

Reflections on geomatics and participation summer/winter schools – Mobile map apps for nature conservation in Germany and for informal settlements in South Africa

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Abstract

To initiate a long term partnership between the Karlsruhe University of Applied Sciences (HsKA) and the University of Pretoria (UP), a summer school was held in Karlsruhe (Germany) in 2016 and a winter school in Pretoria (South Africa) in 2017. The overall theme of the schools was participatory sensing with a focus on engaging citizens in nature conservation in Germany and supporting communities in informal settlements in South Africa. In this paper, we describe the aim, design and programmes of the summer/winter schools and then reflect on achievements and room for improvement. Reflections were collected independently from lecturers involved in hosting the schools, and then integrated into a discussion. We believe that these perspectives will be useful for others who plan to host summer/winter schools, especially those hosted in geomatics and/or to attract students to exchange programmes.

1. Introduction

International mobility of students and lecturers is widely encouraged in universities all over the world. With the aim of bringing together students from Baden-Württemberg in Germany and students from South Africa, a summer school was held in Karlsruhe, Germany, in July 2016, and a winter school in Pretoria, South Africa, in July/August 2017. The summer/winter schools were part of a larger project, funded by the Baden-Württemberg Stiftung (BWS), with the goal of initiating a long-term partnership between the Karlsruhe University of Applied Sciences (HsKA) and the University of Pretoria (UP). An earlier comparison between the International Geomatics Master at the HsKA and the BSc (Hons) Geoinformatics at UP revealed a considerable overlap between the two programmes (Hodza et al. 2015).

Baden-Württemberg, and especially the Karlsruhe region, is known as a region of technology and innovation. South Africa is a so-called emerging country, with the second-most competitive economy in Africa (Schwab and Sala-i-Martin 2015) and six of the top ten universities in the QS Rankings for Africa (QS 2018), leading the continent in many ways. However, interest among HsKA students to participate in student exchange to Africa is fairly poor. On the other hand, many South African students do not have the financial means to participate in an exchange programme and are not always aware of relevant programmes and bursary opportunities for student exchange to German universities.

In search of related work, a Scopus search for 'summer school' in the title of publications was done and returned 1,040 documents of which 55 are in the Earth & Planetary Sciences (10th place), and 40 in Environmental Science (13th place). The results include summer schools – going back as far as 1905 (Anon 1905) – related to remote sensing (e.g. Inggs et al. 2015), space science (e.g. Gitsch and Manoharan, 2015) cartography (e.g. Wheate 2009) and geography (Alexeyev & Goryeva 1979). A Scopus search for 'winter school' in the title of publications returns 88 documents of which one each are in Earth & Planetary Sciences and in Environmental Science.

Summer schools tend to focus on objectives that cannot be covered in the 'normal' classroom setting, such as field work (Alexeyev & Goryeva 1979), practical applications in the real world (Marques et al. 2017), latest technologies (Marques et al. 2017), organizational and teamwork skills (Gitsch and Manoharan, 2015; Burnam-Fink et al., 2018), and raising awareness and attracting students to research (Goodhead et al. 2012; Kjeldsen 2005). Some summer schools are not focused on students only (Marques et al. 2017; Kjeldsen 2005), while others are organized by professional associations for their members (Wheate 2009) or to collaborate on papers (Shannon, 2011). These sources do not explicitly mention that the aim was to bring students from two countries together, but we assume that this purpose is implicit in many of the summer schools because often students from all over the world are invited.

