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Primary Teacher Education Project (PrimTEd)

Draft Final Report

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Background

Over the past decade and more evidence has been accumulating that South Africa's primary school teachers, including those emerging from the universities with BEd degrees, are poorly educated, particularly in the foundation disciplines of language and mathematics (CHE, 2010; Bowie and Reed, 2016; Deacon, 2016). The most disturbing finding is that teachers specialising in the Foundation (grades 1-3) and Intermediate (4-6) phases receive very little or no instruction in how to teach reading (SIRP, 2019), and have a poor understanding of the mathematics curriculum (Bowie, Venkat & Askew, 2019).

The Department of Higher Education and Training (DHET) moved to address this crisis through the establishment of the Primary Teacher Education project (PrimTEd) in 2016. The primary task of PrimTEd was to set knowledge and practice standards (KPS) in Languages and Literacy and Mathematics for BEd programmes for primary school teachers. These standards are intended to set out what graduates should know and be able to do in order to teach these subjects effectively. The work of PrimTEd is operationalised through 7 Working Groups (WGs): Three for mathematics (Number Sense, Geometry and Measurement, Mathematical Thinking), and one each for Language and Literacy, Work Integrated Learning (WIL), Assessment and Knowledge Management. PrimTEd was led by DHET, as part of department's *Teaching and Learning Development Capacity Improvement Programme* (TLDCIP) supported by the European Union.

The KPS were foreshadowed in the Integrated Strategic Planning Framework for Teacher Education and Development (ISPFTED) and issued jointly by DHET and the Department of Basic Education (DBE) in 2011 (DBE, DHET, 2011) and its principles enshrined in policy in the Minimum Requirements for Teacher Education Qualifications (MRTEQ) (Republic of South Africa, 2015). While MRTEQ describes generic standards that should be met by all teacher education qualification programmes, regardless of their level, purpose or target group (such as, all BEd graduates specialising in the FP or IP phases must be capable of teaching mathematics), the KPS are applicable to specific subject areas or areas of teacher expertise (such as guidelines on the content and pedagogy for teaching mathematics in any of the first 6 grades).

The purpose of the KPS is to guide programme design. MRTEQ further specifies that, while the process of developing the KPS should be facilitated by the DHET, the actual development should be done by practitioners in the field of teacher education. This is the main task that occupied PrimTEd between 2016 and 2021, and arguably its most important achievement was to involve over 300 teacher educators, from across the country, in a common enterprise. Continuing collaboration between these participants has resulted in five important programmes which take PrimTEd and its legacy from standards to implementation.

The PrimTEd outputs, apart from the two sets of standards, include an array of research products, which in turn guided the formulation of both the standards and a range of teaching materials intended for use by teacher educators. These outputs are available on the PrimTEd web page at: <https://www.jet.org.za/clearinghouse/projects/printed>

It was decided to commission an external evaluation of PrimTEd, to run over the course of the project and deliver three reports. What follows is an outline of the process and findings of this exercise. We end with a summary of PrimTEd's achievements and conclude with recommendation on the way forward.

External Evaluation of PrimTEd

Southern Hemisphere was commissioned to undertake an evaluation of PrimTEd in order to determine whether the targets were met. The procurement process was overseen by a sub-committee of the National Working Group¹. This component was supported by the FirstRand Foundation. The Evaluation was designed so as to provide two interim reports intended to serve formative purposes in informing the design and implementation of the project, and a final summative report to assess the take-up of PrimTEd products by education faculties across the country (Southern Hemisphere, 2021).

The analysis of the progress of the project was informed by reports, observations and interviews; reflections and interpretations of the content of PrimTEd reports; observations and interviews during PrimTEd events, such as the Literacy Working Group national meeting in February 2020 and the Annual National Dialogue in late 2019; analysis of an implementation survey feedback administered in 2020 and 2021; on-line responses to semi-structured interviews conducted with the Coordinators of the Working Groups annually; and an annual analysis of the final progress reports of the 7 WGs.

