Abstract No: 299

Science Education

PERCEPTIONS ON NON-MATHEMATICS TEACHERS' PEDAGOGICAL SKILLS IN TEACHING MATHEMATICS

D.P. Waidyathilake^{1*} and W.D. Chandrasena²

¹Postgraduate Institute of science, University of Peradeniya, Peradeniya, Sri Lanka ²Science Education Unit, Faculty of Science, University of Peradeniya, Peradeniya, Sri Lanka ^{*}darshipw@gmail.com

In the education system of Sri Lanka, teachers who are appointed as mathematics teachers, in general, are in excess (342). However, a significant number of non-mathematics teachers, teaches mathematics at secondary level, a majority of them for Grades six to nine in schools. As such, there could be a negative effect on teaching- learning process of mathematics, resulting in a loss of enthusiasm and discouragement among the learners. Prior research has shown that non-mathematics teachers faced more challenges with their pedagogical skills. Thus, the aim of this study is to investigate perceptions of mathematics education officers and non-mathematics teachers on pedagogical skills. Convenience sampling techniques was used for sampling, and there were 32 non-mathematics teachers, 8 provincial coordinators and 16 assistant directors of education in the study sample. Ethical approval was obtained, and data were collected through interviews using Zoom tool and a questionnaire. Data were analyzed using thematic analysis. Majority (88%) of the non-mathematics teachers were willing to accomplish their challenging job by enhancing their pedagogical skills. Moreover, some (38%) of the non-mathematics teachers were more confident about their pedagogical skills as they enhance the skills with their experience. Perceptions of provincial coordinates and assistant directors of education reveal that in most of the non-mathematics teachers and mathematics teachers' pedagogical skills are not upgraded to the expected levels. Thus, enhancement and upgrading of pedagogical skills of non-mathematics teachers are highly important in uplifting mathematics education at secondary level in Sri Lanka. Hence, the improvement of pedagogical skills of non-mathematics teachers through appropriate interventions has to be seriously considered to achieve the goals of mathematics education in Sri Lanka.

Keywords: Non-mathematics teachers, Pedagogical skills, Secondary level