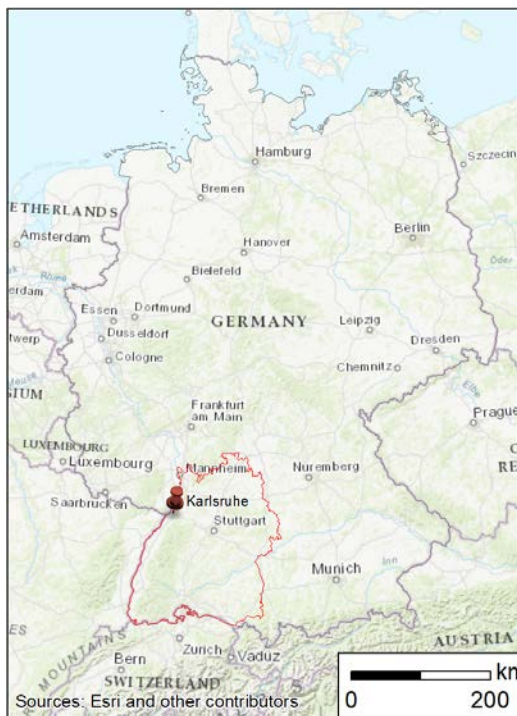
Following the summer school in 2016, we concluded that we had successfully exposed students to new technologies and application fields, and that they had gained from the experience of working in groups in a new study area with people they had never met before. A suitable balance between socializing and work, as well as students from different universities working together in groups, strongly contributed to achieving the aims of the summer school. Lessons learnt from the 2016 summer school informed our planning of the winter school in 2017, namely the need to keep participants informed about objectives before and during the winter school and the need for version control software when programming in groups. A challenge with participants from different universities lies in the uncertainty about the skills that visiting students will have. Also, preparing and running a summer school involves extensive planning and a diverse range of tasks, which cannot be achieved without a dedicated team (Schaab et al. 2017).

The summer school succeeded in raising interest among HsKA students in participating in student exchange programmes to South Africa, with a similar response from UP students after the winter school. We realized that such activities would have to continue in order to sustain the interest in the exchange programme. In this paper we reflect on our experiences with a view to future summer/winter schools. We also believe that these perspectives will be useful for others who plan to host summer/winter schools, especially schools with a geomatics focus aimed at attracting students to exchange programmes. Section 2 describes the planning and hosting of the summer school in Germany (a comprehensive description is available in Schaab et al. 2017) and the winter school in South Africa. Reflections on different aspects of the summer/winter schools were collected independently and then integrated into the discussion in Section 3. Section 4 concludes.

2. The summer and winter schools

2.1 Aim of the summer/winter schools

The aim of the summer/winter schools was to raise awareness and to encourage students from both countries to participate in student exchange programmes. We hoped that through the summer/winter schools, South Africans would positively experience Baden-Württemberg as a study and research location, and in return, that the German students would have the opportunity to adjust any biased opinions they might have about living and working in Africa. Figure 1 shows the locations of the two cities where the summer/winter schools were held. We also wanted to provide students with an opportunity to benefit from the respective expertise at the two universities; to get experience with developing mobile map apps for participatory sensing (data collection through smartphones as sensors); and to reflect on the relevance of citizen participation for specific applications in the respective countries.



a) Karlsruhe in Germany



b) Pretoria in South Africa

Figure 1. Map of the respective cities where the summer/winter schools took place

2.2 Design of the summer/winter schools

The summer/winter schools were designed to address the needs of today's students who have to develop geospatial technology competencies and learn how to adapt to continuously changing technologies. For example, mobile apps allow citizens to engage with and influence their environment by communicating and sharing information about their environment, such as bird counts or littering spots. Today's students also live in a globalized world where they increasingly have to interact with people from diverse backgrounds or have to work in new places and environments.

To achieve the aim of the summer/winter schools, the programme included more than ‘just’ the development of a mobile app. The students were also challenged with programming in a new development environment, learning about nature conservation and informal settlements in the respective countries, working in a team where each member had different skills, socializing in a diverse group and exploring the host country. The programmes included a comprehensive range of activities: invited lectures on selected topics; field excursions; lectures and tutorials on app development in relevant technologies; design, development and testing of the apps in a computer lab; testing in the field; presentation and demonstration of the final app; and social and sight-seeing outings. Both schools had an opening ceremony with invited dignitaries, such as Embassy representatives and the Deans of the respective faculties. During the closing ceremonies, students presented their apps and received certificates of participation.