First Formative Assessment Report

The First Evaluation Report was delivered in July 2019, and concluded that the structure of PrimTEd was appropriate to the task. It reported that the overall project design was relevant and appropriate for the objective it wants to achieve although there were some challenges. The challenges related to the initial delay in payments and the incompatible financial administrative systems at some of the participating universities.

The evaluation also looked at initial implementation, the strategies employed, the processes used to engage with stakeholders, and the types and number of projects established. It was found that the independent management and support roles played by JET, and supported by the Zenex Foundation, benefited the project management functions, freed up additional funding for the work of the Working Groups, and reduced competition for limited resources. It was reported that PrimTEd, through the Working Groups, had succeeded in involving very many participants from different institutions, but that there were still challenges to actively engage teacher educators and their faculties/ departments across the wide spectrum of universities in South Africa.

Each Working Group set out to develop research-informed knowledge and practice standards for its focus area. They also worked on course/module outlines, assessment tools, pedagogical models, and teaching and learning materials. The working groups were provided with the required financial and technical support to ensure high quality products. The objective of the former exercises was for the products of the working groups to be incorporated in the design and delivery of the primary teacher education programmes of participating universities.

Second Formative Assessment

The Second Evaluation Report was delivered in September 2020. The report noted that the PrimTEd WGs had developed lists of contacts of all individuals that had attended and participated in the various project and WG activities. All the university based contacts were surveyed in March 2020 to assess

¹ The NQC comprised the relevant managers for teacher education in DHET and DBE, the 7 Working Group Coordinators and JET.

their perspectives on the level of implementation where they were located. The survey had a 42% response rate, with responses from contacts based at 21 South African public universities.

The report noted that COVID -19 pandemic had affected every aspect of life around the world. Following the announcement by the President of a national lockdown on 26 March 2020, all schools and universities were closed. The closure of the universities affected the implementation of the PrimTEd project at the universities. The nature, level, and scope of the effects of the regulations on project implementation was assessed through the feedback from the WG Coordinators and teachers educators (from the PrimTEd contact list) based at six universities across South Africa.

Despite these disruptions and additional workload imposed by the pandemic, PrimTEd activities proceeded, albeit at a slower rate. The Second Evaluation Report described how, during the completion of the design evaluation phase, PrimTEd convened an Annual National Dialogue (AND: 17-18 October 2019) event to discuss progress, to engage participants in the various working groups and to strategise towards the finalisation of the project in 2020. The WGs subsequently submitted progress reports towards the end of 2019 and these were captured in a consolidated project report (PrimTEd, December, 2019).

The Second Evaluation Report found that the sustained and growing interest in PrimTEd WG activities expressed by most public higher education institutions (HEIs) in South Africa did not necessarily translate into deep engagement with the PrimTEd WG outputs and ideas, although in very many cases such engagement was demonstrated. The notion of having standards was also not an un-contested reality. A small minority of teacher educators in the Literacy and Mathematics fields questioned approaches that differed from their own theoretical and ideological perspectives. The implementation study recommended sustained engagement and experimentation at the institutional or university level to exact the benefits of having standards-informed curriculum frameworks.

The report concluded with a set of recommendations for implementation of PrimTEd:

- University-based Curriculum Working Groups should be adequately resourced to engage with the draft standards produced.
- Each university site of implementation (WG) should develop its own theory of change as a programme theory can be a very useful way of bringing together existing evidence about a project/ strategy, and clarifying where there is agreement and disagreement about how the project is understood to work, and where there are gaps in the evidence.
- The obvious challenges of the financial administrative systems, the academic workload and the split in the focus of the central task should be clearly addressed
- PrimTEd and Department of Higher Education and Training (DHET) will have to devise strategies to facilitate decentralised development and engagement with the standards, while managing a quality assurance process that can ensure coherence and compliance.

Final Summative Report

The Final Evaluation Report was delivered in November 2021. This investigation of the PrimTEd outcomes phase coincided with the onset of the Covid-19 pandemic, which resulted in the closure of institutions of learning across the country and a scramble by universities to develop the capacity and

programmes for online teaching and learning. Hence, the application and utilisation of the knowledge and practice standards produced by the PrimTEd working groups were disrupted by the demands of other priorities that emerged.

