

PASSING GIS KNOWHOW FROM UNIVERSITY STUDENTS TO SECONDARY SCHOOL STUDENTS: PEDAGOGICAL APPROACH IN DEVELOPING YOUNGSTER'S CAPABILITIES AND UNDERSTANDING IN GIS

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This paper documents an effort done by the GIS Center at the University of Balamand (UOB) to spread spatial awareness and GIS knowhow among youth. It highlights an educational model that introduces GIS to school students using modern educational methodologies. Such model focuses on active learning with GIS using methods that are based on exploiting projects and finding solutions to community problems rather than focusing on technological software training or in-class teacher tutoring. Active learning aims at engaging students in field-work, data analysis, critical thinking and problem solving and make them part of the decision making process. An interdisciplinary project at the University of Balamand will be presented as a case study. The project, entitled "UOB Recycles" addresses one of the most serious problems at national level: The emerging pollution situation in Lebanon. It aims to promote recycling activities and implant the sense of civic and environmental responsibility among youth. The GIS Center provided a structured framework for operation in which students were able to couple their academic knowhow with practical skills and to direct both to address community problems. Moreover, the project succeeded in passing spatial awareness and GIS knowhow to the younger generation through project based learning and service learning practices. This experience resulted in an innovative pedagogical model which provided a smooth integration of the GIS science at the secondary school level. The projection of the University on its community is illustrated to provide an effective model which could be adopted to promote spatial awareness, environmental respect, recycling behavior and team work spirit.

The overarching goal in this project is to present GIS as a strong instrument for data visualization and analysis as opposed to a dry technological tool. In this respect, it manifests a progression from the classical instructional methodology to a student based active learning process. Herein, the **Youth teaches the Youth**, using direct instruction and immediate feedback with minor dependency on the instructor.

In conclusion, the work proved that GIS can be introduced to youth at an early age using modern educational techniques. It also presented a successful attempt in spreading spatial awareness and promoting GIS as it is becoming more prominent at all levels of education internationally.