

The response of the Association of Teachers of Mathematics (ATM) to the Early Years Foundation Stage (EYFS) - consultation on a single quality framework for services to children from birth to five.

At the Autumn term Foundation Stage conferences, Early Years Educators were informed that the objective of the renewal and revision of the Foundation Stage curriculum and Primary National Strategy was to describe an “over-arching birth to 11 phase” to support continuity and coherence: a continuous learning journey from birth to 11 years of age.

The current consultation documents spectacularly fail in this main objective. Our comments relate to that journey for a child in their mathematics learning, and will focus on the following:

- The heading ‘Mathematical development’ having been replaced with the heading ‘Problem solving, reasoning and numeracy’.
- The three strands in the mathematics section of the new EYFS, and the seven strands in the draft renewed Primary National Strategy’s (PNS) Framework for Mathematics.
- The new bullet points inserted into the ‘development matters’ column of the EYFS.

The heading ‘Mathematical development’ being replaced with the heading ‘Problem solving, reasoning and numeracy’.

We insist the heading ‘mathematics’ is reinstated for the following reasons; Firstly, there is no continuity between the EYFS and the PNS if these are different.

Secondly, there has been no reason given - educational or otherwise - for this change being made. We would argue there is a sound educational rationale for the opposite. There is a well-documented fear of mathematics in our country, and a disturbing lack of continuation of the study of mathematics at higher levels, which well established and reputable organisations such as the ATM (the Association of Teachers of Mathematics) are committed to tackling. One of our Association’s guiding principles is to encourage increased understanding and enjoyment of mathematics. By removing the term ‘mathematics’ from the EYFS such work is undermined. In order to help people to recognise what mathematics is, and that it is mathematics they enjoy engaging with, we must use the correct term. Mathematics starts from birth, not just when children are of statutory school age.

The proposed three strands of the mathematics section of the new EYFS, and seven strands of the draft renewed Primary National Strategy’s (PNS) Framework for Mathematics.

Once again this is an issue of continuity; the original reason given for a revision. There is no logic in making the number of strands different in each document. We wonder what sense this will make to a Reception teacher, who has to refer to both documents. This anomaly works against continuity and coherence. We draw your attention to the statement on p9 of the Draft Framework for Teaching Mathematics: *‘It is envisaged that both the EYFS and the renewed literacy and mathematics Frameworks will provide integrated advice to practitioners about supporting children’s care, learning and development...’*

The new bullet points inserted into the 'development matters' column of the proposed EYFS.

There has been much new material inserted as bulleted objectives, particularly at the 'level' of the Early Learning Goals. These additions are not built on any well thought-out mathematical progression from earlier 'levels'.

It appears that these new objectives have been added to the 'Core learning' listed under the Foundation Stage in the Draft Framework for Teaching Mathematics (p27). We are not clear why these have been selected. Neither is there a clear relationship between these additional objectives and the Early Learning Goals. The additional bulleted objectives are unhelpful and ill-developed. They do not appear to be based on current knowledge and research into the development of early mathematical learning.

Much of the progression described under 'Development matters' in the EYFS is muddled and some is incorrect. This is particularly true of Shape, Space and Measures. For example, the statement 'use non-standard units and explore the need for standard units' is included under the 'Planning and resourcing' column at the 30-50 month-old (cycling child) 'band', which is entirely inappropriate.

The selection of objectives concern us. In particular we question the re-introduction of 'one-to-one correspondence' as a preliminary to counting; why, for example, has this been chosen as a Foundation Stage objective, and not the skill of subitising?

More importantly, there are far too many bulleted objectives in the EYFS. We are not aware of any evidence demonstrating that increasing the amount of bullet-pointed objectives leads to an improvement in the learning and teaching of mathematics. On the contrary, such an increase contributes to a mistaken impression of mathematical development as an ever-increasing collection of discrete elements to be learned.

Mathematical learning is not about acquiring 'blobs' of knowledge of increasing difficulty. It is about learning to draw on knowledge and skills to reason and solve problems. We have to help both practitioners and children recognise links between, what might appear to be discrete, parts of mathematics. Adding more discrete objectives will not help this happen, nor will it help practitioners form an overview of the essential mathematical development of the children they teach.

In particular, we repeat our request made in previous responses, for any part of the Foundation Stage to be removed from the Primary National Strategy documentation. Including the Reception year in PNS documentation has led to unfortunate pressure on Foundation Stage children to work in inappropriate ways. If the two new documents, the EYFS and the PNS Framework are compatible, coherent and seamless, its inclusion is unnecessary.

Our concern is that if the documents stay as they are, difficult to reconcile, and the EYFS as incoherent; page 27 of the PNS Draft Framework for Teaching Mathematics that lists 'Core learning' for the Foundation Stage will become the impoverished curriculum document for many Foundation Stage children, whatever stage of development they are at. This would be a retrograde step and completely unacceptable.

We also have concerns about the following:

- The EYFS column headings - In particular it is not a clear what is meant by 'Effective practice' and 'Planning and resourcing'. Some of the 'Planning and resourcing' statements are unnecessarily prescriptive.

- The drawings of children to describe a 'band' or 'level'. These are insulting and simplistic. There is no vocabulary to discuss the 'levels' or 'bands' that are indicated in the documentation. It is our experience that practitioners were working well with the stepping stones in the Foundation Stage curriculum document.
- The lack of insistence on outdoor play and natural adequate light in the section outlining the new national standards (p125). The statement here is that outdoor play and natural adequate light are required 'wherever possible'. This statement is unacceptable. The review of the EYFS and the bringing together of educational and health requirements is a chance to raise the standards of child care in this country for the next 10 years. Do we really want children to be spending most of the day in settings without either of these in even 5 years time? Access to outdoor play and natural adequate light cannot be 'optional requirements', particularly for children in full-time care.
- The lack of rigour regarding adult-child ratios and necessary qualifications (p120). Currently it appears that having any teaching qualification, not necessarily one specialising in early years education, can reduce the adult-child ratio to 1:13. This is unacceptably slack and will sacrifice quality for convenience.

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