Despite these disruptions, the feedback received through this evaluation process indicated that material developed by the PrimTEd WGs were being used by a few people on most of the institutions that provided information related to the uptake of PrimTEd products by universities. This is an encouraging indication since there were no formal, active and coordinated strategies in place to manage and support the uptake across the different universities. However, at universities where some Working Group Coordinators are located, the PrimTEd project had progressed into projects with their own unique focus areas and with committed funding from different sources. These are some of the projects that have emerged and that were influenced by the research and /or personnel linked to PrimTEd. Five such programmes stand out: PrimTEd Assessment 2.0, Sesotho and isiZulu Reading Project (SIRP), Advanced Certificate in Foundation Phase Literacy Teaching (AdvCert), Maths for Primary Teachers (M4PT), and a new model for the WIL component of BEd programmes (PrimTEdWIL).

The factors that impeded the take up of PrimTEd at universities included the contextual differences of the participating universities and there is a recommendation that the identified enabling factors of PrimTEd be nurtured and built upon and developed as evaluative criteria for other projects involving academics at universities in South Africa. One dissenting view that emerged from a follow-up interview conducted by the evaluator with one of the Consolidated Literacy WG participants reveals that residues of the Reading Wars persist in South Africa. This dissenting voice dismisses the efforts of the Literacy WB, because of what they called its 'tight and repetitive focus on implementing specific programmes with narrow ideological bases'. The Final Evaluation Report backgrounds this view against the observation that, of the 7 PrimTEd WGs, the Literacy WG attracted the largest individual and institutional participation, including the dissenting voice quoted (Appendix A).

Instruction informed by prevailing general and highly theoretical educational perspectives on Reading remained uncontested at some universities. The challenge was to engage academics, since very few university lecturers in education departments seemed to be aware of current research evidence about early reading. The general agreement was that Literacy academics at institutions should interrogate and engage with the standards, curriculum frameworks and research produced by the WG participants in order to make sense of the guidance provided and to improve Literacy Teaching and Learning as envisaged by the project.

The Final Evaluation Report concluded that PrimTEd had successfully engaged a large number of academics from 24 universities in South Africa. It has acted as a catalyst for similar and related interventions. Some have already commenced and others are being planned. There is a working document entitled "*From PrimTEd to ITEC*", (ITEC) being Initial Teacher Education Collaboration. This document proposes that initial teacher education initiatives such as the ones discussed above (e.g. SIRP, AdvCert, M4PT, PrimTEdWIL and the continuation of the testing programme) be supported and used under the umbrella of ITEC as to capitalise on the momentum and lessons built by PrimTEd. ITEC is a loose agreement between leaders of independent courses in literacy and mathematics intended for use on BEd programmes for primary school teachers. All these courses are based on the PrimTEd standards.

Whatever the outcomes of deliberations around this proposal, the Final Evaluation Report concludes, the following recommendations are based on the findings from the evaluation processes of PrimTEd.

- The following enabling factors of the PrimTEd project should be incorporated as evaluative criteria for all similar ITE projects: Willingness to collaborate; Having available resources to collaborate; General agreement about the core problem to address.
- Make available university level implementation grants that will accommodate the remuneration of academics for their time and or to ensure that resources for collaboration are available.
- Each university site of implementation should develop its own theory of change as a programme theory can be a very useful way of bringing together existing evidence about a project/ strategy, and clarifying where there is agreement and disagreement about how the project is understood to work, and where there are gaps in the evidence.

Operations and Achievements of PrimTEd

The three external evaluation reports produced by Southern Hemisphere have been instructive in shaping the implementation of the programme in its early stages, and in pointing a way forward for entrenching the gains made in the reform of ITE. In what follows, we take stock of these gains and reflect how best they may be broadened and deepened.

