

Summary Insights

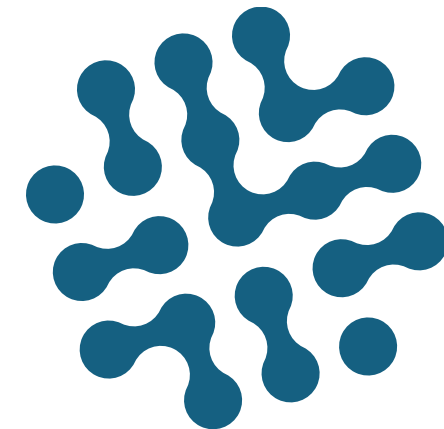
Rapid Review of Maths4Primary Teachers Phase 1 (2021-2024)

Undertaken by: Nelson Mandela Institute in collaboration with Kelello

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**SOCIAL
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M4PT and Rapid Review Overview

Project Design

Scale: 9 universities (by 2024)

Focus: Mathematics for B. Ed. Foundation Phase and some Intermediate Phase ITE

Timing: 2021-2024 First Phase

Components:

M4PT Modules (student-facing)

- Co-design of 3 modules with B. Ed. maths lecturers
- Modules expressed as printed textbook/ workbook, online quizzes and 'timed tangos' (mental maths fluency)
- Pre-/Post-testing of students who complete a module

Professional development elements (lecturer-facing)

- Lecturer annual retreats
- Weekly lecturer coaching
- Research & publication support
- Professional association membership support and conference attendance

Evaluation Design

Evaluation Purpose

Timing: Nov 2024-Feb 2025

Method: Qualitative Rapid Review

- Qualitative interviews with project leaders (x2) and staff (coach, support)
- Qualitative Interviews with university participants x 7
- Observation of Year-End Workshop
- Input to donor decision on Phase 2
- Input to programme team on operational and conceptual feedback



Evaluation Criteria

M4PT is a **system-strengthening intervention**.

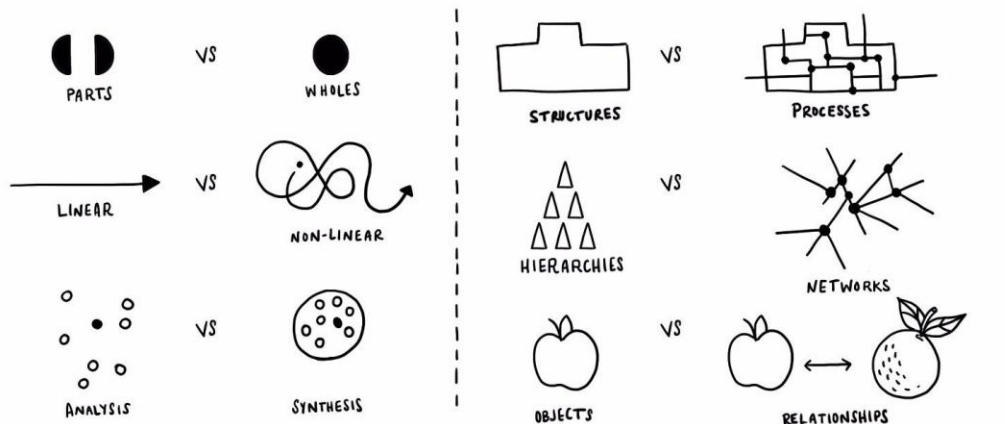
Systems challenge: It addresses a systemic challenge (insufficient learner numeracy) by intervening at the root of the impact chain (initial teacher education in foundational math skills & pedagogy).

Systems approach: It is designed with an understanding of how ITE B. Ed. fits into the broader education system, linking downstream into school classrooms and upstream to DHET policy (MRTEQ, PrimTEd) and lecturer professional development.

