



Using GIS for planning field trips: In-situ assessment of Geopoints for field trips with mobile devices

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Up to now no application is existing for collecting data via mobile devices using a geographical information system referring to the evaluation of Geopoints. Classified in different geographical topics a Geopark can be rated for suitability of Geopoints for field trips. The systematic acquisition of the suitability of Geopoints is necessary, especially when doing field trips with lower grade students who see a physical-geographic phenomenon for the first time.

For this reason, the development of such an application is an invention for easy handling evaluations of Geopoints on the basis of commonly valid criteria like esthetic attraction, interestingness, and pithiness (Streifinger 2010). Collecting data provides the opportunity of receiving information of particularly suitable Geopoints out of the sight from students, tourists and others.

One solution for collecting data in a simple and intuitive form is Survey123 for ArcGIS (<http://survey123.esri.com/#/>). You can create surveys using an ArcGIS Online organizational account and download your own survey or surveys “that may have been shared with you” (<https://itunes.apple.com/us/app/survey-123-for-arcgis/id993015031?mt=8>) on your mobile device. “Once a form is downloaded, you will be able to start collecting data.” (<https://itunes.apple.com/us/app/survey-123-for-arcgis/id993015031?mt=8>)

Free of cost and use while disconnected the application can easily be used via mobile device on field trips.

On a 3-day field trip which is held three times per year in the Geopark Bergstraße-Odenwald Survey123 is being used to evaluate the suitability of different Geopoints for different topics (geology, soils, vegetation, climate). With every field trip about 25 students take part in the survey and evaluate each Geopoint at the route. So, over the time, the docents know exactly which Geopoints suites perfect for teaching geology for example, and why it suites that good.

The field trip is organized in an innovative way. Before the field trip, students gather in expert groups dealing with different topics (geology, soils, vegetation, climate). During the field trip these expert groups teach the other students at different Geopoints their expert knowledge. With Survey123 each student can give the experts grades for their teaching.

Furthermore the app can be used to generate a digital report of the field trip with geotagged texts and photos which can be seen by the docents.

Future-looking an evaluation of Geopoints by tourists or a cooperation with other universities for collecting more data is desirable. When organizing a field trip everybody could look up, how good the different Geopoints in a geopark are regarding topics like geology, soils, vegetation, ... Crowdsourcing is maybe given at the future, if an ArcGIS Account is no more necessary to take part.