2.3 Geomatics & Participation Summer School 2016 in Karlsruhe, Germany

The focus of the summer school in Karlsruhe was on involving citizens in environmental protection. Each of the mobile apps developed during the summer school was aimed at engaging citizens in nature conservation in the Rhine floodplains nature conservation area close to Rastatt, approximately 25km south of Karlsruhe, the *Naturschutzgebiet (NSG) Rastatter Rheinaue* (see Figure 2).









Figure 2. Getting to know the study area of the 2016 Geomatics & Participation Summer School in a fun way (Photos: Anne Maier)

The summer school had 18 participants: 4 lecturers from HsKA and UP, 8 UP BScHons Geoinformatics students and 6 HsKA International Geomatics Master students (three German students and one student each from Ghana, Pakistan and Sudan).

The background was provided by a guided tour of the *NSG Rastatter Rheinaue* and a canoeing trip in the area; invited lectures on nature conservation and its value in general, and on the Upper Rhine Valley's landscape history by means of old maps. Due to time constraints, four application concepts and the necessary geospatial data had been prepared beforehand based on discussions with the people on the ground, and one of the HsKA student participants designed a logo for each app before the summer school started. Considering the diverse backgrounds and experiences of participating students, it was decided to use a software development environment that none of the students had worked with before. Esri's AppStudio for ArcGIS (<http://appstudio.arcgis.com/>) offers a do-it-yourself (DIY) tool for developing cross-platform mapping apps, facilitated through out-of-the-box templates. First, sample apps were developed by configuring the environment, followed by a few sessions of hands-on programming of a mock-up app with Qt / QML. For the actual app development, we concentrated on app design (prototyping, graphical user interface (GUI) design), the use of map services, and learning how to implement different kinds of functionality in the new tool. First testing of the app in the nature conservation area provided feedback on the readiness of the apps. Table 1 summarizes the requirements of the mobile map apps.

Table 1. Requirements: map apps for participatory nature conservation (Schaab *et al.* 2017, Tab. 1 with minor changes)

App	Monitoring water birds	Watch the water birds	Monitoring nature conservation / failure	Tracing historical landscape changes
Logos				
Geographical extent	Entire nature conservation area and beyond	Entire nature conservation area and beyond	Along Plittersdorf tour	Along Wintersdorf tour
Purpose / aim	Collecting comparable observation data over time	Simplifying and adapting app 1 for children	Offering information and pastime activities to visitors	Supporting the tracing of historic features hidden in the landscape
App to store / collect	Location, number of birds, species, environmental conditions, etc.	Same as monitoring water birds, plus report by user on activities	Location, conservation success / failure, photo / sound, etc.	Location, photo of situation, comment for photo, etc.
Special functionalities	Geotargeting (sighting spot), geofencing (permitted roads)	Gamification feature, emailing report	Remaining time estimates to ferry, geofencing (roads)	Automatic orientation of map, display of contributions by others, geofencing (roads)
Available data	Sighting points, list of bird species with preferred habitat and occurrence, photo per bird	As app 1, but drawing per bird, idea for game, topics for report	Categories of conservation successes / failures, places to buy snacks / beverages	Historical geographic data layers, historical background info, example photos

2.4 Geomatics & Participation Winter School 2017 in Tshwane, South Africa

The focus of the winter school in Pretoria was on supporting the community in an informal settlement. The mobile apps were developed for Alaska, an informal settlement in Mamelodi East, Pretoria (South Africa), approximately 35km east of UP.



