Project 42
Report – Volume 1

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With Thanks

We wanted to thank the many people that have been part of our journey and making Project 42 possible:

Mulgrave Primary School for shared vision and passion in childhood development,

Burlington Danes Academy for making their facilities available to us,

Martina Heuberger for her academic stewardship,

Moa Dickmark for her creative inputs,

David Baker, Pablo, Angela Gibbs, and Abigail Johns for their expert advice and guidance,

Redlands Primary, Phoenix Education trust, Design Museum Education and Creative Education Academies for their support and consultation,

Nick Corston of STEAM Co. for introducing us to many of his friends and colleagues,

The many parents and guardians who have embraced our approach and provided invaluable feedback,

And finally, our tutors at the RCA for their unwavering support and encouragement.

Contents

Executive Summary

"If you're not prepared to be wrong, you'll never come up with anything original." Ken Robinson

Imagination is the source of all human achievements. What we have witnessed in the past century is the industrialisation of schools. During this period adult literacy and numeracy has improved multiple folds but at the cost of creativity and imagination. The four of us came together to see how we might apply our creative training to unlock the creative potential of others.

We believe that human beings are all born creative. It is in our nature to see the world, and ask why? Our curiosity serves us in two distinct but complementary ways. Firstly, from an evolutionary standpoint, we seek to learn about our world so we can survive and thrive. And secondly we seek to learn because it is intrinsically rewarding – think back to the time when you learnt how to tie your shoelace or when you learnt the first song on the guitar.

When you look into the eyes of a young child what you see is an unquenchable thirst to learn. Coupled with this is raw intellectual audacity and willingness to try. But somewhere between birth and schooling age, our children begin to develop a phobia: the phobia of making mistakes. It is in our opinion that this illness has reached epidemic levels.

Project 42 exists to help young people to preserve, as well as to harness the power of Fearless Learning.

There are two volumes in this report. The first volume outlines out theoretical foundation, as well as the early prototypes of our proprietary pedagogical system. The second volume is a detailed summary of our Summer Camp held in West London in July of 2014. We hope that collectively they serve as a point of inspiration as well as a source of debate for educators and parents alike.

Finally we would like to thank all the collaborators for making Project 42 possible:

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And finally, our tutors at the RCA for their unwavering support and encouragement.

The project team is currently working on the next iteration of Project 42 with the aim of making a greater impact to our community. If you have any questions or suggestions for us, please do not hesitate to write to us at hello@bigthinking.co

The future inspires us, and we seek to inspire.

Ed, Holly, Lynn and Niall

Background
The impetus for the project

Education in the 21st Century

"The definition of insanity is to do the same thing over and over again and expect different results."
Albert Einstein

The impetus for this project was to explore what type of education we should be delivering in order to prepare children for life in the 21st century.

Much has changed in the past hundred years, but education has remained remarkably similar. We set out to understand how we might educate children to prepare them for today, rather than for life in times past.

DISCOVER
Research and Analysis

Research Overview

A broad range of input

For this project, we connected with a broad range of people using a broad range of research methods, in order to quickly get a picture of education in the UK today and the challenges facing the various stakeholders. The main groups we engaged with were parents, children, teachers, design educators and experts. The main methods we used were interviews, desktop research, direct observation and workshops.

Desktop and Secondary Research

Mapping the terrain

With our initial secondary research, we aimed to map the educational landscape. There were three major strands to this.

Educational Theory

Many great minds have thought about education in the past, and while there is far too much written out there to be familiar with it all, our first task was to get a crash-overview of this literature. This was later supplemented by discussions with experts and practitioners later on in the projects about the understandings of educational theory that they work with in their roles.

Education in Britain today

Of course, education is delivered differently in different areas around the world. Our second task was to understand the unique character of education in Britain today, the policy currents and counter-currents, and how they are affecting children.

Education in the 21st Century

Given the departure point for our project as 'Education for the 21st Century' the third major part of our background study looked at the changes we are seeing in society, and how these might require a different type of person, with a different skill set than what was previously delivered by our educational systems

User and Stakeholder Research
Localising the global

Having gained a view of the larger trends and challenges in education today, we wanted to really put human faces and nuance to these by engaging with those working at the coalface of education in the UK, either as students, parents or teachers, or as experts who advocate for change.

KidCrafters

We kicked this off by attending the KidCrafters conference, a parent-centred initiative which was established to ask similar questions about what the future of education should be in the 21st century.

Find the write up notes from the conference in Appendix 1, page 80.

Parents

Parents are a key group in education and we sought to engage early with particularly those parents who felt a strong need within the education system for elements they felt were not being delivered for their children. We met with a spread of parents from different backgrounds, find the notes from these meetings in Appendix 2, page 90.

