

SUM-IT!

Project Report

A social entrepreneurship venture by Laura Ford-Fennah, Debbie Slater and Hassan Mahbub aimed at helping to create enthusiasm in mathematics by providing mathematics coaching to children in a fun environment.

Executive Summary

SUM-IT! was a project set up as a result of one team of three students from Lancaster University taking part in a student social entrepreneurial project called Impact. SUM-IT! made an impact by providing free fun mathematics coaching to children aged 7 to 11 who are struggling with mathematics, to help improve their future job prospects in Lancaster (UK) and in Islamabad (Pakistan). This was implemented through one-to-one mathematical tutoring in Lancaster, and in small groups of poor children in Islamabad. Although original plans to have an after-school club in Lancaster were soon deemed unattainable, an alternative plan was devised which although reached fewer children, still had a positive impact. The original plan to teach small groups of street children in Islamabad was implemented successfully. All in all, the project was a success, reaching 6 children in UK and over 2 dozen children in Islamabad.

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Team Members

Laura Ford-Fennah - Director of Operations in Lancaster

Laura is studying Accounting and Finance at Lancaster University. Laura has been involved with running Brownie and Guide groups for many years, and enjoys working with children of all ages. Laura recently completed the SAS (Student Associate Scheme) in Mathematics, where she experienced what it was like to teach mathematics to pupils at Lancaster Girls Grammar School in Lancaster. Laura has always enjoyed mathematics, completing an A level in the subject, and continuing with her love of numbers at university and with work. Laura has worked at HSBC, and more recently completed an Internship in Assurance at PricewaterhouseCoopers, with whom she will start her professional accounting career in September 2010.



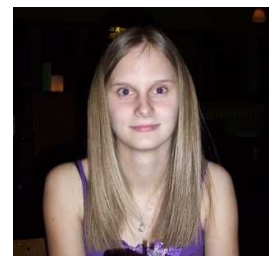
Hassan Mahbub - Director of Operations in Islamabad

Hassan is a Business Management student at Lancaster University. He was selected to study abroad on exchange at Schulich School of Business, York University in Toronto, Canada during 2007-8. In October 2005, when northern Pakistan was struck by a devastating earthquake making millions homeless; Hassan with help of family and friends raised over £10,000 which were used to buy essential food and living items enough for five hundred families to last them a few weeks. Hassan has completed internships with ABN AMRO in summer of 2005 and with Mobilink in summer of 2006. He recently completed a 14 month placement at Johnson & Johnson. Hassan is starting his final year in October.



Debbie Slater - Secretary

Debbie is in her final year of studying Accounting and Finance at Lancaster University. Last year Debbie spent some time in a local primary school as a classroom assistant, during which time she helped many children improve their maths skills and gain confidence. Furthermore she has taught children of all ages traditional dance for 4 years. Debbie has spent some time studying Maths while at Lancaster University and enjoyed passing on her enthusiasm for the subject to others. Debbie is in her final year of her degree, and is looking forward to a professional career in management accounting.



The Background to Sum-it!

When deciding on a project to implement, we first needed to identify a social need. Further to this, we knew that during the competition phase, two members of the team would reside in Lancaster (UK), whilst one member of the team would live in Islamabad (Pakistan). In order for the whole team to make maximum impact during this period, we wanted to target a social problem which existed in both parts of the world.

The social need which we identified was a substandard of mathematics in both UK and Pakistan. We decided to set up SUM-IT! as a service to help children in the UK and Pakistan improve their mathematics skills, and thus their future job prospects. We researched both areas to see what mathematics teaching services were already available:

Background to SUM-IT! in Lancaster, UK

This is emulated by a quote from the Telegraph (British newspaper), describing the lack of mathematics skills by school leavers:

... the number of pupils securing five good grades in key subjects including maths is falling and is scandalous. – The percentage has fallen from 30% to 23.7% of pupils. That's 30,000 fewer young people with the basic skills that employers want in the workplace.