Governance

The project was led by DHET, with support from DBE, and supported financially by the European Union and the Zenex Foundation. The FirstRand Foundation provided a grant for an independent evaluation. A National Working Committee (NWC) made up of representatives from DHET, DBE, the 7 WG Coordinators and JET met 3 or 4 times a year to coordinate the work. A National Advisory Committee, containing members of the NWC, teacher unions, academics and NGOs met twice over the course of the project. An Annual National Dialogue, comprising an expanded NAC and reps from all 24 public universities which offer BEd degrees at FP and/or, together with private HEIs, met twice.

Communities of Practice

Each of the 7 WGs conducted its activities by recruiting academics on the 24 public higher education institutions. In all, a total of 389 participants were involved in the work, made up of 294 (from public HEIs), 22 (from private HEIs) and 73 (from national and provincial government departments, teacher unions, NGOs and donors) (see Appendix A). For many participants generating a sense of community across the sector was the major achievement of PrimTEd.

Knowledge and Practice Standards

The main task of PrimTEd, the production of two sets of KPS – one for Languages and Literacy (PrimTEd, 2020) and one for Mathematics (PrimTEd, 2019) – were produced.

Assessment tools

Tests based on the primary school curricula for languages and mathematics were developed and administered to large samples of 1st- and 4th-year BEd students in a cross-section of HEIs across the country. The results revealed the very low levels of subject knowledge in the foundation disciplines which students bring to their studies and, of even greater concern, the fact that BEd programmes add very little to this base, underlining the urgent need to reform BEd curricula. The PrimTEd assessment instruments have provided a powerful tool to assess the quality of the learning outcomes of BEd programmes, and the published findings have provided strong motivation for faculties to get involved

in the programmes designed to rectify this situation. The refinement of the instruments and broadening their use across 6 universities will track progress in raising the learning outcomes of BEd students in languages, literacy and mathematics.

Research

The WGs produced many published papers, book chapters and conference proceedings (see Appendix B for a list, under separate cover).

Teaching Materials

The three WGs focusing on mathematics produced sets of teaching materials for use on BEd programmes. These are also available <https://www.jet.org.za/clearinghouse/projects/printed>

Programmes arising out of PrimTEd or related to the KPS

Five programmes, informed by the PrimTEd standards for Language and Literacy and Mathematics, have arisen out of the research and assessment findings of the WGs. These are courses or tools to be piloted at a number of institutions and incorporated into BEd programmes.

Maths for Primary Teachers (M4PT)

The PrimTEd work has had a significant influence in the field of mathematics education for ITE. Drawing on the disappointing results from the PrimTEd maths tests for 1st- and 4th-year BEd students, the University of Johannesburg has developed Maths for Primary Teachers (*M4PT*) which is based on the PrimTEd Standards for Mathematics and is compulsory for 1st students at the university. This programme covers the basics of what primary school teachers should know and be able to do in order to teach FP and IP maths effectively. Following a successful pilot involving all 1st-year BEd students at UJ in 2019 (under the name *Maths Intensive*), an expanded version is being piloted in six institutions (WSU, UFH, TUT, Wits, UJ and CPUT) from 2021 to 2025.

Advanced Certificate in Foundation Phase Literacy Teaching (AdvCert)

AdvCert is an NQF level 6 qualification, offered part-time by Rhodes over 2 years and made up of 12 modules. It carries 120 credits and is directed towards teaching reading in isiXhosa. The course is tailored to the needs of FP teachers, HoDs, subject advisors and literacy coaches in the Eastern Cape. It is open-source, interactive, built around specially designed videos and an App, and taught bilingually in isiXhosa and English. The programme was piloted in 2019 and 2020 and is currently undergoing evaluation and modification in preparation for the 2021 iteration. Negotiations are currently underway with the University of the North for the course to be customised for delivery to Subject Advisors and other curriculum leaders in the province of Limpopo.

Sesotho and isiZulu Reading Project (SIRP)

SIRP is developing a self-sufficient programme for teaching reading to BEd students specialising in the FP and/or IP. The *SIRP* course, comprising 7 units with supporting materials and a compendium of terminology, is first being developed in English, after which it will be versioned into the two African languages and English First Additional Language (EFAL), and will be available for versioning into any other language. All of this will be completed and ready for piloting in 2022 in the 12 universities which offer BEd programmes specialising in isiZulu and/or Sesotho; other HEIs will be welcome to participate.

