and supportive developmental actions.

Each of the components, as mentioned earlier, intends to achieve a fusion of pressure/accountability and support and each contains some assumptions which cause tensions, especially given the schools' context and the amount of support and human resources that PILO can mobilise. Below is a brief presentation of the tensions and/or challenges embedded in these components.

#### *The program components and their assumptions*

The first main component, **the curriculum planners and trackers**, is intended to help teachers plan and deliver the CAPS curriculum at the required (faster) pace and set a basis for the work of tracking and monitoring teachers' work by HoDs. This component is intended to develop better mutual trust and respect between teachers and their HoDs and create a basis for a form of professional (and not bureaucratic) reciprocal accountability between teachers and HoDs, first, by making the monitoring process more transparent and, second, by using the curriculum planners and trackers to identify the support needed by teachers. Opening up and developing trust and respect between teachers and their HoDs is a specialised professional activity that relies on HoDs', as well as teachers' professional knowledge of subject matter and pedagogy, without which HoDs' monitoring and teachers' tracking could remain unspecific and somewhat constrained (see below).

Beyond the planners and trackers, Foundation Phase (FP) teachers were provided with textbooks and standardised scripted lesson plans (LPs) designed to assist "what to teach" (as the trackers do), as well as "how to teach and assess." These scripted lesson plans are intended to encourage teacher reflections and were seen as helpful and motivating. As one HoD from an "amber" school explained:

Teachers are happy and fulfilled as the lesson plans make their preparation easier

and less time consuming. Teachers state that contents are well clarified and easily understood (2015 PILO school reviews).

We decided not to analyse the LPs in this research study partly because of the limited scope of our research but also because the planners and trackers represent a major innovation and are distributed to all grade teachers, whereas scripted lesson plans are distributed only to FP teachers.

The second component consists of **teachers' reflections** on their lessons on a weekly basis to identify what went well and what did not go well. Teachers' reflections are intended to develop in teachers the capacity to monitor what and how their learners are learning. Teachers are expected to identify which learners struggle or need extra help in understanding key concepts being taught. In the planners and trackers, PILO provides standardised questions about the various grade activities, as well as about learners and curriculum coverage. On the front page of the planners and trackers, some notes are provided to teachers. Under "Weekly reflection", the following is found:

Was your preparation for the lesson adequate? For instance, did you have the necessary resources? Had you thought through the content so that you understood it fully and so could you teach it effectively?

At the end of the weekly page, only two sets of questions are found about learners' learning, leaving out any reflections on the teacher's preparation. The two sets are:

What went well? What did not go well? What did learners find difficult or easy to understand? Did you complete all the work set for the week? If not, how will you get back on track?

What will you change next time? Why?

These questions focus on learners' understanding of what was covered, inviting teachers' reflection on a specific plan or strategy.

The Jika iMfundo program values teachers' weekly reflections as these are intended to inform HoDs about teachers' curriculum coverage, the kind of support teachers need and be a basis for professionally informed discussions on how to improve teachers' performance. Professional reflections are intended to encourage the kind of habits that teachers should acquire with the view to reflecting, on a regular basis, on the success or failure of each of their lessons. Ideally, critical reflections could develop teachers' capacity to plan, improve their teaching and encourage innovation and strategies to improve learners' learning approaches. However, there lies the tension: teachers need to have some basic professional knowledge and attitudes to make this exercise productive. As Elmore (2006, p. 7) argues, internal accountability requires some prior capacity in terms of having sufficient skills and knowledge.

The third component consists of **professional conversations** between HoDs and teachers which aim to identify areas requiring supportive actions to improve teachers' curriculum coverage. To achieve this, PILO introduced a toolkit for HoDs consisting of three sets of questions which are intended to guide HoDs' monitoring and support activities. HoDs are asked to answer questions about: 1) teachers' curriculum planning and their use of the trackers; 2) HoDs' monthly conversations with teachers about planning, lesson preparation, assessment and their class visits, as well as the actions they plan to support the teacher; and 3) curriculum management checklist.

To enhance their professional capacity and ability to supervise and assist teachers to cover more of the curriculum, the HoDs are expected to be trained by the district advisers. The HoDs are expected to learn how to assist teachers with professional problem-solving conversations (what PILO calls a "how can I help you?" response) and with decisions about the support needed to improve their curriculum coverage. To enhance their professional capacity and ability to supervise and assist teachers to cover more of the curriculum, the HoDs are supported by two forms of training (communication with PILO Director of Education Change, Mary Metcalfe).

The SMT training focuses on management and is delivered by the PILO coaches with the support of the Circuit Managers. It is followed by on-site coaching in schools needing assistance that have a strong capacity to absorb the intervention. This training includes how to assist teachers with professional problem-solving conversations (what PILO calls a "how can I help you?" response) and with decisions about the support needed to improve their curriculum coverage. This focus is on the role of the HoD as the curriculum manager. HoDs are expected to use what they have learnt to assist their teachers to improve their curriculum pacing which happens during their grade meetings, as well as their required one-on-one, once a month, professional conversations with teachers. HoDs received training about how to conduct conversations for supportive actions.

The delivery of the Foundation-Phase "Just-in-Time" Training is the responsibility of the Foundation Phase subject advisers. This is consistent with the intention of the pilot-at-scale which is to demonstrate that change is possible on scale within the existing capacity of the department. The PILO foundation phase team responsible for the development of the lesson plans worked closely with the subject advisers on developing the training material which focuses on the pedagogy underlying the lesson plans and their alignment to CAPS. This was done by bringing all the subject advisers into one venue for two or three days to work through the material and improve it where necessary before the subject advisers proceeded with the training. The PILO experts were seen as a resource for the advisers and worked under their authority. Where the ratio of subject advisers to schools means that a subject adviser cannot reach all her schools, additional trainers are provided by PILO. This training is intended to assist the HoD in her role as pedagogical leader. The HoD and a lead teacher from the school in the subject (languages or maths) attend the training in three sessions of five

hours duration three times a year (or a total of 45 hours per year for three years). The school representatives use the facilitators and participants' packs to report back to the foundation phase teachers as part of their leadership work.

While not called “cascade training” by PILO, this training of trainers resembles it strongly and can be explained by the fact that PILO employs relatively few content experts for each school phase to teach mathematics, EFAL or an African language to district officials or coaches. This indirect training process may reflect the conditions under which PILO works and the lack of available training experts with sufficient knowledge to reach all of the HoDs directly, the majority of whom may suffer from a lack of content knowledge or pedagogical content knowledge (PCK). HoDs receive training about how to conduct conversations for supportive actions. It is a huge challenge to develop professionally so many HoDs of different phases from 1000 schools in a variety of districts. In this regard, both Fullan (2016) and Elmore (2016) suspect that going to scale is not a viable model for education:

The pilots are not typically replicable for one or more of the following reasons: the first users are more motivated; there are not enough resources; solutions in each new situation are not exactly the same; the program loses momentum as key sponsors move on, or new ideas come along (Fullan, 2016, p. 540).

The final component, which could be combined with the third component, consists of the **supportive guiding PD actions** that have been identified during the conversations. This requires HoDs to play a new PD role at a time that they may not have developed sufficient understanding of how to have supportive professional conversations with teachers. They are expected to identify viable strategies of support to build the capacity of their teachers to address their main challenges in improving curriculum coverage. To develop this new role whilst, at the same time, applying it to support teachers is a huge challenge for HoDs. It requires sustainable support in the forms of meaningful opportunities to learn (Ball & Cohen, 1999; Borko, 2004), as well as ideas and practices which are fully transparent to the acquirer. Elmore speaks about powerful practices (e.g. pedagogies) “that seem to spread with relative ease in highly challenged settings” (2016, p. 534) but notes the importance of transparency for this to happen. The recent attempt by a few education departments and the National Education Collaboration Trust (NECT) to use standardised LPs for teachers to follow the new preferred practices has still to yield long term results while LPs supplemented by coaches who assist teachers on-site seem to have a better impact on teachers' practices than a whole group training once a term or so (Fleisch, 2016).

To sum up, we have examined the main tensions which exist in the conceptualisation of the components of a part of the Jika iMfundo program targeting the capacity, attitudes and practices of teachers and HoDs and the relationships between them. We have identified severe structural constraints and challenges for PILO's model of change

which are likely to constrain it from playing out as intended. We have shown how PILO's ambitious aims and assumptions around the building up of internal reciprocal accountability in more than a thousand schools in KZN give rise to structural tensions which we uncover in the next section, using our available data on each of the program's components. Before doing this, we look briefly at the relationship between the *Jika iMfundo* teacher materials and CAPS.

#### *Curriculum planners and trackers vs CAPS*

The planners and trackers for Grade 3 EFAL differ in some interesting ways from the CAPS Grade 3 EFAL. The planners and trackers break down the CAPS weekly activities by specifying the activities that need to be completed each day. They are intended to regulate consistency and pacing and also to make teachers aware of exactly which activities to do each day, in relation to what they have taught. Each page contains the sequencing of activities for the five days of the week. In CAPS, the implicit design of activities appears to give teachers some discretion to choose the activities they want to do which might influence consistency and pacing, thus curriculum coverage.

The planners and trackers change the sequence of some of the CAPS activities to allow for more practice. For example, in Grade 3 EFAL Term 1, the trackers introduce Group Guided Reading (GGR) in weeks 3–5, while in CAPS GGR is dominantly promoted in weeks 6–10. Shared reading is foregrounded in CAPS for weeks 1–5 in all four terms, while the trackers encourage shared reading as early as Term 1 week 3. We also noticed that reading of one's own and of others does not feature in the trackers, even though CAPS Grade 3 Terms 3 and 4 promote such skills development. This could be influenced by the targeted schools' contexts and, instead of generalising tasks, the planners and trackers design them to suit the nature of these schools, teachers and learners. The planners and trackers are also used to simplify activities, for example, in Grade 3 Term 1 (2017) on p. 4 (as well as in Term 2), CAPS introduces the identification of letter-sound relationships of double letters whereas the trackers introduce them in Term 2, after the single letters (in CAPS in Terms 3–4). Regarding assessment, CAPS specifies informal assessment activities only for weeks 1–5, whereas the planners and trackers introduce formal assessments from week 2 (and more in Terms 2, 3 and 4). Introducing formal assessment as early as week 2 allows PILO to have a picture of teachers' usage and understanding of the trackers, as well as their content. In addition, formal assessment is also introduced early to monitor learners' understanding or lack thereof and to inform teachers of what to do next.

However, some instructions are not as specific as in CAPS, for instance, in Term 1, week 6, (day 4 and activity 1), the planners and trackers mention "writing paragraph about School poster" but do not specify the usage of the writing process as does CAPS.

In conclusion, the planners and trackers clarify and simplify certain activities, sequencing some in a sharper manner, omitting a few others and introducing formal assessments earlier. There are no great substantive differences between CAPS and the

planners and trackers, but the latter are more teacher-friendly in sequencing all the activities on a daily basis (which CAPS does not), while also simplifying or specifying them more concretely. These differences appear to come from a concern for making them more contextually relevant to the type of under-resourced schools and poor learners targeted in *Jika iMfundo*.

### **Perceptions and experiences of the PILO program and its three components**

We begin our analysis of internal reciprocal accountability by looking at the take-up and use of the planners and trackers over time as perceived by teachers and their HoDs in two sources of data – the 2015 PILO school reviews and the 2016 PILO curriculum coverage surveys. First, we examine the ways in which the planners and trackers are perceived to function as support for teachers, but also the points of pressure they impose on teacher practice, specifically in relation to coverage. Second, we examine HoDs' perceptions of teachers' reflections: whether they thought that the reflections were of high quality; what problems teachers raised; and whether or not HoDs felt that they could draw on teachers' reflections to support and monitor teachers' coverage of the curriculum. We supplement the analysis with a few examples which we selected from the eight trackers we collected from the six schools. Third, to understand what kind of relationships, organisational capacity and internal accountability are being built in these primary schools in the KZN rural district, we examined HoDs' and teachers' perceptions of the “professional conversation”. We also look at whether these conversations are empowering teachers and HoDs to forge a form of internal reciprocal accountability. It is important to emphasise that, except for samples of teachers' reflections, all the claims made are based on *perceived* and not *actual* practice.

#### *Curriculum planners and trackers: Enablers?*

How helpful do teachers find the curriculum planners and trackers?

The 2015 and 2016 PILO school surveys' data suggest that the teachers and HoDs in the sampled schools believe there is a good take-up of the curriculum planners and trackers by teachers. Teachers and HoDs who filled in the 2015 survey believed that the average rating of the teachers' use of curriculum planners and trackers was 3,8 on a range of 1 (no use) to 4 (regular use). This means that 95% of teachers reported routinely using the planners and trackers. According to this survey, within a year of their introduction in November 2015, the planners and trackers, by breaking down and clarifying the sequencing of CAPS activities on a daily basis, were used to guide and enable teachers to improve the sequencing and pacing of the curriculum activities specified by CAPS.

A HoD from an “amber” school explained:

The tracker has enabled us to follow the syllabus logically and sequentially. It is mistake-free and allows for review and self-reflection. ... The sequencing of

the content in line with the CAPS policy has made life easier (2015 PILO school reviews' data).

Other HoDs and teachers from “amber” and “red” schools said that, despite the fact that the planners and trackers include times for repetition of activities, teachers still struggled with the pace and congestion of activities in a day or week. Two HoDs from different “amber” schools explained that the trackers do not suit their “slow learners”:

... the tracker has too many activities to do in a single day which becomes a challenge to struggling learners who happen to be a majority in this context. The different topics in a day make it impossible to do in one day and one hour lesson, e.g. counting ordering, division and multiplication at the same time. There is no time to recap on the following day; learners are left behind (2015 PILO school reviews' data).

The tracker gives instructions on what should be covered in each lesson and informs the teacher on what needs to be improved and all the steps to be covered in delivering a lesson. The tracker also gives guidance on pacing and alerts the teacher if she is falling behind. But the tracker could be improved to accommodate all different levels of learners. At the moment it is perceived as designed for the bright learner (2015 PILO school reviews' data).

Teachers reported struggling with covering all the activities, especially in EFAL, as the following quote illustrates:

The pace of learning by learners is a challenge ... Learners struggle to conceptualise some of the topics, which creates a backlog of other topics as the teacher tries to ensure that previous topics are covered (2016 PILO curriculum coverage data).

Some teachers seemed to prioritise being on par with the trackers' activities rather than waiting for recap opportunities. This explains the following request by this teacher from an “amber” primary school:

The issue of the fast pace of the trackers and the lots of homework and class activities was raised and teachers admitted that they do not have enough time to check and mark learners' work, they think it is too much. Can Jika iMfundo assist with grouping the common topics together and make one unit/topic? We are unable to keep up with the pace of the tracker as we are required to teach the topic once and move on to the next topic. Some learners learn easily if we drill the lesson (2015 PILO school reviews' data).

Finally, some resistance linked to the school micro-politics was also mentioned. The HoD of a “red” school explained:

... teachers see no point in submitting their curriculum planners and trackers to HoDs for monitoring. The HoD blamed this behaviour to union influence. He reported that there are silos in this school and everyone works in their corner and rarely talks (2015 PILO school reviews' data).

One may conclude from the 2015 PILO school reviews' data that “red” schools struggled most in using the innovative planners and trackers, suggesting that these schools lacked the basic organisational capacity for trying out different ways of coverage, for example, that are indirectly assumed to exist by PILO for its model of change.

The August 2016 PILO curriculum coverage surveys' data show that 36 HoDs (or 90%) in the sampled schools confirmed again that teachers regularly use the trackers to plan and cover more of the curriculum than in previous years. HoDs mentioned teachers' appreciative use of the trackers. Teachers, according to this survey, felt more familiar with the trackers and used them routinely. Resistance to using trackers appeared to have waned somewhat.

As a HoD of an “amber” school said:

... teachers are now so used to the trackers to cover their work accordingly and they are up-to-date. They are able to see if they fall behind and especially if they were absent from school. They are able to make means to cover the work to be on track (2016 PILO curriculum coverage survey's data).

Despite the difficulties expressed above by HoDs and teachers, the perceptual data in the two surveys seem to indicate an improvement in curriculum coverage. The 2016 PILO school surveys' data asked HoDs for their views on how much of the curriculum was covered by teachers. The figure is, on average, 75% of curriculum in mathematics, 70% in isiZulu and 68% in EFAL. Many HoDs agreed that more of the curriculum was covered than before. A pleased HoD commented:

This can be attributed to the routine use of trackers to track themselves and I have been able to support them more in 2016 because of one-on-one discussion I hold with them (2016 PILO data).

Another HoD confirmed this by noting that teachers now cover “all the concepts in listening and speaking, phonics and the writing of paragraphs every week and, as a result, learners are improving in speaking the language.” This could mean that teachers have become more familiar with the trackers and work better with them.

*Teachers' reflections: A facilitating stepping stone?*

Beyond assisting teachers to cover the curriculum, curriculum planners and trackers are meant to generate teachers' weekly reflections. According to the 2015 PILO school reviews' data, the average rating of the reflections being filled in, on a range of 1 (no filling of reflections) to 4 (regular filling of reflections) was 3,35 (or 80%). When asked about the nature of teacher reflections, HoDs said that the reflections tend to be thin and vague, focusing on "slow learners" not understanding or mastering the taught concepts. HoDs complained that teachers were not always frank and honest or aware of how to reflect on their strengths and weaknesses. Teachers, according to HoDs, tend to transport the blame of the poor curriculum coverage onto the school conditions, the curriculum ("too many activities") or the "slow learners" who need more time.

Only a few HoDs from "green" and "amber" schools saw the positive potential of teachers' reflections: "... an opportunity to bounce ideas about what worked well, what did not work well – as well as sharing ideas about what to improve." A HoD in an "amber" school praised the benefits of reflections:

Reflection helps in identifying learners who have grasped the concept and also those who need more time or more help. It helps the teacher to plan for remedial lessons for the latter and also to devise strategies to enhance the teaching-learning environment. It also helps the HoD to make note of teachers who are on track and those who are not (2015 PILO school reviews' data).

Another HoD noted that teachers were not willing to share the problems experienced in class; they were not at ease or were scared of revealing their weaknesses, making them compliant with reflections rather than being honest:

Teachers kind of hid their weaknesses. They did not want to come out and there were some 'contradictions' between what teachers write down on reflection part of the trackers and what they say verbally when they talk informally and during departmental meetings (2015 PILO school reviews' data).

A HoD stated that teachers were "not entirely sure what to write on the first section while the second part on what might need to change was even more difficult to fill because they were not certain what exactly is required." The HoD of an "amber" school confirmed this, saying that, "to avoid lengthy statements, they just stated that all went well when this did not actually happen." This HoD added that more space for reflection (than the 5 to 10 cm gap at the bottom of each page of the trackers) should be provided by giving one rubric at the beginning of the tracker and not weekly as it is currently, reflecting a poor understanding by the HoD of the purpose of the reflections.

HoDs were also asked what they did about teacher compliance, but many could not give a clear response as "they too had their own weaknesses and did not know what

to do with these reflections.” Some HoDs did not even check what the teachers wrote because, as they said, “during training, the issue of how to value teachers’ reflections was not sufficiently emphasised nor was the value of a culture of having professional conversations with the teachers on the basis of these reflections.” Thus, there seems to be the beginning of a pattern with “red” schools struggling much more with teachers’ reflections than “amber”, let alone, “green” schools.

By 2016, the PILO curriculum coverage surveys’ data did not show much change in HoDs’ perceptions. According to some HoDs, teachers continued to mention similar problems which they felt were out of their control: “Common challenges are: not coping with pace, overcrowding in some grades (63 learners), individual attention is not possible.” Others noted the continuously thin nature of the reflections, such as: “they don’t answer the question: ‘What will you change next time? Why?’ In fact, they often said there is ‘nothing’ they will change, even if the lesson did not go well.”

Our written evidence from the six sampled schools and the eight teachers’ sets of trackers confirm the PILO-collected data: that the weekly reflections were unspecific and focused mainly on “slow learners” and the difficulties of completing the required tasks and activities. In describing his/her challenges, a teacher in a “green” school stated: “Learners are unable to read and write sentences ... fail to follow simple instructions ... and fail to participate in simple conversations.” Under “What would you change next time and why?”, the teacher noted: “we need more time for reading.” The two-week reflections of a teacher in a “red” school noted: “Lessons went well; all activities for the week are covered and well understood by the learners.” Nothing is mentioned under the rubric “What would you change next time and why?” These remarks from two teachers from differently graded schools suggest again that teachers in schools that are progressing further may have more capacity to change and learn from the habit of reflecting on their work than those in other schools. But, on the whole, the eight sets of trackers from our sampled schools reveal how teachers’ reflections did not often focus on their teaching or on what could be improved to increase learners’ learning. Some teachers wrote that they covered the various activities specified in the trackers – with some brief reflection notes that certain phonics, reading and writing activities could “not always be completed or were not understood by some learners but that teachers were committed to find time to go over these sometimes during that week.” This suggests that teachers assisted learners by leaving to their discretion when to introduce certain activities which learners struggled to master.

*Professional conversations and support between teachers and HoDs: How productive?*

HoDs are supposed to use the planners and trackers to monitor teachers’ curriculum coverage as evidence which, together with teacher reflections, aims to provide HoDs with a stepping stone to identify, during their professional conversations with teachers, the strategies to support teachers to face up to their challenges. HoDs are to be guided by a supportive toolkit (tool 2) to assist with questions on the structuring and recording

of the professional conversations with their teachers. Tool 2 consists of HoDs ticking three prescribed questions about what is working or what needs work in relation to teachers' planning and tracking, lesson preparation and assessment. The last part of the tool requires teachers to agree with the HoD on actions teachers can take to improve their work, as well as on the supportive role the HoD can play in that respect. The 2015 PILO school reviews' data suggest that the HoDs' tool 2 use for professional conversations was, on average, 3,35 or 80% (with 1 being no use and 4 being regular use). Limited evidence is found in the PILO tool 2 information filled by four HoDs from our sampled "amber" schools. This source of data, which structures the HoDs' reports on their professional conversations with teachers and necessary actions to strengthen their teachers, is rather thin.

Brief references are made about the need for extra classes and individual attention for "slow learners" and for the HoDs to convene a parents' meeting to encourage them to assist with homework. This limited evidence confirms the trend that came out of the 2015 PILO school reviews' data, according to which the way to improve curriculum coverage was for teachers to give extra classes for slow learners with no reference to the need to examine how teachers could improve their teaching practices. While some of these comments may be correct, they are rather basic, common-sense and vague – they do not refer to specific teachers' practices.

The 2016 PILO curriculum coverage surveys do not gather data specifically about the aspects of teacher work that require development. The data are thin and do not reveal much about the kinds of teacher support identified. The only thing two HoDs agreed with is that differentiated and specific support is needed for individual teachers. A typical answer from a HoD from an "amber" school is:

The conversations enable the teacher to be conscious of his/her weaknesses with a view of improving on those identified areas. The HoD tool helps in providing differentiated assistance for the different teachers depending on the specific needs of each teacher.

Two other HoDs noted, in a rather general and abstract manner, the need "to discuss with teachers the way forward" or "set up a developmental workshop" while another two HoDs felt that the best source of support is "peer learning" or "discussions among teachers", implying that the best way forward is for teachers of the same school to discuss their issues. One HoD asserted that the support comes from the supportive nature of their conversations with teachers.

This relatively light touch or understanding around teacher support or development could be taken as evidence that PILO has not yet sufficiently engaged with the broader issues of what effective foci and forms of professional development are for these teachers and what they achieve.

The data also reveal that these conversations did not occur in all schools, either

because the HoDs did not have time or because of school environments which did not provide the safe space required for these kinds of conversations. In a “red” school, where relations were bad and trust did not exist, the HoD referred to monitoring rather than to conversations: “Everyone in this school tries to put a mistake on one another and use that negatively against them. So it is not easy to monitor, plan and supervise teachers’ work.”

In a “green” school, the experience was different, suggesting again that, the better the school capacity, the more benefits to be gained from the intervention. A HoD explained the usefulness of the conversations in terms of making his/her role more legitimate:

The HoD tool is helpful in planning class visits and other supervisory duties for the HoD. ... The ensuing conversations are easier than before, being more supportive and also enables the teacher to be conscious of his/her weaknesses with a view to improving on those identified areas. Where there are glaring weaknesses, it is easier to open up on a one-to-one basis, especially since some teachers remain silent during departmental meetings even if they need help (2015 PILO school reviews’ data).

Another HoD from an “amber” school noted that the tool “facilitates class visits which was not the case in the past and professional conversations can then support the teacher.” Interestingly, a HoD from another “amber” school remarked that these conversations were doubling-up on the IQMS exercise as teachers’ reflections are used to advance a development plan for the school. These were also easy to have “because teachers and HoD were aware of what was expected of them.”

The above responses from the 2015 PILO school reviews’ data need to be borne in mind as they do not support the enthusiasm expressed by HoDs in both the 2015 and the 2016 surveys (80% and 75% respectively) with regard to Tool 2 assisting them to have supportive professional conversations about curriculum coverage. What is evident, however, is that, like the planners and the trackers, Tool 2 makes the HoD monitoring more transparent, something that teachers and HoDs welcome. This is an important achievement which needs to be noted in view of the overall aim of the Jika iMfundo improvement campaign. It is also important to note that HoDs do not seem to be often resisted or resented by teachers; the conversations are perceived as supportive and framed within a transparent authoritative framework. However, while this was the case, we noticed, also from the 2016 PILO data, that some HoDs did not always manage to have productive professional discussions because of the superficial nature of teachers’ reflections and the HoDs’ superficial use of Tool 2. This was said, in the data, to be linked to various reasons such as the power relationship between HoDs and teachers, lack of organisational capacity in the school and because teachers have not engaged with the reflections and appeared “unwilling” to write much.