Jeet, father of two.

Alice, mother of one.

Alison Victory, mother of one.
(No picture available)

Ben, father of two.

Kids

Children were the most important 'user' for our project. We observed children from a range of ages at Redlands Primary School in Whitechapel, and subsequently at Latymer Upper School in Hammersmith and Highgate Primary School in Highgate. Over time we came to focus on children aged 9-12, the reasons for which will be explained later in the report. We had the opportunity to conduct short interviews with some children at the schools. We followed this up with parent-child workshops and a more expansive workshop with some children in the Cressingham Gardens Community in Tulse Hill (See Appendix 4, page 94).

Another source of insights into the lives of children in school and particularly where it can go wrong came from adults who were able to recount their schooldays to us, parents whose children we were not able to meet, but who were able to give us their perspective on their children's journeys, and teachers who could tell us a lot about the children in their classes.

Find further write ups of this research in Appendix 3, page 92.

School observation, Redlands Primary

School observation, Latymer Upper

Prototype 1 – kids workshop, Cressingham Gardens
(see more photos in Appendix 4, page 94)

Emile – interview and workshop

Teachers

Another extremely important user in any educational service and a source of knowledge and wisdom is the teacher. We interviewed several teachers from different schools, and brought one of the teachers (Martina) into our process as a full co-designer.

Please see Appendix 5, page 96 for our notes.

Abigail Johns (State Primary, Wallington)

Angela Gibbs (State Primary, Basingstoke)

Martina Heuberger (State Primary, Kilburn)

Pablo (Private Secondary, Crystal Palace)

We also spoke to Aine (Private primary Dublin), Jen (State secondary Croydon), Dominic & Nikki (State primary Whitechapel), David Baker and Ed Charlwood (Private secondary Hammersmith).

Creative Educators & Policy Makers

We supported our work with those on the front lines with some of the educational strategists who are delivering creative forms of education and / or agitating for change within the system as a whole. Some of our influencers and collaborators were:

David Baker from Design Camp and Design Shed (A)

Catherine Ritman-Smith: Deputy Head of Learning at the Design Museum (B)

Emily from the Creative Education Trust (C)

Moa Dickmark, independent architect running creative education programmes (D)

Nick Corston, KidCrafters (E)

Rachel Roberts from the Phoenix Education Trust for Democratic Education (F)

Oliver Quinlan, Programme Manager: Digital Education, Nesta (G)

Guy Claxton, author of 'What's the Point of School?' (H)

Find the write ups of this research in Appendix 6, page 102.

DEFINE
Findings and Insights

Findings and Insights
The Real Problems

Educational Theory

In the broadest overview, educational theorists can be split into two camps: those who favour 'progressive' methods, and those who favour 'traditional' methods. This is a split that goes back to the late nineteenth century, and continues today.

Progressive Education

Crystallised during the progressive education movement which began in the 1880's and was lead by figures like John Dewey, progressive education has its roots as far back as the philosophies of John Locke and Jacques Rousseau. However, it takes its main theoretical underpinnings from educational psychologists such as Lev Vygotsky and Jean Piaget. The view of progressive education vary from practitioner to practitioner, but most share some form of the following principles:

- A focus on learning that is situated within the child's experience
- Student-directed learning
- The teacher as a facilitator rather than a top-down dictator
- Education for social responsibility and democracy
- Educating children for the future

Progressive education stands in contrast to 'traditional' education, which can be broadly characterised as examination-centred, relying heavily on memorisation and often on rote-learning. Battles between the two sides of this debate have raged since in the inception of the progressive education movement.

Education in Britain Today

Until recently in Britain, it seems we have had an unhappy compromise between progressive educators and those who favour traditional methods. The recent secretary for education, Michael Gove, has been one of the biggest public critics of progressive education, claiming that it has 'failed our children.'[1] His reign has seen a swing away from progressive methods, and a 'back to basics' approach, which has been extremely unpopular among teachers and the education community generally.

Proponents of progressive education, meanwhile, argue that progressive education was never properly brought in in the UK, and so it has not failed as Gove claims.[2] Rather, tokenistic attempts were made at progressive education, but its true potential remains untapped.

One thing we discovered on this project is that education is something which is both fiercely personal and fiercely political. This makes it extremely difficult to reach resolution on these issues. However what is clear, is that currently in Britain there is a major swing away from anything construed as 'progressive' in education. The implications of this will be drawn out in the next section.

"If the school is in 'Outstanding', it's alright, but if the school is failing, it takes someone exceptional to bring any creativity in."