Assessment instruments for literacy and maths at ITE level

The assessment component of PrimTEd has received a second round of funding from DHET/EU to continue its work and to develop a web-based diagnostic report for individual students. These will be

made available to all HEIs, public and private, to diagnose gaps in student knowledge and to track progress on bridging these gaps over the course of the BEd.

The PrimTEd work integrated learning model (PrimTEdWIL)

The work integrated learning (WIL) model developed by PrimTEd, together with the Teacher Choices in Action developed by Lee Ruznyak and colleagues, will be integrated into the SIRP pilot, as the teaching practice component of the programme. It will be available for incorporation into any other literacy or mathematics BEd course.

Collectively, these five projects have attracted participation from a total of 19 public universities and 2 private HEIs.

WIL	Assessment	SIRP	M4PT	AdvCert
NWU (1)	UJ, TUT, UFS, WSU, CPUT, SPU, Stellenbosch, Rhodes, UCT, Wits, NMU, UNISA (12)	CUT, NWU, UFS, UJ, UKZN, UNISA, UNIZULU, UP, TUT, WITS. (10) Private: Em, IIE. (2)	WSU, UFH, TUT, Wits, UJ and CPUT (6)	RU, UN (2)
19 public and 2 private HEIs involved across these programmes, some involved in 2 or 3				

Conclusion

The external evaluation of PrimTEd supported by the FirstRand Foundation was instructive in shaping the implementation of the programme in its early stages, and in pointing a way forward for entrenching the gains made in the reform of ITE. In consolidating the achievements of the project, two priorities stand out. Broadening participation in reform of the ITE FP/IP sector: faculties of education need to adopt a faculty-wide approach to preparing graduates to teach languages, literacy and mathematics, in order to meet the specifications of MRTEQ with respect to these disciplines. Second, these efforts should cohere around the adoption on a suite of the programmes arising out of PrimTEd, and incorporating some or other form of these initiatives into their BEd courses.

If these priorities are to achieve systemic effects in reforming ITE, they need to be pursued in collaboration with DHET, CHE, SACE, the Education Deans Forum and the academic networks such as AMESA, LITASA, and SAERA.

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Appendix A: Participation in PrimTEd

Public Institutions	All	Literacy	Number sense	Geometry	Maths thinking	Assessment	WIL
Cape Peninsula University of Technology	20	8	2	2	1	1	2
Central University of Technology	8	2	1	1			
Durban University of Technology	4	1					
Nelson Mandela Metropolitan University	13	4	2		1		
North West University	22	8	3		3		4
Rhodes University	17	8	5		1	1	
Sol Plaatje University	8			2			
Stellenbosch University	6	2			1		2
Tshwane University of Technology	8	2	1			2	
University of Cape Town	11	2	2	3	1		
University of Fort Hare	12	5	1		1		
University of Free State	15	10	2				
University of Johannesburg	22	6	2	1	1	4	6
University of KwaZulu-Natal	17	7	3	1	1	1	
University of Limpopo	7	2					
University of Mpumalanga	5	3	1	2			
University of Pretoria	9	5	1		1		
University of South Africa	17	8	3		1		
University of the Western Cape	15	6		6			
University of the Witwatersrand	23	13	6		1		
University of Venda	10	3					
University of Zululand	9	7					
Vaal University of Technology	3		1				
Walter Sisulu University	13		3		1	4	
<i>HEI public totals</i>	294	112	39	18	14	13	14

Private Institutions	All	Literacy	Number sense	Geometry	Maths thinking	Assessment	WIL
Centre for Creative Education	1	1					

Centurion Academy	2						
Cornerstone Institute	2	1					
Educor	1						
Embury College	6	4					
Helderberg College	1	1					
Independent Institute of Education (Rosebank College)	3	2					
MANCOSA	2	1					
Regent Business School	1						
SANTS	2	2					
Two Oceans Graduate Institute	1						
<i>HEI private totals</i>	22	12					