*Jika iMfundo program and its promotion of internal reciprocal accountability*

The planners and trackers, which mediate CAPS, aim at empowering teachers to cover more of the curriculum while framing their reflections on how the learning went. Our analysis shows that these trackers were perceived as helpful by most teachers and HoDs in these under-resourced schools because they clarify, simplify and facilitate the sequencing and pacing of the CAPS content on a daily basis. In that sense, this component is perceived to assist the majority of the *Jika iMfundo* schoolteachers. The trackers also assisted HoDs to monitor what teachers managed to cover, helping HoDs to make their monitoring work easier and more consistent, while helping teachers feel more comfortable about this transparent monitoring tool.

However, we have shown that the planners and trackers' prompts for teachers' weekly reflections focused only on the learners' learning and the extent of the curriculum coverage and not on the equally important issue of teaching and teachers' improvement of their practices. This indicates that an opportunity is being missed to make teachers look at their work and improve their practices or their professional ability to reflect fully on the specific reasons for learners' poor performance. So the planners and trackers are experienced as supportive, but their questions regarding teachers' reflections are not directed at how to improve teachers' practices.

This is the nub: If PILO emphasises the importance of better curriculum coverage, it is not clear why it does not explicitly foreground that the curriculum has to be covered more effectively and in specific ways to improve learners' learning. This omission is serious since some PILO documents and presentations (Metcalf, 2015) recognise the importance of enhancing the instructional core. Yet, improving learners' learning involves more than improving the curriculum coverage or the pacing and sequencing of teachers' teaching. We argue that learners' learning will only occur when teachers acquire more professional knowledge to make better professional decisions about their teaching and assessment practices.

On the second component of teachers' reflections, where our findings show that reflections were, on the whole, rather thin and superficial, it is clear from two years of reflecting that this is not easy for teachers of "amber" and "red" schools, especially since they were not taught how to identify all the main problems in their own practices which could undermine their curriculum coverage. An exercise or habitus of weekly reflection is something that demands a certain level of professional knowledge, as well as mutual trust between teachers and HoDs. With incomplete prompts on the reflection question and by not focusing directly on teachers' competences and knowledge to make their reflections more informed and specific, PILO indirectly encourages struggling teachers (those in "red" and some "amber" schools) to export the blame on "slow learners", the overambitious curriculum and challenging school circumstances.

So, the challenges of generating valuable reflections from all teachers, most of whom are not yet sufficiently familiar with the importance of substantive reflections and not yet professional at producing them, has resulted in thin reflections which could not

productively inform the conversations that teachers had to have with HoDs (the third component). Instead, the planners and trackers only helped HoDs to report on the monitoring aspect of their job, but did not manage to prise open teachers' practices to the gaze of a significant other – their potential mentor, their HoD. Yet these conversations are, rightly, an essential cornerstone of the PILO intent of creating a favourable terrain for greater professionalism and internal reciprocal accountability. To generate professional conversations amounts to a bigger challenge than what PILO committed itself to, namely, providing HoDs with a toolkit detailing the kind of questions to use to structure their conversations with teachers and to report on. It also calls for much more than the training in deeper content knowledge and PCK provided indirectly to HoDs from the districts. To assist teachers and HoDs to identify how to keep at par with the weekly expectations of CAPS and the trackers, it is necessary to place less emphasis on regulative practices (compliance rules of pacing, for example, embedded in trackers and HoD toolkits); it requires engagement with the instructional practices (weak teaching practices, specifically, the new ones required by CAPS).

We argue here that professional conversations are likely to emerge more strongly once collegial working cultures of trust and respect have been established in schools. It is true that PILO is gradually building up such professional collegial practices by strengthening their educational authority and promoting professional working relationships between teachers and HoDs, even if mainly in “green” and some “amber” schools where it was easier to build on these characteristics. We suggest that the strengthening of collegial professional cultures in schools will take more time and effort before it can foster effective internal reciprocal accountability and greater knowledge and competences of school personnel.

With respect to the conversations identifying the actions needed and other supportive roles HoDs could play for teachers (or the promotion of reciprocal accountability between HoDs and teachers), one has to note that HoDs, let alone teachers, were not trained to identify weak teaching practices or provide the kind of development needed to improve teachers' practices. Our findings suggest that HoDs engaged with this exercise in a rather abstract and non-specialised manner and that these conversations were supportive mainly over regulative practices (such as monitoring the pacing and coverage in a supportive manner) but were unable to engage with the instructional core, or to determine the foci or forms of support needed by different teachers in relation to specialised practices (such as how to diagnose reading levels in the classroom or how to address learners' common errors).

To develop the HoDs' capacity to make decisions about how to improve curriculum coverage in practice requires, not only that the direct instructional training of HoDs on this be improved, but that PILO also needs to engage with and contribute to a discussion of what constitutes support for the improvement of specific teacher practices (such as Group Guided Reading, for example). This is essential because of the legacy of poor teacher support and, more recently, with the IQMS exercise where many teachers

questioned the point of evaluating their performance since there was rarely quality appropriate development to support them (De Clercq, 2013).

It is interesting to note that, in PILO documents, mention is rarely made of direct assistance to HoDs over the difficult instructional challenge of identifying teachers' support needs and the appropriate foci and forms of support that improve teacher practices.

### **Conclusion**

This chapter focused on the relationship between HoDs and teachers in the Jika iMfundo Campaign and has unpacked what we identify as the central tension existing in this part of the program's conceptualisation and its manifestations in HoDs' and teachers' perceptions and experiences. The idea was to understand how a terrain of internal reciprocal accountability between HoDs and teachers was facilitated in the different PILO schools and whether such accountability was affecting curriculum coverage.

PILO's focus on developing a collegial professional working culture in the school system is important in turning around schools' performance. The work towards this aim appears to have made the relationship between HoDs and teachers more supportive over the past three years, due to the various transparent monitoring tools and professional capacity building exercises aimed at changing the practices and roles of HoDs. There is no doubt that the development of collegial professional practices and conduct in these schools will differ as schools with weaker capacities are likely to meet more obstacles and require more time, training and the acquisition of greater professional knowledge and competences. Some may go as far as questioning the promise of developing a more collegial school culture as an attempt to obfuscate or ignore the existing power relationships embedded in the essentially hierarchical relationships and structures existing across the education system.

For these practices to form a conducive terrain for stronger internal reciprocal accountability, the professional support and development of the new practices that the CAPS curriculum requires will have to be well differentiated and strengthened to lead to better teaching practices for better learners' learning in schools with different capacities. By targeting and improving the regulative mode but underplaying the instructional mode, PILO could be accused of omitting a significant link in the chain of school improvement.

Internal reciprocal accountability is associated with better professional relationships for better curriculum coverage. But, to attest to PILO's success in promoting internal accountability for more effective curriculum coverage *and* learners' learning, one needs to understand internal accountability in the same way as Hargreaves and Shirley (2009) or how Fullan et al. (2015, p. 4) define it, namely, that it is about promoting "collective responsibility for the continuous improvement and success for all students." This continuous improvement in learners' results will give an indication of how these schools

have truly developed an internal accountability for better school performance. For this, it is imperative that PILO collects data on learners' learning which goes beyond the opinions of HoDs or findings on teachers' learner tests. We suggest that this would best be done through independent quantitative research to test learners' results over time through standardised cognitive tests.

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## Balancing monitoring and support: The role of HoDs in curriculum coverage

*Nonhlanhla Mthiyane, Jaqueline Naidoo and Carol Bertram*

### Introduction

Jika iMfundo is an intervention for systemic education change, with a particular focus on curriculum coverage. It has been developed by the Project to Improve Learning Outcomes (PILO) working in partnership with the KwaZulu-Natal Department of Education (KZNDoE) and implemented as a pilot project in two education districts, one largely rural (King Cetshwayo) and one more urban (Pinetown). PILO's model is informed by Elmore's (1996) Theory of Change, which focuses on the "instructional core" and puts teaching and learning at the centre by improving curriculum coverage. Elmore (1996) advocates for change management that is associated with reciprocal accountability, enhanced leadership capacity and focused interventions. Reciprocal accountability is premised on the idea that an expectation that teachers be accountable for improved learner outcomes through improved practice must be accompanied by the necessary support and capacity building.

In its approach to training Principals, Deputy Principals and Heads of Departments (HoDs), Jika iMfundo adopts an "adaptive leadership framework". This approach asks that they "enter an adaptive change space" (Leadership and Management Module 1, p. 3), taking a stance of problem solving, rather than a technical approach to change. This chapter presents findings of a study that focused on the extent to which HoDs are able to play an adaptive leadership role in supporting teachers to improve curriculum coverage through professional supportive conversations. The chapter aims to contribute

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to knowledge about the role HoDs in selected Jika iMfundo schools play in providing support to teachers to improve curriculum coverage, by identifying factors that support or impede this role.

In this chapter, we report on data from fifteen selected participating schools, highlighting that many HoDs found that Jika iMfundo tools and workshops were helpful in clarifying their roles. However, HoDs also reported that administrative requirements are burdensome and that Jika iMfundo adopts a “one size fits all” approach that overlooks the variations in learners’ readiness to learn at the level expected by the curriculum, as well as contextual factors which impact on HoDs’ ability to perform their supervisory and supportive roles. Using the adaptive leadership framework, we argue that, while PILO’s aim is to shift HoDs’ leadership practices from a technical, compliance approach to a more developmental and supportive role, our findings show that this is not the case for the majority of HoDs due to their heavy workloads and overwhelming administrative responsibilities. We argue that PILO’s Theory of Change has unrealistic expectations of HoDs as key levers of change for curriculum coverage which do not take into account the realities and variations of school contexts.

The chapter starts with a review of the role of the HoD and key concepts underpinning this study, namely, teacher leadership, professional conversations and the adaptive leadership framework. It then describes the methodological approach used, the research context and sampling. The chapter concludes with a presentation of results according to research questions and a discussion of key findings.

### **The role of Heads of Departments (HoDs)**

The Personnel Administrative Measures (PAM) document issued by South Africa’s national Department of Basic Education stipulates the official aim of a HoD as “to engage in class teaching, be responsible for effective functioning of the department and to organise relevant/related extra-curricular activities so as to ensure that the subject, learning area or phase and the education of the learner is promoted in a proper manner” (DBE, 2016). While the document specifies that HoDs are expected to participate in general management of the school, their supervisory role is very closely linked to teaching and learning which is the key function of schools. HoDs’ academic and supportive roles as stipulated by policy include, among other roles:

- To coordinate assessment, homework, written assignments, etc. of all subjects in that department
- To coordinate and guide teachers on the latest ideas and approaches on the fields within which their subjects are based
- To guide inexperienced staff members and control the work of educators and learners in their departments.

The HoD is portrayed as a teacher, a subject specialist and expert, a mentor and a general school administrator working closely with the school Principal. It is this key

curriculum supervisory role that Jika iMfundo aims to strengthen and support. However, the focus on this role tends to overlook the administrative roles that HoDs play, particularly in no-fee schools which often have limited administrative support. This administrative role impacts significantly on their ability to provide adequate curriculum support to teachers.

An analysis of Jika iMfundo's training material shows their conception of the HoDs' supervisory role as categorised into two dimensions, viz. the professional and personal dimensions. The professional dimension entails the HoDs' administrative and operational duties and ensuring that systems are put in place for the smooth running of the department. The personal dimension entails human interactions related to being a supervisor and focuses on relationship building (Module 2 HoD, p. 7). Jika iMfundo's work with HoDs is based on the premise that enhancing HoDs' ability to perform their professional roles and their ability to relate to teachers will build teachers' strengths and, in turn, improve teaching and learning. The HoDs are therefore seen as critical in building teachers' capacity to improve learning outcomes. Jika iMfundo specifies "good practice behaviours" for HoDs as:

- regularly checking teachers' curriculum tracking and learners' work
- working with teachers to improve curriculum coverage
- assisting teachers with problems related to curriculum coverage.

They use the following tools:

- Supervision Planner and Tracker (Tool 1): This is a planning tool that HoDs use to record dates for all their supervisory responsibilities
- Structuring a Supervision Conversation (Tool 2): This tool provides guidelines on what to look for and what to talk about during a professional conversation with a teacher
- SMT Supervision Tracker (Tool 3): This is a tool for reporting to the School Management Team.

For every teacher, the HoD has to monitor and document the following:

- Curriculum tracking, by checking whether the teacher uses the tracker, is on track with coverage of the curriculum and has lesson plans
- Assessment, by checking the teacher's planned and conducted assessments
- Supervision, by documenting each teacher's attendance at phase or departmental meetings, conducting class visits, checking workbooks, whether workbooks match what is in the teacher's trackers and the number of lessons the teacher missed.

HoDs have tools to document the above dimensions for each teacher as evidence for each of the above dimensions. The use of tools and attendance at workshops are meant to address both the professional and personal dimension of the HoDs' supervisory roles. Entrenching routine behaviours of HoDs like planning, curriculum tracking of teachers

and learners' work, assessment, reflection, departmental and one-on-one meetings, and working collaboratively with teachers to find solutions to problems in their department, is considered key to improving learner outcomes.

The activities listed above reflect only some of the HoDs' roles that are listed in the PAM (DBE, 2016) document and do not take into account the fact that HoDs are also class teachers, are responsible for the allocation of teaching loads and undertake general school administrative tasks such as monitoring book stocks, collecting of monies, managing staff welfare, secretarial and timetabling duties (DBE, 2016, p. 37). In short, the HoD roles gazetted by the DBE are much more comprehensive than those that *Jika iMfundo* focuses on. We suggest that HoDs occupy a fluid space that places them at the interface of teaching, management and leadership, and that they are expected to juggle all responsibilities associated with these roles. This may explain some of the tensions that emerge from the data in this study regarding the HoDs' abilities to play successful, adaptive, transformative leadership roles in improving curriculum coverage as envisaged by *Jika iMfundo*. This tension is more evident in schools with weak organisational capacity characterised by, among other things, limited administrative support (i.e. schools that are classified "red" and "amber" in the *Jika iMfundo* monitoring system described below).

### **Teacher leadership**

Teacher leaders are viewed as those teachers who assume the responsibility for facilitating professional learning for their colleagues (Nicholson, Capitelli, Richert, Bauer, & Bonetti, 2016). In this study, HoDs are viewed as teacher leaders. Contemporary views of teacher leadership no longer see it as a preserve of school Principals and administrators only. Instead, teachers at different levels in a school are viewed as having the potential to be leaders. Katzenmeyer and Moller (2009) maintain that teacher leadership is about influencing other teachers to improve their practices and adopt an attitude of lifelong learning. On the other hand, York-Barr and Duke (2004) define teacher leadership as a "process by which teachers, individually or collectively, influence their colleagues, Principals and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement" (p. 287). Both these views point to teacher leadership as involving learning and participating in continued inquiry into practice and using student data to improve practice (Nicholson et al., 2016).

HoDs are key members of School Management Teams and have an important role to play in providing instructional leadership and as agents of change in their departments (Leithwood, 2016; Dinham, 2007). However, their potential has not been fully utilised and there is limited research on their role in curriculum management in South Africa. Ghavifekr and Ibrahim (2014) argue that the role of HoDs include mobilising teachers under their supervision and creating school-based communities of practice. This is line with *Jika iMfundo's* view on the role of HoDs in providing school-based curriculum

support by working with teachers, regularly checking their curriculum tracking and assisting them with problems related to curriculum coverage through professional supportive conversations.

### **Professional conversations**

Irvine and Price (2014) argue that professional conversations play a crucial role in professional learning communities (PLCs) to promote critical and collaborative reflection and transformational learning that leads to changes in practice. Dialogue and reflection also involve conversations. It is therefore crucial that teacher leaders (HoDs) participate in professional development activities that equip them with knowledge and skills necessary for substantive professional conversations with their colleagues.

A crucial role of HoDs is engaging in professional teacher conversations. Senge (1990, p. 9) describes learning conversations as “exposing people’s thinking and making their thinking open to the influence of others.” Salleh (2016) argues that conversations put practice, pedagogy and student learning under scrutiny and enable teachers to negotiate their understanding of teaching.

### **Adaptive Leadership Framework**

The Adaptive Leadership Framework (Heifetz, Grashow, & Linsky, 2009) was adopted as the analytical framework for this study. Heifetz et al. (2009, p. 2) contend that adaptive leadership is “the practice of mobilizing people to tackle tough challenges and thrive.” They distinguish between authority and leadership and argue that leadership is a practice that draws on authority, power and influence, as tools that are critical, yet do not define leadership (p. 12). Authority, they argue, is about meeting the expectations of “authorisers”, while adaptive leadership is about challenging some of these expectations and being able to manage the resistance emanating from this successfully. Authority therefore, has little to do with mobilising people to tackle their toughest challenges.

This framework also distinguishes between technical and adaptive changes. Technical changes are described as simple or complex changes, often driven by external forces, which can be learned by following a series of steps. For example, learning how to use new tools such as the curriculum tracker, lesson plans and other resources may be regarded as technical change. However, adaptive change involves creating new knowledge that will be different in different contexts. Technical challenges can be resolved by applying authoritative expertise and drawing on known solutions, while adaptive changes are only addressed when individuals change their beliefs, habits and priorities, move beyond authoritative expertise, shed entrenched ways and generate a new capacity to succeed. Heifetz et al. (2009) caution that adaptive change is time consuming and that an adaptive leader values diversity of views and adopts an “experimental mind-set” to problem-solving (p. 3). Jika iMfundo requires HoDs to move into an adaptive change space to drive the change.

Adaptive leadership focuses on change that enhances an individual’s capacity to

succeed and draws on previous wisdom and values. In order to practice adaptive leadership, HoDs need to assist teachers in their departments to navigate through a period of disequilibrium as they distinguish between essential and expendable knowledge and solutions. This disequilibrium space is characterised by panic, confusion, frustration and conflict. Thus, HoDs require distinct insights and skills to practice adaptive leadership and assist teachers to tolerate the discomfort. Heifetz et al. (2009) describe this space as the “productive zone of disequilibrium” where HoDs need to address the discomfort of teachers and encourage them to engage with the intervention.

Heifetz et al. (2009) contend that the adaptive leadership process involves three crucial activities, namely, observe, interpret and intervene. The *observation* stage entails the adaptive leader collecting as much data in as objectively a manner as possible. Heifetz et al. (2009) suggest that data collection is critical in any adaptive leadership process and that the leader must create some “distance” between him/herself and the rest of the team in order to identify patterns that would be otherwise hard to see. In *interpreting* what they see, HoDs, as adaptive leaders, must develop multiple hypotheses about what they are observing and must be open to the widest range of possible explanations of a single event. The *intervention* stage involves the leader designing interventions that respond to the adaptive challenges resulting from the observation and interpretation processes. We use these concepts to interrogate the data generated from HoDs to ascertain to what extent it is possible for them to engage in adaptive leadership.

## **Methodology**

This study seeks to address the following questions:

1. Do HoDs think that Jika iMfundo training and tools enable them to better support their teachers to improve curriculum coverage or not? If so, in what ways?
2. What challenges do HoDs participating in Jika iMfundo face when supporting their teachers to improve curriculum coverage?

The study draws on two sources of data gathered in the Pinetown district of KZN which has approximately 499 schools. Firstly, a secondary analysis was conducted on existing survey data that were gathered and administered by PILO coaches, using a targeted selection of 35 schools. A total of 53 HoDs completed this survey. The questionnaire included questions on changes in teaching, learning outcomes, the functioning of the department and whether curriculum coverage improved as a result of the use of Jika iMfundo tools.

The second source of data was semi-structured interviews conducted by the research team with HoDs from a purposive sample of 15 schools. Schools were selected using three different criteria, namely, 1) the Jika iMfundo “colour” classification (explained below); 2) primary or secondary schools; 3) fee-paying or no-fee schools. The selection comprised three primary schools, two combined schools and ten secondary schools. The

rationale for selecting more secondary schools was based on the survey data that showed a lower uptake of *Jika iMfundo* among secondary schools. Four of the schools are fee paying and eleven are no-fee schools. Fee-paying schools are suburban, well-resourced schools, historically belonging to the House of Assembly (3) and House of Delegates (1). No-fee schools are generally located in rural areas or townships and are still poorly resourced.

PILO uses the following classification to code participating schools:

- Green schools were able to demonstrate key practices without support
- Amber schools tried to institutionalise key practices but required further direct coaching support to do so
- Red schools were unable to implement and/or were not trying to implement key practices. Red schools were further categorised as either schools that had broad functionality issues or schools that had not attended training but with “catch-up” would rapidly become “amber” or even “green”.

Of the 15 schools in this study, eight were coded “amber”, four were coded “green” and three were coded “red”. Schools were selected first and then a convenience sample of 29 HoDs were interviewed, depending on who was available at the time of the research visit. The sample comprised five primary school HoDs, five combined school HoDs and 19 secondary school HoDs. Ten of these HoDs were novices, meaning that they had been in the position of HoD between 3 months and 2 years.

Data collection instruments included a biographical questionnaire and semi-structured interviews conducted by a combination of the three authors. The interviews covered the following topics:

- HoDs’ understanding of their role
- How the PILO training and toolkits assisted in supporting teachers
- How frequently they used the tools and had professional supportive conversations
- What they considered to be the successes and the barriers in using the toolkits
- What the challenges are in improving curriculum coverage.

In some schools, group interviews were conducted with two or three HoDs and were audio-recorded and transcribed.

### **Ethical considerations**

The PILO coaches at the Pinetown district facilitated access to schools and negotiated with HoDs to participate in this study. All HoDs signed informed consent letters which outlined the purpose of the study and data collection instruments. HoDs were informed that their participation in this study was voluntary. To ensure anonymity, names of schools and HoDs were changed and pseudonyms were used instead. Participants were also assured of confidentiality.

LEARNING ABOUT SUSTAINABLE CHANGE IN EDUCATION

No	Name of School	Number of type of HoDs interviewed	PILO Colour-code	Fee paying or not*
1	School A (Primary)	A1 - Foundation Phase	Amber	No fee
2	School B (Primary)	B1 - Foundation Phase B2 - Grade 2 Head B3 - Grade 1 Head	Amber	No fee
3	School C (Secondary)	C1 - Science & maths C2 - Accounting C3 - Humanities (Languages) C4 - Technology	Amber	No fee
4	School D (Secondary)	D1 - Science & maths D2 - Language	Amber	No fee
5	School E (Secondary)	E1 - Science & maths E2 - Languages	Amber	No fee
6	School F (Secondary)	F1 - Deputy Principal	Amber	Fee paying R1 500 pa
7	School G (Secondary)	G1 - Maths	Amber	No fee
8	School H (Secondary)	H1 - Maths & science H2 - Languages	Green	No fee
9	School I (Combined)	I1 - Foundation I2 - Intermediate	Green	No fee
10	School J (Secondary)	J1 - Science J2 - Maths	Green	Fee paying R33 000 pa
11	School K (Combined)	K1 - Senior Primary maths K2 - Maths & science (FET) K3 - English FAL	Green	Fee paying R19 300 pa
12	School L (Secondary)	L1 - Maths L2 - Science	Green	Fee paying R30 000 pa
13	School M (Secondary)	M1 - Maths & science	Red	No fee
14	School N (Secondary)	N1 - Maths & science N2 - Languages	Red	No fee
15	School O (Primary)	O1 - Foundation and Intermediate Phase	Red	No fee

**Table 7.1** Summary of schools and HoDs in the sample (organised according to PILO classification)

\*Fee paying schools are Quintile 4 and 5 schools (previously administered by the House of Assembly or House of Delegates) and no fee schools are Quintile 1-3 (previously administered by the Department of Education and Training).

## Findings

The findings will be presented according to the two research questions. The first research question is: Do HoDs think that Jika iMfundo training and tools enable them to better support their teachers to improve curriculum coverage or not? If so, in what ways?

Overall, the findings show a range of different views on the extent to which Jika iMfundo enabled HoDs to support their teachers to achieve curriculum coverage. HoDs' views could be categorised along lines of their experience, i.e. novice versus experienced HoDs, as well as the school context in which they teach, namely, primary versus secondary schools, fee or non-fee paying schools and the PILO colour-codes. HoDs mentioned four areas of work that Jika iMfundo assisted them with which were: clarifying their HoD roles, planning departmental activities, monitoring curriculum coverage and conducting professional supportive conversations. Findings show that HoDs from “amber” and “red” schools generally found Jika iMfundo training and tools more helpful than HoDs from “green” schools. Also, novice HoDs reported the clarification of roles as the most useful aspect of Jika iMfundo training and tools. However, HoDs also reported challenges with implementing some of Jika iMfundo's expectations and these will be addressed later in this chapter.

### Clarifying HoD roles

The majority of HoDs in “amber” and “red” schools across both primary and secondary schools reported finding Jika iMfundo training very useful in clarifying the role of a HoD. Of the 29 HoDs interviewed, 21 of them, all but one in “amber” and “red” schools, said they were not so sure of what they were expected to do as HoDs before Jika iMfundo. This was particularly the case for novice HoDs who had just been appointed to these positions. Ten of the 21 participants were new HoDs, whose experience ranged from two months to three years. One of the novice HoDs taught in a “green” school while the rest were in “red” and “amber” schools. However, even some experienced HoDs reported that the Supervision Tool gave “structure” to what they had been doing. HoD D1, with 4 years of experience said:

Yes, it has equipped us with skills of managing my department. There is no training from the DBE when you become a HoD. We should get a mentor to help us, but that is not happening. But Jika iMfundo gave me insight into how to do the monitoring, how to ask the teachers questions in the one-on-one ... (Interviewee D1, Maths and Science HoD, “amber” secondary school).