Figure 3. The three groups of the 2017 Geomatics & Participation Winter School on site in Alaska (Photos: Sergio Fabian Viguera)

The winter school had 18 participants: 4 lecturers from HsKA and UP, 7 UP BScHons Geoinformatics students and 6 HsKA International Geomatics Master students plus 1 HsKA Geo-Information Management Bachelor graduate. Two of the HsKA students grew up in Germany and completed their Bachelor degrees in Germany; three students were in Karlsruhe for their second year




of the joint Master's degree with the Polytechnic University of Valencia (UPV, Spain); and the other two had lived in Karlsruhe for almost two years prior to the winter school, but had completed their first degrees in Ghana and Pakistan respectively. Three of the HsKA students had also attended the summer school.

The programme started with an introduction to Mamelodi and Alaska, presented by two groups of UP students: geoinformatics students who had completed their final year project in Alaska in the previous year, and architecture students who had done field work in Mamelodi in the first semester of the year. A presentation about the apps developed during the 2016 summer school provided the students with a glimpse of what was expected from them during the two weeks. Next, students were divided into three groups (see Figure 3) and started working on the requirements for the apps.

The second day was spent in Alaska, getting to know the study area. To get the students started, each group was given an aerial image of the area and a set of coordinates to five points of interest (POI). The groups had to navigate to these coordinates and find the POIs specified. Thereafter, the students used EpiCollect 5 (i.e. a mobile data collection application) to collect data that they could use for their apps. Subsequent days were filled mostly with design, development and testing of the app in the computer lab. These activities were interspersed with invited lectures about community mapping for community oriented primary health care, urban visions for the in-situ upgrade of informal settlements and townships, mobile development for citizen science, and challenges of cities in developing countries. Two additional excursions to Alaska allowed students to collect data for their apps and to test their apps in a real life setting. Social and sight-seeing events took place in the evenings and over weekends, some arranged formally as part of the programme, but students also socialized informally and spontaneously.

For the winter school, we used open source technology and tools, as open source allows the users freedom of choice, reliability, security and fast development. Open source web mapping tools are especially popular, and various well established online resources are available. The following tools and libraries were used: GeoServer, PostgreSQL with PostGIS, Leaflet, Bootstrap and Apache Cordova. Table 2 summarizes the requirements of the mobile map apps developed during the winter school. The logos were designed by the students.

Table 2. Requirements: map apps for supporting the community in an informal settlement

App	Hazard mapping	Panic button	Community mapping
Logos		 Safety Circle	
Geographical extent	Developed with Alaska in mind, but can work in any informal settlement		
Purpose / aim	Allows user to add hazards to a hazard map in order to warn the community of any possible hazards, such as open pits or low hanging electrical wires	Safe Circle is a mobile panic button that can be used to notify trained responders in case of an emergency	Sahara is a mobile data collection application developed for architecture students to use during transect walks
App to store / collect	Location, type of hazard and a photo of the hazard	n/a	Location, type of point (e.g. POI or social node), a photo, and any other notes
Available data	Hazards, routes and dwellings	Location of responders, dwellings and routes	Dwellings, routes and POIs

2.5 Summary

Table 3. Design of the summer/winter schools

Participatory Sensing	2016 summer school	2017 winter school
Theme	Engaging citizens in nature conservation	Supporting the community in an informal settlement
Location	Karlsruhe, Germany	Mamelodi, South Africa
Number of participants	18 (includes 4 lecturers from UP and HsKA)	18 (includes 4 lecturers from UP and HsKA)
Number of students	8 BScHons Geoinformatics students (UP) 6 MSc International Geomatics Master students (HsKA), 3 of these are from Germany	7 BScHons Geoinformatics students (UP) 6 MSc International Geomatics Master and 1 BSc Geo-Information Management (HsKA), 2 of these are from Germany
Number of invited lectures	1 former HsKA student 1 former HsKA lecturer (represented by one of the organizers)	2 UP student groups 4 UP lecturers
Number of groups / apps developed	4 (3-4 students from different universities in a group)	3 (4-5 students from different universities in a group)
Topics of apps	1) Monitoring water birds 2) Watch the water birds (children version) 3) Monitoring nature conservation / failure 4) Tracing historical landscape change	1) Hazard mapping 2) Panic button 3) Community mapping
Assignment given to students	Requirements for the apps (based on discussion with people on the ground)	Topic (linked to lectures); students had to come up with their own idea for an app
Study area	Nature conservation area 'Rastatter Rheinaue' (850 ha), 25 km south of HsKA	Informal settlement 'Alaska' (40 ha), 35 km east of UP
Field excursions	1 full day (getting to know the area, included a guided tour) 2 half days (for testing apps, 2 nd time with pupils)	2 full days (getting to know the area, collecting data) 1 half day (testing of apps)
Involvement on the ground	City of Rastatt, Environmental Foundation Rastatt	Viva Foundation www.viva-sa.co.za

