NCSE PRACTICE-BASED RESEARCH PROGRAMME 2025/26

SCHOOL RESEARCH SUMMARY

School name: Bracken ETNS
Practising teacher lead: Laura O'Shaughnessy/ Laura Collins
Research theme: Leading an Inclusive Transition from Textbooks to Playful Learning Experiences within The New Primary Maths Curriculum

Research aim:

•To develop an understanding among the leadership team of staff perspectives on the teaching of The New Primary Maths Curriculum without textbooks in the various settings throughout the school (Autism classes, SET, Infant Classes, Middle School and Senior School).

•Incorporate student voice in the decision making process of teaching The New Primary Maths Curriculum without textbooks.

•To enhance the use of digital resources during Maths lessons in the junior school and Autism Classes.

•To support the communication of children's progress in maths with parents/caregivers.

Methods

A mixed-methods research design was used to gather both quantitative and qualitative data, enabling us to deepen our understanding of staff and pupil perspectives on the implementation of the New Primary Mathematics Curriculum without textbooks. The following data collection methods were used:

•Teacher questionnaire: A whole-staff questionnaire was distributed to teachers across all settings within the school, including mainstream classes, Autism Classes and Special Education Teaching (SET). The questionnaire gathered quantitative and qualitative data on teachers' experiences, perceptions, confidence levels and resource needs relating to the implementation of the New Primary Mathematics Curriculum.

•Teacher focus groups: Semi-structured focus groups were conducted with teachers in the junior end of the school during Croke Park hours. These discussions provided rich qualitative data, allowing participants to explore challenges, share examples of effective practice, and identify supports required for a successful transition to playful, textbook-free mathematics teaching.

•Student voice questionnaires: Pupil questionnaires were administered in the senior end of the school to capture students' experiences and perceptions of mathematics learning. This ensured that student voice informed the decisionmaking process and provided valuable insights into learner engagement, preferences and experiences within the new curriculum.

•Analysis of standardised testing data: Quantitative data from whole-school standardised mathematics assessments were analysed to provide an objective measure of pupil attainment and to identify trends in mathematical achievement across class levels. Members of The Maths Leadership Team used these test scores alongside the teacher and pupil findings to provide a broader evidence base for evaluating current practice and informing future planning.

•A total of 85 participants took part in the research. 37 teachers from across the school, including mainstream classes, Autism Classes and Special Education Teaching (SET), participated in the teacher questionnaire, with a subgroup of junior school teachers also taking part in focus groups.48 pupils from the senior end of the school participated in student voice questionnaires, ensuring that children's perspectives informed the research findings and subsequent decision-making.

Research findings

The research found that staff are highly committed to implementing the New Primary Mathematics Curriculum and have already embraced many of its key principles. Teachers are placing a strong emphasis on conceptual understanding, mathematical language, problem-solving, collaboration and active learning, while inclusive practices such as differentiation, flexible grouping and the use of practical resources are well established across the school. Although textbooks continue to be used from 2nd to 6th class as a support some days, staff are beginning to move towards a more balanced, resource-rich approach in line with the aims of the new curriculum.

Teachers demonstrated reasonable familiarity with the curriculum and the Primary Mathematics Toolkit but identified a need for continued professional learning to build confidence in using newer guidance documents and implementing playful, textbookfree approaches consistently across all settings. Student voice reinforced this direction, with pupils expressing a preference for practical, collaborative and engaging mathematics lessons that incorporate games, discussion and hands-on learning.

Teacher feedback highlighted the importance of prioritising professional learning in playful and exploratory mathematics, differentiation, supporting pupils with additional educational needs and high-achieving learners, the effective use of manipulatives and visual representations, digital technologies, and opportunities for collaboration and shared practice.

Analysis of whole-school standardised assessment data indicates that the school continues to perform strongly while transitioning to the new curriculum. Overall achievement compares favourably with national norms across all class levels. A particularly strong outcome was observed in First Class, where 35% of pupils achieved a standard score above 110, exceeding the national norm of 25%. It is important to note that textbooks were not used in these classes. The proportion of pupils performing below the 2nd and 16th percentiles remains at or below national averages, while the percentage of pupils achieving above the 98th percentile in Fifth and Sixth Class exceeds the national norm.