Among novice HoDs were some who had occupied these positions for a few months, while others had occupied them for a few years. A HoD (L2) at a combined school explained:

So being a young HoD coming into management, you know ... I didn't have much experience. So I was very fortunate that, when I arrived, and *hawu* here is *Jika iMfundo!* Before, I was not clear in understanding really what my role of function is ... you know not having the confidence you know ... So, when *Jika iMfundo* started, it gave me the proper training. So now I really understand my role of function as the departmental head and I have confidence in performing my duties as a HoD. I now have a plan (Interviewee L2, Intermediate Phase HoD, "green" combined school).

This interviewee noted that, although she had been a HoD for three years at the time when *Jika iMfundo* was introduced, she still was not sure about her role and did not have a lot of confidence, particularly because she was also young. There was a complaint, even from experienced HoDs, that the Department of Education (DoE) did not provide any induction programs to newly appointed HoDs and this was seen as a big weakness:

One thing to compliment from *Jika* is emphasising the role of a HoD and the Role of the Deputy, etc. One of our big problems we have in our black schools is that we are promoted but we don't know actually what is our role. But no one comes to induct you and say listen, this is what is happening and this is what is expected, how you go about. There is no support, you don't know, no one comes and tells you. You are just promoted and you are happy that there is money coming and you are gonna learn by the way. So, I appreciate u*Jika iMfundo* because they have come with their modules for HoDs, Module 1 and Module 6 and I appreciate that (Interviewee N1, Maths & Science HoD, "red" secondary school).

In school O, classified as "red", there was one HoD responsible for both Intermediate and Foundation Phase in the whole school. She indicated that she was left to find her own feet and looked outside her school for support:

In the neighbouring school, there are two new HoDs. So we decided that we'll ask our Principals to invite someone from *Jika iMfundo* and we'll cluster. Then they can take us through and tell us what it's all about (Interviewee O1, Foundation and Intermediate Phase HoD, "red" primary school).

In another "red" school N, a HoD who had just been appointed as a Languages HoD, while her specialisation was Life Sciences, commented:

I would like to get more workshops on new HoDs. I only attended one but I could see that these workshops are so useful. I really would like to attend others that are related to my job as a HoD (N2, Language HoD, "red" secondary school).

When asked what they would like Jika iMfundo to continue with or to change, the majority of novice HoDs asked for a systematic plan for training and inducting HoDs. While they recognised this to be the responsibility of the KZN Department of Education (KZNDoE), they recommended that Jika iMfundo work with the KZNDoE to fill this gap:

After appointed HoDs, we should be given proper training. There should be more training and workshops for HoDs (Interviewee M1, Maths & Science HoD, “red” secondary school).

Training was recommended, not just for HoDs, but for Deputy Principals and Principals. Some HoDs felt a lack of support from their Deputy Principals and Principals and attributed this to their lack of knowledge:

I would suggest that they check when the bulletin is published and when new Principals are employed, those Post level 1 comrades coming straight from the classrooms to being Principals. That Jika iMfundo must get them just when they start. Just so they can have an idea of what’s going on (Interviewee N1, Maths and Science HoD).

It appeared that, while the Department has paid a lot of attention to school Principals and SMTs together, not enough effort has been put into equipping HoDs with appropriate knowledge and skills relating to their roles as curriculum managers within their departments but Jika iMfundo seemed to be beginning to fill this gap.

As indicated earlier, almost all HoDs from “green” schools (ex-Model C schools) reported that they did not find Jika iMfundo training and Tools on Supervision helpful, as reflected in the comment below:

**Question:** What PILO training have you attended?

It was compulsory for HoDs to go, so I attended them all. To be honest, almost nothing was useful. The format of the training was we were given the booklets and the facilitator just read through these (Interviewee L1, Science HoD, “green” secondary school).

However, there is some evidence that a few teachers in these schools did find aspects of Tool 1 useful in their supervisory and monitoring roles. The science HoD from a different “green” school commented as follows:

Monitoring tool was useful – I have a table to show how often I’ve checked books etc. (Interviewee J1, Science HoD, “green” secondary school).

When asked how they learnt what their roles were, HoDs from “green” schools indicated that they worked very closely with experienced HoDs and that they engaged more in informal discussions than they did in formal meetings. Two of the more experienced HoDs in School K, a “green” school, said they attended training organised by their unions many years ago when they started as HoDs. It is clear from the data that the collaborative, supportive ways of working in “green” schools created a conducive environment for novice HoDs to learn about their roles. This kind of support was found to be lacking in “red” and “amber” schools and HoDs in these schools relied more on *Jika iMfundo* to fill this gap.

### **Planning departmental activities**

One key tool that the majority of HoDs in “red” and “amber” schools reported finding useful was the Supervision Planner and Tracker Tool (Tool 1). They mentioned that this tool allowed them to do their planning and to share their year plans with teachers.

The most useful tool is the one for supervision and for class visits (N1 Maths HoD, “red” secondary school).

These HoDs reported that, although they did planning before *Jika iMfundo*, the Planning Calendar, which is part of Tool 1, brought structure to how they worked:

In terms of planning, this is new, although some of it we were doing. It was not as structured and organised ... (C1 Maths HoD, “amber” secondary school).

The key advantage of the Supervision Planner and Tracker tool appeared to be the transparency it brought to the HoDs’ supervision practices. Where this was working, all teachers knew when the class visits for each one would take place and when the one-on-one visits would take place:

Because it makes you able to see teachers in different times, so it helps you to zoom in on certain teachers. So it is planning for the year, so you are able to see the teacher ... The teacher can see that this date is departmental meeting and in this one I was monitoring all of their files, the departmental meetings. Then if I am zooming in on curriculum coverage, it would tell individual teachers that, on this day, we would have a one-on-one (Interviewee E1, HoD Science and Maths, “red” School).

HoDs in “green” schools reported not finding this particular tool useful and that *Jika iMfundo* was not meant for schools such as these:

They [*Jika iMfundo*] recently ‘dropped’ J High. I went to the first few trainings.

Mr X [Principal] was worried about the time it was taking. It became clear that J High was not the target school – the coach said that and doesn't come any more (Interviewee J2, Science HoD).

There was consensus among HoDs from “green” schools that they already had entrenched and successful planning practices and processes and did not need Jika iMfundo's planning tools.

### **Monitoring/tracking curriculum coverage**

Besides assisting with planning, HoDs in “amber” and “red” schools found Tool 1 useful because it assisted them to monitor curriculum coverage and they were always aware if teachers were on track or not:

JIKA has assisted us to see whether the teachers are on par with the curriculum to see how far, for assistance (Interviewee M1, Maths and Science HoD, “red” School).

The monitoring tool also assisted HoDs to compare what they had planned to what had actually been done and to adapt their plans if there was a need. They looked at the lessons planned against lessons conducted, as well as assessments planned against those conducted.

Trackers help us to know which work we have not done, are we up to date with our planning so that we modify the planning accordingly, maybe there are things that are disturbing the planning (Interviewee E1, Maths and Science HoD, “amber” School).

HoDs reported that Tool 1 also helped them identify teachers' weaknesses and where they needed to provide support, as reflected below:

**Question:** How do you support teachers and identify teacher weaknesses?

It's based on curriculum tracking, that's why I appreciate this tool. Once you do curriculum tracking, you can see, using the annual teaching plan, and you look at the assessments. That tool helps us to identify if there is a loophole because that tool has green, [amber] and red parts, to say if the teacher is on the path to finish the syllabus or not. You ask questions and use your professional assessment to see how things go (Interviewee N1, Maths and Science HoD, “red” School).

The task of reflection was also another important aspect of the tracker that this HoD found useful:

There's reflection where teachers reflect which learners have passed or failed. Some teachers write reflection. This good because it assists HoDs to identify where the teacher managed or found difficult to teach the topic. And, as such, you as a HoD, gets to know where to give assistance.

However, HoDs from the fee-paying ("green") schools reported that they did not find trackers useful and therefore did not use them:

We don't use the trackers. We have our own work schedule which is more flexible. The tracker is too rigid and provides no leeway. It only focuses on particular textbooks. It's not suitable for our school (Interviewee L1, Maths HoD).

These HoDs reported that they designed their own notes to use and felt that trackers were not meant for schools like theirs, with well-qualified teachers, as reflected in the statement below:

They [trackers] are very good for schools operating at a very different level. We have qualified teachers who don't need a support like that (Interviewee J2, Maths HoD).

This feeling was echoed by another HoD at a Combined School, also coded "green", who said:

As far as curriculum coverage, I have my own structure in place which is more explicit. The tracker does not help me at all (Interviewee K1, Senior primary HoD).

Some felt strongly that supplying trackers to schools like theirs and expecting them to track curriculum coverage was a waste of resources:

Stop wasting money on trackers. We do not need them. You should take that money and use it for workshops. Improve education to teach in the classroom. Workshops should be based on subject knowledge, on how to teach a particular topic (Interviewee K2, Maths and Science HoD).

This was echoed by this statement from another "green" school:

A resource could be sent to everybody, but for training, it should focus on schools that need the help. You can't compare (School L) with a non-fee paying school (Interviewee L2, Science HoD).

It was clear that the Jika iMfundo training and tools had a more positive impact in “amber” and “red” schools, while HoDs in “green” schools felt that they did not need support and that Jika iMfundo needed to focus on schools that needed more support.

### **Conducting professional supportive conversations**

Another tool that HoDs in “amber” and “red” schools found useful was the “Structuring a Supervision Conversation Tool (2)”. They mentioned that they found training on relationships and how to engage teachers in a conversation about their work assisted them in improving relationships in their departments, as reflected in the statements below:

We also have this kind of a form [Structuring a supervision conversation Tool] which is for the meetings, it’s a guide on the one-on-one meeting. This helps ... [so] the teacher doesn’t become defensive. It’s just an instrument to help teachers ... because they were saying HoDs end up not having one-on-one meetings because, in those meetings, it becomes difficult meetings. So, for us to be able to hold those meetings, they gave us a guide in terms of how to approach the curriculum coverage, if the teacher is lagging behind (Interviewee E2, HoD Languages, “amber” secondary school).

The one-on-one meetings improved relationship with teachers and we work with them as a team (Interviewee B3, Foundation Phase HoD, “amber” primary school).

When asked how the teachers found these conversations, the majority of HoDs responded that their discussions were fruitful:

Most of the teachers find it a developmental process, [but] some have an attitude. The relationship between the HoD and teacher improves and the curriculum coverage has improved (Interviewee D1, Maths and Science HoD, “amber” secondary school).

The HoDs reported that the conversation tool enhanced relationships and improved professional conversations which was confirmed by the survey data where HoDs reported that the one-on-one sessions “*allow teachers to open up when they need help*”, assisted them to “*conduct non-judgemental meetings ... this removes feelings of shame and discomfort*”, “*eliminates fear and tensions, encourages co-operation and openness*” and “*improved conversations about what happens in the classroom.*” This seems to indicate that the conversations enabled HoDs to address the personal dimension of their supervisory role and the importance of acknowledging teacher’s emotions in their practice (Hargreaves, 2001). A HoD noted that she learnt “how to get to know your teachers, love and nurture the teachers. You don’t just say ‘hey, I need a lesson plan’” (Interviewee I1

Foundation Phase HoD, “green” combined school).

However, one of the HoDs in an “amber” school reported finding one-on-one conversations difficult when dealing with a teacher who teaches a different subject than his:

I’m not the expert in all the subjects, I have to bring in a subject head and sometimes the subject head will collude with the teacher. So, the subject head comes to observe the lesson and then we have the PLC with the subject head. Sometimes it can be difficult as the one not the expert in the subject (Interviewee D1, Science and Maths HoD, “amber” secondary school).

This highlights that there are power dynamics and complexities in conducting one-on-one professional supportive conversations.

In line with their views on the other tools, HoDs in “green” schools, said they did not conduct one-on-one meetings, but engaged in regular informal departmental discussions, as reflected in the statement below:

We don’t have formal one-on-one meetings. I’m the youngest in the department, so I prefer to keep them informal. We have WhatsApp groups and an informal ethos, where we can discuss issues regularly (Interviewee L1 Maths HoD, “green” secondary school).

Thus, the data show that many HoDs report that there is increased frequency of conversations and discussions of staff within departments. It appears that these conversations were mostly about the problems that teachers encountered around curriculum coverage. “We discuss curriculum coverage, absenteeism of learners and slow learners” (Interviewee B3, FP HoD). Another HoD noted that if there are teachers who are teaching out-of-field, they support their content knowledge acquisition (Interviewee I2 Intermediate HoD).

However, it was difficult to get HoDs to talk about and describe the nature and content of these professional supportive conversations in detail. Methodologically, the only way to get robust data on this would be to record the conversations between HoDs and teachers.

The second research question is: What challenges do HoDs face when supporting their teachers to improve curriculum coverage?

There are three key challenges that HoDs said that they encounter when supporting their teachers to improve curriculum coverage. These are that:

- the Jika iMfundo tools create an administrative burden, particularly when HoDs have a large number of teachers in their department
- the pacing of the curriculum is too fast and thus teachers cannot be responsive to slower learners

- there are factors in the school environment, which impact on curriculum coverage, over which the HoD has no control.

Essentially, all of these issues are related to time.

### **Too much paperwork: “paperwork ahead, child is behind”**

It is very clear from all the interview data, as well as from the survey data, that the HoDs say that there are simply too many monitoring tools that need to be completed. This is particularly true for HoDs who supervise a large number of teachers, sometimes across a range of subjects.

At School D (a high school with 1481 learners and 49 teachers), the Maths and Science HoD (D1) has 15 teachers in his department. He said: *“It’s too much with IQMS, moderation of assessment, pre-moderation, post-moderation. I have 13 papers that I must moderate for these exams.”* He is also the Grade 12 mathematics teacher. He noted that completing the Jika iMfundo monitoring tools was simply too burdensome. He felt that Jika iMfundo assumes that all departments are the same size and it is not true of big schools that the HoD to teachers ratio is about four or five teachers.

Similarly at School B, an “amber” primary school, there is only one HoD for the Foundation Phase with five teachers per grade. Thus the Principal had appointed a senior teacher in Grade 1 and 3 to help with the administrative monitoring work of Jika iMfundo. All three teachers whom we interviewed at this school said that there is simply too much paperwork and HoD B2 said there were too many files that needed to be kept (management file, supervision file, assessment file, staff development files). Participant B1 noted: *“Paperwork ahead, child is behind.”*

In School I, the Intermediate phase HoD was supervising 16 teachers without any help. Since the HoD is also teaching a class, this administrative task is simply too big for one person.

The Maths HoD at School J (a high school with 1 100 learners) feels the same:

The volume was unrealistic. They [Jika iMfundo] wanted me to meet with each teacher twice a term, take minutes, keep a file, talk about their strengths and weaknesses. I have 14 teachers who teach maths. It’s just impossible.

Some HoDs also noted that there were tensions between the requirements of the Department and Jika iMfundo which also led to more administrative work. A HoD at School C (secondary school, “amber”) noted:

We end up having more work and we end up being under pressure, having to use two tools, because we have the Jika tools, but the other is the real one, the one for work [that is, for the Department] ... Although Jika wants it this way, sometimes the Subject Advisers want it in a different way.

**Challenges with sequencing and pacing: “it is only for high fliers”**

Another challenge raised by all the HoDs in the interviews and corroborated by the survey data was the concern that the trackers take a “one size fits all” approach. Participants raised two issues regarding the trackers: the first is that the pace is too fast and thus does not cater for learner differentiation and the second is the sequencing of the topics (particularly in mathematics).

Sequencing refers to the order in which the topics and tasks are set. Pacing refers to how quickly or slowly the topics in the curriculum need to be covered. In the CAPS, pacing is strongly framed which means that the teachers do not have much leeway to change the pacing (Pausigere, 2016). Since the Jika iMfundo trackers are based on CAPS, the prescribed pacing of lessons is also fast. The Jika iMfundo Planner and Trackers make it clear that teachers need to follow the prescribed sequencing and pacing. The following excerpt is from the Grade 12 mathematics tracker, but this issue is mentioned in all the trackers:

The content in each tracker has been carefully sequenced and it is therefore important that lessons are not skipped. Should you miss a mathematics lesson for any reason, or should you be going at a slower pace, you should continue the next day from where you last left off. Do not leave a lesson out to get back on track. You may need to speed up the pace of delivery to catch up to the lesson schedule – by covering the lesson concept content of two consecutive days in one day (p. 3).

HoDs have the task of supporting their teachers to achieve curriculum coverage, but many indicate that this task is not possible in the normal hours of the school day, given the fast pace of the curriculum. In order to achieve curriculum coverage, the trackers require teachers to move on despite not all learners understanding the concepts and it then becomes the teachers’ problem to help learners to catch up after school.

Participant B2 who teaches Grade 2 at primary School B noted a concern with both the pacing and the sequencing:

... especially in maths, you sometimes find that there are so many concepts in one lesson, such as addition, subtraction, sharing, meaning division. So the slow learners cannot catch up easily, they are always left behind. Furthermore, in each and every day, the teacher has to start a new lesson. For the slow learners they find it difficult to catch up. Ya. It tends to show that Jika iMfundo is only for the high fliers, not for slow learners. It’s no longer learner paced (Interviewee B2, Grade 2 Head).

In order to support the learners who “do not get it” in class, the teachers at many schools (Schools B, C D, F, J and L) noted that they run remedial classes before or after school a few times a week. The maths HoD at School D (“amber” secondary school) said:

If they don't finish, you must catch up with extra classes every week. In the senior grades, you may have three extra lessons per week in the morning or afternoon. Some of the learners are slow to grasp the content. We are told to move with the Annual Teaching Plan (ATP). In maths, only 30% [of learners] are at the pace of the ATP, it is only for high fliers.

The Foundation Phase participants in School I and B were concerned that the lesson plans covered too many different maths concepts in one lesson and did not allow sufficient time for consolidation of learning. Many other participants also noted that there are too many activities in one lesson. These HoDs seemed to be unaware that they did not have to use all the listed activities, since the trackers note that teachers should make “the final professional choice about which examples and explanations to give, which activities to set for your class and how to manage your class on a daily basis” (Grade 12 Mathematics Tracker, p. 4). It appears that some Subject Advisers want to see if the Trackers are completed “properly” in a very technical way which can stifle some teachers' capacity to use them flexibly.

Some schools seem to be more likely to question the tools and to adjust them to fit their context. For example, a primary school from the survey data has taken the tracker, adjusted it and made their own which enables them to move lessons around and complete it according to their specific context (survey data). All the HoDs from the so-called “green” schools in our sample (School J, K and L) engaged with the tools in a very flexible way, either changing them to suit the school context, or not using them at all. The science HoD from School L noted that they do not use the trackers at all as they find them too rigid and that they undermine teachers' creativity. He finds that the CAPS document and assessment guidelines provide sufficient detail about what needs to be covered and they make their own notes for learners.

Many HoDs in the “amber” and “red” schools said that this pacing challenge is compounded by the departmental progression policy which stipulates that no learner can spend more than four years in one Phase. Thus, if a child has failed one grade in a phase, they cannot fail again and they will be automatically progressed to the next grade. The maths HoD in School C was clear that simply covering the curriculum did not lead to quality learning:

This focus on the curriculum coverage does not portray the actual situation or quality. Just covering the work only does not portray the quality of the work. At the end of the day, the ‘progressed’ learner moves to another class ... The teachers follow the tracker and leave a lot of students behind (Interviewee C1, Maths HoD, “amber” secondary school).

**Contextual challenges: “The tracker is designed for perfect schools”**

Curriculum coverage is impacted by conditions in schools that are beyond the HoDs’ control. Many HoDs noted that the Jika iMfundo trackers do not take these contextual factors into account. These contextual challenges relate to the following:

- Material resources in a school, such as a lack of textbooks or lack of water
- Organisational use of time and teacher absenteeism
- Departmental policies (such as the progression and the PPN policy)
- Learners’ readiness and motivation to learn
- The administrative requirements of the HoD role.

A HoD from a secondary school noted “there are no textbooks in the GET phase, as the Principal seems to buy only for the FET phase. So the teacher must spend considerable time photocopying pages for the 70 learners in the Grade 8 and 9 classes” (Survey data). At school M, the material resource that was absent was water, which causes huge disruptions to the learning and teaching time, as the school day inevitably ends early.

An English FAL HoD from a secondary school noted that “the tracker is designed for perfect schools with no disruptions” (Survey data). This opinion was expressed by a number of participants in the survey and the interviews who noted that the trackers assume that teaching and learning is happening on every day of the school year, with no teacher absenteeism or other disruptions. This is obviously the goal of Jika iMfundo, since the issue of lost teaching time and minimal opportunity to learn has been raised by a number of studies (Hoadley, 2013; Taylor, 2009). However, it appears that the trackers hope to solve the problem by assuming that the problem does not exist, as the trackers do not allow for flexibility or any kind of “catch up time”. This puts huge pressure on teachers to make up teaching time lost due to disruptions. Some of these disruptions, such as teacher absenteeism and attendance at SADTU meetings, implicate teachers, but are still outside the control of the HoD. For example, on the day of our research visit to school N (red secondary school), teachers were all leaving early to attend a heritage day cultural celebration organised by SADTU.

A challenge outside of HoDs’ control relates to the departmental policies of Post Provisioning Norms (PPN) and of progression of learners. A HoD in School C noted that “learners are now leaving our black schools” which means that the number of teachers decreases as the PPN allocates teachers to schools according to the number of enrolled learners. “Before we were 35 teachers and now we are 32 and so now this load does not go to teachers, but it comes to us as HoDs.” The progression policy means that learners who have failed one grade in a phase will automatically progress. One HoD noted that “some of these progressed kids are not interested [in learning] ... they tell us that we cannot fail them” (Interviewee C1, maths HoD).

This links to a further challenge raised by HoDs, namely, the learners’ capacity and motivation to learn. One HoD noted in the survey: “The tracker has an assumption that when you teach a learner s/he understands the content without challenges.” The reality

is that 60% of South African children do not learn to read for meaning by the end of Grade 3 (Van den Berg, 2015) and thus “never fully access the curriculum despite being promoted to higher grades” (Van den Berg, Spaull, Wills, Gustafsson, & Kotze, 2016, p. 6). Similarly, mathematics achievement is low, as shown in the TIMSS and the ANA results (Van den Berg, 2015). The HoDs point out that the pacing of the trackers does not seem to take this huge challenge into account, but seems to assume that all the learners are “high fliers”. However, for many learners, “*the fundamentals are not in place*” (Interviewee K3, English FAL HoD, “green” combined school), making it impossible to cover the curriculum at the required pace and still ensure that every learner has understood the concepts.

Many HoDs in the “red” and “amber” schools reported that they were expected to fulfil a huge range of administrative tasks that are not directly related to teaching and learning. HoDs have to monitor attendance of both teachers and learners, attend to learner discipline issues, enter learner marks on the SAMIS database, sit in a range of school committees, such as the bereavement committee, cultural committee, etc. In the fee-paying ex-Model C schools, additional staff were employed to fulfil some of these tasks. For example, School J employs a person whose sole job is to monitor learner attendance and discipline issues and also employs additional administrators to capture marks.

Given these contextual challenges that are outside the HoDs’ control, Jika iMfundo seems to over-estimate the power that HoDs have as levers of change. They are middle managers who are held responsible and accountable to implement policy and ensure curriculum coverage, but have very little power to make staffing decisions and drive change.

### **Concluding discussion**

This section summarises the two main findings related to the research questions and then uses the concepts of adaptive leadership and reciprocal accountability to explain and interrogate these findings.

The first main finding is that many HoDs in the “amber” schools noted that their participation in Jika iMfundo has resulted in more regular (routine) meetings with the staff in their department, improved curriculum coverage, improved relationships within departments and enhanced confidence regarding their own role as a HoD. Irvine and Price (2014) argue that professional conversations play a crucial role in PLCs to promote critical and collaborative reflection and transformational learning that lead to changes in practice. Our study shows that HoDs engage in professional conversations with their staff and they reflected, to a greater extent, on curriculum coverage and, to a lesser extent, on student learning and their own practice. They believed that professional conversations also resulted in better relationships within the departments.

Many HoDs in the “amber” schools found the training and the tools very helpful in understanding what their task as a HoD entails and helping them to plan for the

year ahead. This was particularly noted by the novice HoDs who grew in confidence and appreciated the new knowledge and skills on how to manage and lead their departments. They had not received this knowledge and skills from their school or the DBE. The HoDs in “green” schools all said that they did not need the training or the tools, as they already felt confident in performing their HoD roles, had the support from their colleagues and School Management Team and already had a range of functional planning tools and practices in place. These schools have greater organisational capacity and human and physical resources than many of the no-fee schools.

The second finding is that time and school context are major constraints in HoDs’ ability to track and support curriculum coverage in their departments. HoDs from all schools are unanimous that the monitoring tools and trackers are simply too burdensome to complete as *Jika iMfundo* envisages. The workload carried by HoDs is either heavy or very heavy, depending on the administrative challenges resulting from their school context and the numbers of teachers in their departments. Many HoDs mentioned that it was not possible to hold one-on-one conversations as frequently as *Jika iMfundo* recommends, as they have too many teachers in their departments. This impacted on the nature of the support that they could provide for individual teachers. Instead, they held more frequent departmental meetings.

### **Leadership from a position of technical vs adaptive authority**

We used the Adaptive Leadership Framework (Heifetz et al., 2009) to discuss HoDs’ leadership practices. The study shows that HoDs have an understanding of their three roles as outlined by *Jika iMfundo*, namely, to monitor teachers’ curriculum coverage and learners’ work, to support teachers to improve curriculum coverage and to assist teachers with problems related to curriculum coverage. However, findings suggest that they predominantly focus on the first role of regularly checking teachers’ curriculum tracking and, to a lesser extent, on the other two roles. It appears that HoDs in “amber” and “red” schools tend to take a more technical approach which favours the monitoring rather than the support aspect of their role. When asked about how they understood their role as a HoD, most participants in the “amber” and “red” schools described their monitoring roles and not their supportive roles through professional supportive conversations.