A quote from the Qualifications and Curriculum Authority outlining the reasons why the subject of mathematics is so important to modern society and pupils:

Mathematical thinking is important for all members of a modern society as a habit of mind for its use in the workplace, business and finance; and for personal decision-making. Mathematics is fundamental to national prosperity in providing tools for understanding science, engineering, technology and economics. It is essential in public decision-making and for participation in the knowledge economy.

Mathematics equips pupils with uniquely powerful ways to describe, analyse and change the world. It can stimulate moments of pleasure and wonder for all pupils when they solve a problem for the first time, discover a more elegant solution, or notice hidden connections.

Pupils who are functional in mathematics and financially capable are able to think independently in applied and abstract ways, and can reason, solve problems and assess risk.

Mathematics is a creative discipline. The language of mathematics is international. The subject transcends cultural boundaries and its importance is universally recognised. Mathematics has developed over time as a means of solving problems and also for its own sake.

Schools do provide mathematics lessons to children, as it is a requirement by the national curriculum in the UK. However, there is a shortage of mathematics teachers in the UK:

More than a fifth of maths teaching posts are unfilled – BBC, 2008

In addition to learning mathematics at school, in Lancaster, there are several individuals/companies, such as Kumon, who provide a type of mathematics tutoring to children. However, this costs £25 registration fee, and a monthly subscription fee of £50 per child. Therefore, we felt that SUM-IT! should target at providing a service to children who

otherwise wouldn't be able to access this due to monetary constraints. At first, the plan was to provide a free after-school club at local schools focusing on fun mathematics coaching. The development of this plan is discussed later on, under the heading of implementation.

Background to SUM-IT! in Islamabad, Pakistan

The particular area of Islamabad which we targeted was a park in the F-6 area in Islamabad. Although the F-6 area is one of the most expensive residential areas in Pakistan, this area also has small slums. These slum areas are generally made up of poor people who work in local houses as servants, maids, gardeners, chauffeurs and other such roles. The average salary that an adult can earn in such a job is Rs 5000 per month which is about 40 Euros. With such a small salary, these families struggle to provide basic amenities for their families. In the pursuit of a better future for their children, they want to educate them which they do by sending them to this school.

We were aware of an existing project in this particular area, which consisted of a make-shift school, in existence for 24 years, run by Mr Muhammad Ayub whose regular job is a government employee with a role of rescue and relief. He finishes his official duties around 3pm; after which he comes to this park where poor children await to be taught and the school begins at 4pm. The school runs from 4pm to 7pm, Monday to Saturday. These poor children, many of them who have never been to another school, come from nearby slums (locally called 'Kachi Abaadis') who cannot afford proper school like most Islamabadis.

The school has no desks, no chairs or any facilities. The park barely consists of a few benches and flood-lights which the Capital Development Authority (local council) has arranged for this school. After they finish or before they start, the place looks no different than any other park in the city. As Muhammad Ayub has now taught generations, many of his students have come back to volunteer and teach at the same place where they once studied. He has aid of three other volunteers who after completing their day jobs, come to this school and teach different subjects.

Although our initial plan was to focus on Maths only, after an initial consultation with Mr Ayub of our plans, he suggested that we teach English as well. He said that he himself and his volunteers lacked good English language skills it would therefore be very beneficial for children to learn some English from us too. The school has approximately 75 children who are spread into classes from 1-10. The higher the class, the smaller amount of children there were in them. This was because of high drop outs from studies as they would start assisting their parents with whatever type of work they did.

Implementation

Whilst still at the Summer school, we created two simultaneous implementation timelines – one for operations in Lancaster and one for operations in Islamabad:

W/c	Lancaster, UK		Islamabad, Pakistan	
	Activity	Means of verification	Activity	Means of verification
7/9	Contact local schools with project proposal and arrange to meet with interested schools to discuss in week 2.	Letters (and replies) sent to schools	1. Work on website 2. Launch website and start fundraising on 2 nd Oct	1. Development of website 2. Amount of donation received
14/9	Meet with schools and begin after-school club (wk 1)	Photographic evidence, feedback from the schools	1. Seek advice from co-ordinator of existing make-shift school 2. Schedule classes 3. Purchase stationery and make them into packs 4. Motivate volunteers 5. Begin schooling on 8 th Sept.	1. Interest by children and volunteers 2. Register children on the attendance register
21/9	After-school club (wk 2)	As above	1. Continue Classes 2. Organize a fun activity apart from lessons	Photographic evidence, feedback from the children
28/9	After-school club (wk 3) Create survey for children participating in the scheme and from the school to feedback their views	As above	1. Continue Classes 2. Organize another fun activity apart from regular lessons Run last lesson by myself on 1 st October.	As above
5/10	After-school club (wk 4) Hand survey to children on their opinion of the clubs.	Feedback received from children and from schools.	1. 2. Hand over lesson to volunteer for another week and finish on 7 th October.	Feedback received from children and make-shift school owner. 2. Feedback from volunteer(s)
12/10	Write up the report discussing the impact of the project. Potential to plan for the future, depending	Report completed and sent to ImpACT team before 18 th October.	Write up the report discussing the impact of the project. Analyze chances of having a permanent make-shift school for such poor	Report completed and sent to ImpACT team before 18 th October.

	on the success so far.		children.	
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Whilst we managed to achieve our overall objective – to help children to improve their standard of mathematics, once implemented, our actions differed slightly from our initial plans above. We will now discuss exactly what we did in each area – Lancaster and Islamabad.

Lancaster

Letters were written to 6 local primary school (see appendix 1) offering our services. We hoped to either run an after-school club or to help individual pupils via one-to-one tuition. Replies were received from 4 of the 6 schools, and Laura and Debbie met with the relevant staff members to discuss what SUM-IT! could do for their pupils. However, it soon became apparent that in the short period of the competition phase of Impact, that this wouldn't be possible. This was due to the requirement of a criminal records bureau check by the school on every adult that came into contact with the children, which took 6-8 weeks.

Therefore, we had to change our original plan. Via the schools, we managed to find 6 children in need of mathematical coaching whose parents were happy, for us to tutor their children on a one-to-one basis. Debbie and Laura each took 3 pupils for fun one-to-one tutoring over a period of 3 weeks, commencing 25th September. We tried to base each 'lesson' around a topic, and keep it fun. Due to laws in UK, we haven't been able to take photographs of what we did, however, we have kept a record:

Pupil	Age	Date of tutoring	Activities
A	10	25/9 2/10 9/10	Timestables – interactive computer activity Fractions, by matching fractions to pictures of cut up cakes. Symmetry, using mirrors and tracing paper
B	9	28/9 5/10	Mental maths – simulating a shop situation with purse of money and calculating change Timestables – using a computer game in addition to a CD.
C	10	5/10 12/10	Angles and shapes Statistics – interactive game, and dice game.
D	10	12/10	Mental maths – times tables
E	8	6/10 9/10	Negative numbers Fractions
F	9	14/10 15/10	Mental maths Multiplication

Islamabad

After meeting with Mr Ayub (discussed in 'Background to SUM-IT!'), we decided that the action we would take would be to take one class of these children each day. We gave them coaching in English and Maths. English would mainly focus on translation, spellings and also grammar. The level of English between different classes seemed relatively the same; however, children in higher classes did have better math skills. Due to the substantial lack of monetary means, we would be providing them with free stationery which would comprise of 10 pencils, two pens, 1 pencil sharpener, 1 eraser, 1 scale and one notebook (children from lower classes would receive an additional 4 line notebook to improve their English writing skills).

In order to raise the money to fund the stationery, we developed a website at a cost of £8 (see figure 1). This acted as a platform to raise awareness of the project, encourage

sponsorship and volunteers. We received about a dozen emails from people who wanted to volunteer to teach and were very enthusiastic. However we only required one person, who had his own transport and could come on a regular basis for the duration of the project. Donors could pay online using a Paypal account. However, Paypal charged us a small amount for each donation. We received £102 gross donations which after Paypal deductions gave us £98.79 or Rs 13,337 to spend, see appendix 2 for details.