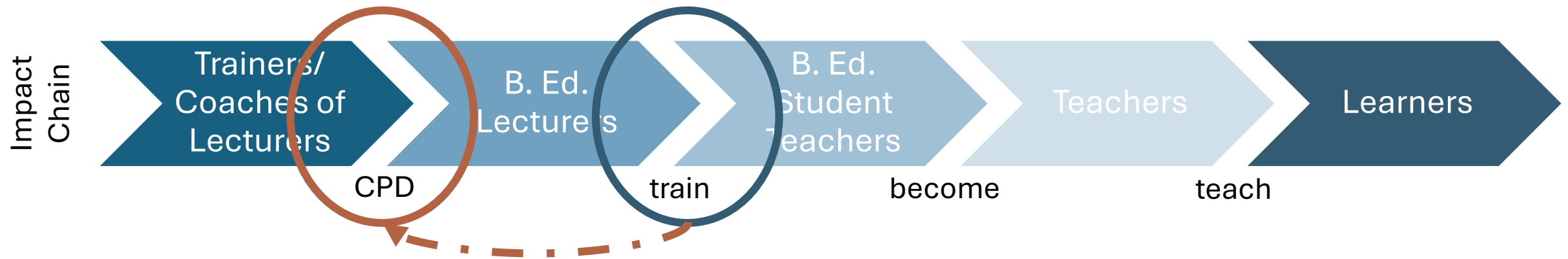
Systems change criteria: to assess the programme's success, we must ask questions aligned with the complexity of system change processes and timelines.

Criteria	Conventional Question	System Strengthening Question
Efficacy	What are we doing	What are we enabling others to do with us and with each other
	What is our impact? At what scale is our impact?	How are we contributing to overall system change and what type of scale is appropriate for this system
Coherence	Is our work aligned with existing policy and other programmes	Does our work engage with ongoing policy processes and other programmes in mutually strengthening ways
Sustainability	Will our impact last beyond the end of the intervention	Has the overall system been strengthened in ways that will allow it to keep adapting and changing without our facilitation and inputs
Partnerships	Are our partners effective at implementing our work	Is the way we support partners building the overall strength and efficacy of the education system

TOOLS OF A SYSTEM THINKER



Design and Intent – Which System Problem are we trying to solve?



The project was designed to address known challenges at the levels of learners (low maths achievement) and teachers (low maths content and maths pedagogy knowledge) by intervening with student teachers in initial teacher education (B. Ed. courses). The initial assumption was that universities were enabling environments for curriculum innovation and that B. Ed. foundation phase and intermediate phase maths lecturers had the necessary knowledge, skills and capacities and just needed coordination and encouragement to prioritise primary maths in the curriculum. The initial focus was, therefore, on co-designing maths content and pedagogy modules that universities would adopt into their B. Ed. curricula for lecturers to use to train student teachers.

Engagement with B. Ed. primary maths lecturers generated a greater understanding that the system challenge started earlier in the impact chain with the current **structure of B. Ed. curricula** and the need for **continuous professional development** among lecturers.



Operating Context – Which System Problem are we trying to solve?

M4PT has been operating in the context of systemic challenges within university B. Ed. programmes

Structure of University Curricula

In contrast to the basic schooling system, where curricula are determined centrally, there is **no system for Standardising University Curricula**

- The culture of university academic independence mitigates against accepting a standardised, top-down directive
- Onerous DHET processes for formal course revision incentivise broad and generic curriculum statements without commitments to specific materials or approaches
- Few universities have strong B. Ed. maths 'department heads' or other structures for maintaining overall B. Ed. maths curricula, approaches and quality control across multiple lecturers and over time
- The PrimTEd standards have contributed to the ongoing process of establishing a consensus on what skills are required to teach primary maths (and literacy) well, but these have not yet been formally adopted by DHET due to delays in adopting the Minimum Requirements for Teacher Education Qualifications (MRTEQ)

CPD: Lecturer Professional Capacity & Identity

Most B. Ed. maths lecturers have weak professional identities as primary maths experts:

- A large number of experienced primary maths lecturers have recently retired or emigrated, leaving a generational experience gap
- Many B. Ed. lecturers are young, still completing their PhDs, and on short-term sessional contracts with high levels of job insecurity. This means they have limited influence on university curriculum design, limited control over teaching continuity over time within a university, and low networkedness with lecturers in other universities
- Few B. Ed. maths lecturers have extensive experience teaching in classrooms in mainstream primary schools. There is, therefore, a gap in linking maths content, pedagogical theory and the practice of 'what works' in South African classrooms
- Most B. Ed. maths lecturers started as high school maths teachers (with higher math but not primary maths context) or foundation phase education generalists (without specialist math skills). There is no postgraduate training in South Africa for specialised primary maths research and practice and, therefore, no national pipeline for specialised primary maths teaching & learning skills.