We suggest that HoDs in the “amber” and “red” schools are leading their departments from a technical position of authority rather than an adaptive position of authority. At a technical level, it appears that HoDs are following steps and processes which are externally driven. They are following the requirements of the curriculum trackers, learner monitoring tools and supervision tools, as these are driven by external forces. The strong external regulation from the DBE Subject Advisers and from the *Jika iMfundo* coaches on the monitoring process is likely to make HoDs focus on how their teachers are completing the trackers and lesson plans in a technical way. However, the HoDs were aware that some teachers simply completed the forms to “cover their

heads” but felt that there was not much that they could do about it, given the contextual constraints and huge administrative burdens they face.

Jika iMfundo hopes that HoDs would move to a level of adaptive change which means that HoDs would move from a compliance approach to a more developmental approach to supervision which is “characterized by reflection, learning, behavioural change and improved teaching practice” (Module 2, p. 11). However, the HoDs in the “amber” and “red” schools were simply trying to “keep their heads above water” and manage all the competing demands on their time. Taking a technical approach is the best that they can do under very trying circumstances. It is unlikely HoDs will move to a more adaptive level of leadership unless the heavy administrative workloads required of HoDs are addressed. Thus, they are less likely to be able to play a developmental role which is a necessary aspect of reciprocal accountability.

The HoDs in the “green” ex-Model C schools seemed more likely to practice adaptive leadership. This practice reflects their professional confidence, which is supported by a school context and has a “flatter” organisational ethos, where there is greater collaboration and support amongst teachers. These schools also have more human resources and a more complex division of labour (Harley, Mattson, Bertram, Barasa, & Pillay, 2000, p. 263), such as grade controllers who focus on discipline issues and administrative staff who capture marks. This allows HoDs to focus more on academic issues of teaching and learning and provide more support to novice HoDs. The resources in these schools enable the HoDs to exercise more personal agency and provide greater support to their teachers. There is more evidence of reciprocal accountability (Elmore, 1996) in “green” schools which implies that HoDs are playing a more developmental rather than only a compliance supervisory role.

In conclusion, the study shows that the training and tools provided by Jika iMfundo are helpful for many HoDs in the “amber” and “red” schools. However, their ability to play a supportive and developmental role is constrained by the lack of time and contextual challenges in their schools. “Green” schools already have the organisational and planning capacity and collegial, supportive practices that Jika iMfundo is aiming to develop.

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## Exploring mathematics teachers' usage of the curriculum planner and tracker in secondary schools in King Cetshwayo and Pinetown districts

*Thokozani Mkhwanazi, Zanele Ndlovu, Sebenzile Ngema and Sarah Bansilal*

### Introduction

It is well established by now that South African learners perform extremely poorly in mathematics, particularly at secondary level. Findings from the Annual National Assessment (ANA) have indicated that the national average for Grade 9 learners was 13% in 2012, 14% in 2013 and 11% in 2014 (Department of Basic Education [DBE], 2014). The same poor performance is indicated in the National Senior Certificate (NSC) mathematics pass rate which was 53,5% in 2014, 49,1% in 2015 and 51,1% in 2016 (DBE, 2016). Inadequate curriculum coverage, with teachers apparently neglecting to cover certain aspects of the curriculum, is one of the reasons identified for learners' poor performance in mathematics (Mji & Makgatho, 2006; DBE, 2014, 2016). According to the curriculum management and delivery strategy of the KwaZulu-Natal Department of Education (2012), there is a need for an effective strategy for monitoring curriculum delivery that will inform the system of the extent to which learners are achieving the set learning outcomes.

In response to the crisis of poor performance and in line with suggestions by the DBE, the Programme for Improving Learning Outcomes (PILO), in partnership with the KZNDoE, launched a new intervention programme, called Jika iMfundo, in two education districts in KZN. The main aim of this intervention is to provide district

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officials, teachers and School Management Teams with appropriate tools and training to enable them to initiate professional, supportive and evidence-based conversations about curriculum coverage. This would improve the learning outcomes (LOs), as suggested by the Theory of Change that informs the programme.

Jika iMfundo was formally rolled out as a pilot project in the King Cetshwayo and Pinetown districts in KZN in 2015 and 2016. Teachers were provided with two curriculum tools (CTs), the curriculum planner and tracker, to regularise curriculum coverage and ensure alignment between their teaching and the Curriculum Assessment Policy Statements (CAPS). Heads of Departments (HoDs) were also provided with supervision tools and training for their role in monitoring teachers' curriculum coverage and supporting them in their work.

However, the successful implementation of an intervention programme in education involves more than providing teachers with tools, materials, resources and training. It needs to be recognised that teachers respond to new intervention programmes differently, reflecting their individual beliefs and attitudes (Carless, 1997). Since the introduction of the Jika iMfundo programme in 2015, initial findings have revealed a differential rate of uptake by teachers, with a low rate of utilisation of the CTs by mathematics teachers, especially in secondary schools. This claim is illustrated by Table 8.1, which is taken from the PILO survey in 2015, showing tracker use in the Pinetown district.

Table 8.1 shows that fewer than 50% of secondary school mathematics teachers in this district used the tracker routinely, while 13% did not use it all. Why is this? The reasons for this low utilisation require further investigation. Consequently, this study explores the degree of take-up of the CT by teachers of mathematics and their reasons for this.

<b>Pinetown School Reviews</b>				
Q1. In your opinion are the trackers being used routinely?	Yes	To some extent	Don't know	Not at all
Foundation phase	85%	15%		
Intermediate (Grade 4)	67%	27%	7%	
Maths (Secondary)	48%	39%		13%
Natural Science (Secondary)	83%	17%		
English (FAL)	62%	38%		

**Table 8.1** Tracker usage in Pinetown

Accordingly, the research questions were:

- To what extent have mathematics teachers used the CT?
  - What are the challenges that hinder mathematics teachers from using the CT?
  - What are the enabling factors that enhance the usage of the CT by mathematics teachers?
- How, if at all, has the introduction of the CT influenced the rate of curriculum coverage?

### **Conceptual framework**

The central principle that informs *Jika iMfundo* is that, if curriculum coverage improves, then the LOs will be improved. Indeed, many studies point to the low content coverage in the classroom as a reason for the persistently poor LOs in mathematics (Stols, 2013; Taylor, 2011; Reeves & Muller, 2005). Stols (2013, p. 2) highlights the role of time on task, commenting that “successful learning outcomes should not be expected without sufficient teaching and practice opportunities.” Comparing the days spent on each topic to the time recommended by the Gauteng DoE, Stols (2013) finds that the average number of days spent on most topics was half the suggested number of days. According to the workbooks examined, the average number of active learning days in this sample was 54.1 days per annum (Stols, 2013). A study by Reeves and Muller (2005) also reveals limited curriculum coverage, with the average coverage of essential mathematics concepts being 29% for Grade 5 and 22% for Grade 6. Of greater concern was the finding that 71% of the topics covered by 50% or more of the learners in Grade 6 were also covered in at least 50% of the classes in Grade 5.

Research studies also point to the link between coverage and learner outcomes. Taylor's (2011) study finds a positive and significant effect on mathematics scores of Grade 6 learners who covered more than 25 curriculum topics as identified in learner workbooks. A study focusing on learners' workbooks in four KZN schools by Bansilal, Zondi and Shabalala (2016) finds large variations in activity amongst the schools. They find that the school with the highest ANA average in Grade 9 (37%) offered its learners 1001 practice exercises, compared to the limited 73 exercises in a second school whose ANA average was 2.3%. The study also identified wide variations in the number of lessons within a school. In one school, the three learner books had 44, 80 and 28 lesson dates, showing that different teachers taught different numbers of lessons to the Grade 9 learners (Bansilal et al., 2016).

Graven (2016) asserts that a benefit of intervention programmes is that they can increase teacher confidence and commitment to practices that foreground sense-making and conceptual understanding of mathematics concepts. What is it, then, that can influence teachers' decisions about taking on board new curriculum innovations? Studies suggest that multiple factors can influence mathematics teachers to use and learn from curriculum support materials. The teachers' subject matter knowledge and pedagogy may influence which parts of the curriculum teachers read and use within

their enactments with students (Zangori, Forbes, & Biggers, 2013; Charalambous & Hill, 2012). Pedagogical knowledge of teachers includes their abilities to use their knowledge, their beliefs and goals to make productive decisions about enacting the curriculum (Brown, 2009). Adding evidence, Davis and Krajcik (2005) emphasise the fact that teachers' use of curriculum materials also depends on the teachers' persistence (or lack thereof) in studying the materials and the teachers' own knowledge and beliefs. Jones and Eick (2007) add more factors, such as teachers' orientation towards the curriculum materials, knowledge and beliefs about their students, level of comfort with the content or curriculum and goals, beliefs, agency and experience.

Clearly, the extent to which teachers undertake an innovation depends on whether they see it as adding to their load or easing the demands they face. Carless' (1997) study on the implementation of Hong Kong's target-oriented curriculum raises the point that it is the teacher's perception of the practicality of an innovation that will strongly influence their willingness to implement it. He identifies one of the dimensions of practicality as "the extent to which the innovation is compatible with existing classroom practices" (Carless, 1997, p. 352). This means that an innovation that is associated with major reorganisation or new practices is less likely to be taken up than one which is planned according to the teacher's needs in a manner that does not disrupt existing practices. A further factor identified by Carless (1997) that influences the reception of an innovation is whether or not the implementers (teachers and school leaders) take ownership of it. Ownership is defined as "the degree to which an innovation 'belongs' to the implementers" (Carless, 1997, p. 352).

Another factor that is consistently raised is the importance of a supportive environment, where everybody works together to improve the teaching and LOs. The World Bank's (2017) *World Development Report* emphasises the importance of alignment between the various role-players in the schooling system. The report claims that the best innovations in the world will not have an impact on improvement in outcomes if systems do not work together as a whole. It raises the point that poor school management and governance undermine schooling quality and that effective school leadership has an indirect positive impact on learning improvement. It is often the case that the lack of resources is used as a reason for problems of education quality. Although it is important that enough resources be devoted to education, the World Bank Report cautions that resource shortages can explain only a small part of the learning problems and poor results that it identifies. The report states that it is evident that "across systems and schools, similar levels of resources are often associated with vast differences in learning outcomes" (World Bank, 2017, p. 13). Bhengu and Mkhize (2013) assert that quality can be improved when school leaders ensure that the activities in schools focus on improving instruction. The authors highlight the importance of developing a "supportive environment in which teaching, learning and their relationship with other school practices is the focus of the deliberations" (2013, p. S36).

The report by the National Education Evaluation and Development Unit (NEEDU)

(2017, p.3) argues that one of the biggest differences between teaching in well-functioning and poorly-functioning schools is that the first type is a well-supported system, where teachers, learners and school management “simply do **what** they are supposed to do, exactly **how** they are supposed to do it, **when** they are supposed to do it.” In well-supported systems, each person is well-placed to deal with their responsibilities in their sphere and tasks are completed and managed at the different levels within a distributed knowledge system. Taylor (2011, p. 4) notes that, in a well-functioning school, the Principal and staff work together in systems which support the work of teaching and learning, as a “structured division of labour distributes functions and integrates curriculum delivery across the classroom, the school and the home.” There are school-level systems in place for issues such as time management, absenteeism, discipline, curriculum planning, monitoring and assessment, as well as teacher professional development. In contrast, in poorly-supported schools, there is a poor understanding of the roles of the various structures and problems often escalate because they have not been managed at the level at which they should have been in a functioning system.

When school functionality is compromised, it is often the teachers who have to deal with added constraints. Bansilal and Rosenberg (2011) argue that the myriad problems faced by teachers casts an inertial effect on the teachers' abilities to function on a day-to-day basis. The authors argue that the space for teacher learning becomes constrained as teachers become preoccupied with managing the problems of practice emanating from outside their classroom, instead of reflecting on pedagogical problems of practice which could activate rich learning opportunities.

Elmore (2004, p. 11) argues that the principle of reciprocity should govern the relationship between the leadership and teachers: “I can only do, as a teacher, what I know how to do. So your responsibility as a leader is to set the conditions in place that permit me to have access to do the work that you as a leader expect me to do.” Elmore terms this “reciprocal accountability”. A second type of accountability identified by Elmore as being important for school improvement is that of the “internal accountability” which occurs within an organisational unit like the school or a team. It is the responsibility of the teacher to provide the necessary learning opportunities to learners, so that they have an equitable chance of participating in mathematics. However, teachers can only do what is expected of them provided they have access to the necessary support and this accountability is applicable at each level of the responsibility ladder. The HoD needs support from school management which, in turn, needs support from educational authorities. Elmore (2008b, p. 6) argues that internal accountability “is the degree of coherence in the organization around norms, values, expectations and processes for getting the work done.”

Hence, it is clear that any curriculum intervention must be accompanied by a focus on strengthening of the internal accountability system within a school. In particular, for the purposes of this chapter, the accountability at the interface between the

mathematics teacher and the HoD (as a subject leader in the school) is a crucial layer within the reciprocal accountability system of the school as a whole.

## Research methodology

### *Research design*

The purpose of this research was to explore mathematics teachers' usage of the CT in secondary schools and to determine whether the introduction of the CT influenced the rate of curriculum coverage. To investigate these issues, we adopted a broadly qualitative approach since this provides multiple ways of understanding the inherent complexity and variability of human behaviour and experiences (Grace, Higgs, & Horsfall, 2009; Creswell, 2009). Our focus in this research was to understand the implementation of the CT from the teachers' and HoDs' perspectives, since they are the ones involved with managing the curriculum and its implementation at classroom level.

### *Sampling*

In selecting schools, we used PILO survey data to identify schools teaching secondary mathematics in the two districts. PILO surveys revealed that there were 176 schools teaching secondary mathematics in Pinetown (175 secondary schools + 1 combined school) and 229 schools teaching secondary mathematics in King Cetshwayo (127 secondary schools + 102 combined schools). PILO conducted four surveys in schools within the two districts, namely,

- School Review Survey of November 2015 (SR-2015)
- Self-Evaluation Survey of February/March 2016 (SE-2016)
- Curriculum Coverage Survey of August 2016 (AS-2016)
- School Review Survey of November 2016 (SR-2016).

Table 8.2 indicates the number of schools that participated in each of the four PILO surveys applicable to our study.

We selected our sample based on schools' participation in PILO surveys, focusing, in particular, on schools that have the most information in the surveys. Initially, we selected 16 schools spread across the two districts, but it was not possible to include two of these in school visits in 2017 which then reduced our sample to 14 schools.

Type of Survey	SR-2015	SE-2016	AS-2016	SR-2016
Schools in Pinetown	24	142	12	6
Schools in King Cetshwayo	23	209	17	12

**Table 8.2** Number of schools reviewed by PILO

We used pseudonyms as an alternative to the real names of the schools in our sample from each district, in line with ethical considerations and guaranteed confidentiality to participants. Information on the schools in the study is presented in Table 8.3.

The ANA results for the Grade 9 mathematics were very poor across the country. However, it was a concern that, for many schools, there was an even further drop in the average scores for 2014 as compared to 2013. This drastic drop illustrates the seriousness of the problem in Senior Phase mathematics but exploring it further was beyond the scope of our research.

However, research suggests that the difficulty level of the Grade 9 ANA mathematics test was high. A study (Bansilal, 2017) focusing on the 2014 Grade 9 ANA mathematics test in five high performing KZN schools, found the results from the ANA were statistically significantly lower than those produced by each of the schools' final examinations. The teachers' views were that there were too many higher-level questions in the ANA catering for the brighter learner only. They suggested that the test should

District	Secondary Schools	SR-2015	SE-2016	AS-2016	SR-2016	ANA% Av. Gr 9, 2013	ANA% Av. Gr 9, 2014
Pinetown	GLEV	×	✓	✓	✓	24,29	12,69
	ISIZ	×	✓	✓	✓	4,7	2,45
	KWABA	✓	✓	✓	×	8,4	5,31
	PHO	×	✓	✓	✓	13,15	5,23
	ZIPA*	×	✓	✓	✓	---	1,84
	ZWELI	✓	✓	×	✓	11,48	1,36
King	EKU	×	✓	✓	✓	6,46	3,31
Cetshwayo	ELA*	✓	✓	✓	×	7,31	2,17
	EMO	✓	✓	✓	✓	6,29	---
	HLAKA	✓	✓	✓	✓	7,2	4,74
	JOHR	×	✓	✓	✓	28,83	14,3
	MGI	×	✓	✓	✓	6,36	3,08
	QHA	×	✓	✓	✓	6,09	3,23
	TISA	×	✓	✓	✓	18,89	12,24
	UMZI	×	✓	✓	✓	8,05	3,26
ZIPHO	✓	✓	✓	✓	10,41	5,22	

**Table 8.3** Schools chosen for in-depth study

*\* Omitted from sample*

include more questions that were uncomplicated and tested routine skills that could enable average learners to display their competence. Furthermore, teachers felt that the learners were not yet ready for the type of reasoning asked in the geometry questions and suggested that the test should include more calculations in geometry and fewer proofs. This burden of proof was also identified by Pournara, Mpofu and Sanders (2015) who argue that the geometry items were dominated by formal proof requirements which seem to be beyond the curriculum specifications.

#### *Data generation*

With the aim of understanding the complexities and experiences of teachers on the uptake of the Jika iMfundo CT and to provide information and evidence about curriculum coverage, we used three different sources of data collection: the PILO survey data, together with interviews and documentary data from classroom materials. As well as analysing the PILO data for participants' reports, we conducted 21 semi-structured interviews with teachers and HoDs in the sample schools in 2017. Interviews enable probing to obtain greater depth of understanding (Cohen, Manion, & Morrison, 2011) and we designed our interview questions to clarify responses made by teachers and HoDs

Table 8.4 presents the number of participants interviewed in the 14 schools, together with sources of information that were presented during the interviews in August 2017.

#### *Data analysis*

The data set used for this chapter comprised transcripts from the survey materials collected by PILO from the secondary school mathematics teachers and HoDs in 2015 and 2016 and transcripts from the 21 interviews conducted in 2017 (mainly with teachers). To verify data from interviews further, classroom materials were also considered as a data source. When analysing these data sources, we adhered to the framework and guidelines offered by Miles and Huberman (1994). Initial analytical steps involved immersion in the data through the transcription process and the organisation of data into categories. This was followed by coding and inducing themes in data generated from transcripts from the PILO surveys and interviews. For issues of validity, the four researchers met to triangulate their responses and, at this stage, relationships between codes were identified and elaborated. As well as providing us with textual data, this form of analysis helped us to generate quantitative data to give us a broader understanding of the proportion of the uptake of the CT by teachers. Finally, the researchers synthesised the coded data together, aligning it with the research questions. The aim was to ensure that the emerging themes formed a recognisable cluster grounded within one general concept.

## Findings and discussion

This section discusses the findings which were organised under the major themes that were identified, aligned to our research questions.

### *Usage of the curriculum tools (planner and tracker)*

Our research set out to investigate the reasons for reported low CT use by secondary mathematics teachers and, in particular, to explore the perspectives of teachers and HoDs themselves since their participation is essential for the success of the Jika iMfundo intervention. Our analysis of PILO survey responses, interviews and documentation confirmed the low CT use by mathematics teachers and HoDs. In addition, we found a number of instances where teachers and HoDs reported that they were using the CT for its intended purpose, but they were unable to provide evidence

Schools	GET	FET	HoD	Total # of participants	No. of interviews	Sources of information
GLEV	3	1		4	1	CT; MS; SFAT; DMB; LCB
ISIZ	1	1	1	3	2	CT; LCB; SFAT; MS
KWABA	1			1	1	CT; LCB; SFAT; MS; DBEWB
PHO		1		1	1	CT; LCB
ZWELI	1	1	1	3	2	CT
EKU	1		1	2	2	CT; LCB; SFAT; MS
EMO		1		1	1	LCB; SFAT
HLAKA	1			1	1	CT
JOHR	2	1	1	4	1	CT; CAPS ATP
MGI	1		1	2	1	CT; MS; SFAT; DMB; LCB
QHA	1		1	2	2	CT; LCB; MS; SFAT
TISA	1	1	1	3	3	CT; LCB; MS; SFT;
UMZI			1	1	1	CT; LCB
ZIPHO	1		1	2	2	CT; LCB
TOTALS	14	7	9	30	21	
Code for sources of information	Tracker (CT); Mark sheet (MS); DBE workbooks (DBEWB); Learners' Classwork books (LCB); Scripts for formal assessment tasks (SFAT); Departmental Minute Book (DMB); Annual Teaching Plan (ATP)					

**Table 8.4** Participants Interviewed in 2017

to verify these claims. In cases where there was evidence, this showed minimal and inconsistent usage.

Of the 14 schools whose data we analysed, only six were reviewed in 2015 (SR-2015); all 14 schools were reviewed in 2016 (AS-2016); and 12 were reviewed later in the same year (SR-2016). Of the six schools that were reviewed in 2015, only two (ISIZ and EKU) reported that they used the CT routinely. In the first PILO survey of the following year (AS-2016), nine reported routine use of the CT – an apparent increase, perhaps as teachers were becoming more conversant with the CT. The second PILO survey (SR-2016), however, shows that seven schools were using the CT. The two schools (QHA and ZIPA) that were no longer using the CT routinely cited several challenges, including the late arrival of the CT and internal disruptions. Across both of the 2016 surveys, over 50% of the schools that were reviewed reported routine usage of the CT. However, there was no tangible evidence to support these claims, so these remained at the level of self-reporting. In fact, of the nine schools that indicated routine usage of the CT in the first of the 2016 surveys (AS-2016), only five had their responses verified by PILO coaches to confirm that the CT was being used routinely. The same self-reporting trend was evident in the second survey (SR-2016).

Of the two schools that indicated routine usage of the CT in 2015, one (ISIZ) showed consistency across all reviews based on the self-reported data. During the interviews in 2017, the teacher and HoD at ISIZ maintained that they used the CT all the time. However, the verification by the researcher contradicted their responses. It was found that the Grade 9 mathematics teacher had completed only two weeks of the tracker in term 1 and one week in term 2, thus showing minimal and inconsistent usage of the CT. This suggests that it is possible that there had been no change, at ISIZ, in the amount of work given to learners since 2013. The decline in the school's ANA results (from an average of 8,4% in 2013 to an average of 2,5% in 2014) supports this argument. These findings would be consistent with Bansilal et al. (2016) who showed that the schools that offered learners fewer practice examples performed more poorly than those that offered sufficient practice examples.

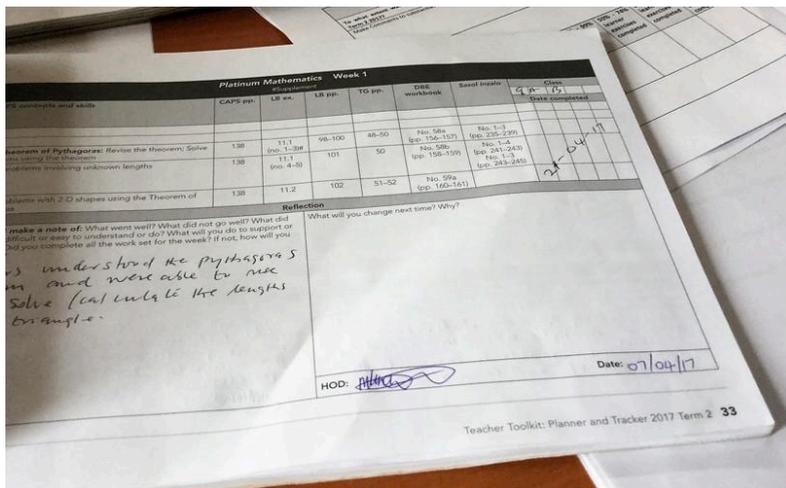
A similar scenario was observed at the second school (EKU), where a Grade 9 teacher reported that he used the CT routinely and his copy of the CT confirmed that he marked the relevant sections as complete according to the dates specified in the CT (Figure 8.1). However, learners' exercise books contradicted the teachers' signature of completion appearing in the CT. The Grade 9 CT indicates that teachers should teach Pythagoras' theorem in Week 1 of Term 2, but the work in the learners' books was about circles, thus illustrating non-adherence to the suggested sequencing in the CT. During the interviews in 2017, the teacher conceded that, in reality, he did not follow the sequence in the CT but rather filled in the dates according to the CT, saying: *"Sometimes I do not follow the tracker, when I realise that learners are blank I teach something else."*

Furthermore, we found evidence of duplicity between the teachers and HoDs, where signatures were made for compliance purposes. Figure 8.1 shows that the teacher signed

the tracker on 21/04/2017, signifying that he completed that week's work. It can be observed, however, that the HoD signed the tracker for Term 2 on 07/04/2017 – which was even before the term resumed on 20 April 2017. When asked about this, it was clear that the HoD was aware that, in order to fulfil his monitoring functions, he was supposed to sign after the work was covered. However, he could not explain why, in this case, he had signed even before the term started. While the teacher claimed to have given trackers to the HoD at the end of each week, there was only one HoD signature in the tracker which was on the 7 April 2017. Although one cannot refute the claims made by the teacher and HoD, without tangible evidence, they are questionable.

