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Me, You and Science Too (MYST) Final Evaluation Report: A Summary

MYST Overview

Me, You and Science Too was funded by the SHINE Trust under their Ready for School Funding Initiative. MYST was a STEM and literacy engagement project, supporting families of children in Early Years at Battle Hill Primary School. Over two years, October 2019 — December 2021, MYST brought families together, sharing a variety of young children's fiction in ten tailored story-reading and STEM activity sessions. By providing regular interactions, carefully curated literature, and engaging, replicable STEM activities it was hoped children's outcomes in reading and science would be improved, as they read more STEM books and did STEM activities more often at home with their families. The MYST project also aimed to:

- 1. Increase access to STEM literacy in homes
- 2. Increase the frequency of shared reading among families
- 3. Increase enjoyment with regards family reading of early years texts, and particularly in STEM
- 4. Improve home-school relations in education, specifically literacy and science
- 5. Increase skill and knowledge of techniques to engage harder-to reach-families.

MYST was also a research project, adopting an action research methodology to explore the most effective ways of securing family involvement with literacy and STEM. Ideas from the field of behavioural insights (EAST model¹) were trialled and revised to explore effective practice for improving parental engagement with schools. As the delivery of MYST was moved online for year two in response to Covid-19 the opportunity arose to test this model across two contexts, virtual and online delivery.

Evaluation Methods

The MYST project employed a mixed methods approach to evaluation, combining collection of process data, feedback postcards, responsive surveys, and follow-up interviews with participating families. The evaluation methodology required revision in response to Covid-19 and the move to online delivery, which unfortunately meant that intended comparison of pre and post survey data, tracking of individuals, and consideration of additional impacts (*Increased reading and literacy ability, and increase in elements of science capital*) was no longer possible. In order to mitigate against these factors, post project interviews with parents were conducted to explore intended outcomes and aims in greater depth.

An initial working Theory of Change for the MYST project was developed, and was tested and further refined over the course of the project.

¹ Behavioural Insights Team. (2014). EAST Four simple ways to apply behavioural insights. The Behavioural Insights Team. https://www.behaviouralinsights.co.uk/publications/east-four-simple-ways-to-apply-behaviouralinsights/

How well were delivery and engagement targets met?

The Covid-19 pandemic presented challenges for both delivery and engagement targets. As a result, not all deliverables were implemented in full. After a break in delivery between March – October 2020, delivery resumed in November 2020 and 8/10 book sessions were able to be completed during the project period.

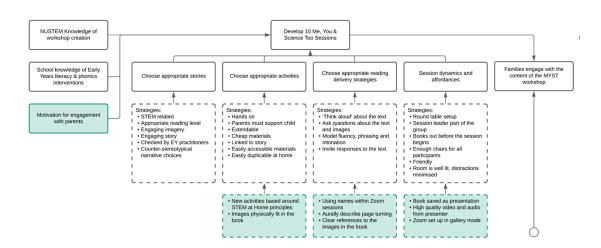
A project website was set up at https://nustem.uk/myst/, which outlines the sessions delivered, the books covered and the accompanying STEM activities. All children in Reception and Nursery received a copy of each of the books, with a total of approximately 1000 books distributed.

The target to work with 180 children and families from Battle Hill Primary School (60 in Year 1 and 60 in Year 2) were achieved. In the first year of delivery engagement among families was very strong, with engagement above target (88 children) and 64% of families attending all the book session provided. Engagement with online delivery from Year 2 was still high, although lower than in-person, with evidence again identifying high-repeat engagement.

How well did the Engagement Model work?

The MYST Project applied the EAST Guidance (developed by the Behavioural Insights Team) as a model for building best practice in engaging parents. The guidance describes four key prompts that should be incorporated into the design and delivery of an activity intended to influence behaviour: make it easy, make it attractive, make it social and make it timely. In the MYST project this model was used specifically to guide the promotion of the sessions to families.

The Covid-19 pandemic forced the move to online delivery of the MYST book sessions, and thus allowed the model to be trialled across both face-to-face and online environments. The diagram below shows how the model was applied within the development strategy of the MYST project, and further adapted (green boxes) to respond to online environments. The model was found to be valuable in both contexts, in supporting the delivery team think about how to reduce any barriers to engagement.