Martina Heuberger (State Primary, Kilburn)

"Gove said they can no longer use calculators in the real test because, you know, there are no calculators in the real world, are there?!"

Nicki (Vice Principle at Redlands Primary School)

"Design has an interesting place in the national curriculum at the moment – there is a lot of emphasis, politically at the moment, on traditional academic subjects, rigour on numeracy and literacy. Time for creative subjects is getting squeezed. For teachers, when they're grappling with it, design probably isn't the top of on their list."

Catherine Ritman-Smith (Design Museum Education)

[1] (Curtis, 2008) http://www.theguardian.com/education/2008/may/09/schools.uk
[2] John Howlett, Progressive Education, A Critical Introduction (2013)

Findings and Insights
The Real Problems

Education in the 21st Century

Few would argue that we are moving into a time of rapid change. The employment landscape is changing – The U.S. Department of Labour recently released a statistic which said that 65% of children in school today will be working in jobs we have not invented yet.[1] For us, this raised the question of how we can prepare children for a future we cannot see?

Our world is also changing - over the next few years, demographic shifts, resource depletion and climate change will cause massive shifts in our societies. We will face social issues arising from this, many of which are likely to be 'Wicked Problems', where there is no one simple answer and an iterative approach must be adopted.[2] Again, this raises the question – how can we prepare children to face problems whose nature we cannot foresee, and which will shift and mutate even as we work to solve them?

The solution we came to after a lot of thinking and speaking with our interviewees was that increasingly children today need the ability to solve problems creatively. Children need to be able to frame a question, to synthesise information from different sources, and to iterate towards a solution as new information becomes apparent. Critical to this is open exploration, the ability to experiment, fail and try again – exactly the factors that are being squeezed out of our schools by stringent attainment targets and examination. Parents, teachers and experts alike recognised the need for children to be able to play, try things and fail – so that they can learn how to pick themselves up again. Below is a selection of what we heard in our interviews.

"We need to teach our kids how to 'flounder intelligently'. This is what the best employers will be looking for – they ask questions like 'Why is it that ladybirds and strawberries are red?' – Just to see if you can think on the spot."

Guy Claxton, author of 'What's the point in School?'

"We allow things to go horribly wrong so that the kids can learn from their mistakes and try to be more creative with the solutions."

Angela Gibbs (Primary Teacher)

"I think kids should be allowed to be bored. They should be allowed to fall down into the pit, so that they learn how to climb out of it. We don't allow that to happen, because we are scared of being told off.""

Abigail (Primary Teacher)

"Information is everywhere – we as schools and teachers don't need to funnel it to the kids. It's about what you do with that information - do you trust it? What questions does it ask? The ability to analyse information is a key skill now."

Pablo (Primary Teacher)

"Often it's the case that parents and teachers have done too much for a kid. They need to be left to struggle, so that they learn the resilience, and the grit, to be able to deal with hard situations."

Guy Claxton, author of 'What's the point in School?'

"It is just as important to fail as it is to succeed"

Abigail (Primary Teacher)

[1] US Department of Labour, 2006
[2] Buchanan, Richard. Wicked Problems in Design Thinking (1992)

Findings and Insights
The Real Problems

The Other Kid

As well as recognising this general gap in the education system, through our interviews with teachers, parents and children we recognised that there are certain children who are missing out more than others by the absence of open, exploratory learning.

We worked with teachers to develop a lay-classification for children, between traditional 'academic' learners, who thrive under the system of closed, mandated, knowledge-based learning, and exploratory 'creative' learners who learn best through exploration.

Anecdotally, 'The Other Kid' (as we came to know them), are the ones who really thrive in creative learning exercises, even when children who are seen as 'the bright ones' usually may be frustrated by their inability to 'win' at the task in a practised way, and receive the praise.

"When we do enquiry-based learning, the academic kids get frustrated because they want to get to a right answer and get rewarded. They also don't know how to proceed with a task they have never faced. Other 'problem' kids go get stuck in and surprise you."