The noticeable trend between the three sources of data was that, while many teachers reported that they were using the tracker, the verification actually shows that only a few used the tracker routinely and appropriately. During the interviews in 2017, we found that only three schools used the CT routinely and had the evidence to back it up. The learner books analysed from GLEV, JOHR and TISA showed that they had done more exercises per topic than the expected norm. Even though their ANA results in 2014 were not impressive, their percentage averages were higher than other schools in our sample, thus confirming that exposing learners to more practice examples increases the chances of learner achievement.

Methodologically, our findings show that self-reported data are not reliable and need additional data sources for verification.



**Figure 8.1** Copy of Grade 9 teacher's CT confirms that he marked the relevant sections as complete, but the work in his learners' exercise books contradict the teacher's signature of completion. The HoD was also found not to be completing proper monitoring.

*Challenges in using the curriculum planner and tracker*

Our research also set out to explore teachers' perspectives on CT usage, including the challenges hindering CT use (as well as enablers enhancing use). More than 50% of the schools in our sample identified specific challenges that hindered the usage of the CT. Schools that were using the CT routinely also encountered challenges, but managed to rise above them. The major challenges mentioned relate to the tracker itself, to teacher knowledge and attitudes towards the intervention and to conditions in schools more broadly. These are set out below.

*Tracker neglects learner pace*

Participants in all of the 14 schools in the study pointed out that one of the challenges they encountered with the usage of CTs was that they did not cater for the mastery of the concepts because they neglected learner pace. In the words of a teacher at EMO:

What I am supposed to cover in one day according to tracker takes me three days with learners, so every time I am behind. Then I chose to ignore the tracker since it makes me feel guilty all the time as if I am not doing the work.

Although teachers, at times, seemed to attribute the problems of pace and overload to the CT, it is important to note that the pace of the coverage of the topics is dictated by the CAPS curriculum and Annual Teaching Plan (ATP) and not the CT, since the CT functions to provide a detailed breakdown of how the topics in CAPS could be covered. In interviews, teachers and HoDs noted that they were aware that the problem was related to CAPS. The HoD at EKU pointed out that the CAPS and ATP are too packed and teachers feel overwhelmed by the amount of work they need to cover in a week. Even though he expressed these problems, this HoD also said that the CT does help him to know the extent of the content to be covered which was not the case before.

From the interviews, it would seem that teachers and HoDs understand that the CT is tracking the CAPS document which means that it is what they are expected to cover. However, this knowledge does not help them in addressing the challenge of how to keep up with content coverage when learners are falling behind. Thus, it seems that the CT has emphasised for them the challenge of an overloaded curriculum without providing a means to remedy it; instead, it makes some teachers feel demotivated. As indicated in the opening sentence, all 14 schools raised this challenge of content overload which shows that it was a common perception between teachers and HoDs.

*Tracker sequencing and inflexibility*

One of the challenges raised mainly by seven teachers who reported using CT routinely, was that its inflexibility and sequencing do not give teachers room to manoeuvre the topics. While this challenge could also be attributed to CAPS, teachers felt that the breakdown of concepts into days in the CTs forced them to follow it day-by-day, instead

of allowing them to teach as they saw fit which is what they used to do with CAPS. For example, one teacher at EKU said:

Sometimes when I introduce a topic, I found that learners are blank, but I am forced to follow it through because, if I don't, I would be seen as someone not covering the curriculum. Anyway, I do change it, for example, when teaching Pythagoras' theorem, I might decide it is better to first teach types of triangles before introducing Pythagoras' theorem.

The same sentiment was raised by a teacher at TISA:

The tracker is rigid and does not allow for different approaches ... I prefer to start with solving for  $x$ , then factorisation before the introduction of a quadratic formula ... I teach the topic and then take a learner exercise book to check for end dates for recording in the tracker.

This comment indicates that the teachers used the tracker for reference and recording purposes and not as a tool around which their lessons could be planned. In addition, it shows that teachers were drawing on their own experiences and judgement which illustrates the point made in the literature review that teachers' practices are not easily shifted. As pointed out by Jones and Eick (2007), teachers' take-up of an innovation depends on whether they see it as adding to their load or easing the demands they face. In this scenario, teachers see the CT as making things more difficult for them by restricting their flexibility and ability to respond, as they think best, to learner needs. The daily stipulation of topics also restricted them from engaging in and making decisions based on their own pedagogic reasoning.

#### *Use of other curriculum-tracking tools*

Eight teachers pointed out that one of the reasons for not using the CT was that they used other tools that they found to be more flexible and convenient. They explained that they viewed the CT as an exercise in duplication instead of being helpful to them. This claim is reflected by sentiments from a HoD at UMZI:

I see that the tracker has been taken from ATP. The ATP gives you a longer time frame, as well as the work coverage. So I used the ATP instead.

This comment shows that, regardless of the purpose of the intervention that is being implemented, teachers or HoDs use their own professional judgement to decide on the extent to which they will use the given tool or resource.

A second reason that was provided for not using the tracker was that authorities did not encourage it. A teacher at ZWELI explained that "*even our Subject Advisers are biased*

towards the ATP and, at no stage, was the tracker promoted in the workshops that I attended.” Another teacher, from GLEV, said “I do not follow the CT 100% because our subject advisor said you don’t have to follow it.” Of the eight teachers who cited authority as the reason, six reported minimal usage of the CT.

Another reason raised by teachers from KWABA and EMO for choosing to use tools other than CT was the lack of alignment of content to be covered between the CT and the ATP. As a result, teachers chose to use the ATP since it aligned with the examination guidelines which they need to follow. When probed about this, a comment from a teacher at KWABA was:

Last year I had a bad experience when I was using the tracker. It said that in Term 2, I had to cover Trigonometry but the ATP said that Trigonometry should be covered in Term 3.

The same issue was raised during the 2017 interview with the teachers. This suggests that the choice to use the ATP was mainly driven by the expectation that they meet the examination guidelines, while the CT focuses on tracking the curriculum.

From the PILO surveys and our interviews, especially in Grades 8 and 9, it emerged that teachers preferred to use the “1+9” programme of lesson plans because they felt it was much easier to use. The “1+9” is an intervention programme launched by the KZNDoe in 2015 to improve teachers’ mathematical knowledge for teaching. In this programme, teachers are provided with lesson plans, so it is possible for them to teach by just following these lesson plans without having to check whether they are covering the content stipulated in the CT. Furthermore, they did not want to duplicate the work by using both the CT and the “1+9” lesson plans. As attested to by teachers at KWABA:

In 2015 we used to attend ‘1+9’ workshops and, in those workshops, we were given lesson plans that were telling us what to do on a particular day. It told us that, on this particular day, do these examples, give these activities. So I had a challenge in figuring out whether I must use the tracker or these lesson plans as I had two things and I wasn’t sure which one to use. Then I decided to use ‘1+9’ because the lessons are already planned.

Similar sentiments were echoed by the teacher at EMO during the SR-2015 survey and the 2017 interview: that teachers of Grades 8 and 9 preferred to use the “1+9” lesson plans and the Sasol Inzalo workbooks. However, since the Sasol Inzalo workbooks were not provided for learners, the teachers explained that they only used activities in the Platinum Mathematics textbook. Although this teacher claimed to use activities from the DBE workbook, there was no evidence to support his statement, since no learner workbooks were made available and the work done in the learners’ exercise books was minimal.

As pointed out by Carless (1997), an innovation associated with major reorganisation or new practices is less likely to be taken on than one which is planned according to the teachers' needs in a manner that does not disrupt existing practices further. In this case, it seems that teachers were finding the different materials to be conflicting instead of complementing each other. As a result, they tended to use their own professional knowledge to choose between options. Those who chose the "1+9" lessons plans did so because this addressed their need for lesson planning, or because they were already familiar with the ATP and were reluctant to disrupt their existing practices.

What is noticeable also is that some of these challenges were common both to teachers who reported routine usage and those who reported none or minimal usage. The above findings imply that, while all schools might have similar challenges with implementing new interventions, it is the individual who decides how to address the challenge and whether it becomes a stumbling block or a learning curve.

*Tracker reflections are time-consuming*

Other than not using the CT to track curriculum coverage, it was further evident that teachers were not using it to reflect on the successes and failures of each lesson. This was verified during the interview sessions in August 2017. We found that trackers that were presented to the researchers for verification did not have the section on reflections filled in, or reflections done did not show engagement with classroom issues. One teacher said:

Usually I do not write reflections kuba into engiyicabanga mina [it's what I think about]. I know it's important to write down my reflections but there is no time to do it.

When probed further about what their professional conversations with HoDs entailed, it was evident that, in many cases, such conversations do not take place. The teachers at KWABA and EMO pointed out that they held monthly meetings as a department discussing general matters however, in the absence of a HoD, this was not discussed further. It was only at EKU that a HoD provided a schedule of one-on-one conversation meetings beyond monthly meetings. At this school, the reflections sections were filled in which suggests that professional conversations were taking place, at least to some degree.

Another teacher pointed out that they write their reflections on lesson plans, meaning that there is no need for them to duplicate the reflection exercise in the CT. However, when asked to show evidence of where reflections were done on lesson plans, the teacher could not provide it. Yet another teacher commented that reflections were a waste of time. He felt that the KZNDoe does not understand the difficult conditions under which they teach which is why they were expected to do so much paper work: *"I think the department has lost track of what is happening at grass root level."* This teacher

further indicated that he felt that reflections do not allow them to raise their honest opinions: *“What you did and what you enjoy and what you will do better next time is nonsense. We never enjoy anything, we are struggling to get concepts across to learners.”*

These comments suggest that many teachers did not feel that the reflection exercise was useful to them, especially given the inadequate training on reflections. This points to the fact that, without adequate training and suitable support, it is difficult for teachers to implement a new intervention such as this. As Carless (1997) points out, teachers’ perceptions of the practicality of an innovation play a major role in its usage. The above findings regarding the lack of written reflections by teachers mean that teachers will not have personal records of areas needing remedial attention. While one cannot say that teachers are not reflecting at all, the lack of evidence in most CTs that we reviewed suggests that conversations between teachers and HoDs to address problems of coverage are not aligning with the Jika iMfundo guidelines.

The limited attention to written reflections that was evident among these schools is a concern, since many research studies have identified the important role of reflections in any teacher professional development programme (Bansilal & Rosenberg, 2011; Brookfield, 1995) and reflections form part of the Jika iMfundo intervention. Without individual and joint reflections, the professional conversations around which Jika iMfundo is planned are meaningless. Although it is possible to reflect very deeply without writing this down, written reflections can enhance meaningful professional conversations between colleagues. This was confirmed by the HoD at EKU who pointed out that, since teachers are writing down reflections, he was now able to make connections between the indicated content covered in the CT and what was in the learners’ books, thus confirming that written reflections do provide records about how lessons or activities could be improved the next time around. It would therefore be valuable for further research to investigate how authentic and meaningful reflections could be encouraged.

#### *Lack of skill and knowledge of utilisation of tracker*

Seven teachers pointed out that the reason they did not use the CT was that they were not properly introduced to it or given training on how to use it. In many instances, HoDs just handed them the trackers to use, without training them. One of these teachers said that, when he arrived at the school, he was given a textbook only and that the DBE workbook he received later was a result of his insistence on getting it. Since he had never heard of the CT before, he did not ask for it. This suggests that the train-the-trainer system is not effective enough in assisting teachers and HoDs to take ownership of the tool. This lack of support from HoDs or senior teachers is reflected in an interview response by a novice teacher at ZWELI who said: *“La ikwamazibonele”*, meaning *“Here you fend for yourself with no assistance at all.”* Even though this type of response was more prevalent during the 2015 survey (SR-2015), it also surfaced during the interviews in August 2017, suggesting that this challenge was still an ongoing problem. In addition to

teachers not being able to use the CT effectively, issues of teacher transfers, resignations or the appointment of new teachers or HoDs during the course of the year, were also identified as problematic. It was evident from these seven schools that most of the new teachers in these schools had no knowledge of the CT and had no one to assist them, often because the trained teachers and HoDs had left in the middle of the year.

#### *Shortage of resources*

Many teachers cited the shortage of resources as one of the reasons for not using the CT maximally. Teachers pointed out that, since there was a shortage of textbooks for learners and they did not have resources such as photocopying machines, it was difficult to refer learners to various activities – so they chose to write a few questions for learners to do on the board. While resources might be seen as playing a small part in the learning process, as reported by the World Bank report (2017), in this case, what is highlighted is the challenges of implementing changes in an under-resourced or poorly managed system. Effective management of resources entails making sure that there are processes in place to maintain and fix machines timeously and that resources, such as textbooks, are returned from previous users and available for new users each year. When these processes are not in place, teachers then have to resort to using less effective teaching methods.

#### *Enabling factors for using the CT*

Having set out participants' views of the challenges hindering their tracker use, we now turn to consider the enabling factors that enhanced their tracker use. Overall, we found that, although teachers and HoDs did not seem to use the CT for the purposes for which it is intended and all identified challenges with using it, participants nonetheless drew benefits from having it to hand. All of the participants identified at least one enabling factor related to the use of the CT, while participants in ten schools identified more than three enabling factors. While these findings do not overshadow the challenges identified, they do show that not all teachers and HoDs have rejected the tool. With more support provided, it may well be that more schools would be willing to adopt the CT fully.

The major enabling factors mentioned related, as with hindering factors, to features of the tracker itself, to teacher knowledge and attitudes towards the intervention and to conditions in schools more broadly. These are set out below.

#### *The Tracker is detailed and easy to use*

Of the 14 teachers interviewed, eight commented on the fact that the tracker is easy to use, especially for checking the topic to be covered and the extent to which that topic should be covered. Furthermore, teachers pointed out that the CT helps them with planning, as confirmed by the extract from the PILO Survey AS-2016 shown in Figure 8.2. These teachers also indicated that the CT is more specific than the ATP in terms of

showing how much depth is required for each topic.

While it was evident that the majority of teachers were not using the CT effectively, four teachers highlighted that, since the CT is CAPS-aligned and topics are broken down, this helped them with unpacking the content to be taught, thus helping with lesson planning and time-frames. Three teachers pointed out that the tracking of all textbooks made it easy for them to know where to find additional resources. A teacher at EMO said: *“Although I do not get enough time to give learners more activities but I know now when the work given to learners is enough or not.”*

While teachers complained about the inflexibility of the tracker with regard to manoeuvring the sequencing, two teachers found the CT to be sufficiently flexible since it provided consolidation times, allowing teachers to address any shortfall they may have with curriculum coverage. Nine teachers found the CT useful since it gave them direction, as well as alerting them when they fell behind with the content to be covered. This was echoed by a teacher at UMZI:

although it makes me guilty and I chose not to use it but the reality is that I am aware that I am behind with content to be covered because the tracker gives clear time frames.

#### *Tracker provides assessment tasks*

One of the benefits of the CT identified by teachers was that the assessment tasks in the tracker helped with setting papers of appropriate standard, as evidenced in the learners’ assessment books. In the words of a teacher at EMO:

I-tracker iyangisiza kakhulu nje ngama-Investigations because for some you akubi lula ukucabanga i-Investigation e-right for learners [tracker helps me a lot with investigations because sometimes it is not easy to find a suitable investigation for learners].

Another teacher from KWABA stated that the assessment tasks in the tracker are useful even for revision purposes. Such comments showed that teachers are using the CT as a resource beyond just tracking curriculum coverage.

Five teachers who reported routine usage of the CT and provided evidence pointed

c) Has the tracker helped you plan and monitor your coverage of the curriculum? Please explain your answer.

YES. AS FAR AS PLANNING IT DIRECTS ME WHAT TO TEACH.  
AND IT IS EASY TO FOLLOW.

Figure 8.2 Extract from the AS-2016

out that since the CT tracks different sources, this made it easy for them to find suitable activities and supplementary activities. These were also the schools that performed better than the other schools in the ANA in both 2013 and 2014. As pointed out by Stols (2013), schools that give learners more practice examples perform better. These findings seem to be similar – that schools with higher rates of curriculum coverage (e.g. GLEV, TISA) were using the tracker as a useful resource when searching for suitable learner activities and assessments.

#### *School organisational support*

Drawing together these arguments, it seems that in schools with functioning systems where everyone is accountable to play their role, interventions can be implemented even in the face of challenges. In the PILO surveys and our interviews, seven teachers raised the point that they struggled with using the CT because they were not properly trained and/or not supported by the HoDs. This is illustrated by the case mentioned earlier of the teacher who was not told about the CT when he arrived at the school and was given only textbooks to use. This illustrates how school organisation may impede CT use by not ensuring continuity between teachers and cohesion within subject departments. At this school, it seems there was no accountability on the part of the school management to ensure that the new teacher received guidance and support from an experienced teacher, showing that the continuity function was not seen as important. At the same time, at schools like GLEV, JOHR and TISA, it was clearly noticeable during our interview sessions that systems and processes were in place and worked well. It was also at these better functioning schools that the CT was used routinely. The comment in Figure 8.3 by a PILO coach who visited GLEV emphasises the point that, in a well-functioning school, the Principal and the staff work together in systems which support the work of teaching and learning, where a “structured division of labour distributes functions and integrates curriculum delivery across the classroom, the school and the home” (Taylor, 2011, p. 4).

Notwithstanding other factors, it seems that a supportive environment and accountability by all stakeholders are necessary conditions that need to be in place in

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What a refreshing conversation with this staff. It was made very clear by the school that we need to adopt the pilot project because we are trying to address the imbalances of the past. The school has adopted the JIKA IMFUNDO slogan because what we all do matters as the nation is counting on us to change education around. This is a journey and we are walking it every day no matter how slow. It was good to see a parent in the school trying to work hard in hand with the educators to help the learner as they had seen that she is slipping – because a majority of the parents believe that if I send my child to a good school, their grades will automatically be good, but we need to work together.

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**Figure 8.3** Comment by PILO COACH in the AS-2016

schools for the proper implementation of Jika iMfundo. Furthermore, it is also necessary that teachers, as the main implementers of the CT tool, have taken ownership of the tool.

#### *Extent to which the CT influences curriculum coverage*

Having addressed our first research question on participants' use of the CT and the factors they perceived to be hindering and/or enabling this, we now turn to our second question: to explore the relationship between CT use and curriculum coverage. How, if at all, has the introduction of the CT influenced the rate of curriculum coverage?

#### *Correlation between CT and curriculum coverage*

Even though we cannot say there is causation between the usage of the CT and curriculum coverage, our findings do show some correlation, because the few schools that used the CT routinely seemed to be on track with curriculum coverage. This suggests that usage of the CT is assisting these schools, to some extent, with curriculum coverage. Although there are limits to this claim since only a few schools have shown this trend, we can further argue that schools, which have shown minimal or inconsistent usage of the CT, also showed minimal coverage of the curriculum.

For example, at ZWELI and EKU, where usage of the CT was minimal, the schools only covered just above 50% of the work that needed to be covered. During interviews, when asked whether they have noticed any improvement in the learner pass rate, one teacher said:

Although I cannot say there is a drastic change but yes, I can say there is. Although improvement from perhaps 12% to 15% cannot be seen as much, but it is an improvement.

Across most schools, it was quite evident that, despite what teachers said about using the CT, the amount of curriculum coverage, especially at Grade 9, was minimal. This trend of low curriculum coverage has been identified in many studies (Bansilal et al., 2016; Stols, 2013; Taylor, 2011) and our study confirms that it is still prevalent amongst most schools in our sample. Stols (2013) argues that fewer days spent on mathematics topics translates into fewer classroom activities for practice purposes resulting in poor performance. Similarly, when learners have done a variety of exercises covering many topics, this indicates that the curriculum is covered and thus increases their chances of performing better, as revealed by Taylor (2011).

Although we cannot show a direct influence of the increased curriculum coverage on improved ANA results, what is evident is that the three schools that provided evidence of curriculum coverage and of a sufficient number of practice activities in the learners' books, also have higher averages in the ANA results, thus confirming a positive correlation between curriculum coverage and learner performance.

*Inaccurate reporting of coverage*

The PILO surveys for the 14 schools in the sample indicated that teachers and HoDs in ten schools were on track with curriculum coverage. However, four schools did not provide any classroom material to show the extent of the curriculum coverage. Only three schools provided evidence from the learners' books confirming the extent to which they have covered the curriculum and, for these schools, the evidence provided does not necessarily support their claims. An extract from the PILO coach shown in Figure 8.4 raises doubts about coverage claims.

Evidence from the number of activities in the learners' books at ISIZ confirms that the curriculum was not completed. Table 8.5 shows the number of activities done by learners out of a possible 24 activities in the book. To confirm that learners were doing less than what was expected, the comment by the PILO coach revealed that the only activities captured were from the textbook, since there was no evidence of DBE workbooks to check.

During the August 2017 interviews in another school, the teacher admitted that he only used activities from the textbook and had not given learners DBE workbooks. The DBE workbooks were kept in the Principal's office, still sealed in their original packing (Figure 8.5).

Comments:

- Although teacher have recorded in trackers that they covered all topic, the HOD feels some of the topic were not done thoroughly.

Figure 8.4 Response from SR-2016

Number of activities done by learners (total possible: 24)	
Total number of exercises/activities learner 1	5
Total number of exercises/activities learner 2	7
Total number of exercises/activities learner 3	7

Table 8.5 Extract from AS-2016: Number of activities done by learners out of a possible 24

*Uneven coverage of work across the terms*

The general trend that was observed in the data that emerged from the interviews was that at least 50% of term 2 work in the General Education and Training (GET) phase was covered – which means, in effect, that coverage was incomplete. As a result, at the start of term 3, teachers were still completing the previous term’s work which implies that, by the end of the year, the curriculum would have not been covered. Table 8.6 shows the minimal number of activities/exercises covered in one school, MGI, for term 2 of 2017.

Although the minimal usage of the CT was across phases, the minimal amount of work done in the learners’ books for a whole term seems to be more dominant in the GET phase compared to the Further Education and Training (FET) phase. Teachers and HoDs said that the main reasons for this were the compulsory extra classes for the



**Figure 8.5** DBE workbooks in their original packaging, found in a Principal’s office

<b>Written exercises</b>										
Learners	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Total
	18/4–21/4	24/4–26/4	2/5–5/5	8/5–12/5	15/5–19/5	22/5–26/5	29/5–2/6	5/6–9/6	12/6–15/6	
Learner 1	1	0	2	2	1	4	3	2	1	16
Learner 2	1	0	2	2	1	4	3	2	1	16

**Table 8.6** Extract from MGI Interview in 2017

FET phase and the fact that learners write common papers that push teachers to cover the expected work. One teacher at EMO said:

... because we have common papers at the FET it is a must that we must finish the syllabus while in Grade 9 I can set the exam on what I have managed to cover.

A comment from a HoD at MGI revealed the following:

Grade 12 teachers do cover 100% of the curriculum due to the pressure from the DBE, but in Grade 10 and 11, completion of the curriculum is still not properly done.

The above comments raise serious concerns. Firstly, the lack of common standard papers at the GET phase results in teachers and HoDs becoming complacent about not covering the curriculum. Secondly, while it is necessary that focus is given to Grade 12, it is also important that the teaching and learning process in all grades should receive more stringent attention.

#### *Too much content to be covered*

Nine teachers from the GET and FET phases highlighted content overload as one of the reasons they were unable to complete the curriculum on time. Again, the blurring between the CT and CAPS was evident. Teachers complained that the content tracked in the CT (based on CAPS) is for an ideal learner while, in reality, most learners are two grades behind their actual grades. This was echoed by one teacher during the August 2016 survey (Figure 8.6).

The same comment was raised during the August Interview of 2017 by one of the teachers:

The work tracked for 60 minutes with my learners, sometimes it takes me two to three days to cover, therefore I am automatically behind the work schedule and it's not my own doing.

b) What are the 3 biggest challenges you have faced this year in getting through the curriculum?

- Learners are struggling with content.
- Number of days away from school (workshop 1+9)
- Moderation → (also teachers Gr 11)

Figure 8.6 Response from AS-2016

Similar sentiments were echoed by a HoD that extra classes at the FET level should be used for remedial work but, instead, teachers were using them to cover the curriculum, thus confirming that teachers felt that there is too much content prescribed within a limited time. These comments raise a serious issue because, if teachers experience CAPS curriculum overload, then the CT may not assist them, since it is tracking CAPS. As a result, teachers may well shift the blame to the CT, as evident in the challenges mentioned above.

*Shortage of learner teacher support material (LTSM) and overcrowding*

Many participants highlighted the shortage of LTSM as a reason for poor curriculum coverage. Of the 14 schools, eight teachers commented that the shortage of books made it difficult to give learners homework and therefore all the work was mostly done as classwork, causing them to fall behind in the prescribed work. Other teachers complained about shortages of other resources, like calculators, as one of the reasons. This concern was also raised in the AS-2016 survey (Figure 8.7).

The shortage of resources was further articulated by one of the teachers during the interviews in 2017. This teacher pointed out that, when learners do not have calculators, even one simple calculation takes them a long time to do because they keep exchanging calculators:

If, as a teacher, you continue before they have discovered the answer, they get confused and so I have to wait for them.

The issue of the shortage of resources might be a real challenge because, when learners do not have textbooks, it will be difficult to do the activities. As one teacher pointed out:

It's good now that the CT is tracking Inzalo workbooks but we do not have Inzalo workbooks for learners, so I cannot give them the activities from Inzalo workbooks.

The above comments highlight the fact that there are many factors beyond the control of the individual teacher that impede the success of any curriculum innovation. Hence, these situational factors need to be addressed in order for teachers to be able to cover the curriculum.

**b) What are the 3 biggest challenges you have faced this year in getting through the curriculum?**

- OVERCROWDING  
- LACK OF RESOURCES BY CALCULATOR

Figure 8.7 Response from AS-2016

Over and above the issue of the shortage of LTSM, teachers raised the issue of class overcrowding as an impediment to curriculum coverage, linking this to the shortage of LTSM. Having too many learners in the class with a shortage of books and other desired resources made it difficult to proceed effectively with the lesson, since many learners could not follow what was being taught and this made it difficult for the teacher to continue with a lesson effectively. An extract from ECU emphasises the concern teachers had with the shortage of LTSM and overcrowding (Figure 8.8).