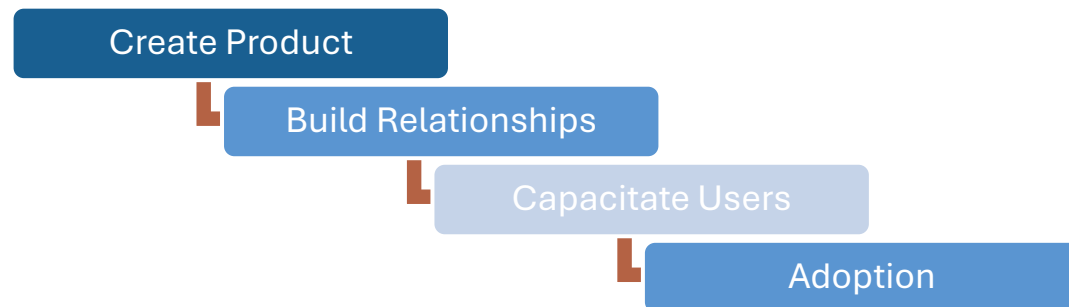
Efficacy – Modules

Within this challenging context, M4PT Phase 1 completed its intended core activities with positive feedback from all participants.

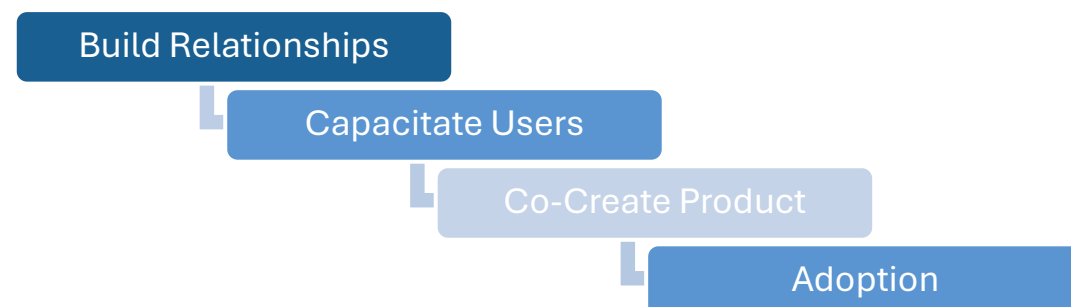
- **Module Design:** produced 3 full modules through a collaborative co-design process. Programme leaders and participants also noted the importance of adapting the first version of Emergent Number Sense (ENS) module materials based on 2023 testing and feedback, with the 2024 version including example lesson plans and exercises for student teachers to use in their teaching practice. The modules, while standardized, are not designed to be static but rather to keep being updated based on experience with their utilization. The main focus has been on Foundation Phase B. Eds, although some the modules have been used in Intermediate Phase B. Eds in some universities (UniZulu, UFS).
- **Materials Production & Distribution:** produced high-quality printed and online supporting materials for all modules. All participants commented very positively on the quality of module content, the quality and user-friendliness of materials, and the reliability of book printing and distribution. All lecturers reported that the printed workbooks were crucial to engaging students (see further discussion below). Several lecturers noted the importance of the online quizzes in shifting assessment practice since previously student teachers had only received feedback once or twice a term (essay and exam) with no feedback at all on progress with their maths content skills.
- **Module Adoption:** as planned, 2 modules were designed in 2022 and 2023 and widely adopted by 2024 (Emergent Number Sense, Addition & Subtraction), with the third (Additive Thinking and Fractions) designed in 2024, with a small pilot, and ready for adoption in 2025. By 2024, 5 universities had adopted ENS and 4 had adopted Addition & Subtraction. **At least 2500 student teachers have completed at least one module**, based on the pre/post-test results.

The M4PT approach to module development directly impacted later module adoption by all participating universities. Whereas some materials development interventions follow the path on the left, which has multiple steps between product design and adoption where users can reject the product, M4PT followed the path on the right, leading to high levels of ownership and adoption of the materials.

