



Global Junior Challenge

Projects to share the future

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[Home](#) > Project DEFY : Design Education For Yourself

Project Location

Country:

India

City:

Bangalore

Organization

Organization Name:

Education For Development Trust

Organization Type:

Association

Website

<http://e4d.io>

Privacy Law

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Project Type

Education up to 18 years

Project Description

Description Frase (max. 500 characters):

A "**school without teachers**" using a combination of cheap makerspaces and the Internet, for rural Indian youth.

Project Summary (max. 2000 characters):

India is a country of a majority of youth, most of whom reside in villages. However, India's development has concentrated itself mostly on cities, making them hubs of opportunity, while the villages slid back over the years. Although an agrarian economy, with industrialization the focus shifted on big companies in the cities that made much more money, as opposed to the villages where agriculture became increasingly difficult, owing to lack of Government oversight and innovation. As the capital difference grew, correspondingly the gap in opportunity grew along. One of these gaps came about in the field of education.

The cities had and could afford quality private education, but such access is not available to the villages. The Government schools were quickly proven to be inefficient, with high rates of drop-out, teacher absence, under-capacity of teachers, etc.

The question however is that is it really possible to have great teachers for such a huge population as India which send millions of kids to school every year. So how could we bring the best teachers from around the world to everyone?

The other question is, who can be a teacher? Is the traditional concept of a teacher still applicable, where a teacher is supposed to be an expert and a deliverer of information? Why can't we all be teachers, and students ?

The third question is, what is the kind of education that we need? Is it enough to be book experts, as it is now the case in India. Shouldn't education be practical?

Project DEFY is bringing these concepts through hands-on experience and leveraging the internet. The project aims at creating a system where anyone can learn skills in areas of their interest, from high quality sources, in a completely customized fashion, at a makerspace, with fellow individuals, learning out of curiosity, without teachers. A space which has tools and equipment that are used to build things and to learn while building.

How long has your project been running?

2014-02-27 23:00:00

Objectives and Innovative Aspects

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Results

Describe the results achieved by your project How do you measure (parameters) these. (max. 2000 characters):

Although experimenting since March, 2014, we had a stable concept only by November 2014. In this period, we had many participants at different points of time.

One of the biggest observations made and milestones achieved was the the space could be given away to the participants themselves. Which means that since December 2014 until now, the participants from Banjarapalya village have been running the space, taking care of all requirements of the space in terms of managing the finances, keeping the space clean and work-friendly, maintaining the culture of free speech and exploration, engaging more participants, ensuring safety and constant learning. This was a big breakthrough for us, as this proves that schools do not require teachers and can be run completely by the students themselves.

The process that the space follows that helps it show its impact, is that each participant using the space must document his/her work or project on the internet. Therefore it is possible to see how they are developing and thinking of new ideas, as well as to see how to are becoming more able to explain their ideas. Although the projects are still quite simple the development is visible, even in a short period of six months. It is also interesting to see how the projects are chosen and developed, when no body is telling them exactly what to do. A group of volunteers review the projects and give feedback. Also since the projects are online, they receive feedback from people around the world by means of comments and suggestions. This is highly scalable as now

“everyone around the world is measuring their work” and giving their opinion and not just a few experts.

How many users interact with your project monthly and what are the preferred forms of interaction? (max. 500 characters):

On a monthly basis, we are interacting with at least 50 users of the space. Most of them from the village. Sometimes we also have some visitors who come and work with the village participants or on their own projects or volunteer. The user base is varied and involves variety of ages from 7 to 24 (currently) and has had participants even above the age of 40 in the past.

Sustainability

What is the full duration of your project (from beginning to end)?:

From 1 to 3 years

What is the approximate total budget for your project (in Euro)?:

From 10.001 to 30.000 Euro

What is the source of funding for your project?:

Grants

Is your project economically self sufficient now?:

No

Since when?:

2015-06-29 22:00:00

When is it expected to become self-sufficient?:

2016-11-29 23:00:00

Transferability

Has your project been replicated/adapted elsewhere?:

Yes

Where? By whom?:

There has been a lot of interest shown in this project, and it is being replicated in a village in Nepal, as an alternative school and also as a source for help in cases of natural disasters. We are working on developing on more spaces in different parts of India such as near Trivandrum in Kerela and Padhurnah in Madhya Pradesh, India.

What lessons can others learn from your project? (max. 1500 characters):

1. Teachers and experts are not always required to get great education. Everyone has something to teach and some scope to learn. Great teachers are everywhere and all we need is access to them.
2. One can choose and design education for oneself, and not necessary follow the mainstream structure. Likewise, there are choices and one can choose what one wants to work on, and can always change it.
3. Good education need not be costly. You can create good education for yourself, if you have the motivation to. Also, such motivation can be created by developing a culture of exploration.
4. Not everyone needs to learn everything and there can not be generic education for all. People have interests, and that should be taken into consideration while creating an education system, because eventually, the ones who are really interested will be great in it, as opposed to ones who are not. Imagine a population of a billion people working in fields of their interests, and being really good at it; contrary to how we have lots of engineers but few really good ones.
5. Technology is tool that can be leveraged easily to create interest. It however is not complete education in itself and should not be considered so. It can be used as a medium for growth and to develop understanding, and to get proficient with doing things by hand.

Are you available to help others to start or work on similar projects?:

Yes

Background Information

Barriers and Solutions (max. 1000 characters):

<p>1) The biggest barrier is lack of confidence in oneself. It is difficult for people to choose a system too far away from the mainstream. However, this barrier is much less in the villages where the mainstream hasn't succeeded in completely programming the minds of the people. Also, our space has a culture of exploration, pushing the limits of what we know, and trying out more out of curiosity. Once someone joins the space, he/she is able to overcome the fear

of drifting away from the mainstream, and in fact takes pride in the difference it creates in him/her when compared to others.

2) The other major problem that we face is that the local school looks at us as a competition and forces its students stay away. We are trying to work this out with them by creating a small club of explorers within the school to act as a channel between the school and us, so that they would have full knowledge of what happens in the space and we can work together.

Future plans and wish list (max. 750 characters):

1. Developing a self-learning curriculum based on **Exploration and play, Solving Local Problems, Understanding World Concepts, Directional Learning, Exit Strategy**

- Developing a financial self-sustenance model for these schools/makerspaces to generate revenue for themselves and not depend on external funds forever.
- Reaching out to more villages in and outside India
- Make the concept open source and easily replicable for anyone to build such schools
- Secure funding to continue our experimentation at our pilot space in Banjarapalya for the next three years.

[Self-learning](#) ^[1] [rural](#) ^[2] [Makerspaces](#) ^[3] [Alternative Education](#) ^[4]

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Links

- [1] <http://2017.gjc.it/en/category/keywords-separate-with-commas/self-learning>
- [2] <http://2017.gjc.it/en/category/keywords-separate-with-commas/rural>
- [3] <http://2017.gjc.it/en/category/keywords-separate-with-commas/makerspaces>
- [4] <http://2017.gjc.it/en/category/keywords-separate-with-commas/alternative-education>