Many of the challenges participants raised in relation to curriculum coverage and CT use are systems problems which negatively impact on the proper implementation of *Jika iMfundo*. It appears that, even though the CT provides direction and refers teachers to various activities from other resources, without these resources it is difficult for teachers to use the CT for the purpose for which it was intended.

#### *Lack of learner commitment to school work*

In this school learners do not bother with doing homework. Then it means I have to always go over homework with them before I start a lesson and it takes away time prescribed for that particular lesson (comment by a teacher from EMO).

This issue of learners not doing homework was also evident in both of the PILO surveys conducted in 2016. Another concern associated with learners' lack of commitment that impacted on curriculum coverage was the high rate of absenteeism. Some teachers commented that the rate of absenteeism was affecting curriculum coverage because, when more learners were absent, teachers found themselves having to repeat the content taught on those days.

#### *Internal school issues and DBE commitments*

Almost all teachers complained about departmental workshops that they were expected to attend which then impacted on curriculum coverage. In the SR-2015 survey, one teacher commented that, as the facilitator of "1+9", every Wednesday he needed to be away from school to first plan for the facilitation of the "1+9" workshop and then, on Mondays, he needed to facilitate that workshop. This meant that he was at school for

Comments: OVERTCROWDING HINDERS PROGRESS, WE HAVE ABOUT 70 LEARNERS IN EACH CLASS. SOME TOPICS LIKE "CONSTRUCTION" ARE DIFFICULT FOR LEARNERS. NO MATHEMATICAL INSTRUMENTS  
: NO CALCULATORS

Figure 8.8 Response from AS-2016

only three days a week. Below is an extract from a coach during the AS-2016 survey confirming the teacher's claim and how this commitment had affected his lack of curriculum coverage (Figure 8.9).

In addition to the Department of Education commitment, teachers are expected to attend the Jika iMfundo workshops. One teacher commented:

Look, you came here for an interview and you saw for yourself that, when you came, the subject advisor was here keeping us away from classes from morning till 12 pm and from 12 pm now I am having this interview. Today I have not taught these learners, so automatically I am behind and it's because of the Department, but it is me who is expected to make a plan to cover the work.

This comment clearly shows teachers' frustrations with disruptions to their work consequently making it harder to maintain curriculum coverage.

Another point raised by a HoD was that, when teachers resigned or were transferred to other schools, the Department did not replace them immediately. When there was no teacher, there was no teaching taking place and, as a result, the curriculum was not covered. In the August 2016 survey, another teacher raised the issue of internal school problems, such as the shortage of water which forced the school to close early, thus disrupting teaching for the day. The Grade 12 examinations in term 4 were another internal school issue raised by teachers that affected curriculum coverage. Teachers in the GET phase are expected to invigilate the Grade 12 exams and, at times, the furniture in their GET classes is used for these examinations, thus forcing them to start the GET exams early so as to accommodate the Grade 12 learners. As a result, they could not cover the curriculum as expected.

#### *Suggestions by teachers to address curriculum coverage*

One suggestion made by GET teachers to address curriculum coverage was that the Grade 12 intervention programmes should be filtered down to lower grades. Four teachers pointed out that, since they teach across all phases, they cannot have extra classes for every grade. Implementing intervention programmes lower down in the school would help learners understand mathematics at senior level. Another suggestion

Comments:

The teacher also facilitate in District 17a programme. 8 days in term 2, the teacher was not @ school.

**Figure 8.9** Response from AS-2016

was that Subject Advisers should be more supportive, especially at the GET level. Teachers felt that Subject Advisers were not hands-on, especially in assisting them with regard to curriculum coverage.

### **Conclusion**

Our study of CT usage by secondary mathematics teachers and HoDs confirms that mathematics curriculum coverage continues to be problematically low in KZN schools. Our research also confirms that the majority of teachers and HoDs in our sample of schools were not using the Jika iMfundo planners and trackers as intended to assist with curriculum coverage.

A major issue of concern for us as researchers is the disjuncture we found between teachers' self-reporting of CT usage and curriculum coverage and the evidence provided by the learners' books which did not always match what teachers reported they had covered. Also of concern is evidence of inaccurate teacher completion of trackers, endorsed by their HoDs, to meet reporting compliance requirements. This suggests the importance of moving beyond self-reporting to gain more reliable evidence about the implementation of Jika iMfundo in schools.

In exploring what teachers and HoDs perceived to be impediments to their usage of the CT, we found clearly articulated difficulties related to several themes: features of the tracker itself; teacher knowledge and attitudes towards the intervention; organisational conditions within schools; and broader socio-economic contextual issues. What emerged clearly is that most of the teachers and HoDs could identify problems of content overload and fast pacing with the CAPS curriculum and the Jika iMfundo planner and tracker could not assist in remedying these problems. While the CT could highlight coverage problems, it could not solve them. If anything, the CT was identified with CAPS and was folded into teachers' broader frustrations with CAPS. This suggests that there may be limits to what the CT is able to achieve if indeed problems are due to CAPS itself and to conditions in classrooms such as having to teach learners with different levels of understanding in the same class, often summed up as "slow learners". If teachers perceive that the CT limits their flexibility to deal with problems of coverage and pacing, or limits their professional choices, this may well impact upon their willingness to use the CT as intended.

That said, our research shows that most teachers did find at least some benefit from having the CT available to them. Teachers appear to use the CT as a resource for a number of reasons: it provides a convenient tracking tool even if it is not used in planning; it gives additional guidance to teachers on the required curriculum depth; and it points to additional resources including assessments. Thus, we suggest that there is potential for teachers to take greater ownership of the CT if they have the opportunity for more thorough engagement with its possibilities for usage and if the CT were to be adjusted in the light of problems identified, particularly in relation to the requirements of CAPS and the ATP.

Our research suggests that the reflection component of the CT also needs further attention. The continuing challenges teachers expressed with curriculum coverage and the lack of written reflections by teachers might be an indication that HoDs are not using the HoD tools to track curriculum coverage and to conduct professional conversations with teachers. It is from the reflections that HoDs can get a better understanding of the challenges experienced by teachers so that they can discuss how they could address the issues they face. However, if a HoD does not use the teachers' written reflections as a meaningful basis for professional conversations and future planning, then teachers are not likely to see the need to engage in the time-consuming reflective activities.

An important finding of our research is confirmation of the positive correlation between curriculum coverage and learner performance, as highlighted by other studies mentioned in our literature review. Though very few schools in our study used the CT routinely, those that did seemed to be on track with curriculum coverage, while those with minimal or inconsistent usage of the CT also showed minimal coverage of the curriculum. Though the schools in our study generally showed low levels of curriculum coverage, our study confirms that coverage is an important focal point for improvement. This confirms the KZNDoE's concern to develop an effective strategy for monitoring curriculum delivery and its partnership with PILO to support curriculum coverage through the Jika iMfundo intervention.

That said, the above findings confirm the issues we set out to explore: that the Jika iMfundo model has not yet been implemented as envisaged by secondary mathematics teachers and HoDs over the period of three years and curriculum coverage of secondary mathematics is generally poor. Our study suggests that a supportive organisational environment and accountability by all stakeholders are necessary conditions for the successful implementation of Jika iMfundo. As noted in the NEEDU report (2017), schools that do well are those that carry out the ordinary functions properly. It is imperative that HoDs and lead teachers, who have been trained on the utilisation of the Jika iMfundo tools, should be regularly supported by the districts to ensure that all teachers, old and newly employed (novice) teachers, are adequately trained on the value and effective use of the CT.

Many of the challenges of curriculum coverage identified by teachers and HoDs are systems related and these affect the implementation of Jika iMfundo. In our study, teachers identified numerous disruptions caused by factors such as attending too many meetings, monitoring visits by projects, learner and teacher absenteeism, as well as reorganisation of the school for the Grade 12 exams. It is clear that teaching time should be prioritised and teaching disruptions should be minimised as much as possible by all stakeholders. Teachers also identified problems with shortages of LTSM and the challenges of curriculum coverage in an under-resourced or poorly managed system. The effects of poverty and general socio-economic problems provide contextual difficulties for most of the schools in our study.

There is a need for seamless synergy between the Jika iMfundo programme and the KZNDoe. If all Subject Advisers could adopt Jika iMfundo, participate in the training sessions, distribute the same teaching and learning tools to mathematics teachers and HoDs, encourage the use of the CT and speak the same language as Jika iMfundo, then some of the confusion around expectations and requirements on teaching, learning and assessment may be alleviated. However, this still leaves the challenge of addressing system-level problems that lie beyond Jika iMfundo itself.

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## District support for curriculum management change in schools

*Anne Mc Lennan, Mike Muller, Mark Orkin and Hanlie Robertson*

Through the conversation, the Circuit Manager is able to understand our challenges. She also directed us to areas where we could improve. This was shared with the School Management Team and educators. The Circuit Manager will be looking at this at the next follow up meeting (Comment by Principal, Programme to Improve Learning Outcomes [PILO], 2016 internal review of secondary school Principals, 2017).

This comment reflects the Theory of Change that drives the Jika iMfundo Campaign, as well as the role of districts in improving learning outcomes through scaled system-wide interventions. The working Theory of Change for Jika iMfundo is that “constructive professional conversations”, based on evidence and leading to action, shift curriculum coverage routines and patterns of support within schools and between schools and districts, to improve learning outcomes. The programme of interventions is systemic, working with all schools, circuits and district officials in the two districts of King Cetshwayo (KC) and Pinetown (Pt) in KwaZulu-Natal.

Jika iMfundo district support is an integral part of the overall change strategy in the two districts. The purpose of the support is to build the capacity of circuit specialists (CES/CMCs) and managers (CMs) to provide institutional curriculum management support. The goal is to develop new, more professional (cooperative rather than bureaucratic compliance) ways (behaviours) of supporting schools. The PILO team used

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various strategies, including capacity development workshops and coaching, to build the confidence of CMCs (circuit clusters/centres) to take leadership of curriculum coverage practices in circuits and build CM accountability to schools and vice versa (see Figure 9.1). Circuit managers (CMs), the focus of this study, developed tools to guide school visits and were assisted to monitor, supervise and support Principals in solving problems related to the management of curriculum coverage. Each intervention – within the school, as part of district support and in the province – was supported and reinforced upwards and downwards to change practices and establish new curriculum coverage routines.

The significance of the Principal’s statement, quoted above, is that interventions at district level (and in schools) may only be seen in relationships and routine practices several months later. While there is evidence of changes in routines influencing curriculum coverage in schools, it is difficult to correlate these with shifts in district support. However, research suggests that districts, particularly empowered Circuit Managers and Subject Advisers, are important levers for change in complex, unequal and dynamic contexts (Leithwood & Azah, 2017; Moorosi & Bantwini, 2016; Fullan, 2015). However, the ability of districts to monitor, report and respond (MRR) proactively and in support of schools, can be limited by institutional structure, as well as

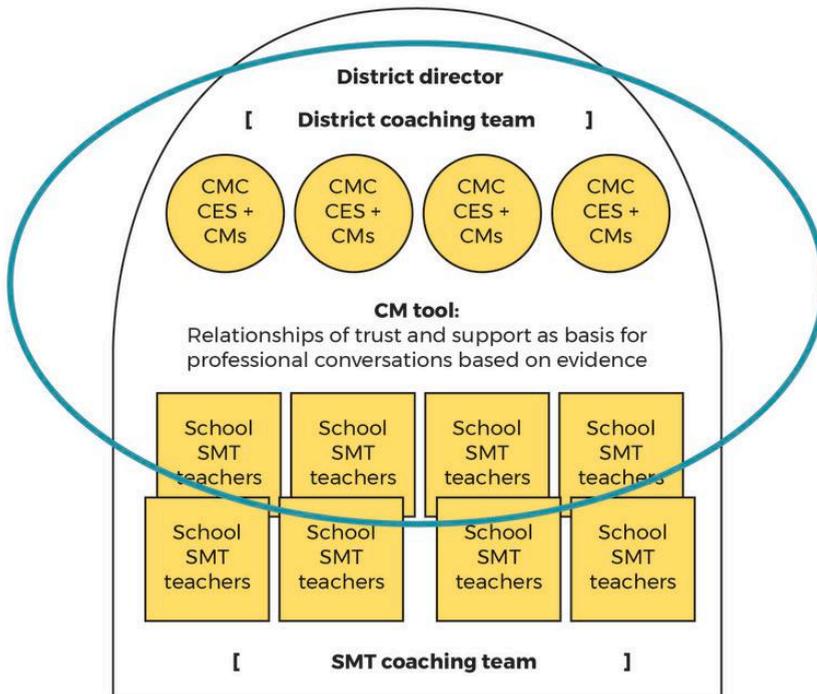


Figure 9.1 Jika iMfundo district support

bureaucratic, compliance-driven working cultures. CMs and Subject Advisers (SAs) with different line loyalties tend to work in silos in supporting schools. In addition, there is the ever-present tension between ensuring compliance to curriculum policy and providing support.

Many researchers and policy decision makers view districts as critical supports for learning improvement (see, for example, Fullan, 2015; Corcoran, Fuhrman, & Belcher, 2011; Gustafsson & Taylor, 2016). Similarly, the South African *Policy on the Organisation, Roles and Responsibilities of the Education Districts* (300 of 2013), which provides guidelines on the size and staffing of districts, as well their administrative and professional support roles, assumes that district planning, support, oversight and public engagement will contribute to learning improvement in schools. However, there is a gap between these policy intentions and realities on the ground, as many districts lack the resources and capability to provide professional curriculum management support (JET, 2014; Prew, 2012; Moorosi & Bantwini, 2016). To examine how and in what ways districts and CMs may enable and support curriculum management change in unequal and resource-scarce conditions, this chapter seeks to explore the effects of the Jika iMfundo district change programme on the curriculum management relationships between schools and circuits. While it is too early to establish strong correlations, it is possible to explore whether assumptions about the role of districts, as a change lever, are plausible with a focus on the ways in which districts and schools connect to improve learning through professional accountability.

### **Can districts be developmental?**

South African policy on education districts accords with a global conviction about the developmental role of districts in helping school leadership to deal with curriculum coverage and management challenges. Districts, as intermediaries between National and Provincial Departments on the one hand and schools on the other, are required to implement curriculum policy by monitoring progress, as well as to provide support to schools struggling with curriculum management. The underlying rationale is that Principals, as instructional leaders, build a conducive teaching and learning environment, and districts set goals, monitor and support where necessary. Fullan (2015) refers to this as “leadership from the middle” – the top being the state and the bottom the school – depending on the country context. What is common is the idea that districts can and should drive and support curriculum management and coverage in schools as part of “a deliberate strategy that increases the capacity and internal coherence of the middle ... in pursuit of greater system performance” (Fullan, 2015, p. 24). Elmore (2016) is more sceptical about a system approach that is flexible enough to accommodate different school contexts.

International best practice suggests that districts can be catalysts and supports for development and learning improvement (Bates, 2013; Glewwe & Muralidharan, 2015; Pritchett, 2015). However, much of this literature works from the experiences of the

USA and other developed countries (see Moorosi & Bantwini, 2016; Anderson, 2003; Rorrer, Skrla, & Scheurich, 2008). A key difference between South African and USA district systems is that, in South Africa, district leaders are not elected. District officials are educators promoted upwards in the system and are subject to a line accountability that is different from democratic review. Historically, districts and circuits, much like provinces, were either conduits of national policy, or the police of teaching and learning (Mc Lennan, 2003). Despite a strong policy commitment to decentralisation and school autonomy post-1994, districts have been consistently under-resourced and focused on compliance (Chinsamy, 2002). The policy on districts (DBE, 2013a) reinforces the role of districts in the delivery of quality education, without due consideration of district officials' capability and reality (Bantwini & Diko, 2011; Moorosi & Bantwini, 2016). The kind of professional support envisaged is uncommon in practice. District offices are mandated in Section 20 of the Act to

work collaboratively with Principals and educators in schools, with the vital assistance of circuit offices, to improve educational access and retention, give management and professional support and help schools achieve excellence in learning and teaching.

Even in stable and better-capacitated conditions, a tendency for district offices to limit change due to over-bureaucratisation of work processes, internal politics and weak capacity has been noted (Narsee, 2006; Ouchi, Cooper, & Segal, 2003). Globally, traditional line authority has shifted to a focus on performance or compliance reporting to ensure accountability and control outcomes. More and more measures are generated and evidence gathered to show where the improvement is or is not occurring. Districts have become the locus where much of this information is demanded from schools for reporting purposes up the system. However, an excessive focus on compliance can redirect the core work of districts and schools away from support by structuring the organisation of day-to-day routines towards compliance. This means that the greater the emphasis on compliance, the less on professional responsibility (Flinders, 2011; Popkewitz, 1996). Professionals, bogged down in meeting stipulated and monitored requirements, revert to compliance rather than professional judgement. In the process, professional agency is lost as teachers, Principals and officials work to rule.

In the South African context, the general lack of support to schools by districts, in the face of perpetual accountability demands, has been emphasised by researchers (see Bantwini, 2012, 2015; Bantwini & Diko, 2011; Christie, 2010; Christie, Sullivan, Duku, & Gallie, 2010). Nevertheless, the district provides an important social context for school change which influences what Principals know and how they use their knowledge (Mangin, 2007). Evidence confirms that district leadership matters when it comes to driving curriculum reforms, as well as improving schools and student learning (Anderson, 2003; Elmore, 2000; Bottoms & Schmidt-Davis, 2010; Fullan, 2016). This is

also true for achieving greater educational quality in the context of emerging economies (Moorosi & Bantwini, 2016). The insight generated internationally that "... many Principals cannot be successful without the best possible district leadership" (Barber, Whelan, & Clark, 2010, p. 3) signals the importance of districts as enablers of school performance (Anderson, 2003; Leithwood, 2010).

Academic research on district support, school change and improving learning outcomes continues to argue, in the main, that strengthening district support capability, alongside school autonomy, has been and still is an effective lever to achieve positive education outcomes through oversight processes which track progress and ensure accountability. For example, Pritchett (2015) suggests that education systems that focus on learning can only be achieved if "greater control [is given] to local officials, parents and teachers." Changing school routines to focus on curriculum coverage for learning arguably requires different kinds of support skills and abilities. These should be located within districts but also across the education system, linking into schools and districts (Pont, Nusche, & Hopkins, 2008). If districts are the drivers of reform, the capacity and level of influence of the district should be indirectly proportional to the number of effective schools. Anderson (2003, p. 5) concludes that "there is a notable convergence in findings around common strategic principles and policy-linked actions correlated with success." He also points to efforts to synthesise case research on district roles and effectiveness in the current standards and accountability-driven reform context (see, for example, Marsh, 2002; Hightower, Knapp, Marsh, & McLaughlin, 2002).

Some evidence has been produced in support of a Theory of Change that links effective districts to improved educational performance, suggesting the causal relationship that has been lacking thus far (see for example Gustafsson & Taylor, 2016; Kanjee & Bhola, 2014; Leithwood & Azah, 2017). District leaders, pursuing a well-articulated long-term strategy for improvement, have been found to link to student performance in ethnically and economically diverse settings (Leithwood & Azah, 2017). Numerous studies (see, for example, Anderson, 2003; Murphy & Hallinger, 1988) cite the potential for the district office to support learning if correctly configured. Spillane (2004) points to the powerful influence exerted by school district officials on the degree of coherence (or confusion) in instructional practice and guidance provided to teachers. Effective districts provide direction and support to the schools, including the provision of job-enabled professional learning, facilitating professional learning opportunities, building of a professional community, addressing problems with administration and implementing standard operating procedures (Murphy & Hallinger, 1988; Anderson, 2003; Clarke & Wildy, 2011).

Various studies identify the characteristics of instructionally effective and highly supportive districts. For example, such districts build school leaders' confidence in their ability to succeed and support the belief that improved curriculum practices are important for their students' futures (Bottoms & Schmidt-Davis, 2010). The focus is on student achievement across the district (Leithwood, 2010) through an emphasis on

instructional support and coherence – curriculum management, as well as trust-based professional relationships (Leithwood & Azah, 2017). This creates a shared commitment to build SMTs to achieve high standards for learning, teaching and leadership (Clarke & Wildy, 2011). Monitoring data are used to enable schools to improve, as well as identify those that need support (Bottoms & Schmidt-Davis, 2010; Leithwood, 2010). Schools that improve against the odds in difficult circumstance are acknowledged and used for learning across the district. They promote a spirit of collaboration between district officials and Principals for school improvement (Duke, 2010; Leithwood, 2010; Waters & Marzano, 2006).

Districts that are developmental and effective in supporting learning improvement tend to have the professional and operational capability to build supportive relationships with Principals (Khosa, 2013). In South Africa, this capability is varied and stretched. Many district institutions have been shaped by the history and context of the province and the locality. Most district teams include corporate functions, specialised education services, governance and management development, and, most importantly, subject and curriculum support (Mthembu, 2014). Districts are responsible for implementing all aspects of education operations, including curriculum, finances and resourcing, but have limited scope beyond planning and focusing goals to district contexts (Khosa, 2013). Although district policy is an explicit attempt to respond to inequality and uneven capacity by providing norms on roles, authority and resourcing, many districts lack the resources and capacity to meet these basic requirements for school support. Inequality between districts and provinces can be entrenched by the uneven distribution of resources and professional capacity to support learning. For example, ratios for district officials to support schools can range from 1 to 30 to 1 to 100 (DBE, 2013).

Districts are caught between their responsibility to ensure policy implementation within a bureaucratic structure that requires them to work and report upwards to the PED, and to provide critical support to schools challenged by poverty and poor teaching and learning practices (Mthembu, 2014). The frustration inherent in this role has shaped how district staff view their ability to contribute. Historically, district officials have a negative association as an inspectorate with a biased process of performance management. This association undermines relations of trust between district officials, Principals and teachers. Focus group research on levers for change (WSG & BRIDGE, 2016) showed different relationships between schools and districts in better resourced areas. Schools in rural areas feel that districts do not provide adequate support. For example, parents from the schools in Limpopo believe that district Circuit Managers do not provide help with the rebuilding of dilapidated schools – “parents and SGBs never get clear answers regarding when services will be delivered.” Principals and teachers note that the district only came once a year to check how far they were with the curriculum because they do not have the means or resources to come to the rural areas. Learning and social mobility also reflect these divisions (Moses, Van der Berg, & Rich, 2017).

**Jika imfundo district capacity building and change management intervention**

The district support programme was designed by PILO in response to on-the-ground realities to change the working practices of CMs to support schools through better planning, regular school visits, conversations based on evidence, improved reporting, sharing and reflection. We present this case to relate some of the practical learnings to the insights generated from the international literature. The research makes the conceptual assumption that institutionalised daily routines and interactions shape relationships. System interventions that introduce new routines must be embedded to shift practices and create new support dynamics. Evidence of developing relationships of trust and support between schools and districts will provide a new perspective to the work linking effective districts and improved school performance.

The qualitative data available for the case study were collected by PILO in the form of interviews and routine reviews of interventions across schools and districts, over a period from 2015 to 2017. An analysis of the comments on captured reviews, as well as transcribed interviews, provides insight into the perceptions of Principals and CMs about the programme. This allows an examination of some of the challenges that emerge as the intervention proceeds, a gap that has been identified in the “salient features” literature (cf. Corcoran, Fuhrman, & Belcher, 2011). In addition, during 2017, one of the authors attended a series of CMC meetings in the two districts, as well as workshops with school and district coaches. These, too, provide insight into the challenges.

Among the varieties of quantitative data gathered by PILO were the school-level assessments made by CMs, reflecting their visits in the first and third terms of 2016, to schools within the circuit assigned to them (see Table 9.1). The CMs’ assessments cover curriculum management and general management at the schools under four and seven headings respectively, using the CM Tool which is intended to provide the evidence for constructive conversations about curriculum coverage and management. It contains several questions per heading and is 14 pages long. It is signed off by the school after completion. The statistical analysis focuses on General Management (section B) with scores from the CM Tool aggregated per school under seven headings. The quantitative analysis concentrates, for simplicity, on four of these headings: SMT and Planning (Strategy), Relationships, Finance, plus the total of all seven headings.

The data from PILO had to be extensively cleaned to combine school data and CM Toolkit data. The school names had been entered manually in each set of data and contained many variations in the way names were entered, as well as typing errors.<sup>1</sup> A number of variables that could potentially have been valuable for the quantitative analysis proved to be unusable owing to large proportions of missing information or a lack of variation in the responses. Apart from the first-time inexperience of the CM assessors, the latter problem suggested that the possible responses supplied for the particular items could have been better formulated (Lietz, 2008). Recommendations arising from this examination of the data, as the project is enlarged, are that common

numerical codes for schools be used in all data sets, that the questionnaires be piloted to ensure that a sufficient range of responses is obtained, that checks are made for missing information at an early stage and attempts are made to obtain more complete data.

Two serious limitations have to be noted with the data available at this early juncture. First, scoring on items in the CM Tool in the first round of visits tended to be uniformly high. There is more plausible differentiation in the scores from the second round, as CMs gained experience and could be more discerning. Secondly, there was a serious drop-off in schools that were recorded as having been visited for the second round: 36% of the schools had second-round scores (33% for Pt and 39% for KC). Further research would establish possible tendencies in the nature of schools under-visited. For both these reasons, the analyses of *change* in the schools offered below are made by way of illustration, of what will be possible subsequently. But, they are worth considering on their merits, nevertheless, for their possible implications, given the rapid pace at which the project is being expanded. The data were analysed in terms of repeat visits to schools by CMs, by quintile, for each district and then by CMC to find possible correlations or learnings. Numerous other correlations may be sensibly drawn to discern any salient insights and assess the reliability of various measures for possible future use. In addition, the statistical tests on the CM Tool scores indicate which of the illustrative findings from the current data are statistically significant. These flag potential concerns for future management and prioritisation.

