

FARM MATHEMATICS

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In terms of out-of-school mathematics, life in the countryside can surprise and amuse us more than we expect. Mathematics is not just cloistered in technology and advanced problems but also and in rural countryside activities. Rural life is the pillar of the primary sector of any society we can think of. Regardless the development and technology of first world countries, rural life plays a little role in the base of its structure.

Activities such as feeding animals, shearing, vaccinating, preparing the land to be cultivated, preparing the animals for reproduction, recollecting eggs, or simply identifying animals are tasks from the farmers' daily routines which include lots of mathematical processes. I believe there is a need to identify the mathematical content and procedures outside the formal environment of Mathematics in order to understand better the "lifelong learning" phenomena in which adults are immersed. For instance, a farm is a simple example of a non-formal location where to discover and analyse the processes and the mathematical knowledge involved in them.

People who learn to solve problems 'on the job' often have to do it differently from people who learn in theory, at school. I would like to show the evidence of the knowledge utilized by subjects with little schooling in mathematics for developing certain work-related tasks in a farm.

The research is being conducted in two farms from Lleida, Catalunya, in the north of Spain. One of them is a calf's farm with 184 females and 96 males. It is ruled and controlled by two farmers, who are the owners. They also have over 200 lambs and chickens. The second farm is a farm that produces goods for self-consumption and for small selling. They have chickens and rabbits and they sell wine, olives, and other small homemade products. The owners are an old non-literate couple.

The phenomena that I am researching is the identification of rural mathematical mental processes within these two farms, what the farmers know and how mathematical problem solving can be related to real-life situations. Those farmers have already developed mathematical strategies (particularly arithmetical), and it is important to become aware of what these strategies may be.

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