

INTRODUCTION & BACKGROUND

Setting the scene

Theory of Change

ONLINE LEARNING

Lessons about learning online

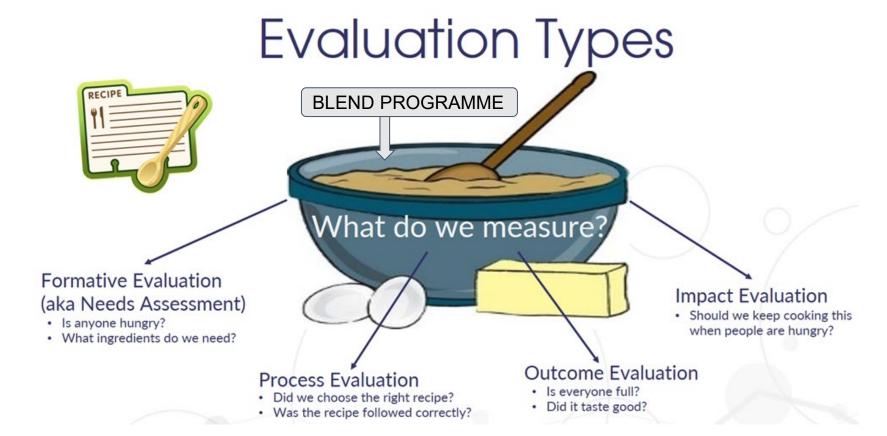
LEARNING THROUGH PLAY FOR MATHEMATICS

Lessons about learning through play for mathematics

PROFESSIONAL LEARNING COMMUNITIES

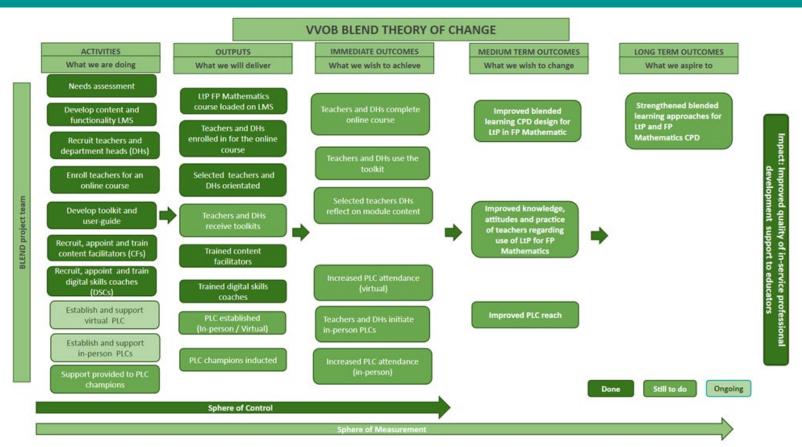
Lessons about professional learning communities



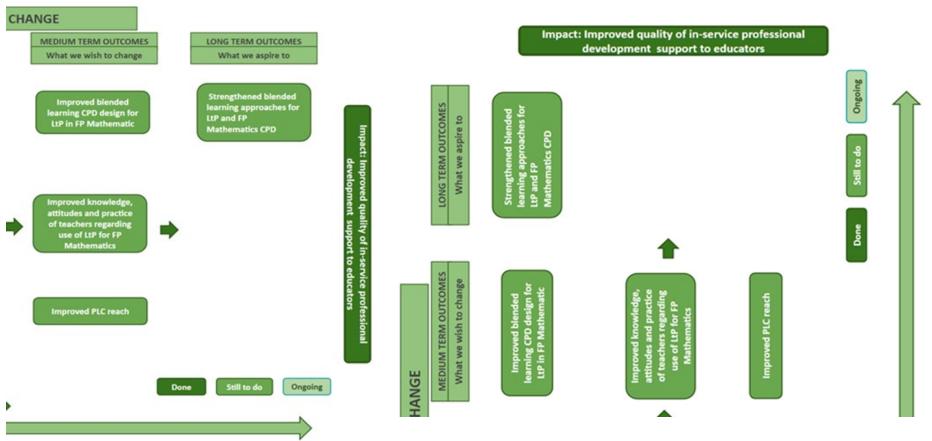




What are the contributions of blended approaches to teachers' and school leaders' continuous professional development?



Medium outcomes, long term outcomes and impact



then before. · Legeners are now more **ONLINE LEARNING** Qa tor Me, Someone which was her first time Exploring online Course I found it Challenging at first then on my nest attempt I find help then I was able to finish the course. · We explore new activities which were interesting comper and very easy and more understandable to learners like - Using Compty container. Q3 This learning content is very useful to most

Online course and social learning page - LESSON = TECHNICAL CHALLENGES AND TIME [CAN

<u>BE OVERCOME</u>]

Completed online course - LMS user data [midline - Nov]

Improved blended earning CPD design for LtP in FP Mathematic Strengthened blended learning approaches for LtP and FP Mathematics CPD

	No	No	Yes	Yes	Total	Total
Modality	Number	Proportion	Number	Proportion	Number	Proportion
Asynchron ous	146	34%	279 [96]	66% [70%]	425	100%
Synchrono us/ blended	137	29%	344 [178]	72% [82%]	481	100%
Total	283 [274]	31%	623 [274]	69% [78%]	906 [353]	100%

A total of 71 educators [midline survey] indicated that they had **NOT** been able to complete the online course, citing a number of reasons.

