



# Project Challenges

*TF1: Universities & Research*

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2013

### **Astronomy Workshop Ghana**

Challenges included keeping within the allocated budget, and keeping to the allotted timetable. As it happened it was sometimes necessary to be away from the workshop to be interviewed, and the opening launch event encroached on the workshop timetable. Another challenge was to get the participation of more university lecturers. Some lecturers who said they would come did not turn up and others did not acknowledge or respond to the invitation.

### **Guatemalan School of Astrophysics**

- ***Raising local funds:*** We encountered a big challenge raising local funds within Guatemala. We have tried to raise money from the local council for sciences but due to their extremely complicated bureaucracy, we decided to decline due to the uncertainty of getting the funds in time.
- ***Raising the Interest of the local Authorities in the School/Science:*** We finished the GUASA School with the impression that the majority of the local authorities (private and public) did not have enough interest on it. It was only, when we started the activity and they saw the magnitude of our success, that they approached us and showed more enthusiasm. For the inauguration and for other activities such as the farewell dinner, we invited the authorities of all the major institutions that in one way or in other, supported us. However a very few of them showed up at these activities. We believe the need to improve the interest of the local authorities in science and thus this kind of activities.
- ***Recruiting Lecturers:*** We decided to include among our lecturers, researchers from top institutions. Although this can be very good for the school, recruiting them was a bit complicated. We believe that this was due to the fact that (i) this was the first school held in Guatemala and (ii) perhaps to the low academic image of the country abroad (No PhD/Masters programs in astrophysics/astronomy). We hope to change this image through the coming years, by showing a good selection of lecturers, through the image that the first school has given us, and by choosing always the best and most motivated students

2014

### **Education telescope Mongolia**

The Russian manufacturers had some very sturdy telescopes, but their prices and sizes were unacceptable. Buying components and assembling ourselves was at first attractive. We could find aluminized mirrors and other necessary components for a 5" Dobsonian reflector under \$100 per unit, however, we eventually decided it would be too time consuming in general and potentially problematic for countryside users.

But this option is worth considering in the next iterations of the project, as the assembling aspect provides unique learning opportunity for students.

## Starlight in the University – Astrolab Phase 2

- Inability to access the Astrolab at all times, so as to practice online observation.
- The inexperience of the tutor. We learnt some of the steps through trial and error, this lead to discouragement sometimes to the students, but for the next project the tutor is already well aware of each step necessary to obtain good result.
- Inability to understand the billing system, so as to minimize cost and allow many groups make this reservations and learn more.
- Choosing a proper RA, the declination has been understood, but the RA for the particular period of observation, is still an issue, any suggested text?

2015

## Guatemalan School of Astrophysics

Since we planned all the activity well ahead of time, we faced a few challenges regarding the organization of GUASA2015. Below we enumerate the challenges we encountered and we explain how we did circumvented them.

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- ***Raising the Interest of the local Authorities in the School/Science.*** We finished the GUASA School with the impression that the majority of the local authorities (pri-vate and public) did not have enough interest on it. It was only, when we started the activity and they saw the magnitude of our success, that they approached us and showed more enthusiasm. For the inauguration and for other activities such as the farewell dinner, we invited the authorities of all the major institutions that in one way or in other, supported us. However a very few of them showed up at these activities. We believe the need to improve the interest of the local authorities in science and thus this kind of activities.
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selection of lecturers, through the image that the first school has given us, and by choosing always the best and most motivated students.

### **Introducing Data Analysis in the University System**

- Copperbelt University is an undergraduate teaching institute and is not set up to make research activities easy, although they understand the importance. The economy is depressed and it will not be easy for them to devote the resources necessary to build an active research community. It is difficult for a teaching college to become a research university. Because of the importance of teaching, it is difficult to find free time for the faculty to become involved in research.
- Infrastructure is still lacking in the University although they do plan to improve. I had intended a dedicated one week program in data analysis but there were not enough computers to do that. Instead, I lectured for two days and then took them to the computer lab for two days. I did not have reliable internet access for the entirety of my visit.
- Clearly, a more sustained interaction is needed with both UNZA and Copperbelt University involved. Funding will be required which means governmental involvement but I don't see a clear path there.