

Students at an after-school club were inspired to become craft makers with the FormBox

Magellan School Case Study



Introduction

Patrick Benfield runs a campus FabLab at the Magellan International School in Austin, Texas, where he is also the school innovation director. The FabLab is a place for students to come together and experiment with different machines and ideas.

At the FabLab, Patrick collaborates with teachers from a wide range of subjects including art, science and geography, in order to create engaging content that can then be used in their respective lesson plans. The FormBox is accessible and easy to use meaning that students of all ages can use it without assistance. It is currently being tested in one classroom with a view to introducing it into others.



Challenges

Time

3D Printing is slow meaning not all students can make their own thing. This meant one student's idea would have to be chosen — inevitably leading to charges of favouritism. Classes are 45 minutes max and a 3D print would take at least two hours to make.

Accessibility

It was not possible for every student to have a chance at using the 3D printer — many only had the opportunity to look at it. This also meant the students weren't able to see mass production in action, their experience limited purely to one-off products.

Narrow choice of materials

3D printers can only be used with a limited range of materials.

Dearth of outcomes and ideas

A lack of project ideas and a restricted range of outcomes meant an inability to think outside the box.



Solutions

Time

The speed of the FormBox means every student can have a go on the machine making their own product and gaining first-hand experience in how things are made.

Acces

The FormBox can mass produce objects allowing each student to take home something

Narrow choice of materials

The FormBox allows students to work with a variety of materials including chocolate, concrete and many more.

Dearth of outcomes and ideas

With its speed and variety the FormBox encourages experimentation. The online resources available at Mayku.me further expand the opportunities.

Results

1. Hands-on learning = more engaged students
2. A huge variety of products made by each student
3. Experimentation encouraged and enacted