The data also identified areas for continued monitoring. The proportion of pupils achieving above the 85th percentile has declined slightly over recent years, and attainment in the strand of Measures has reduced marginally across Second to Sixth Class. However, strengths remain evident, with Senior Infants continuing to achieve highly in Numeration, improved addition and subtraction outcomes, and a significant reduction in the number of pupils exempt from standardised testing. The stable outcomes achieved by classes receiving targeted interventions suggest that these approaches have had a positive impact.

Top 3 findings

Teachers are positively embracing the move away from textbooks. Staff reported growing confidence in teaching mathematics through playful, hands-on and inquirybased approaches, supporting the school's successful removal of textbooks from Junior Infants to First Class and the planned extension to Second Class.

Building familiarity and confidence with the new curriculum remains a key priority. While teachers demonstrated good knowledge of the New Primary Mathematics Curriculum and the Primary Mathematics Toolkit, the research highlighted a need for continued professional learning and collaborative practice to deepen understanding of the curriculum guidance and available resources, ensuring consistent implementation across all settings.

Staff value student voice and are committed to implementing the curriculum collaboratively. Teachers expressed strong support for using student voice to inform teaching and learning. Combined with recent professional learning on using photographs as a form of formative assessment, this provides an opportunity to further embed pupil voice, strengthen assessment practices and shape future curriculum implementation.

Impact of your research

The findings from this research demonstrate a positive impact in reducing the reliance on mathematics textbooks across the school. Textbooks had already formally been removed from Junior Infants to First Class, and we are now going to extend this approach to Second Class in the coming school year. Staff attitudes towards teaching mathematics without textbooks have become increasingly positive, with greater confidence in using playful, hands-on and inquiry-based approaches to support children's learning.

The research also highlighted the importance of continuing to invest time in developing teachers' understanding of the New Primary Mathematics Curriculum and the wide range of supports available through the Primary Mathematics Toolkit. This will be achieved through sustained professional learning alongside collaborative practices such as peer observation, co-planning and the sharing of effective practice.

Finally, the research reinforced the value that staff place on incorporating student voice into teaching and learning. Recent professional learning on the use of photographs as a form of formative assessment has provided teachers with practical strategies to capture children's mathematical thinking, enhance student voice and communicate learning more effectively with parents and caregivers. These developments will continue to support a more inclusive, engaging and learnercentred approach to mathematics across the school.

Priority 1: Build Teacher Capacity and Confidence
Develop staff confidence in implementing the New Primary Mathematics Curriculum through sustained, collaborative professional learning. Provide ongoing CPD focused on playful mathematics, mathematical inquiry and problem-solving. Facilitate collaborative professional learning through lesson study, peer observation, coplanning and professional learning communities. Deepen teachers' understanding of the Primary Mathematics Toolkit, progression continua and curriculum guidance to reduce reliance on textbooks. Strengthen inclusive practice by developing expertise in differentiation, Universal Design for Learning (UDL) and supporting learners across mainstream, SET and Autism Classes.

Priority 2: Embed High-Quality, Inclusive Teaching and Learning
Ensure all pupils experience engaging, inclusive and conceptually rich mathematics learning. Develop a whole-school approach to the effective use of digital technologies to enhance mathematical thinking, particularly in the junior school and Autism Classes. Continue to embed playful, inquiry-based and hands-on approaches that promote conceptual understanding and mathematical engagement for all learners.

Priority 3: Strengthen Assessment, Communication and Student Voice
Use evidence to inform teaching, support learner progress and strengthen partnerships with pupils and parents. Develop consistent whole-school approaches to formative assessment and communicating children's mathematical learning with parents through digital portfolios, learning stories and examples of children's work. Continue to incorporate student voice into curriculum development and decisionmaking to ensure pupils' experiences inform future teaching approaches and resource selection.

The findings have directly informed our DEIS Action Plan, enabling us to identify clear, evidence-based priorities and set measurable targets for improving mathematics teaching and learning.

The research has also validated our approach to reducing the use of textbooks, demonstrating that a more playful, inquiry-based model can be implemented successfully while maintaining strong pupil outcomes. Staff and student feedback has provided valuable insights into current practice and highlighted areas for further development.

In addition, the findings will inform the review and development of our Whole-School Mathematics Plan and Mathematics Policy, ensuring that future practice is underpinned by evidence and aligned with the vision of the New Primary Mathematics Curriculum. The research has also strengthened professional dialogue among staff and established a shared understanding of the next steps required to build confidence, consistency and high-quality mathematics teaching across all settings.