# DEVELOPING THE PROGRAMME FOR MATHEMATICALLY-GIFTED CHILDREN IN PRIMARY SCHOOLS IN THE STATE OF KUWAIT

## Mohammad Alazmi, Keith Jones

*University of Southampton, UK*

This poster presents the background to an ongoing study that is researching the programme for mathematically-gifted children in primary schools in the State of Kuwait.

Mathematics is one of the core subjects in schools in the State of Kuwait. In primary schools, the subject is taught for five hours per week in the first two grades, and four hours per week in the next three grades. The aim of teaching elementary mathematics is for pupils to learn relevant mathematical concepts and knowledge, to acquire basic mathematical skills and some methods of thinking related to problem solving, and to develop the affective domain. The content includes numbers and arithmetic operations, measurement, some pre-algebra, some basic geometry, and some basic statistics

In 1993 the Council for Special Education in Kuwait initiated a teaching programme for mathematically-gifted fourth grade pupils (those aged about 10). Children selected via criteria are assigned to special evening classes for two four-hour sessions per week, in addition to their regular classes with their normal classmates. An enrichment package of mathematics activities has been prepared especially for this programme.

To enhance this programme, this research project focuses on the effectiveness of the curriculum in improving the competences of mathematically-gifted students in primary schools in Kuwait. The goals of the project are:

1. To identify what might be effective standards for current mathematics curricula in primary education in Kuwait.

2. To reveal barriers and obstacles standing in the way of utilising mathematical enrichment activities in the pupils' regular classes.

3. To examine those obstacles and suggest solutions from the perspective of the research participants.

4. To propose an education model that could be of benefit to mathematically-gifted students.

From the existing research literature, we are aware that an appropriate programme needs to prepare mathematically-gifted students to be creative through helping them to appreciate the beauty of mathematics (see, for example, Johnson, 1994). We are also aware that the review by Sharma and Teper (2008) reveals two relevant findings. First that while giftedness does not necessarily imply creativity, "nurturing creativity in gifted students will result in a fulfilling experience for the students and allow them to reach their highest potential" (p211) and, second, that cultural matters play "a surmounting role in skill building in mathematical science, which is intertwined with creativity and further linked to giftedness" (p211). Hence we expect our project to contribute to the understanding of the relationship between the students' culture and the ways in which creativity can be nurtured in mathematically-gifted students.

## References

Johnson, D.T. (1994). *Mathematics Curriculum for the Gifted*. Massachusetts, USA: Simon & Schuster.

Sharma, K. & Teper, Y. (2008), The gifted and talented: creativity, cultural perspectives and skills. In Roza Leikin (Ed), *Proceedings of the 5th International Conference Creativity in Mathematics and the Education of Gifted Students*. (pp 211-215). Tel Aviv: The Center for Educational Technology.