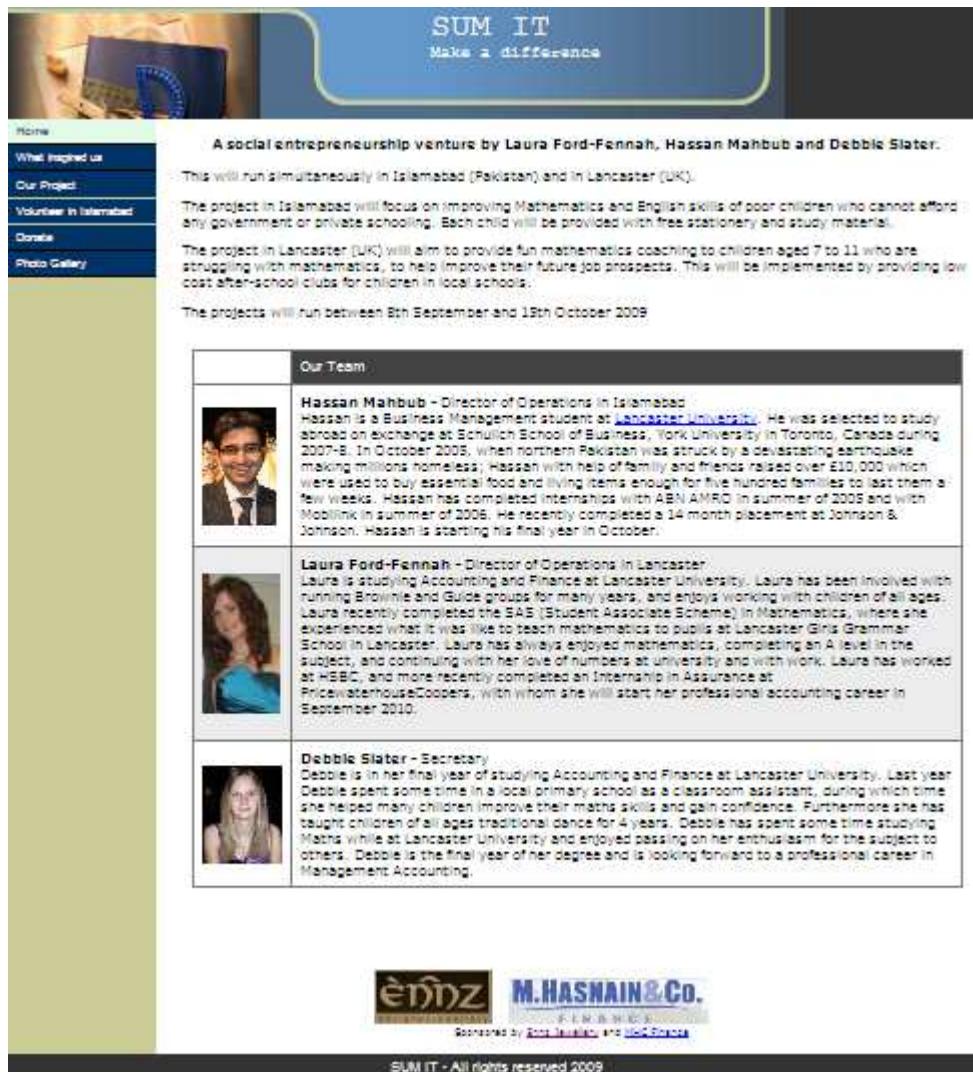


Figure 1: A screenshot of our website, www.sum-it.org

Finding volunteers

In addition to the website, we used the platform of 'Facebook Advertising' to recruit volunteers for our project. Through this advertisement we received 12 volunteering applications in two days at a cost of £3.08. Many messages of appreciation of our effort were also received. Prospective volunteers could use the form in figure 2 to show their interest.

SUM IT
Make a difference

Home
What inspired us
Our Project
Volunteer in Islamabad
Donate
Photo Gallery

We need you!

You will be required to teach children in a 50 min class any time between 4 pm and 7 pm in F-6 Islamabad.