Conventional Materials Development



Co-Design Materials Development





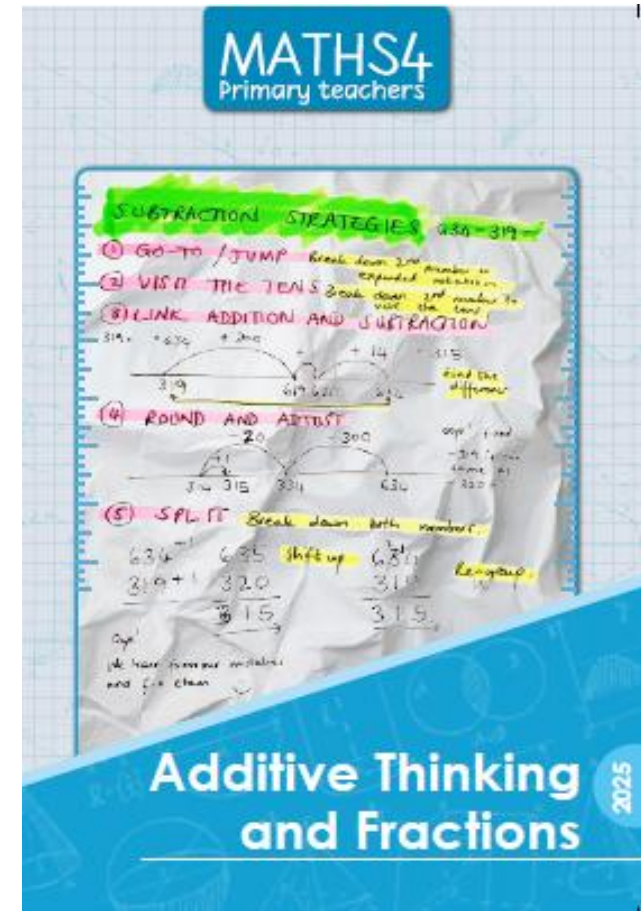
Foundation Phase

- What pathways do children take to develop number sense (birth to 7)?
- How does measurement connect counting?



Foundation and Intermediate Phase

- Mental strategies for adding and subtracting
- Strong links to NMI workbooks, Lesson starters and MSAP materials



Foundation and Intermediate Phase

- Connects mental strategies for adding and subtracting to more formal written methods used in Intermediate Phase
- A strong introduction to fractions



Efficacy - Module Adoption

Year	University	Module	1st/2nd/3rd /4th year	Semester	Whole/part	Printed workbook	Online quizzes Total ENS quizzes: 6	Online quizzes Total A&S quizzes: 4	Two min tangoes Total ENS tangoes: 7	Pre test - Number of students assessed	Post test - Number of students assessed
2022	UFH	ENS	1st	1st	Whole	Yes	Yes	0	0	52	33
2022	UFH	ENS	1st	1st	Whole	Yes	Yes	0	0	135	137
2022	UFH	ENS	1st	1st	Whole	Yes	Yes	0	0	238	241
2022	Rhodes	ENS	1st, 3rd, 4th	1st and 2nd	Whole	Yes	Yes	0	0	87	444
2023	CPUT	ENS	1st	1st	Whole	Yes	Yes	0	3	89	139
2023	UJ	ENS	1st	1st	Parts	Yes	Yes	0	0	107	108
2023	UniZulu	ENS	3rd	2nd	Whole	Yes	Yes	0	7	115	132
2023	TUT	ENS	1st	2nd	Whole	Yes	0	0	0	154	115
2023	Rhodes	ENS	2nd	2nd	Whole	Yes	0	7	7	64	60
2024	Rhodes	ENS	1st	1st	Whole	Yes	4	2	1	57	58
2024	CPUT	ENS	1st	1st	Whole	Yes	6	5	7	104	117
2024	UniZulu	ENS	2nd	1st	Whole	Yes	6	7	7	251	285
2024	TUT	ENS	1st	1st and 2nd	Whole	Yes	4	2	2	169	161
2024	UJ	ENS	1st	1st	Whole	Yes	0	6	5	94	97
2024	CPUT	A&S 1	3rd	1st	Whole	Yes	6	3	6	168	183
2024	UFS	A&S 1	4th	1st	Whole	Yes	6	0	7	34	12
2024	UniZulu	A&S 1	3rd	1st and 2nd	Whole	Yes	7	5	6	89	98
2024	UKZN	A&S 1	1st	1st and 2nd	Whole	Yes	4	0	7	547	157