Martina (Primary School Teacher)

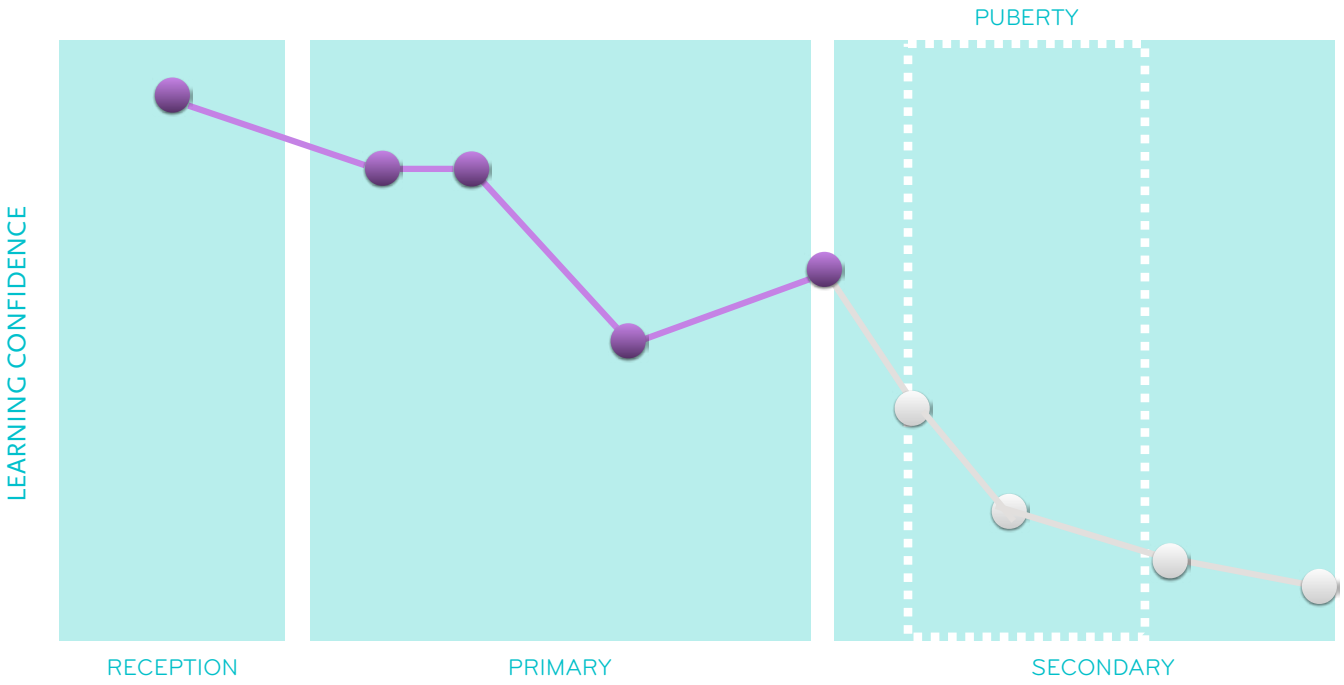
"This idea about the 'Other Kid' is completely true. There's lots of evidence of great creatives and entrepreneurs not achieving at school. We see it with competition kids too."

Catherine Ritman-Smith (Design Museum Education)

Findings and Insights
The Real Problems

The Other Kid – learning trajectory

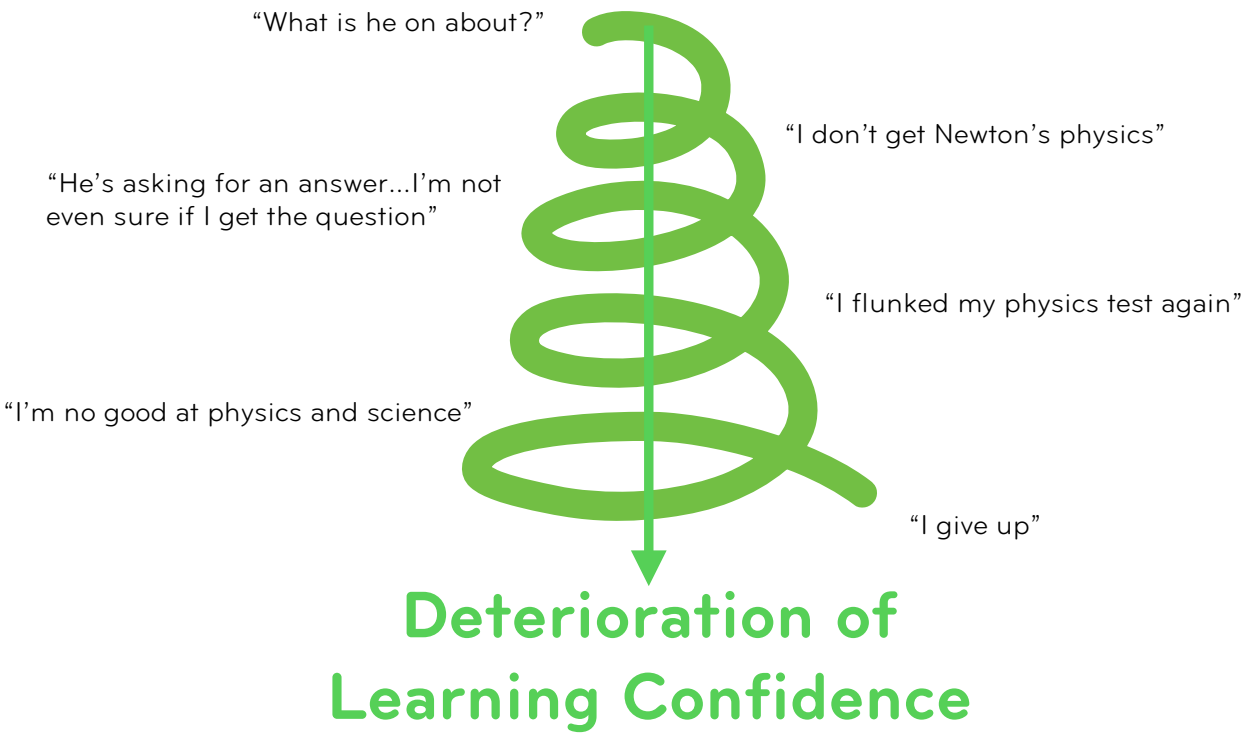
We found from teachers that the Other Kid tends to end up having their confidence heavily affected, making them afraid to use their natural experimental approach in learning We realised that a core task would be to build up their 'learning confidence'. We worked with teachers to identify the trajectory of the Other Kid, so we could understand how their confidence is affected both throughout school and in individual lessons.



