EFECTIVE WAY OF FACILITATING OUTSIDE SCIENCE LEARNING ACTIVITIES USING MOBILE PHONES IN A PRIVATE NETWORK

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It has been recognized that engaging students in group learning activities is important in science lessons as it provides opportunities in developing required knowledge, skills and attitudes in students. Furthermore, the research findings show that a teacher has to play a key role as a facilitator in making a group learning activity fruitful. However, it is not an easy task for a teacher to facilitate each student group in the class, especially when the student groups are engaging in outdoor science learning activities. The aim of this research is to investigate how the potential of mobile phone can be supported for teachers in facilitating a group learning activity in teaching science. However, in order to minimize the disciplinary issues emerged during the previous research on mobile devices and to enhance the quality of learning, in this study a set of mobile phones that are connected to a private network was used. Sub objectives of this study are; to examine how a mobile phone can be used to enhance teacher-student interactions and student-student interaction, using different modes for facilitation, and minimizing the possible student’s misuse of mobile phone during the activity. The methodological approach of the research is entirely qualitative. During a professional workshop purposively selected group of teachers (15) developed three lessons that were selected from Grade 6 to 11 science curriculum while integrating mobile phones into learning activities. Then the lessons were subsequently implemented in real classroom settings in four schools. Finally, the teachers were brought together for a review workshop to discuss their views and experiences of using mobile phones in group learning activities in science lessons. This paper is based on one of the lessons namely ‘Grafting’ for Grade 10 students. During the workshops and lesson implementation, data were collected through observation using audio, video and field notes. Then the data were analysed using thematic analysis technique with the help of NVivo10 qualitative data analysis software. The results show that mobile phones supported teacher to facilitate groups by providing necessary instructions using different modes such as voice and images, to monitor how students were engaging in the learning activity and send timely feedback. Importantly, teachers appreciated the support of the private network in enhancing the quality of group learning activities while minimizing the students’ misuse of mobile phones.

Financial assistance given by the National Research Council of Sri Lanka (NRC-05-02) is acknowledged