Engagement was lower in online contexts as barriers to engagement were greater, including digital literacy, data poverty, zoom fatigue as well as additional time pressures on families caused by Covid. Despite this many parents showed commitment to supporting their child's learning and regularly attended the online MYST book sessions. The feedback from parents indicated a preference for face-

to-face over online models, but parents reported that delivery over zoom had worked well, and praised session presenters for making them interactive and engaging.

Did MYST achieve the intended aims?

The project found evidence to support an increase access to STEM literacy at home, an increase in enjoyment with regards family reading of early years texts, an improvement in home-school relations in education, and an increase skill and knowledge of techniques to engage harder to reach families.

• Increased access to STEM literacy in the home

engaged.

- 120 copies of each of the 8 MYST books were bought. These were given out in sessions to Nursery and Reception children after sessions, were sent home in school bags if children hadn't attended a session, or were added to the school library. Being gifted the books was shown to be an exciting part of the experience for children, and we believe that seeing STEM story books in across different contexts (home/school/TV) in beneficial in validating STEM in the eyes of children. We found that while parents have added the MYST books into their books at home and use them regularly, we found that the STEM activities were not repeated as often.
- Increase enjoyment with regards family reading of early years texts, and particularly in STEM Pre-session surveys indicated already high levels of enjoyment with family reading and that many children liked books. Parents reported attending MYST sessions to support this interest further. Levels of enjoyment for the sessions were high, with 82% of parents reporting to have enjoyed the sessions, with 65% of parents reporting to have enjoyed them a lot. Comments from parents showed they enjoyed the opportunity to read more diverse books than usual, and that the opportunity to combine stories with supporting activities served to make reading more fun.
- Improve home-school relations in education, specifically literacy and science

 Parents valued the opportunity and invitation to come into school as part of the MYST project. Post workshop feedback asked the reasons parents chose to attend, and highlighted the strong desire of parents to support their child's learning (15%) and find out how they are getting on in school (12%). After sessions communication from parents increased on the schools SeeSaw app, as they shared photos and comments of their at home activities. During Covid-19 parents were unable to come into school, and while the schools communicated in other methods, we found parents missed the opportunity to come in.
- Increase skill and knowledge of techniques to engage harder-to reach-families

 By applying, trialling and revising the East model through-out the MYST project, both NUSTEM and staff within Battle Hill Primary school increased skills and knowledge in engagement. The main learning was that to accommodate as many families as possible, book sessions would need to be delivered at a variety of times and days. The model helped focus how barriers to engagement could be broken down, with the result that many families previously thought of as hard to reach were

Evidence did not show an increase in frequency of shared reading among families but did support a diversification of reading materials used within family homes.

"It has allowed our children to not only learn, but learn while spending quality time with their parents in a fun and interactive way in school. This has definitely broken-down barriers for some families."

Head Teacher, Battle Hill Primary School

"Somebody Swallowed Stanley, she loved that one. She told everyone about it and then we went to the beach and things and suddenly she's 'you've got to take your rubbish home because it ends up in the sea'. She really notices what the book says".

Parent attending MYST project

"They have loved receiving a new book every half term and for some children these are the only books they own. The project has given us the opportunity to engage with some of those hard-to-reach parents, allowing us to build some positive relationships and giving them the chance to work with their child in school. It has been an extremely successful project and hugely beneficial to our children and families."

EYFS Lead Teacher, Battle Hill Primary School



This project was funded by the SHINE Trust under their Ready for School Initiative.

We would like to thank the SHINE Trust for making this project possible, and for their support and flexibility during the Covid pandemic.



We would like to thank children, families and staff at Battle Hill Primary School for their enthusiasm and continued engagement with the MYST project during the difficult circumstances provided by the pandemic.

Finally, our deepest thanks goes to Joanne Smith Early Years Practitioner and Parental Engagement lead at Battle Hill Primary School. Joanne's hard work, patience and dedication to the project and families at Battle Hill were integral to its success.

This report was compiled by the NUSTEM Group at Northumbria University, February 2022, as a summary of the Final Evaluation Report.

For further details about NUSTEM or to discuss the content of this report, please get in touch at the details below.

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