



TSG 18

STUDENTS' IDENTITY, MOTIVATION, AND ATTITUDES TOWARDS MATHEMATICS AND ITS STUDY

The Organizing Team

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Topic Study Group 18 in ICME-14 is about students' affect with a special focus on **Students' Identity, Motivation, and Attitudes towards Mathematics and Its Study**. Affective variables can be seen as either hidden or explicit factors that influence learning processes and outcomes. The different research perspectives used in the study of students' affect include psychological, sociological, philosophical, and linguistic, and we welcome all these as well as other perspectives. In addition to the general domain "affect", the title of this Topic Study Group highlights three concepts that have been popular in the field of mathematics education: identity, motivation, and attitudes. This should not be seen as restrictive. On the contrary, we invite discussion on all areas of affect, encompassing anxiety, attitude, beliefs, emotion, flow, goals, identity, interest, meaning, motivation, needs, norms, self-concept, values etc. All of them play a crucial role in students' learning of mathematics and they also have subtle difference. In addition, we welcome the analysis of the mutual relationship between affective constructs and their connection to cognition and other constructs studied in mathematics education as well as the description of programs for promoting aspects of affect.

The aims of Topic Study Group 18 at ICME-14 are:

1. To present an overview of the state of the art in the research field of students' affect in mathematics education.
2. To identify new trends and developments in research and practice in these areas.
3. To engage participants in a critical reflection of this field and generate discussion of an agenda for future research on students' affect in mathematics education.

In Topic Study Group 18, we welcome theoretical, methodological, empirical, or developmental papers and poster proposals on issues such as the following:

- Clarification of the dimensions of affective constructs and their relationships;
- Development of measurement instruments (questionnaires, rubrics for qualitative analysis etc.) and other methodological tools for research on affect;
- Role of the different affective concepts (see the list given above) in learning of mathematics, problem solving, proof, etc.;
- Developmental aspects of affect, e.g. development of interest, anxiety etc.;
- Intervention or comparative studies aimed at changes in affective variables;
- Relationships between students' and teachers' affect, role of affect in communication among students or between students and teachers;
- Affect as sociocultural phenomenon and lifelong learning;
- Development of learning communities that foster positive affective climate;
- Relationships between affect and gender/ethnicity/mathematical activity etc.

Any paper/poster of relevance to the overall focus of the group will be considered. The focus of the research may vary from individual students in and out of school, higher education (e.g. vocational, university, etc.) courses, to people at work or in everyday life. The study of teachers' affect alone (i.e. not in relation to learners' affect) is excluded from this Topic Study Group as this is in the focus of our related Topic Study Group 34 "Affect, beliefs, and identity of mathematics teachers".

We expect that participants will engage in the review process prior to the conference, and we will nominate respondents to presentations in order to enable deeper levels of critical discussion during the conference.