ABSTRACT

Digital literacy is one of key competencies for lifelong learning. Although implementing multimedia (i.e. ICT) into the educational process has a global perspective, the curricular documents for compulsory school attendance in the Czech Republic (Rámcový vzdělávací program), Slovak Republic (Štátny vzdelávací program) and Germany (Bildungsstandards) do not emphasize this need. A review of the above mentioned documents indicated, that the general need to develop digital literacy of pupils across all school subjects is not formulated by these documents. Therefore, the personal opinions and beliefs of the teachers, their enthusiasm to use ICT, their level of computer literacy, school facilities and the approach of pupils to ICT, play the most important role with regard to the implementation of multimedia in the educational process. Accordingly, the combined research conducted by questionnaires and structured interviews, is aimed towards beliefs, opinions and experiences of pre-service and in-service teachers of biology and primary school pupils from the Czech Republic, Slovakia and Germany. The research has involved 422 Czech, 205 Slovak and 136 German in-service biology teachers and 222 Czech, 100 Slovak and 84 German pre-service teachers. The questionnaires were also addressed to 442 Czech pupils and 199 Slovakian pupils. The results of combined research clearly showed, that multimedia are relatively widespread didactic tools in all three involved countries. The majority of surveyed pre-service and in-service teachers were aware of a need to gain digital competence in personal and professional life, which corresponds with the views of surveyed primary school pupils. Teachers from the Czech Republic, Slovakia and Germany reflected the positive attitudes towards implementation of multimedia in education process, but the preparation for multimedia teaching seems to be too time consuming for them. The surveyed teachers also do not know the appropriate ways how to directly implement ICT into biology lessons. It is probably caused by insufficient support towards the development of computer literacy of pre-service teachers at universities, respectively the further education of in-service teachers.

KEYWORDS

Multimedia, ICT, education, beliefs of pre-service and in-service teachers, school equipment, curricular documents, Czech Republic, Slovakia, Germany.