Total assessments

Module	Pre test	Post test
ENS	1716	2127
A&S	838	450
TOTAL	2554	2577

Data provided by M4PT

Which years of study use the modules?	Varies by university. 1 st year more common. Depends on when the university curriculum covers particular maths topics
Which semester or semesters?	Both 1 st and 2 nd
Use the whole 8 week module or parts?	By 2024, all universities use whole modules
Use all the provided materials or parts?	Printed book is by far the most valued and all lecturers report using the full book.
Do all lecturers use the modules or only some?	In the universities interviewed for this review, all lecturers teaching FP maths use the modules. In CPUT, which separates math pedagogy from content, both content and pedagogy lecturers are in the M4PT CoP.
What have the M4PT modules replaced?	No universities interviewed for this review reported having a comprehensive textbook or workbook for primary maths prior to M4PT, rather using theoretical articles and exercises compiled by each lecturer from various sources. Where unis (e.g. KZN) had partial existing materials they are not using the overlapping M4PT modules (e.g. ENS) .

Efficacy – Student Teacher Impacts

M4PT included formal matched pre- and post-testing of student learners in 18 trials (14 of the ENS Module and 4 of the Addition & Subtraction Module) with almost 2000 matched students assessed. The assessments include maths content (mental fluency) and ‘mathematical knowledge for teaching’ questions aligned with the PrimTed standards.

According to data provided by M4PT, which is up to date to the end of 2024, weighted average student scores improved by 6.4 percentage points (pp) across all ENS trials and by 13.4pp across all A&S trials. If one excludes the low implementation fidelity trials (24ENS8 and 10 – see red box), the average ENS improvement is 8.8 pp.

Trial	HEI	Students assessed	PreTest	SD	Post Test	SD	Delta (pp)	Cohen's D
22ENS1	UFH MEE	31	43%	11	55%	11	12%	1.09
22ENS2	UFH MEX	121	38%	10	47%	11	9%	0.85
22ENS3	UFH MTH	180	40%	10	53%	11	13%	1.23
22ENS2	Rhodes	48	42%	11	49%	11	7%	0.63
23ENS3	CPUT	74	45%	19	58%	16	13%	0.74
23ENS4	UJ	106	41%	11	52%	10	11%	1.04
23ENS5	UniZulu	116	53%	18	61%	9	8%	0.54
23ENS6	TUT	153	29%	7	30%	8	1%	0.13
23ENS7	Rhodes	60	53%	10	56%	9	3%	0.31
24ENS8	Rhodes	52	47%	13	44%	10	-3%	0.25
24ENS9	CPUT	102	45%	14	61%	14	16%	1.14
24ENS10	UniZulu	233	44%	13	40%	13	-4%	0.3
24ENS11	TUT	150	45%	13	54%	12	9%	0.71
24ENS12	UJ	84	55%	15	58%	10	3%	0.23
ENS	Total (weighted averages)	1510	43.2%	12.5	49.6%	11.1	6.4%	0.7
24A&S1	CPUT	160	55%	21	71%	17	16%	0.83
24A&S2	UFS	11	65%	14	75%	10	10%	0.82
24A&S3	UNIZULU	85	60%	9	66%	10	6%	0.63
24A&S4	UKZN	157	50%	12	65%	15	15%	1.2
A&S	Total (weighted averages)	413	54.4%	14	67.8%	13.0	13.4%	0.6

These average increases are statistically significant. Cohen's D effect sizes of 0.6 are considered on the border between moderate and large in education research, suggesting that the intervention had a large effect for both modules.

Lecturer at the first campus was new and temporary and did not attend the retreat of mentoring sessions

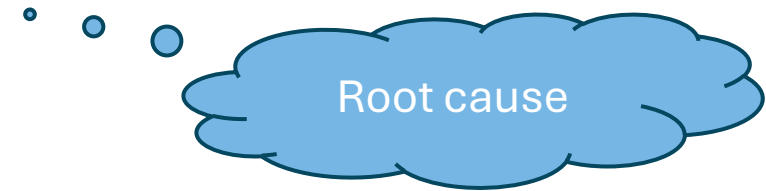
Lecturer experienced limited class time due to extensive time off campus, due to water cuts or student protests

Standard deviations are large, showing high variation among students in a class, and average scores remain low (often above 50% at post-test), illustrating the challenge of a very low student maths skills base and irregular course attendance, which are context factors outside the control of the M4PT intervention.

Efficacy – Professional Development

A key insight of M4PT is that **most B. Ed. maths lecturers have weak professional identities as primary maths experts and insufficient applied experience with maths pedagogy in mainstream South African primary schools.**

Without a self-replicating cohort of knowledge creators in contextually appropriate applied foundational maths, there is unlikely to be a sustained shift in maths lecturing, maths teaching and maths learning in South African primary schools.



