There is a plethora of international research, especially from a secondary school perspective, on the benefits to pupils of an investigative approach in science, developing their knowledge about the nature of scientific activity as well as motivating and improving conceptual understanding. There are also sceptical voices, who question the effectiveness of such activity in schools and who point to the lack of definite findings on conceptual achievement benefits. Teachers, however, as evidenced in the UK Score report, believe that investigative activity is beneficial to learning about science. Does this belief in investigative approaches translate into actions in the classroom?

This paper review analyses the data from a survey of 800 primary aged children and their teachers from nine European Countries (Italy, UK, France, Czech Republic, Netherlands, Sweden, Denmark, Germany and Greece) and Israel on their perception of science and technology/engineering activities in school and their attitudes to those subjects. The data was collected in questionnaires and through observations of classroom practice in the 10 countries. The children were also asked about their views of science and technology/engineering as a result of the project and about the materials. The children were aged 10-12 yrs in mainstream mostly state provided schools. The teachers' experience varied from science specialist to non-specialist.

The data was collected as part of the 'Engineer' project. 'Engineer' is a curriculum development project, funded by EU Framework 7, which teaches science through an engineering context. The materials were inspired by the successful 'Engineering is Elementary' curriculum scheme run by Boston Museum of Science. The project uses an Engineering cycle and investigative approaches in science using contexts familiar to children. These contexts span the breadth of domains of engineering e.g. bio-engineering, medical, construction, and marine engineering.

The findings identify the types of science and technology/ and or engineering activities, especially investigative behaviours, and those perceived to be undertaken in classroom by the children compared to the views of the teachers. The findings analyses the children's response by gender and country. The findings also report the children's positive response to the 'Engineer' materials. Recommendations are made for future training and support for teachers in primary investigative work in science and engineering.