Using Satellite Imagery in Secondary Geography Classrooms

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ABSTRACT

This paper describes the exploratory use of satellite imagery in secondary geography classrooms of two schools. The main purpose of using the satellite imagery is to provide an active real-life learning environment for pupils. The main thrust of the study centres on the Constructivist-oriented learning approach. With the help of Arcview GIS, the pupils are facilitated in the learning of geographical concepts, focusing particularly on 'environmental degradation' as they interact purposefully with the satellite imagery. Pupils make use of the concrete evidence produced by the Satellite Eyes in their learning of the causes and impact of environmental degradation of an area in Southeast Asia. Pupils have the opportunities of not only finding out for themselves possible answers to questions on worksheets but also to have hands-on experience to pose their own questions and to provide possible answers to them. In the study, two secondary three express classes, one from each of the two schools, are involved. The class is divided randomly into two groups namely, the experimental group and the control group. The experimental group has the opportunities to interact with the satellite imagery while the control group is only given the hard copy of the satellite imagery. Before the start of the experiment, pre-test is administered on both groups. At the end of the experiment, post-test is again administered to both groups. The whole procedure is executed in the two schools by the two different teachers. The major contributions of this study are: it is the first among local secondary schools to use remote sensing in secondary geography classrooms; it has incorporated the three main initiatives of the Ministry of Education namely, Information Technology, Thinking Skills and National Education; it promotes pupil-centred learning; it is in line with the national vision of Thinking Schools and Learning Nation'; and it is an example of a collaborative effort among several parties, in particular between two teachers from two different schools.