

## **Dyscalculia – A Difficulty with Numbers**

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**Many children (and even some adults!) whilst experiencing no difficulties with reading or with the written word, have enormous difficulty understanding numbers, mathematical concepts, money, telling the time, map reading etc. Many of those who have these difficulties have also found that, whilst they may appreciate listening to music, they are not musically inclined.**

Whilst there has been a great deal of research over the last century into the causes of literacy failure, very little has been done to establish the causes of mathematical failure nor has there been any serious attempt to provide effective remedial programmes to help, despite the incidence being estimated in England and elsewhere at between 3 and 6% of the school population. Part of the reason may lie in the belief by some that whilst it is embarrassing to be illiterate, there is no such stigma attached to being innumerate.

The definition of dyscalculia is “an unexpected difficulty with mathematical problems”. At its simplest, it is a child whose age and intellect indicate that he or she will be able to undertake a certain range of skills but who, in effect, is unable to handle maths problems that would be expected to be within his or her capacity. The former Department of Education and Skills published guidance for teachers in 2001.

Some early research had suggested that dyscalculia is derived from a specific genotype – that is a genetic anomaly that may result in a specific deficit in the learning of numerical skills.

Research at University College, London suggests that dyscalculic children are troubled even by the simplest numerical tasks like selecting the larger of two numbers, counting the number of objects in a display and activating the meaning of numerals.

A recent report from the Basic Skills Agency found that poor numeracy is more of a handicap than poor literacy. In its most severe forms, children cannot learn to tell the time, know the date, shop competently nor even do simple arithmetic. There is little doubt that failure to master basic mathematics can cause intense frustration and even deviant behaviour. An inmate at one of Britain’s top prisons said that he was so embarrassed by his inability to calculate money that it had been “easier to nick it than ruin his street credibility” by admitting his weakness. He went on to say that no-one had ever tried to teach him in a way that he could learn but had always shouted at him for his inability to do the simplest things.

All mathematics teachers have encountered children with mathematics learning difficulties and mathematics anxiety. Most of these teachers have some awareness of the nature of learning disabilities/problems in mathematics. However, few teachers are aware of the causes of these problems - learning disabilities, mathematics anxiety, and dyscalculia. In fact, very few of them are able to recognize and deal with the problems of dyscalculics.