

A Good Foundation for Number Learning for Five Year Olds?

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This article evaluates the Early Learning 'Numbers' Goal in England, in the light of research

In 2012 the expectations for five year olds in England were increased considerably with regard to number (DfE, 2012a). It might have been expected that the new additions were based on research and international comparisons, but an examination of the evidence shows no support for the Numbers Goal as realistic for the majority (here is the link to the full article outlining this evidence although you will need to log in/pay to view it). This is in contrast to the previous Early Learning Goals for number which were supported by research. In fact, many of the new items, such as counting on to add, were included in the previous version at a higher level which was achieved by only 7% of five year olds (DfE, 2012b).

Because the Numbers Goal lists lots of number skills and understandings with no clear progression, there is no framework to assist teachers in planning and assessment, such as exist in other countries, like New Zealand (NZME, 2010a and 2010b). The teachers' support materials for the Numbers Goal lack guidance about key issues, such as the trickiness of the teen numbers for young children (STA, 2012 and DfE, 2013). There are no helpful examples of individual items, like solving problems involving doubling and halving, to show what level of understanding is expected.

If the authorities were to consider research, they would find pointers to some key aspects which predict later success in number learning. These could form a 'number sense' goal which would provide a good foundation for five year olds, focusing on the meaning of numbers, such as the 'nineness of 9', and developing a feel for the relative size of numbers. Number sense can easily be fostered through an informal play-based curriculum with outdoor activities, games and routines. Developing number sense could also be exemplified in terms of the EYFS learning characteristics:

- · playing and exploring
- active learning
- creating and thinking critically (DfE, 2012a, p. 19).

The <u>NRICH Early Years activities</u> provide good examples of this approach, with problem solving providing opportunities for creative and critical thinking through stories and rhymes, as well as classroom routines such as tidying up or sharing fruit. This approach helps develop 'children's readiness for school' by fostering confidence and curiosity with numbers, which really should be the priority goal.

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