Your time, even if it is for one hour, will be valuable to this project. We look forward to hearing from you. We will be able to increase the scale and perhaps improve the quality of our project if you help us.

If you want to volunteer, please get in touch with Hassan by using the form below and he will get back to you.

If you are present in Islamabad between 8th September and 15th October and would like to volunteer for this, please get in touch with us!

* First name (required):

* Last name (required):

* E-mail address (required):

Phone number:

* Message (required):

I want to receive newsletters, updates, and special offers

Submit

Figure 2: A screen shot of form for prospective volunteers.

Buying stationary

In order to buy stationery at the cheapest possible prices, we went to wholesalers. This meant that we purchased all the required stationery for about two-third of the prices in local stationary shops. A total of 1000 pencils, 200 pens, 100 erasers, 100 pencil sharpeners, 100 scales, 1 small black board, two boxes of chalks and two boxes of ink were bought for the students. Funds were used for no other purpose than described.

In addition to receiving stationery, the children received over 100 hours of direct teaching between the two volunteers during the period. There was significant improvement in the English and Math skills of these children. The teaching methods were also very different for them which could be the reason why they were picking up so well.



Hassan can be seen teaching a class in this photo
For more photos please log onto our website www.sum-it.org

Finances

Income

With 3 team members, we received $3 \times \text{€}4 = \text{€}12$ seed capital. This was exchanged to British sterling on 8/9/2009 at a rate of 1.180000, giving £10.17.

Other income was obtained by means of donations, details found in appendix 2.

Costs

Money was spent on stationery to fund our activities. Due to income exceeded costs, we refunded £30.24 to our most generous donor in order to have our profit(loss) at 0.

Further details of costs can be found in appendix 2.

Income Statement for SUM-IT! for period 7th September 2009 to 25th September 2009

	£	£
Income		
Seed capital	10.17	
Donations		
Rizwan Nagrial	48.35	
Nosheen Aamir	12.00	
Kamran Saleem	28.93	
Roumana Butt	<u>9.51</u>	
		108.96
Costs		
Post Office	5.24	
Rymans	4.55	
Metro	30.37	
K. C	23.70	
Saeed BB	2.11	
Website	6.67	
Facebook	4.30	
Global	1.78	
Rizwan Nagrial (donation refund)	<u>30.24</u>	
		(108.96)
Total (profit/(loss))		00.00

Impact Assessment

It is difficult to assess the benefits from our project over a few short weeks, as the impact of the project will only be truly realised after several years, as the children we have helped use the skills we have taught them in the future.

However, as a more specific measure, we reached 6 children in Lancaster and over 2 dozen in Islamabad. The feedback we received from parents has been very positive, and we have been asked by parents in the UK to keep coaching their children. In addition, we have been approached by other students in our year group who are aware of our project, asking if they could get involved.

Furthermore, we received media coverage on International Literacy Day in Islamabad. The park was spotted by local media and a photographer took several photographs which appeared on various newspapers the following day. One of the photos is shown below, and Hassan can be seen teaching towards the back of the photograph.



Evaluation & The Future

All in all, we feel that SUM-IT made an positive impact. We feel that we have added value to the lives of the children we have taught. All members of SUM-IT feel that we have positively fulfilled the role of a social entrepreneur for a few short weeks.

Moreover, this is a project we hope that we can take into the future. Education is not a quick fix – although we have made an impact over a few short weeks, we feel that the true benefit of our project will only be felt if the project has longevity. Ultimately, we would like SUM-IT! to be a project which is everlasting – reaching more children in Lancaster, and across the UK and Pakistan. We, like the United Nations believe that education should be free for all. We want all children to be able to reach their full potential. We believe that although we have made a positive contribution to society with what we have done so far, we have only reached a small number of children who would positively gain from our help. We see the future of SUM-IT! would be to expand the project in Lancaster, and Islamabad, recruiting more volunteers, and establishing guidance and training for these volunteers.

Nonetheless, the whole SUM-IT! team have thoroughly enjoying taking part in ImpACT³, and look forward to continuing their project. We would like to take this opportunity to extend our thanks to The Vodafone Foundation and Jacobs University for giving us the opportunity to make a difference.

