

NEWS LETTER

British Olivetti Ltd - 30 Berkeley Square, London W1



Experiment proves Olivetti machines make it easier to learn maths

When Mr. Penfold joined Lymington Secondary Modern School, Dagenham, as Head of its Mathematics Department last September, he was confident that, "logarithms and the slide rule were the best methods of calculating in secondary modern schools". Since then, however, he's changed his mind. Ask him today what the best method is and he will undoubtedly reply, "Olivetti machines".

The cause of his change of mind was the free loan by British Olivetti's Education Department of seventeen Summa Prima 20 add/listers and six Divisumma 24 machines for an experiment in teaching calculation, which, Mr. Penfold told an audience of teachers and parents at Barking Town Hall, brought about "a re-realisation of mathematical processes that we learned very early in our schooling". Using the Prima, for example, emphasised the concept that addition is the basis of all processes. Subtraction is the addition of negative with positive numbers. Multiplication is repeated addition; division is repeated subtraction.

Two methods were used to introduce the adding machines to children whose ages ranged from 11 to 15 years. Some children were given a formal explanation of how to use the machine; others were just left to find out how it worked. A wonderful testimony to the simplicity of the Summa Prima 20 is the fact that it took 2½ hours to teach one group of children the multiplication process formally. Using the 'discovery' method, some children learnt the process quicker. Moreover, learning by 'discovery' was by far the more solid method considered Mr. Penfold, who went on to say: "the main aim of the machine is to release the pupils'

energies to the problem of maths instead of mentally tiring themselves out on the calculation". For example in a statistics question much fatiguing and error-prone spade-work was eliminated, and the children were enabled more quickly and fully to come to grips with the basic ideas behind mechanical processes.

"To us it was an unreal experiment having all this equipment on loan in a secondary modern school", concluded Mr. Penfold. "We can only hope that in the future there will be more money in the kitty for this type of machine."

