

SOME PROBLEMATIC ISSUES OF PUPILS' MATHEMATICAL EDUCATION IN LATVIA

EDVĪNS ĢINGULIS

Liepāja Academy of Pedagogy

Lielā iela 14, LV–3401, Liepāja, Latvia

E-mail: edvinsg2003@navigator.lv

The quality of mathematical education is reflected in and influenced by the level of mathematical culture. This level can be characterised by the results of a special test and the frequency of mathematical errors in textbooks and materials published in mass media. However, it cannot be stated whether it deviates from the norm. To define the conformity with the norm extensive collection of data and observation of the situation should be made lasting for a longer period of time according to a single method, probably on international scale.

Research on conformity of the standard of mathematical education to the demands of life after leaving school is scarce, therefore dropping different themes from the standard or their substitution for others is subjective. The author has established "unrecognition" of several mathematical notions taught at school among school leavers; it proves that the school Mathematics course includes quite a lot of notions of minor significance. Neither theoretically nor practically it is clear how to design the content of the school Mathematics course, that is, to define that part of Mathematics, which most people need and will need in their lives after leaving school as well as those mathematical issues acquisition of which most certainly promote development of the pupils logical thinking. Research should be carried out to clarify the following matters:

- which practical problems and techniques of teaching strengthen motivation of learning certain questions of the Mathematics course to a greater extent;
- how to organise teaching/learning the Mathematics course: which questions should be taught mainly in an inductive way, which in a deductive manner, with which themes to begin and what the sequence of different themes is;
- what computer applications are most likely to bring success in mathematical education.

The author has come to a conclusion that the use of textbooks in Mathematics is narrow and non-efficient in schools. It would be useful to clarify what is the most favourable ratio between application of the textbook, the spoken word and teaching/learning computer programmes, how to evaluate the complicity of texts in text- books, how to make use of the analogy between Mathematics, everyday life and other subjects in elucidating on the nature of new notions and other issues.

In the context of developing pupils' abilities during the process of learning Mathematics it is significant to find out how teachers of different subjects could co-operate in enhancing development of the pupils intellectual abilities and how to use mathematical abilities in acquisition of other subjects and in other fields of activity, not only in the learning process.

The resources allocated to educating Mathematics teachers are insufficient; this fact leads to decrease in the quality of their education. The legislation should be adopted that the state repays the credits for teacher study programmes; it should envisage also higher salaries for better-qualified teachers - those having Master degrees. There should be created no obstacles for acquisition of another qualification of a teacher of basic school simultaneously with the qualification "A Teacher of Mathematics", for example, "A Teacher of Physics in Basic School". Also study programmes with acquisition of two qualifications or more than two qualifications for basic school should be supported.

REFERENCES

- [1] E. Ģingulis. *Methods of teaching mathematics: history and topicalities*. R.: Ra, 2004.