Software used	AppStudio for ArcGIS (Qt / QML), ArcGIS, ArcGIS for Server / Portal for ArcGIS, PostgreSQL with ArcSDE	PostgreSQL with PostGIS, GeoServer, PHP, Leaflet API, Apache Cordova, Bootstrap, GitHub
Introduction to programming	Introductory lectures on Qt/QML, configuring a 'play app' and programming a 'mock-up app'	Wiki with information about the software stack, and links to more information
Development stage reached	Core functionality of navigating through the pages plus a special functionality per app: 1) bird recording via picture list, 2) quiz on birds, 3) content, 4) map comparison	Core functionality of displaying points using web services from GeoServer on a map and the ability to add new locations; all the apps were also packaged for mobile phones
Socializing activities	<i>Biergarten</i> , canoeing trip, Heidelberg (castle and city), <i>Baggersee</i> , farewell party (<i>Ökostation</i> Rastatt)	Welcome dinner at craft beer pub, <i>braai</i> with 2016 summer school participants, Rhino and Lion Park, Freedom Park, closing <i>braai</i>

3. Reflections and discussion

3.1 Invited lectures

At the start of the summer school, two lectures were presented as an introduction to the topic and the students received a guided tour of the nature conservation area during which the guide explained many aspects of nature conservation in Germany to them. This provided them upfront with all the necessary information in a mix of different formats. Receiving all the information upfront can result in information overload for some. To avoid this and to break the monotony of programming for hours on end in a computer lab, a series of invited lectures were presented on different days of the winter school programme, allowing time between lectures for the information to 'sink in'. However, on some days, we had the impression that some students were all charged up to program, but then had to listen to a lecture. During the winter school, a guided tour of community engagement projects with UP involvement did not provide the students with relevant information as we had hoped, therefore students received information in fewer formats than planned. Albeit slightly long, our impression was that the two presentations by peers (student groups) who had worked in Mamelodi and Alaska were well received by the winter school participants.

The challenge is to find a good balance between theory and practice and between different formats of providing the information. Furthermore, lectures need to be scheduled so that they do not result in information overload but also do not interfere with built-up energy and motivation for programming. The above can guide the planning of a summer/winter school; a solution that suits everyone is probably not possible.

A further challenge was to facilitate discussions following the invited lectures into catalysts for discussions among students from such diverse cultural backgrounds. In future, we would put more thought and preparation into this. One of the aims of the summer/winter schools was to encourage participants to reflect on differences between Europe and Africa. While we did not 'officially' include a discussion about this in the programmes, revealing reflections were shared in one-on-one conversations, which will help to inform the planning of future summer/winter schools. We think that

the diverse backgrounds among students from both universities resulted in a greater exchange of ideas, opinions and experiences.

3.2 Field excursions

During the summer school, the first field visit took all day, provided a good overview of the study area by car, by foot and by canoe, and included a tour by locals involved in the *NSG*. The canoeing was a fun way of getting to know the conservation area. Additional field visits were of much shorter duration and focused on testing the functionality of the apps. Due to mobile network challenges (the *NSG* is on the border with France and phone reception kept 'jumping' between the networks of the two countries), testing the apps was a frustrating experience and not successful for everyone.