Appendix

Appendix 1 (Letter to schools)

25 Primrose Street,
Lancaster,
Lancashire,
LA1 3BN,
Tel: 07738 667866

Dear [Headteacher]

I am writing to offer the assistance of Debbie Slater and myself (Laura Ford-Fennah) to [Name of school]. We would like to come and help your pupils with mathematics. We don't want any payment for our services, we simply want to help. We have several ideas of how we could do this, such as a fun maths based after-school or lunch-time club, one-to-one tuition, or acting as mathematical assistants in lessons. We would like to discuss with you the best way we could implement this, and would appreciate it if we could arrange to meet the relevant members of staff to discuss this.

Debbie and I are both starting our third year at Lancaster University, studying Accounting and Finance. We are taking part in an international social entrepreneurial project called ImpACT3. The purpose of this competition is illustrated by the following extract taken from the ImpACT3 website (www.act-for-impact.net):

*Do you want to change the world without giving away "the shirt off your back"? To be an entrepreneur and environmentalist at the same time? To design community-oriented entrepreneurial projects?
impACT³ – the student competition in social entrepreneurship – offers the opportunity and framework in which to revise preconceived ideas and develop new ways of thinking. Managers and entrepreneurs are not always males who are only interested in maximizing profits, nor are prospective graduates always innocents, or creative people always female with no knowledge of economic theories.
In only six weeks, the 25 student project teams from Germany, Denmark, Great Britain and Hungary will reveal how the managers of tomorrow are developing social entrepreneurship today.*

We would like to make an ImpACT over the next 6 weeks, and win the competition, which would provide us with 5000 Euros to continue our project and help us reach more children and provide more materials.

Our team, SUM-IT! is active in two areas – in Lancaster, and in Islamabad (Pakistan). In Islamabad, members of our team are carrying out a project teaching mathematics to street children, who don't have access to education. In Lancaster, we hope to make an impact by improving the standard of mathematics in school pupils. We believe that mathematics is a core subject, and one which is vital to the development of pupils. We hope to help pupils grasp the subject more firmly, and to pass our enthusiasm for the subject to the pupils.

We both have some experience of working with children, although neither of us are qualified teachers. Debbie has been involved with teaching dance to children for several years, and over the last year, has volunteered in a local school listening to pupils read. I have completed the SAS (Student Associate Scheme) in which I experienced teaching mathematics at Lancaster Girls Grammar School. I have also been involved with Guide and Brownie units for many years.

We would appreciate the opportunity to talk to yourself and to the relevant staff at your school about how we could help you teach mathematics to your pupils, and thus implement our project at your school.

We shall look forward to hearing from you.

Yours sincerely,

Laura Michelle Ford-Fennah
(On behalf of SUM-IT!)

Appendix 2 (Financial details)

Income

Income consisted of £10.17 seed capital, (€12 at exchange rate of 1.180) and the following donations. Donations were received via PayPal, and therefore, incurred charges, listed below. They are converted into British sterling at an exchange rate of 135.

Donor	Gross Rs	Paypal Charges	Net £	Net Rs
Rizwan Nagrial	50	1.65	48.35	6,527
Nosheen Aamir	12	0	12.00	1,620
Kamran Saleem	30	1.07	28.93	3,906
Roumana Butt	10	0.49	9.51	1,284
TOTAL:	102	3.21	98.79	13,337

Expenses

Seller	Item(s)	Rs	£	Details
Post Office	Stamps		5.24	Relate to operations in Lancaster, UK
Rymans	Stationery		4.55	
Metro	Stationery	4,100	30.37	Relate to operations in Islamabad, and therefore, costs have been converted to British sterling at a rate of 135.
K. C	Notebooks	3,200	23.70	
Saeed BB	Books	285	2.11	
Website		900	6.67	
Facebook		580	4.30	
Global	Envelopes	240	1.78	
Rizwan Nagrial	Refund – unused donation		30.24	
Total:			108.96	