UNIMAS
UNIVERSITI MALAYSIA SARAWAK

Scholarship of Teaching and Learning
UNIMAS SoTL

SoTL bulletin

Fostering Advancement and Innovation in Teaching and Learning

Vol. 2
2020

Enhancing Teaching & Learning

A publication by the Centre for Applied Learning and Multimedia

www.calm.unimas.my

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THE GIS AND SOCIAL SCIENCES: INTEGRATING GIS FOR THE DEVELOPMENT STUDIES PROGRAMME

by Farah Zaini, Adibah Yusuf, Haslina Hashim, Regina Garai Abdullah, Siti Khatijah Zamhari, Kiky Kirina Abdillah, Nurhafizah Abdul Halim Yun

INTEGRATING GIS APPLICATION IN SOCIAL SCIENCES FIELD

The Development Planning and Management programme in Faculty of Social Sciences and Humanities, UNIMAS has taken one step ahead by introducing Geographical Information System (GIS) for final-year undergraduate students. The purpose is to equip students with GIS technology knowledge and its application in the social science field. Even though there are many applications of GIS in the social science field, students in this programme face difficulties in integrating GIS to their field of study.

Learning theories in class is less impactful if students do not have the ability to put them into practical use. Thus, there are many ways to investigate students' learning and performance, and one of the ways is through the integration between courses.

The GIS allows for the integration and comparison of contextual data from social as well as environmental or physical standpoints. Researchers need to identify where the differences, similarities, correlations, and interactions exist. GIS can accommodate both qualitative and quantitative variables into a study. GIS can do visualization, pattern analysis, spatial relationship, and others.

FIELD-WORK EXPERIENCE FOR SOCIAL STUDIES AND GIS

To enable GIS integration into Social Sciences, a field trip to Sebuyau, a small coastal town in Sarawak, had been organised for the students. Through this field trip, students were exposed to Social and Environmental Impact Assessment as well as community mapping. For the hands-on experience, students were introduced to the handheld Global Positioning System (GPS) which assists them in locating attractions and facilities at Sebuyau. Both data from SEIA and GPS will be used during the hands-on practical session in the GIS lab. Even though the data are not enough for a real map to be produced, students were exposed to real-life data collection experience. The data were then converted to digital data by using ArcGIS 9.3 and Imagery base map. The main output of this fieldwork is a map of facilities in Sebuyau.

METHODOLOGY

The aim of this article is to examine how GIS education and Social Sciences can be integrated by focusing on the output from the field work experience. The qualitative research design was used to obtain insights from this study. Content analysis and thematic analysis were applied to get a clearer picture of how the knowledge of GIS and Social Science help in students' performance. The GIS output was also analysed to look at students' performance in visualizing the collected data. A total of all 30 students from Group 2 of GIS were involved as respondents in this study.

RESULTS AND DISCUSSION

Perspectives of Undergraduate Students for GIS-integration in Social Sciences

All respondents were asked to provide a reflection on their perspective of GIS integration in Social Science based on their experience during the field trip. Hence, the results are based on students' point of view on what their thought of GIS. Figure 1 shows the result of thematic analysis. Five main themes were derived based on the saturation points which are mapping, analysis, visualization, management and planning for site selection. Figure 2 shows the percentage of respondents' perspectives based on the theme. The highest response theme is mapping and the lowest are both management and planning for site selection.