The first field visit during the winter school also lasted most of the day, allowing for exploration (by foot) of the informal settlement, which is nestled on a steep hill. The exploration activity was a fun way of exploring the informal settlement. Another field visit for data collection was rather unsuccessful because students designed their apps so that they did not need to collect data for their app. On this day, they were not yet ready for testing. Later in the week another half day was spent in Alaska during which students tested their apps.

Getting to know the study areas served several purposes: it was a sightseeing excursion; it contributed to understanding the study areas and the purposes of the apps; and it was also an opportunity for students to get to know each other. Weather permitting (we were fortunate in both schools), excursions to the field are a welcome change to sitting in a heated (no air conditioner at HsKA) or freezing (thanks to air conditioning at UP in winter) computer lab. Field visits need to be planned well to keep students optimally engaged; in both schools students were standing around doing nothing for periods of time. However, the field visits take place in real life where one cannot plan ahead for every eventuality.

3.3 Software development

The summer/winter schools benefited from computer labs dedicated to participants. Despite working on different apps, the participants enjoyed working in a single computer lab. It encouraged communication between the groups and created an atmosphere of jointly working towards a common aim. Participants could share in the struggles and successes experienced by the other groups, which contributed to team building and the overall feeling of being part of one large group.

The software environment used during the summer school was largely unknown to the participants. The week was started with an initial hands-on tutorial in the new programming language and tools. As they started developing their apps, participants struggled with similar problems, even though they focused on different functionalities in each app. The lack of a proper version control system resulted in students not always knowing which version of the code was the latest one. For some students, the rigidity of the development environment served as a constraint to creativity, for others it was a safe development environment that allowed novice developers to very quickly prepare an app, thus giving them a sense of achievement.

The winter school approach was different: students received a wiki page with links to online documentation about the free and open source software tools to be used. They had to use this information 'to find their own way' to solutions, presenting the opportunity for self-learning. Also, working in an open source environment implies that many and different kinds of online resources are available for assistance. In some groups, the work was distributed among group members according to their skills and prerequisite knowledge, which differed considerably due their different academic backgrounds. In this way, each member could contribute to the team's objective, but some team members may have learned more about programming than others. Despite the version control system, at some stage group members managed to overwrite each other's code – an expensive lesson to learn, but one a student is unlikely to forget!

Requirements and logos for the apps in the *NSG Rastatter Rheinaue* were specified beforehand and given to the students. The apps were planned together with people in the field and were envisaged as a family of apps for further development by other students after the summer school. During the winter school, each group received a general idea of what their app should support. This left more freedom in conceptualizing ideas for the app and students had to design their own logos. In this way, team members with less interest in programming also had a task and purpose. This approach may have led to a stronger identification by the group with their app, and the willingness to carry on with programming, even after the winter school had officially ended for the day (but could also be due to version control issues and time constraints, see 4.4).

The above shows that the different approaches to software development during the summer/winter schools led to different learning experiences and one needs to consider which experiences are desired when planning the programme. Even though work preparedness was not an explicit aim of the summer/winter school, the experience of working in teams and having to deal with unexpected challenges will have contributed to preparing the students for work in 'real life'.

3.4 Social programme and interaction

A summer/winter school is different to normal 'lecturing' during the academic semester because the students get to spend time together in a group outside the lecture halls and computer labs. In both schools, the official social programme had been planned by the lecturers and students of the hosting university. It included tourist as well as fun experiences. It requires an open mind by participants to enjoy the mix of activities. Providing reasons and making it clear from the beginning (when selecting participants and planning for the trip) that all activities were mandatory resulted in an overall cheerful group of participants (at least most of the time).