- Unstable internet connectivity (34%) (synchronous/blended 19%, asynchronous 15%)
- Lack of time (31%)
 (synchronous/blended 11%, asynchronous 20%)
- Challenges with logging on to the course after registration (30%) (synchronous/blended 17%, asynchronous 13%)
- High data costs (n=15)
 (synchronous/blended 6, asynchronous 9)





LEARNING THROUGH PLAY FOR MATHEMATICS

Learning through Play for Mathematics - LESSON - Completion = Enhanced reported knowledge and confidence

Improved knowledge, attitudes and practice of teachers regarding use of LtP for FP Mathematics Strengthened blended learning approaches for LtP and FP Mathematics CPD

- While respondents had expressed *confidence* in their understanding of teaching mathematics with a play-based approach in the baseline survey, in the midline survey, they were more likely (in the endline 58%, 34% in the midline compared to 13% in the baseline) to *strongly agree* that they were confident in their understanding of learning through play for mathematics. And in the endline, even more likely strongly agree (4%/13 in the baseline)
- Moreover, respondents in the **synchronous cohort were** more likely (64%) than in the **asynchronous cohort** (37%) to strongly agree. [endline]
- A greater proportion of respondents at rural schools (64%) than at urban schools (27%) indicated that the online course had greatly enhanced their knowledge of learning through play. [endline greater diff than midline]
- **Most** educators that responded to the endline survey reported **enhanced knowledge** of learning through play as a result of the Teaching and Learning Foundational Mathematics through Play online courses.
- There was **less** of a difference between the level of **concern about having enough time to meet curriculum** schedules from endline (agreed and strongly agreed = **49%**) to midline (agreed and strongly agreed = **64%**) to baseline (agreed and strongly agreed = **83%**) responses.
- The level of concern about having enough time to meet curriculum schedules if they use play-based learning activities in mathematics **decreased** in both the **synchronous** and **asynchronous** cohorts.



It would be easier for me to include play-based learning (Responses to yes - midline)

	Lessons Plans		Play-based resources [endline - 41% = ONE THING]		Less learners in my class		More space in my classroom		Support from my principal	
Modality	Yes		Yes		Yes		Yes		Yes	
	Number s	Proportion	Number s	Proportion	Number s	Proportion	Number s	Proportion	Number s	Proportion
Synchrono us	136	63%	190	88%	150	69%	165	76%	129	60%
Asynchron ous	107	78%	119	87%	96	70%	95	69%	75	55%
Total	243	69%	309	88%	246	70%	260	74%	204	58%

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PROFESSIONAL LEARNING COMMUNITIES

Professional Learning Communities (PLCs) - LESSON = Access to a PLC is a primary

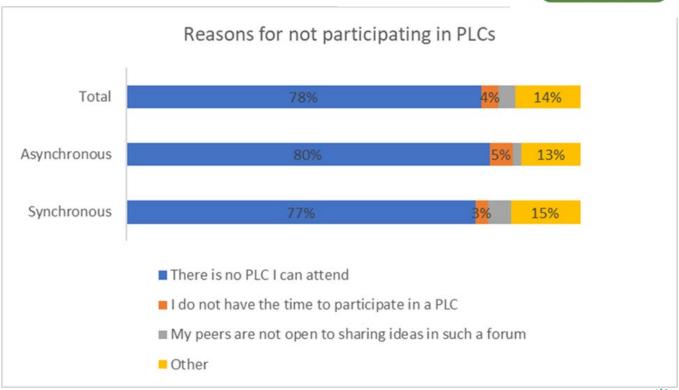
<u>requirement</u> for participating in a PLC

Improved PLC reach

Strengthened blended learning approaches for LtP and FP Mathematics CPD

 Access to PLCs that were established at schools grew exponentially from baseline to midline. At baseline, 47% of respondents indicated that there was a PLC at their school, compared to 80% who reported so at midline.

 At endline 86% reported having a PLC at their school.





IMPLICATIONS for Improving BLENDED learning approaches

Challenges addressed within implementation

Technical support should be an integral part of the implementation rather than a reaction to difficulties experienced by participants.

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Environmental challenges

Digital access and readiness must be addressed in relation to specific contexts.

65% COMPLETION RATE

Improving blended learning approaches to professional development should adopt an approach that sees educators as motivated and interested.



02

Beyond implementation team

Support and monitoring of the distribution of toolkits is key to ensuring delivery

Practice enables

Content provided during related professional development could focus on providing solutions to the obstacles as well as encouraging and promoting related innovations.



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SIYABONGA