<b>A. CURRICULUM MANAGEMENT</b>						
Planning & tracking	Supervision & teamwork		Assessment			
Monitoring by subject & phase	Supervising and supporting HoDs		Assessment plans and programme			
Planning tools for HoDs & teachers	Staff development plans		Internal moderation			
<b>B. GENERAL MANAGEMENT</b>						
SMT & planning	Relationships	Staffing	Attendance	Finances	LTSM	Infra, safety & security
Meetings & agendas	SGB activities	PPN	Learner attendance	Expenditure management	Records & challenges	Maintenance & repairs
Performance & targets	Parents	Forecast	Teacher attendance	Records		Safety and security

**Table 9.1** Circuit Manager Tool summary

The two districts together have 1170 schools of which 65% are primary. The schools fall into 37 circuits, averaging 26 schools per circuit. King Cetshwayo (KC) has 659 schools in 22 circuits arranged under five CMCs. Pinetown (Pt) has 502 schools in 17 circuits arranged under three CMCs. Physical and staffing resources are limited in many schools and districts. A key resource challenge for KC is staff and travel distance. For example, there are five Subject Advisers for 470 schools in foundation phase, one for 696 schools for Grade 8 and 9 maths and two for 226 FET schools in English FAL. Pt is not much better off with four Subject Advisers for 383 schools, three for 556 and two for 173 schools. CMs are more numerous, but many of the posts are vacant. This leads to the CES acting as a CM, or Principals being seconded into acting CM positions (CMC meeting notes, July 2017).

Table 9.2 indicates that most schools in KC are more than 25 or up to 50 km away from the district office. In contrast, in Pt, most schools fall within a 25 km or less radius. In addition, while schools in KC have water, electricity and security, only 15% have access to any form of sanitation or waste removal (DBE, 2015). Similarly, 69% of district households have no refuse removal and 53% have inadequate sanitation. Pt does not have the same sanitation challenges, but still, 25% of schools do not have any toilet system at all. In addition, less than 25% of district households, on average, lack basic services (DBE, 2015).

In the two pilot districts, a district coaching team worked closely with the District Director and CMCs to build commitment to change (agency), as well as capacity to do the same work in a different way (using evidence-driven conversations as a basis for action, as well as reporting, sharing and reflecting). PILO attempted to capacitate officials to work in multifunctional teams across silos, to use school data to prioritise and solve problems, and to direct appropriate support and resources to schools. This involved change management, to support the district to absorb and make changes,

	KC		Pt	
	Number	%	Number	%
Distance from DO				
Less than 5 kms	19	3%	35	7%
Between 5 and 10 kms	16	2%	74	14%
Between 10 and 25 kms	160	24%	342	64%
Between 25 and 50 kms	211	31%	85	16%
Greater than 50 kms	266	40%	0	0%
Average distance to DO	4.8 kms		1.7 kms	

**Table 9.2** Distance of schools from the district office  
*DBE district profiles, 2015*

as well as capacity-building and practices to drive and guide the district to manage the system, through school monitoring and support, in a way that effectively drives improvements in curriculum coverage (and thus learning outcomes).

The process includes:

- The signing of **district agreements** to ensure that the leadership of the province and the districts mandate the start of the work.
- **On-boarding workshops** which comprised two parts. The first involved visits to schools in another district to see how schools perceived district support practices. In part two, officials workshopped their own practices and identified what it was they wanted to stop, start or continue. This led to district charters (see Figure 9.2).
- The election of **champions’ teams** responsible for driving the PILO programme through the district structures and to be the interface between the district office and the PILO support team. The champions are supported by working groups made up of senior members of each district and are supported by the PILO support team.
- **Quarterly leadership sessions** to strengthen the district leadership team by building trust, change management capacity, better decision making and managing the risks of change.

The CM Tool is a primary resource which was co-developed with CMCs to provide the evidence to support the professional conversations (see Table 9.1). The intention is to reorient schools towards professional accountability by using evidence as the basis of the conversation for school visits and build instructional leadership skills:

Our Circuit Managers have developed the Circuit Managers’ Tool which they call ‘district diagnostic tool’ because, at first, our Principals did not understand that curriculum management is part of their work; they saw themselves as managers for general management not curriculum management (District coach, 24 September 2016).



Figure 9.2 District Charters

In addition, the Tool enables CMs to classify schools in the form of a “heat map”, providing a quick way to identify schools most in need of support. The scores of each school are recorded on a matrix and these are colour-coded red, amber and green using defined cut-points for each performance area. For example, the variable Strategy is scored out of sixteen; and scores of thirteen and over are coloured green, scores from eleven to seven are coloured amber and scores of six or lower are coloured red. There have been two rounds of scoring, earlier and later in 2016.

Figure 9.3 demonstrates where and how the PILO team supported the department to improve within the existing system and context. The Theory of Change assumes that agency, a clear focus on curriculum coverage management and the responsibility to drive change is activated via PILO support and leadership workshops and appropriate tools and training. Training is supported by on-site coaching. Sharing is encouraged to show the possibility of reaching goals in real resource constrained working contexts.

At every stage of implementation, a conscious attempt is made to locate responsibility and accountability where it will remain. Circuit Managers are empowered to monitor, report and respond (MRR) to curriculum coverage challenges in schools by working with Principals and SMTs. The goal of using data for monitoring and reporting is to enable the district to support schools on a differentiated basis, responding appropriately from where schools are to identify achievable goals. The districts should be able to segment schools in terms of the strength of their ability to improve curriculum coverage. Steps 3 to 9 in Figure 9.3 provide a schematic of the district development process.

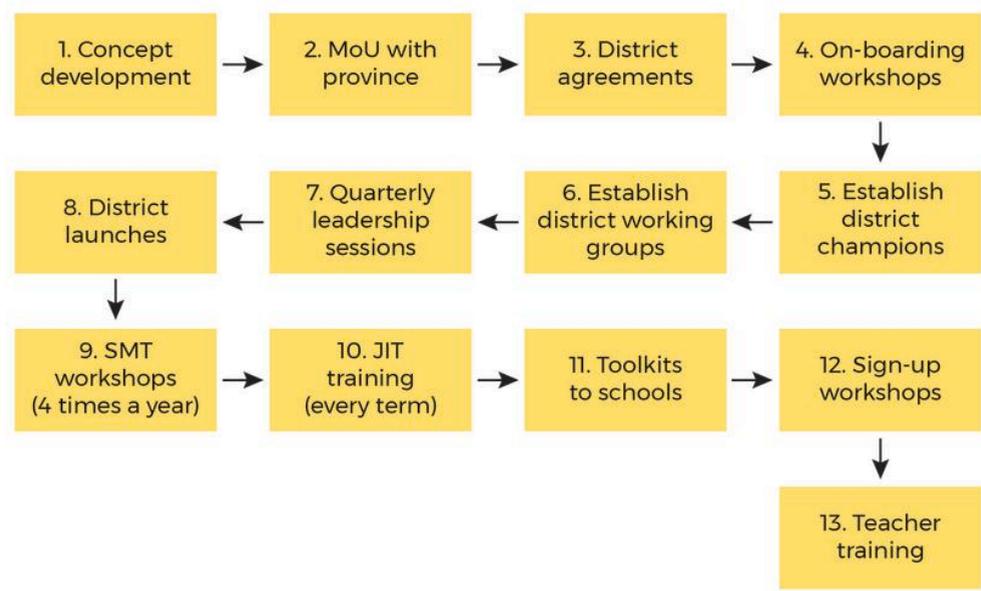


Figure 9.3 PILO change intervention

### **Can the districts leverage curriculum management change?**

The qualitative and quantitative analysis of the intervention explores whether Jika iMfundo has influenced how districts and CMs might enable and support curriculum management change in unequal and resource-scarce conditions by building professional, supportive relationships between schools and circuits. The case presented provides a description of the intended goals of the programme, as well as the implementation and rollout process. This section provides an analysis of these interventions, using the key characteristics of supportive districts as a guide. The primary support offered by districts for curriculum coverage includes professional engagement through productive and collaborative working relationships; coherent curriculum management support enabling Principals to share challenges; and the collection, review and analysis of evidence of progress. One of the challenges highlighted in the research process is how PILO tracks whether CMCs and CMs are building productive relationships and helping to change routines in schools.

In this study, evidence of changed routines related to curriculum coverage conversations, reporting, sharing and reflecting practices are: 1) whether meetings, within CMCs and between CMs and Principals, are consistent and provide space for the discussion of curriculum coverage and management meetings; 2) if Principals and others perceive their relationship with CMs to have improved and, more importantly, have been assisted in dealing with curriculum management problems; and 3) what the CM Tool heat maps reveal as a dashboard for identifying curriculum challenges. The socio-economic context and district management and leadership cultures also shape practices. Together, these provide a “picture” of a possible shift away from compliance towards learning improvement. They enable us to explore if Jika iMfundo interventions are gaining traction in the shape of changed relationships and practices and tentatively identify possible lessons for learning improvement and system change.

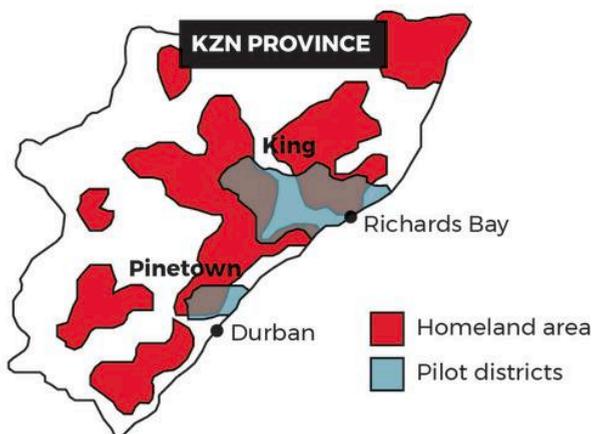
### **District contexts**

It is common knowledge that the socio-economic, political and historical context can affect change interventions. One challenge for Jika iMfundo is to be flexible enough to manage this. School and district systems are diverse and work well where they work (usually well-resourced public or independent schools) or are fragmented where they do not (most schools) (WSG & BRIDGE, 2016). The KwaZulu-Natal (KZN) system is no different, but has its own contextual challenges as an amalgam of the legacy of provincial, Bantu and homeland education systems. When the provinces were rationalised post-1994, KZN integrated three provincial Own Affairs education departments (for whites, coloureds and Indians), the provincial Bantu Education department and the former homeland of KwaZulu. Figure 9.4 shows that a sizeable chunk of former homeland schools fall into both districts. However, KC, as a largely rural area, is more affected by poverty than Pt. KC is characterised by traditional and urban settlements with some urban areas. Pt is urban with informal settlements and

some traditional rural settlements. A large portion of Pt (one-half of the Ethekwini Metro) comprises formerly white and Indian own affairs schools which were better resourced.

Inequality and poverty impacts on learning, in terms of family and community resources to support learning and in terms of school resources for learning (Moses, Van der Berg, & Rich, 2017). The consequences are mediated in the schooling environment in terms of what resources exist, how they are used, what CMs can do and what teachers and learners do in classrooms (Van den Berg et al., 2016). Resource distribution and socio-economic context is reflected in the classification of schools into the quintiles (Q) indicating the level of poverty in surrounding areas – Q1 to Q3 are no-fee schools and Q4 to Q5 are fee-paying.

In this regard, Pt and KC are opposite. Descriptive statistics of schools in relation to quintiles show that 39% of schools in KC are in Q1, compared to only 1% in Pt. Conversely, 9% of schools are fee-paying in KC, whereas, in Pt, the proportion is 51%. Nine out of ten schools in KC are no-fee schools and the corresponding proportion for Pt is less than half at 48% (see Figure 9.5). There is great variation between circuits in Pt in the proportions of Q5 schools, the highest by far being Mafukuzela Ghandi, with Umhlathuzana the lowest, reflecting historical apartheid divisions for white, Indian and homeland areas and administrations. Figure 9.5 illustrates the proportions of schools per quintile, showing, for example, that within the CMCs of KC, there is great variation in the proportions of Q1 schools, with the main concentrations in Nkandla and Umlalazi, the heart of the former Zulu homeland.



**Figure 9.4** Pilot districts overlaid with homeland departments

Research over decades has debated whether supposedly unbiased proficiency tests at school – literacy, numeracy, etc. – are, in fact, biased against children from disadvantaged home backgrounds and/or in disadvantaged schools (see for example Reddy et al., 2015). Quintiles of schools, as defined, are an indirect measure of both at the same time. Do the ANA test results vary in this way, by quintile? On this data, the findings are both revealing and mixed. The following results incorporate testing with analysis of variance (ANOVA) to see whether differences are statistically significant or not.<sup>2</sup> Looking at the left panel of Figure 9.6, for primary schools, one sees that ANA3-Maths and ANA6-Maths scores are significantly higher in Q5 schools than in Q1-4 schools. Other research (Reddy et al., 2015) has shown that Q5 schools are indeed markedly better off and have more advantaged catchment areas than the other four quintiles – and evidently in the two districts, the benefits do carry strongly into maths performance.

By contrast, the ANA3-English scores do not differ significantly across schools in the five quintiles. This is also true for ANA6-English scores. But ANA3-Zulu scores have an oddity: the scores do not differ significantly across Q1-4, but scores in Q5 schools are significantly lower. Perhaps fewer children at Q5 schools are home-language Zulu-speakers. When differentiated by district, ANA scores do not vary significantly between Pt and KC at primary level, but are higher in Pt than KC at secondary level. As expected, they inter-correlate well across levels. Looking at the right panel of Figure 9.6, for secondary schools, one sees that ANA9-English scores are nearly flat across the quintile range and, statistically speaking, are indistinguishable. Finally, one needs to look at the graphs more broadly and notice the relative heights of the lines with respect

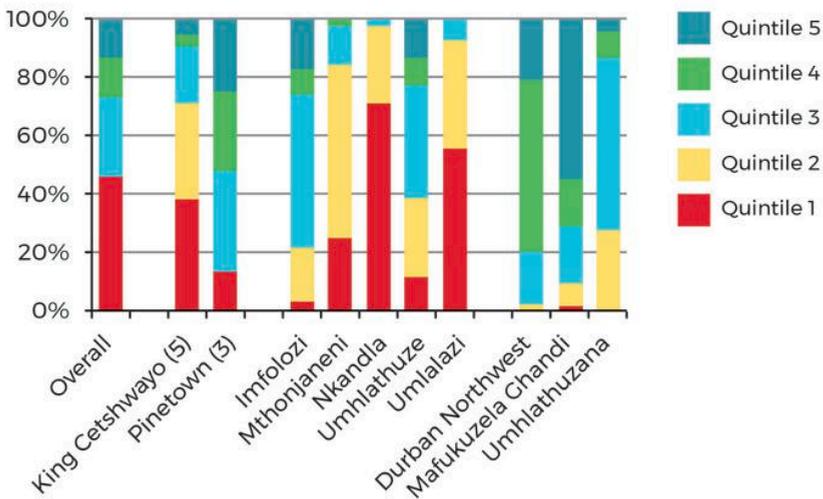


Figure 9.5 Distribution of schools by quintiles: overall, districts, CMCs

to the vertical axis. Excepting Q5, average scores are approximately 60% for ANA3, 45% for ANA6, 30% for ANA9-English and a disturbing 11% for ANA9-Maths. This trend highlights the urgency of prioritising learning improvement by capacitating CMs and SMTs to support the instructional core.

An additional contextual factor in the take-up change interventions in CMCs and among CMs is the leadership offered by the District Director. KC had the same director for the duration of the interventions enabling the coaching team to work closely with the CMCs to support CMs on their change journey. He was committed to the Jika iMfundo Campaign and actively drove change with his change team, as well as the

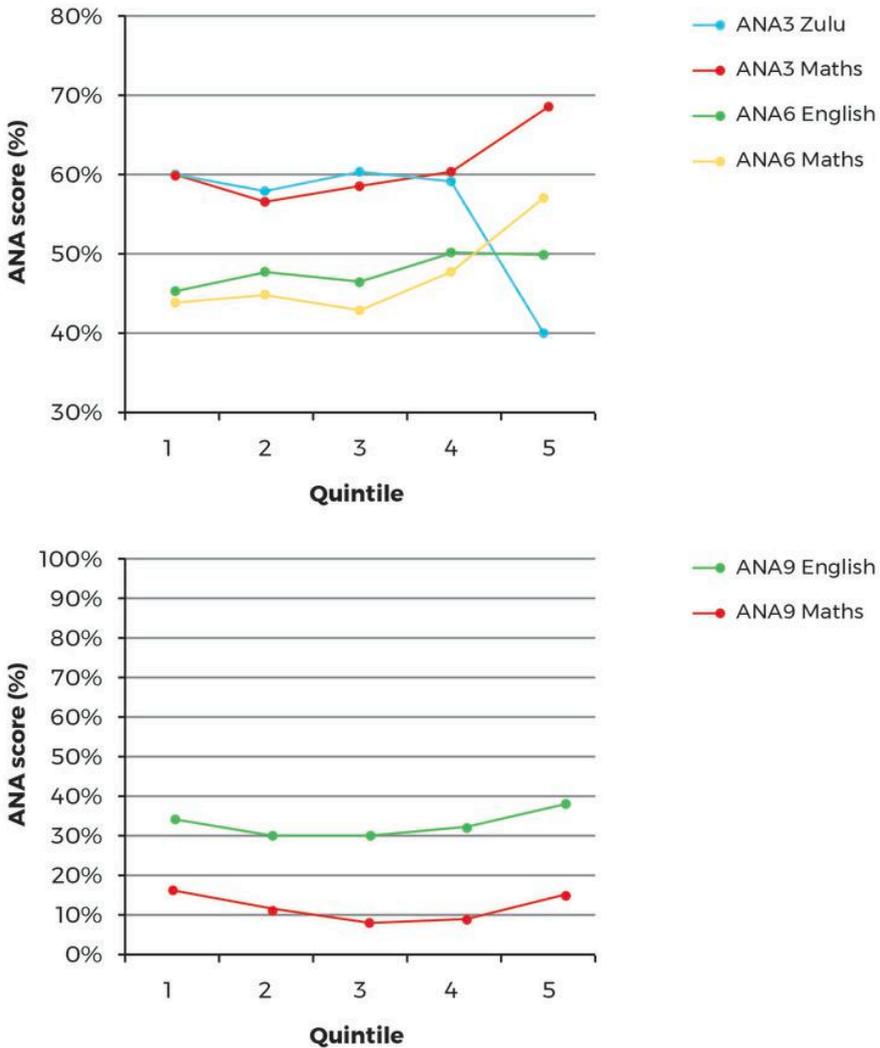


Figure 9.6 ANA scores broken down by quintile, for primary and secondary schools

CMCs. In contrast, Pt was beset with leadership challenges driven by internal politics evident in changing District Directors and numerous CM vacancies. The Pt District Coach notes (Interview transcript, 23 September 2016):

... the situation of Pinetown led to continuous change of district director in the past two years and acting people. We have had about four up to this point. ... The role of district director is important within a framework of being in authority and an authority, due to position and also being competent and skilfully driving that process towards change.

### **Meetings**

A key purpose of the intervention was to enable CMCs and CMs to have professional, supportive conversations about the curriculum with Principals and SMTs, as well as plan and schedule visits, meetings and report backs. There is evidence from the various district management and CMC meetings to suggest that curriculum coverage is a standing item on meeting agendas, if not the primary focus for planning and engagement. For example, at a KC district management meeting in Empangeni on 1 June 2017, CMCs reported that they have regular weekly or biweekly meetings with CMs to discuss curriculum management (among other issues). One suggested that these meetings enabled him to “know what is happening in the schools.” Pt CMCs also noted the weekly meetings at a similar meeting on 2 June 2017. One CMC CES noted, at a meeting on 2 June 2017, that “we are in a terrible space – we are not coping” in reference to having three out of four vacancies.

However, the meetings still seem to focus strongly on the lack of human (and other) resources in circuits and schools, as well as a need for stronger “consequence management” for defaulting schools or poor performance. Working away from authoritarian line instructions to professional conversations based on evidence is a continuous challenge. One KC CMC said, “You sometimes have to be harsh to get them to implement” (21 June 2017). Some of the schools interviewed suggest that districts are more focused on curriculum management but there are still gaps in understanding:

We do not have a common vision and do not make use of the same instruments. They come in with their own instruments, which are different, and if he just does not understand your instrument, he just leaves it as it is. That is what I have noted so far. The district officials are more concerned about numbers, not quality, whereas I am more worried about the skills learners acquire (Interview transcript with school 10 Principal, 19 November 2016).

The CM Tool does seem to have provided a useful basis to start conversations about curriculum coverage and management from some CMs and schools:

This programme has not only brought the Circuit Manager closer to the school but it has made the Circuit Manager understand better the challenges that Principals face. The Circuit Manager has now reason to visit and monitor the school progress based on the MRT findings (Interview transcript for school 13 Principal, 25 November 2016).

However, visiting consistency varies across circuits, perhaps due to a combination of CMC CES leadership, as well as resource availability. In the round of CM visits to schools in early 2016, nearly all schools in the analysis dataset were reached: 947 out of 968, that is, 97.8%. But, in the late-2016 round, only 347 (36%) of the schools were re-visited. The proportions were 32.8% for Pt and 38.6% for KC perhaps reflecting the different leadership cultures. The reasons for this decline in visits may be related to the difficulty of working in district contexts where officials are constantly battling vacancies and crises, or a consequence of leadership and management. This is reflected in the variation between CMCs in Table 9.3 where Durban Northwest in Pt and Mthonjaneni and Umhlathuze have revisit rates over 50%. Timing, as well as other priorities, means that visits may slide, or take place in different forms – such as over the phone. Most CMs are preoccupied with National Senior Certificate (NSC) exams in the fourth quarter.

### Perceptions about change

A primary focus of the intervention in districts is to change the working relationships within and between schools and districts to build learner focus, and professional and reciprocal accountability. Most circuits and schools have norms and routines which define the way things work. Many of these are rooted in the struggle against apartheid education. Cultures of mobilisation, entitlement and dependency continue to define

District	CMC	% revisit
Pinetown Ave. 32.8%	Mafukuzela Ghandi	19.0%
	Umhlathuzana	26.2%
	Durban Northwest	52.2%
King Cetshwayo Ave. 38.6%	Umlalazi	13.6%
	Imfolozi	18.3%
	Nkandla	35.5%
	Mthonjaneni	51.9%
	Umhlathuze	58.9%

**Table 9.3** Re-visit proportion by CMC

relationships in many schools and departmental contexts. The difficult experience in Pt, with shifts in leadership and political positions, demonstrates the effect of deep-seated and underlying tensions based on “historical professional animosity and persistent mistrust” (PILO Workshop Notes, 10 May 2017). The consequence of this is that the intervention had far less traction at district level Pt than KC. This is less evident at school level in relation to SMT training. Collaborative relationships between CMs and CMCs also vary. This is demonstrated in a lack of trust in the accuracy and validity of CM reports on school visits. Also, as shown in both district charters, CMs and SAs work in silos, often duplicating visits, instead of sharing resources and knowledge.

Many of the values which characterise collaboration – trust, reciprocity, tolerance and accountability – were eroded in the struggle over apartheid education. In some cases, this led to a disintegration of an accepted normative code, evident in a fragmented and dysfunctional engagement, low expectations and unprofessional conduct. The district stops and starts in Figure 9.2 reflect these engagements, highlighting the need for more professional conduct in relation to schools. While it is difficult to demonstrate a shift in relationships, many of the interview transcripts and monitoring reviews suggest that there has been a change in the way in which CMs interact with schools:

Their approach to the school is developmental now. They are not coming for fault finding but for conversation based on evidence. They are more supportive (Interview transcription with Principal in primary school 3, 11 October 2016).

The relationship is good because the Circuit Manager was here and he stayed for about 2h30 minutes. They support us a lot and are approachable. If we are having a problem, we just phone to request their support. They sometimes phone us to check whether everything is okay (Interview transcription with Principal in primary school 7, 5 November 2016).

In addition, the CM Tool seems to provide a basis for conversations about curriculum:

It has improved a lot because, whenever the officials come here, they come with tools that have to be improved, unlike in the past when I will not be able to provide what they require from me. At the present moment, I am able to provide evidence of my work as there are tools that I use and everything is recorded in the SMT files. If I do not have specific tool that they need, I request them to help and support me as I have tried to develop it. They are able to provide me with the necessary support (Interview transcription with Principal in secondary school 8, 12 November 2017).

The extent and consistency of changed relationships is unknown at this stage. After three years, CMs are still in the initial stages of changing practices. A district coach notes:

There is traction in routines. There is also contracting to the needs of professional conversations that are based on facts and data which are not personalised but focusing what on what needs to be done (Interview transcript with district coach, 23 September 2016).

A school Principal confirms that:

... personally, I think there is more focus on curriculum coverage, monitoring and on supervision that has made us cope as leaders (Interview transcription with Deputy Principal in primary school 10, 19 November 2016).

One of the benefits of the engagement between the various parts of the system seems to have been the clarification of roles and responsibilities within and between districts and schools. Leadership roles and responsibilities are not always clearly differentiated or understood in policy or practice. Some CMs and Principals are beginning to understand their own role in achieving curriculum coverage by focusing on curriculum management support and leadership respectively. School leaders are in the front line of the struggle to improve learning in schools, but different policy frameworks create a confused, compliance approach. This can be exacerbated by policy enforcing and blame finding engagements:

There are different units within the district structure, so those that are related to curriculum delivery seem to be improving the relationship with us drastically. But, with those distant units to curriculum delivery, there is still a problem because they do not understand how the Jika iMfundo come in (School 10 Principal, 19 November 2016).