M4PT adapted to this insight by expanding the following professional development activities:

- **Annual Retreats with Module Co-Design & Testing Process:** Participants expressed appreciation for how the co-design process simultaneously respected their existing experience and supported them to openly identify and fill gaps in their knowledge. The co-design process integrated participant capacity building in maths content, primary maths pedagogy, assessment design, materials design, and materials testing and application.
- **Coaching:** lecturers participating in the weekly coaching greatly appreciated the technical advice from coaches and the opportunity to engage with other lecturers (peer support) on the practical application of module content to the challenges in their lecturing environments. Demand for ongoing support persisted even when lecturers became more familiar with the course materials and were using the full suite of materials repeatedly with their classes.
- **Research & publication support:** given that many B. Ed. maths lecturers are still completing their PhDs and/or have limited publication experience, while requiring publications to solidify their status and stabilize their employment prospects at their universities, the M4PT leaders initiated “Shut-Up and Write” sessions where participants received support to conceptualise and write up for publication their experiences with implementing specific elements of foundational math lecturing and teaching. Support was also provided to participants to join professional associations SAERA/ AMESA/ SAARMSTE and prepare for and attend their conferences.



Efficacy - Emerging Impact

Can impact be achieved in a weak and complex system?

If starting from very low base and far back in the impact chain, can impact be expected in a few years?

YES, by working pragmatically with the nature of the current system.

Effect on B. Ed. resourcing & standards?

Work with the university system constraints

M4PT is aligned with emerging standards (PrimTEd) and gives expression to them.

All interviewed lecturers said they could easily adopt the M4PT modules because the content fitted into their university's broadly defined primary maths curriculum documents, without requiring formal recurriculation or minor/major course adjustments. Such recurriculation is likely to accompany the formal adoption of MRTEQ and PrimTEd by DHET, but the M4PT modules are well placed to fit into the new curricula at that point.

Higher Education curriculum change is necessarily a 'coalition of the willing' since there is no top-down authority. Lecturer participation, therefore, signals that they see a direct benefit and value the product and process.

Effect on Lecturers?

Work with the lecturers you have

M4PT has built a cohort with an increased professional identity as maths experts. This contributes to the emerging transformation of primary maths research and intervention design capacity.

Effect on Student Teachers?

Work with the students you have

M4PT's content and the physical workbook format recognise and directly address student teacher constraints:

- low maths skills: most have low math slit marks in matric with very few having passed pure maths
- psychological/attitudinal constraints in general study commitment (irregular class attendance) and specific maths blocks/anxiety
- resource constraints: no ability to buy books, limited digital access

All participating lecturers emphasise the importance of printed workbooks for engaging student teachers

Efficacy - Emerging Impact

Working in the System Example: Printed Workbooks

All interviewed lecturers emphasised the importance of printed workbooks for engaging student teachers.

M4PT manuals are printed on high-quality paper with a full-colour cover and grey-scaled inner pages. As part of the M4PT programme, each student teacher of participating lecturers receives a manual for free. The books include textbook and workbook elements. Students write into the books when they complete exercises and keep them when they complete the course.

Lecturers noted the following impacts of the printed manuals:

- In a context where students in highly resource-constrained universities rarely receive printed textbooks, the M4PT books raise the profile and status of maths within the B. Ed., generating student interest and commitment in the subject.
- Students who enter the B. Ed. with a negative emotional relationship with maths experience the manuals as increasing their confidence by providing visually appealing and accessible presentation of the content. Students, who often struggle with low self-esteem and confidence, also feel generally respected when they receive a high-quality manual, increasing their motivation to attend classes and grapple with a topic they assume to be difficult.
- In contexts of irregular student attendance in class, a printed manual enables students who missed sessions to quickly refer back to previous sections of the module without needing to access, download, or copy disparate materials.
- Some lecturers noted that 3rd and 4th year students were starting to take the M4PT manuals with them when doing teaching practice in schools and applying some of the exercises in classrooms. This contributes directly to the coherence of the M4PT programme with the wider schooling system.

A question of short-term sustainability pertains to whether participating universities are likely to cover some of the costs of producing printed materials.