However, not all time slots were (and should be) dedicated to planned activities. There was also room for spontaneous activities, such as discussing music, tasting food and playing games, which is equally important and can be more fun than planned events. Not to forget the time slots required to prepare for surprises! Getting together at private homes and informal venues adds to a relaxed atmosphere. A special opportunity during the winter school (not possible during the summer school) was the braai with the former South African summer school attendees and former/future exchange

students to HsKA. It helped strengthening the bonds and friendships by reminiscing about the time abroad and about friendships made in Germany.

3.5 General

We recommend the approach of having an overarching theme (e.g. participatory sensing) but focusing on applications that are suited for the respective hosting countries (nature conservation and informal settlements), the respective expertise at hosting universities and the desired learning experience (proprietary and safe development environment vs programming with free and open-source software).

The students learnt valuable lessons about project management and working in a team. Various aspects of the programme contributed to team building, in individual groups and also in the entire group of participants, e.g. through exploring the study area in an informal way, by working together in the same computer lab, and by social outings and spontaneous activities. We observed that group dynamics play a significant role in achieving the objectives of a summer/winter school. In both cases, we carefully considered how to divide students into groups based on their skills and personalities. However, in the end, group dynamics develop spontaneously and sometimes turn out differently than expected – positively or negatively. This will always be the case when working with people and makes the whole experience interesting and rewarding to the organizers.

Apart from an open mind and curiosity, which is to be expected from students who sign up voluntarily for travel to a different and exotic continent, little more is required to gain an alternative teaching or learning experience from a summer/winter school. The special atmosphere is created from such small differences as joint coffee breaks and working together in a lab. Most of the planning, organizing and presenting was done by the hosting university. With hindsight, one could have considered distributing the load between the hosting and visiting lecturers, e.g. through invited lectures or tutorials by visiting lecturers, but this would have required more coordination beforehand.

A major difficulty was finding a two-week time slot that fits into the respective academic calendars. The summer school at HsKA took place in late July, right after their final exam period of the academic year. Thus, staff and venues were freely available for the summer school. The winter school took place at the same time of year, but one week later and therefore the second semester at UP had already started. This posed some problems due to ‘normal’ lecturing taking place at the same time. The winter school dates were not ideal but it was the only time during the entire year where student groups from both universities could meet without completely disturbing the university routines of teaching, which differ significantly because of the different academic calendars at HsKA and UP. We also asked ourselves whether two weeks were too long. An alternative would be two weekends with a week between them, which would make it easier to find a suitable date in the year without taking too much away from the overall experience. However, this would leave less time for getting to know each other and learning something new.

4. Conclusion

Following the winter school in Pretoria, we again confirmed that the effort of organizing a summer/winter school is paid off by the gains from the unique educational setting, which is rather different from 'normal' lecturing during the academic semesters. The special atmosphere makes it possible to get to know each other at a different level (lecturers the students and vice versa). The blogs, and to a lesser extent also the video clips, provide proof of this (see <http://www.iaf.hs-karlsruhe.de/gvisr/project/geomatics-and-participation.html>). While work preparedness was not our primary aim, the experience of working in teams with people from different backgrounds and countries will serve the students well in their future professional lives in a global economy. Organizing a summer/winter school each year would be too much effort in the long term, but a summer/winter school every second year would be a good compromise for sustaining the interest in the newly established exchange programme between the two universities.

Friendships were established during the summer/winter schools and outlast them. The South African students related stories from home and convinced the German students that South Africa was worth a visit. Subsequently, from listening to stories and experiences by their peers in the other country, students were persuaded to apply for an exchange semester at the partner university. Since the summer school in 2016, three summer school participants travelled to South Africa for the winter school; one HsKA summer school participant decided to spend her final semester working on her dissertation at UP and persuaded a fellow student to do the same a few months later; and one UP winter school participant completed a Master research exchange of six months at HsKA. This highlights the importance of (funding for) such events for attracting students (and academics) to South Africa and Germany. Therefore, we are now seeking new funding opportunities, because the current project funding allows for summer/winter schools only when a partnership is initiated, but have discovered that most opportunities do not include funding for such events.

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