### **Heat maps as dashboards**

The scores generated by the CM Tool, as summarised in the “heat maps”, are based on assessments of the multiple items by CMs, on the basis of their engagements at the schools. Even at their best, they are not precise or verifiable data like, say, the schools’ quintiles. However, they are useful in several ways. The first is for Principals to identify curriculum management problems in their own schools and use this as a basis to ask CMs for help and support. They also provide a foundation for discussions on curriculum coverage. In addition, they can be used as aggregated or higher-level “dashboards” to identify challenges within circuits, across CMCs and in the district.

The statistical analysis sought to see how this was working in practice, albeit at a

very early stage of the project. The start-up limitations were noted earlier: that, in the first round of visits, the CMs were still getting the idea of assessment, so the recorded assessments were evidently too uniform and too high; and that, although scoring in the second round was better differentiated, only 37% of schools were visited. So, the analysis should be taken as merely illustrative. It focused on the General Management scores for strategy, relationships and finance, plus a total, for all the actual schools in a specified circuit (summarised in the heat map below) and a second round of visits, for the proportion of schools re-visited, with the first round. Additionally, aggregating of the circuit heat-maps for higher-level managers was examined.

As an example, Figure 9.7 reflects the aggregation upwards across the by-school maps in the circuits, to yield a summary at CMC level. In row 6, the Durban Northwest CMC in the Pt District, one sees that (from the first visit to the second) strategy has improved from 12 to 13 out of 16, taking it from amber to green. In KC, rows 1-5, one sees in the two total columns that all five CMCs have improved from amber to green.

While remembering the strictures about the start-up data, an analysis of variance (ANOVA) was again undertaken, now applied to the changes summarised in the General Management heat map to illustrate what will be possible in future, with the CMs having experience behind them for first- and second-round scoring and with a better proportion of second-round visits.

		Round 1				Round 2			
		Strat/	Relat/	Finan/	Total/	Strat2/	Relat2/	Finan2/	Total2/
		16	11	8	56	16	11	8	56
King	1 Imfolozi	6	10	7	45	13	10	7	49
Cetshwayo	2 Mthonjaneni	14	10	6	46	12	11	7	48
	3 Nkandla	12	9	5	39	11	10	6	47
	4 Umhlathuza	14	10	6	46	12	10	7	49
	5 Umlalazi	15	9	6	43	13	10	7	51
Pinetown	6 Durban Northwest	12	10	7	50	13	11	7	51
	7 Mafukuzela Gandhi	13	10	7	47	13	10	7	50
	8 Umhlathuzana	13	10	7	48	13	11	7	51
	Total	13	10	7	49	13	11	7	51

**Figure 9.7** CMC-level “heat map” showing three areas of general management

The outcome is shown in Figure 9.8. To interpret the figures, one may begin with the bottom left-hand panel. It displays changes in the finance scores<sup>3</sup> from the earlier to the later visit. The lower, red line refers to Pt. The left-hand point shows that there has been a slight improvement of about 0.3 units among primary schools in Pt, while the right-hand point shows that there was a slightly larger improvement of 0.4 in secondary schools in Pt. Similarly, the upper, blue line refers to KC, where the changes were greater in both primary and secondary schools than in Pt. The left-hand point shows that the improvement in finance was 1.0 units for KC primary schools, slightly greater than the 0.8-point improvement shown by the right-hand point. Other panels are interpreted in the same way. The bottom-right panel shows a similar pattern to the bottom-left panel in changes in the total of performance scores<sup>4</sup> but the top two panels present a different pattern. For instance, at top-left, dealing with changes in relationships, in primary school changes from first to second visit are much less for Pt than KC, as before; but in secondary schools, changes in Pt are roughly as great as in KC.

Bearing in mind the limitations of the current data, what might this analysis tell us about whether *Jika iMfundo* is working at district level? Firstly, changes are larger in KC than in Pt (with the one exception), especially at primary level. Anecdotal evidence from the PILO team suggests that this is because the KC district director, with his CMCs, were committed drivers of change. This suggests that there was more follow up on the results. Also, KC had more room to improve given the large number of no-fee schools. Secondly, changes *within* Pt are larger for secondary schools than primary and vice versa in KC. Thirdly, *across* the districts, the differences between them at primary level are greater than at secondary. Particular variations, visible on each line of the heat maps at the lower levels, will be of interest to the CMs visiting the schools, or their CMC supervisors. But the gain from the averaging for the high-level picture is that, with the large numbers involved, the statistical tests would be able to indicate which of the myriad differences were large enough to be significant – yielding the “big picture” for overall programme management and prioritisation.

## Conclusion

This research set out to explore if it is plausible to assume that districts are an important lever in systemic change, especially in contexts where resources are limited and morale tends to despair or apathy. Does the improving of relationships between districts and schools provide a path towards the building of professional accountability and collaborative commitment to change, despite the context? The answer is yes. There is qualitative evidence and – to the extent that the incomplete start-up data are nevertheless indicative, some quantitative evidence – to suggest that relationships and interactions between some of the schools and their respective circuits are more interactive and less-compliance oriented, perhaps more so in KC than Pt. This is evidenced in better planning, scheduled visits and a shift away from compliance checking to “how can I help you?” A skilled and empowered district official, working

with Principals and SMTs can, as Fullan (2015) suggests, “lead from the middle”. The CM Tool provides a useful basis for professional conversations to begin. However, a tendency to focus on “management compliance” rather than “curriculum management” persists, perhaps because finances or human resources are more concrete and seem easier to control. Where the tool is used effectively, both CMs and Principals begin to see themselves as instructional leaders. The challenge is to ensure that the CM Tool does not become a compliance instrument as working to rule is deeply embedded. It is only effective if it is used as a basis for a professional conversation as part of a learning support process.

Tools and using evidence for planning and conversation allow new routines to be introduced and practiced. It is this reinforced practice that enables relationships to shift focus and be institutionalised. It is too early to tell now, but this would confirm the

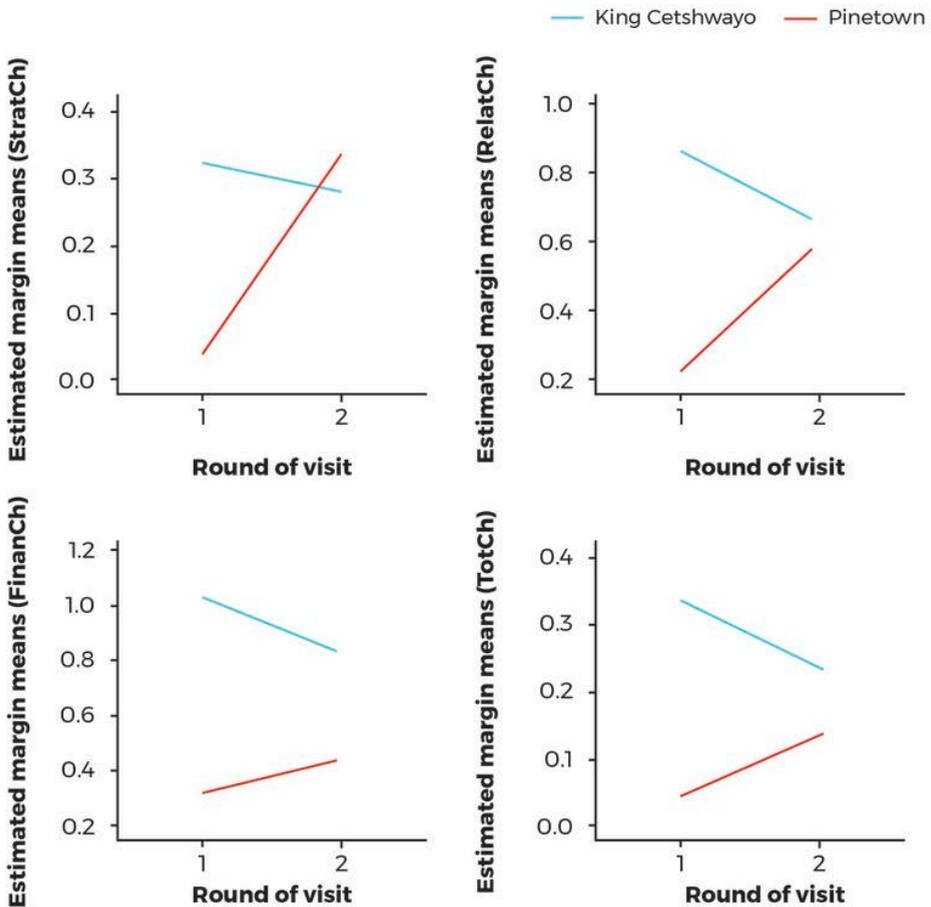


Figure 9.8 Comparison of changes at district level at primary and secondary levels

Theory of Change which underpins the intervention. The district and school coaches are a vital part of the process of embedding the routines by encouraging CMCs, CMs and SMTs to try to work with the tools and the evidence. Some consideration needs to be given, in the long term, about where this prodding will be located within the system. The heat maps and limitations noted provide a means for identifying curriculum management challenges, particularly as part of evidence based discussions and plans. Some schools and CMs are focusing on resolving curriculum management problems. A limitation of the current model is that Principals, CMs, CMCs and districts do not have a way to track their own change progress. Revised and moderated heat maps will enable this process.

Elmore's (2016) scepticism about how well systemic change responds to differentiated school needs is borne out by research. The socio-economic context, combined with leadership cultures in districts and circuits, had had effects on implementation, especially on Pt as a district, but also in some circuits. Many of the socio-economic and resource inequalities between schools, circuits and districts are structural and hard to change. Apartheid, race, class and spatial legacies do structure relationships and learning conditions. Also, leadership and resource challenges make change harder to achieve. The PILO approach of building commitment allows officials to see and understand what can be done despite the prevailing conditions. Flexibility is accommodated by starting the journey where the CM or CMC is at, but the risk is that schools or CMs may opt out or be left behind. There may be conditions which make change unworkable but the utility of the focus on agency and constructive conversations suggests, contrary to many school change interventions, that very depleted dysfunctional schools or districts need not be overlooked.

I like Jika iMfundo because, before 2014, the managers will come once after six or seven months, now maybe twice a term to support, give development, check curriculum coverage, to sit down one-on-one for you to explain your challenges and discuss how you can improve. We are no longer scared of them, because now we just communicate. They now use the CM Tool to ask you questions that will result in support. So, the relationship has really changed a lot (Research transcript of school Principal 1, 3 October 2016).

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## Notes

1. For example, the designation of a school as primary could be “Primary”, “prim”, “P”, or even “Primary”.
2. At the customary level of  $p < 0.05$ .
3. The finance scale runs from 0 to 8. Differences can be positive or negative, but change – if there is any – will typically be 1 or 2 points from one visit to the next. So, the *averaged* change scores reflected on the vertical finance scale, for primary or secondary, are not negligible.
4. The total score, across the seven areas (of which we are attending to three for this analysis) runs from 0 to 56. Changes, if any, will typically be a few points. So, as in the previous endnote, the averaged change scores are not negligible.



PART THREE

# Reflections



## Reflections on curriculum and education system change

*Pam Christie and Mareka Monyokolo*

The chapters in this book provide insights into *Jika iMfundo*, a highly significant education development initiative that gives expression to the Programme to Improve Learning Outcomes' (PILO's) approach of working in partnership with education departments to build sustainable change. Given *Jika iMfundo*'s focus on "curriculum coverage" and the findings of the different research chapters of this book, it seems appropriate to reflect on the curriculum in South Africa and why improvements in student learning outcomes have been so hard to achieve. While these reflections arise from the chapters of this book, they are not intended as a commentary on PILO's Theory of Change or the *Jika iMfundo* intervention. They are our own reflections on the national curriculum rather than on *Jika iMfundo* or PILO.

### **Problems with CAPS**

What emerges across the different research chapters of this book are insights into a range of different impediments to achieving curriculum coverage that could result in quality learning outcomes:

- The "ceiling effect" on learning outcomes caused by assessment policies cutting across the CAPS curriculum to promote students at different levels of competency, making classrooms, in effect, multi-grade (Chapter 4, Schollar).
- The extremely poor state of curriculum management prior to the *Jika iMfundo* intervention, with teachers and HoDs often unsure, particularly, about monitoring curriculum coverage (Chapter 5, Maphalala et al.).
- The challenges of building professional internal accountability in schools that do not have organisational capacity and the need for more and differentiated professional

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development if teachers are to reflect on and improve their practices (Chapter 6, De Clercq et al.).

- The lack of support for HoDs and the demanding range of tasks they face in schools with little administrative support – except for “green” schools with existing organisational capacity and more resources (Chapter 7, Mthiyane et al.).
- The difficulties of teaching Senior Phase mathematics in classrooms with mixed levels of conceptual understanding, particularly when school organisational capacity is not strong, resources are limited and district policies not necessarily supportive (Chapter 8, Mkhwanazi et al.).
- The extraordinary difficulties facing districts with wide geographical spread, large numbers of schools and a lack of resources; and the challenges of working across historical and bureaucratic silos to support schools with curriculum management rather than monitoring them for compliance (Chapter 9, Mc Lennan et al.).
- The complexities of managing, monitoring and supporting curriculum implementation (coverage) at the school level. The strategies, modalities and ways of addressing teaching and learning problems that Principals and HoDs need to institutionalise are undoubtedly complex, demanding and daunting, but necessary for success (Chapter 3, Witten and Makole).

All of the chapters show that teachers and HoDs found problems with the pace and overload of the CAPS curriculum. Even where teachers and HoDs were positive about the systematic planning that *Jika iMfundo* tools facilitated and welcomed the transparency and role clarification they brought to curriculum monitoring, CAPS remained a problem for them.

It seems not unreasonable to conclude that there is a mismatch between the requirements of CAPS and the conditions in the majority of these schools. This view would be supported by an analysis of the ANA results showing that the majority of students do not have grade-appropriate mastery of literacy and numeracy or language and mathematics yet the Department of Education seems unwilling or unable to acknowledge these problems and adjust the curriculum accordingly. In attempting to understand why this might be so, we suggest that one possible reason lies in the nature of the curriculum development process itself and the form it has taken in the post-apartheid period.

#### **The “normalised” curriculum development process after 1994**

Looking across the history of curriculum change since 1994, it is apparent that this has been one of the most unsettled and uneasy of the many educational changes that have been introduced. The early commitment to Curriculum 2005 and outcomes-based education (OBE) set a trajectory of change which subsequent governments were reluctant to abandon yet unable to sustain. Within five years of being proclaimed, Curriculum 2005 was revisited and the Revised National Curriculum Statement (RNCS)

was adopted in 2000, still within an OBE framework. In 2009–2011, the RNCS was itself reviewed and streamlined into the Curriculum and Assessment Policy Statements (CAPS), with OBE finally dropped quietly in 2010. In spite of these curriculum changes – which themselves generated a level of “change fatigue” among teachers and schools – student performance on national and international tests has remained endemically low and also persistently unequal.

At least part of the reason for problems with the curriculum is to be found in the way curriculum development has been undertaken during this past period. Starting from the unrealistic aspirations of change evident in Curriculum 2005, the government has failed to shift the ground in the inevitable battles of the knowledge politics of the curriculum, to build an inspiring and achievable vision of how learning outcomes might be improved for the majority of students. Instead of developing a legitimate and transparent process for curriculum decision making involving a broad base of expertise, it has normalised an approach where decisions are taken without transparency and revisions take the place of needed redesign. Curriculum policies continue to favour historically privileged schools and communities and there is no urgency to move the focus of curriculum development towards the learning contexts of the majority of students.

Consider, as a starting point, the extravagant claims of Minister Bengu, launching the introduction of Curriculum 2005 and releasing 2005 balloons from the steps of parliament in 1997:

In the classroom, things will be very different ... The passivity of the past will be replaced by the activity of the learners of the future. Learners will have greater self-esteem because they will be able to develop at their own pace. They will be trained to work effectively in groups and will learn the value of teamwork and how to take responsibility for their own learning. The exam-driven system will develop into one in which learners are assessed on an ongoing basis. Rote learning will make way for critical thinking, reasoning, reflection and action. Learners will know how to collect, gather and organise information and how to conduct research. Knowledge will be integrated, learning relevant and related to real life situations. In a learner-centred environment, the teacher becomes the facilitator, guided by learning programmes that allow him/her to be innovative and creative in designing programmes (Department of Education, 1997).

Clearly, this needs to be regarded as a political speech, not analysed as a policy statement. It may be better understood as an aspirational fantasy about the death of the old and the birth of the new, rather than an outline of principles for the redesign of an education system – a fantasy that the past would disappear without a trace, to be replaced in a single move by an idealised alternative. What is striking from the perspective of research on educational change is the ambitious scope and extent of transformation that was envisaged, along with the absence of detail on how to achieve

this through accompanying policies and teacher development measures – particularly given South Africa’s lack of experience in developing alternative approaches to the school curriculum under the rigid control of apartheid authorities.<sup>1</sup> Also strikingly absent is any connection to actually existing classrooms and what would be required to change them.

These absences may, in part, be explained by looking back to curriculum development approaches adopted at the time of political transition. In the early discussions about curriculum change and OBE within the mass democratic movement in 1990s, what was *also* envisaged was a national structure to be responsible for curriculum policy and development. As the African National Congress’s (ANC) “yellow book” stated, a National Institute for Curriculum Development (NICD) would have responsibility for the “development of syllabi, including supporting initiatives for adapting the curriculum to accommodate provincial and local needs” (ANC, 1994, p. 72). Moreover, curriculum policy and development would “be undertaken on a democratic and transparent basis.”<sup>2</sup>

As things progressed, the new national curriculum was not developed by a NICD and the process was not democratic or transparent. For whatever reasons, the new national curriculum was drafted *within* the new Department of Education before a national institute was mooted as policy and without other deliberative processes being put in place. Unlike the key issues of finance and governance, which were the topics of a national investigation for canvassing stakeholder interests and expertise, opportunities for broader debate on curricula were not provided.<sup>3</sup> Within the new Department of Education (DoE), a set of new staff (including political appointees) sat alongside bureaucrats of the old order to undertake curriculum development as a project of the ministry and department, with *ad hoc* subject committees, established as needed, to bring expert advice. Under these conditions, it is perhaps not surprising that Curriculum 2005 had very little connection to actual conditions of schooling or practices of teaching for learning.

This “behind closed doors” approach is now the pattern of curriculum making in South Africa. In 2000, when the government acknowledged that Curriculum 2005 was problematic, the Minister of Education appointed a specialist review committee to decide on the framework of changes, with subject specialists then tasked with syllabus development. The result was the hybrid RNCS, designed to patch up the shortcomings of Curriculum 2005 without abandoning the symbolic shell of OBE. No doubt, there were political reasons for not abandoning OBE or opening broader discussions on curriculum redesign but the approach of using review committees and expert subcommittees instead of considering longer-term processes of curriculum redesign closed an opportunity for alternatives to be considered. When the shortcomings of the RNCS were evident, another review committee was set up to decide on the framework of CAPS, with specialist sub-committees to provide syllabus details. The result was that non-transparent and exclusivist processes of curriculum development have become

normalised, without consideration of longer-term ways of exploring curriculum problems and possibilities outside of departmental line functions and ministerial prerogative.

The curriculum development processes that have been normalised means that curriculum changes have been made without deliberation of alternatives; without informed debate on learning theories; without including language experts (and developing language policy separately from curriculum policy); without exploring different theories of curriculum design that might inform a national curriculum; without any means of connecting to existing conditions in schools; and without engaging deeply with the professional experience of teachers in a range of different – and difficult – contexts. Ironically, the government has continued the much-criticised apartheid practice of making decisions behind closed doors and involving limited numbers of selected experts. And, while every chapter in this collection mentions problems with the CAPS curriculum, the curriculum itself appears to have an untouchable status despite the fact that it fails most students and their schools.

The CAPS curriculum has little to offer in terms of vision and moral purpose. When it was introduced, the Minister of Education, Angie Motshekga, made the following call to arms:

Good schools do the basics right. The school starts and ends on time every school day. Teachers and learners arrive on time. Teachers are well prepared for all their lessons, are in class and teach every day. Teachers consult parents when learners are absent and parents support the teachers and their children. Learners work hard, do their homework and respect their teachers. The entire school focuses on learning and does everything in its power to support learners to do better. A good school also has a good Principal. The good Principal has a vision for his/her school and gets others to buy into that vision. He or she leads by example and encourages learners to always strive to do better (Motshekga, 2009).

This minimalist description of “good school practice” stands in striking comparison to the idealism of 1996. A more solid picture of mediocrity would be hard to find, to say nothing of the tacit acknowledgement that the quality of classroom experience remains tantalisingly beyond the reach of education authorities.

What Curriculum 2005 enabled and the curriculum revision process has sedimented, is a “business as usual” approach in former white schools. These schools were well resourced to take advantage of the freedoms offered by Curriculum 2005 and they are at ease with the “powerful knowledge” approach that has come to prevail in CAPS. This curriculum fit, together with the resourcing advantages enabled by the fees and governance arrangements of SASA, consolidates the hegemonic position of these schools as the most desirable – if unachievable – exemplars of “excellence”. What easily slips from sight is the multiple benefits that give a head start to students in these

schools with regard to the demands of the CAPS curriculum. Without these structural advantages, the majority of schools and students cannot compete on equal terms and indeed struggle to meet the demands of the curriculum.

Yet, a question to be asked is: can policies be considered excellent if their implementation in the majority of schools cannot be achieved and, worse still, reinforces failure in these schools? Using test scores as indicators of curriculum success, what is clear from extensive published research in South Africa is that student achievement is linked to the poverty rankings of their schools, to the apartheid departments that schools were formerly part of and to students' home languages. These systemic and recurring patterns provide a clear indication that past patterns of inequality continue to be produced and reproduced within and through the schooling system itself. While there may be a number of factors responsible for these inequalities, the curriculum itself must surely be included among these, at the very least, in terms of providing suitable opportunities for student learning and the demonstration of this in national test scores. The effects of cross-cutting assessment policies (leading, in effect, to multi-grade classrooms) need also to be considered. While schools and teachers are often held responsible for poor learning outcomes, reciprocal accountability surely requires that the education department and its curriculum and assessment policies are also seen as having some responsibility for inequitable student outcomes. It is important to recognise that there are limits to what can be achieved under current conditions in the majority of (fee free) schools – conditions that are well outlined in the chapters of this book.

Conversations about curriculum design and implementation are inextricably interwoven with conversations about teacher development (in-service) policy and practice. Curriculum (including assessment) and teacher development are two critical sides of the same coin. Teachers are key agents of any education change. They are particularly central to curriculum change and the related outcomes. Since the dawn of democracy, there has been very little, if any, concerted effort to address the challenges of teacher development in an integrated way. The teacher development landscape remains fragmented, uncoordinated, poorly conceptualised, unrelated to teacher needs and, consequently, there is enormous wastage of resources. A proper, clearly understood strategy for developing and supporting teachers to mediate the curriculum to meet the needs of the majority of students within their contexts would go a long way towards improving their educational outcomes.

Clearly, there are no simple solutions to the challenges of curriculum design and how it might be implemented for the benefit of the majority of students. Nonetheless, if the unequal patterns of performance on national testing are viewed as systemic problems related, in part at least, to the curriculum itself and other – at times, cross-cutting – government policies, it becomes possible to hold a different set of conversations about curriculum and assessment, and quality teaching and student learning. A number of topics suggest themselves immediately for these conversations:

- An urgent topic would be language of instruction. How might multiple languages be supported and resourced so that multilingualism is viewed as a strength not a problem? How might proficiency in languages, other than English, become a valued capability so that the hegemony of Anglonormativity (McKinney, 2017) is challenged?
- Another topic would be pedagogy itself which is currently a relatively silent partner in curriculum discussions.<sup>4</sup> What would quality teaching look like in ordinary classrooms and schools that are resourced at the minimum “norms and standards” (fee free schools as opposed to fee paying)?
- How might a focus on learning be foregrounded in the curriculum instead of the current focus on content?
- How might assessment policies be properly aligned to the curriculum, rather than cutting across it?
- What might a South African curriculum look like if its primary goal were to advantage those who are most disadvantaged? What inclusive and transparent processes and resources would be required to develop such a curriculum?
- How might teacher professional development, resourced and delivered, strengthen quality teaching in these sorts of school contexts?
- What strategies might be put in place for differentiated and targeted teacher professional development to meet the demands of the curriculum and how might such strategies be resourced and implemented?

What we have suggested here is that a fundamental policy reorientation is needed to re-centre curriculum design and development on the learning needs of the majority of students in mainstream South African schools. Without some form of curriculum reorientation, education development projects that have curriculum management as their thrust are likely to be impeded.

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## Notes

1. Private schools and NGOs had experimented with alternatives, but these were not systemic. Alternatives were certainly explored in adult education, particularly adult literacy programmes, and in trade unions and community organisations.
2. As an aside, not to be explored here, it was also envisaged that the NICD would play a quality assurance role in textbook evaluation and that “[t]he enforcement of a conflict of interest code and quality assurance procedures will prevent corrupt relationships and protect the public interest” (African National Congress, 1994, p. 75).
3. The National Education and Training Forum (NETF) had included a Curriculum Technical Sub-Committee and this was disbanded when the NETF process ended.
4. It would seem that in South Africa there are more studies of what Haberman (1991) terms “the pedagogy of poverty” than studies of what successful pedagogy might be in ordinary classrooms.