A key insight of M4PT Phase 1 is the lack of institutional authority held by most B. Ed. maths lecturers, given their often vulnerable and junior employment status. They described having little knowledge of how to access institutional funds for textbooks and doubting their institutional authority to request such resources while noting that some resources might be available if approached in the right way (see recommendations for Phase 2).

Given the importance of the printed manuals to the programme's current impact, lecturers were also highly anxious about leaving the provision of manuals to the uncertainty and delays of institutional procurement processes.

Coherence & Partnerships

Does our work engage with ongoing policy processes and other programmes in mutually strengthening ways?

Is the way we support partners building the overall strength and efficacy of the education system?

M4PT is fundamentally designed as a collaborative partnership programme, which shapes how it engages with other institutions and processes and levels of the education system.

- **National policy coherence:** M4PT is fully integrated with the major national policy processes currently underway, including the PrimTEd standard development process and the community of practice around it (lead by Kelello). This is partly due to the overlap in senior leadership for both processes (Nicky Roberts and Kim Porteus), which also means that both processes have followed similar co-design, consensus-building and relationship-strengthening methodologies. This linkage provides regular access to a wider network of universities, CHE and DHET processes and DHET.
- **School level coherence:** M4PT materials were developed based on the programme leads' 20 years of experience in South African classrooms (through the NMI design hub, MSAP, Wits Connect, Rhodes numeracy chair, Number Sense). Adaptations to the ENS module included lesson plans for student teachers to take into classroom teaching practice. Recent M4PT spin-off activities include 'NMI lesson starters' for in-service foundation phase teachers on mental maths, fluency and other basic concepts developed by M4PT. M4PT has been invited by the DBE's head of training to provide professional development to all maths Subject Advisors in the country using adapted M4PT modules, showing recognition of the relevance of M4PT thinking for the classroom.
- **Ongoing contextual research & application coherence:** ITE curriculum and materials development must remain integrated with practical experience in mainstream education classrooms to ensure relevance and use. M4PT links ITE lecturers with maths teachers in AMESA (Association for Mathematics Education in South Africa) as one means to maintain practical engagement between the lecture hall and the classroom. It also encourages ITE lecturer membership in the South African Educational Research Association (SAERA) and Southern African Association of Research into Maths, Science and Technology Education (SAARMSTE) to create linkages with new academic research.



Sustainability

Has the overall system been strengthened to allow it to adapt and change without our ongoing facilitation and input?

Over the course of the first M4PT phase, conditions became significantly more enabling for sustained systems change in the primary school component of the basic education system:

- PrimTED standards have been developed. They have not yet been passed into policy because they depend on MRTEQ being approved first. Nonetheless, they are already providing a shared framework on the skills and capabilities teachers need to teach primary maths well in South Africa. This new curriculum framework still requires the following steps to generate a sustained impact on the education system:
 - Turning abstract concepts and skills into practical application for ITE (materials and lesson plans, etc.) – M4PT has contributed to this process
 - Generation of LTSM and training in their use at school level – M4PT is starting to ‘spin off’ products to address this need
 - Continuing to advocate for formal adoption of PrimTEd standards and related allocation of credits to maths and languages (once MRTEQ has been adopted)
- In addition to formal policy documentation, sustainable shifts in focus and practice include a change in what is valued (‘what matters’) and whose knowledge is valued (‘who matters’). M4PT is part of a process of defining relevant areas for deep research and knowledge production within the subject and context-specific areas of primary maths teaching and learning in ‘Southern’ mainstream schools (i.e. schools with limited resources, large classes, African language dominance, etc.), and building the research capacity to build this knowledge base and then teach it in university settings.
- Finally, to address the root cause of a self-replicating **cohort of knowledge creators in contextually-appropriate applied primary maths**, South Africa needs a means of training foundation phase maths experts. Currently there is no specialised postgraduate training in South Africa (as there is in the UK and other countries). This is currently not part of the M4PT scope but could be an element of future phases



Sustainability – What are realistic targets for an iterative impact on the system

What does a strong and adaptive system look like in the long term?

Success

15-20
years

ITE is professionalised with domestic standards that are regularly refined and monitored and with more stable lecturer positions in universities. Learners with improved maths knowledge return to the ITE system as Student Teachers.

2030-
2034

A body of M4PT learning materials has been systematically redesigned and trialled as face-to-face and online learning materials and reach the majority of South African ITE students. There is a strong cohort of confident primary maths experts to continuously deepen materials & teaching practice, including a pipeline (coursework Masters in primary maths for Subject Advisory and aspirant ITE lecturers)

2025-
2029

M4PT materials and an overall primary maths focus are embedded in curricula across participating universities (beyond individual lecturers) and national policy (PrimTED adopted based on MRTEQ). M4PT modules are integrated in the process of B. Ed. requalification. Expand participating universities. NQT start teaching learners using new methods and M4PT-derived in-class exercises and materials.

2021-
2024

Build pre-conditions for curriculum change (lecturer demand & confidence, PrimTed standards links, DHET advocacy), develop materials, train lecturers, test materials, document findings to demonstrate research-based evidence of effect, and train some ITE student teachers

A long-term impact model requires continuous momentum. Each year becomes more generative but only if there are no gaps in maintaining networks and university commitment.

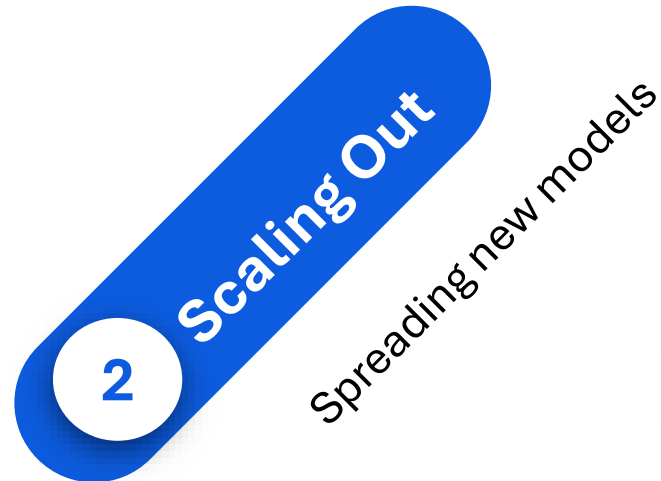


Thinking about Scale: Up, Out or Deep

“The prevailing concept of social innovation's scale has been fixated on "scaling up" (influencing policy) and "scaling out" (spreading new models) heavily influenced by the business world's ideals of growth, individualism, competition, and quantifiable outcomes. In doing so it overlooks the importance of slow, steady, and contextually rooted work in deepening relationships and healing. We call this “Scaling Deep” and is understood as the deep personal and broad cultural transformational work that is required to create durable systems change.” <https://systemsanctuary.com/scale-deep>



M4PT is already integrated with the PrimTEd policy process. By building a collective voice among expert math lecturers, the network is well placed to continue exerting policy influence, especially once the MRTEQ is formally adopted and PrimTEd implementation is encouraged in the B.Ed. re-curriculation processes.



M4PT successfully scaled from 4 universities in 2022 to 9 universities in 2024. Further scaling out to face-to-face B. Ed. programmes is possible in Phase 2. The most significant scaling out will depend on the future adaptation of materials for online courses, given the large % of ITE students being trained by UNISA and NWU. The future M4PT materials and assessment will need to be bilingual to respond to the move to mother-tongues-based bilingual education.



M4PT Phase 1 has been an expression of scaling deep. This has provided a necessary foundation for scaling up and out from the basis of a confident network of contextually embedded professionals working towards a common goal.



Recommendations from participants

All interviewed participants strongly supported the M4PT programme continuing into a further phase.

There were no recommendations for significant shifts in programme design. Some options for operational adaptation included:

- **Expanding the number of modules** to include all PrimTEd standards, and all basic operations (including multiplication and division), including more modules that can be used in the intermediate phase.
- **Offering coaching sessions** at different times to enable lecturers to attend who teach in the current afternoon slot
- **Separating the printed materials into a ‘textbook’ and a ‘workbook’ component** so that textbooks can be used by multiple students or across multiple years of a course, with each student receiving their own workbook for exercises. This was suggested only if no other resourcing could be found for the current integrated textbook/workbook, since a single integrated resource was considered beneficial.
- Phase 2 could include **greater coaching support for lecturers to engage with their university administrations** on resourcing decisions, such as how to negotiate for textbook costs to be included in course fees.
- Responding to the move to **mother-tongues based bilingual education**, the M4PT materials and assessments will need to be bilingual. isiXhosa-English, Sesotho-English, isiZulu-English, Sepedi-English