Findings and Insights
The Real Problems

The Other Kid – spiral of learning confidence

We identified a downward spiral of confidence, that begins with not feeling confident in solving a particular problem, and becomes generalised to the subject and to school in general.



Findings and Insights
The Real Problems

Stakeholders in the learning experience

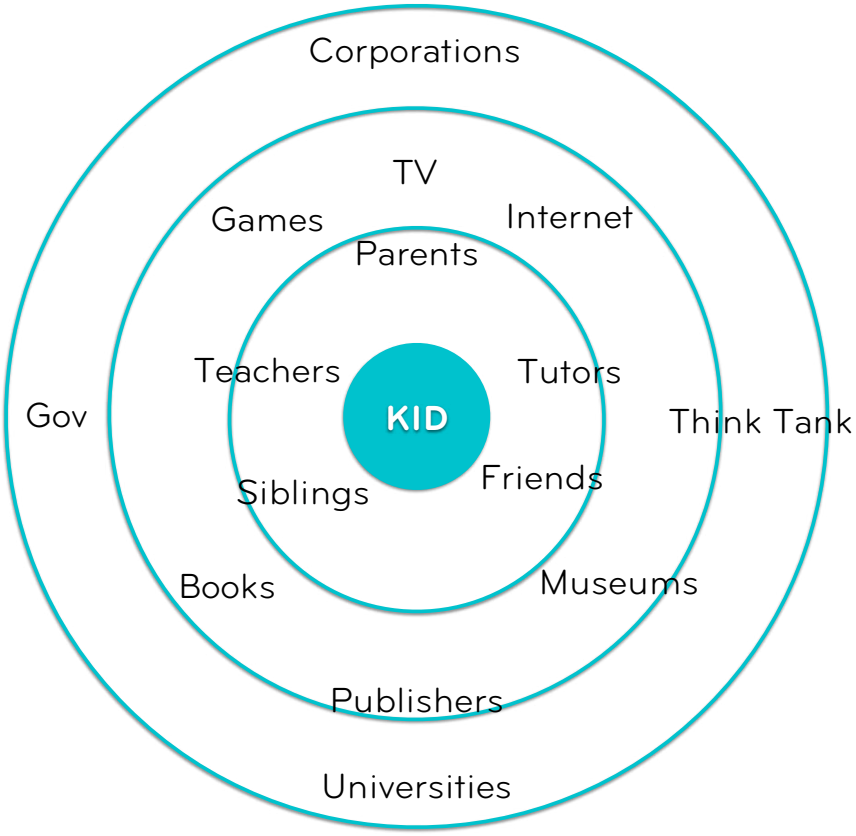
In addition to this deterioration of learning confidence, we also spent some time considering the perceived needs and concerns of each key stakeholder in the process. The breakdown was as follows:

Parents: Is my child happy? Is the school supporting them in the way they need?

Kids: I want to play, I don't want to be bored

Teachers: I want to teach and help the kids grow, not be under constant pressure for exam scores.

Schools: We want our children to have the competitive edge.



DEVELOP
Ideation and Concept

Ideation and Concept
Initial idea testing

Ideas

In the ideation stage, we went through several ideas before landing our concept.

Purposeful Creativity

Early on in the project, we came to the idea of teaching children 'purposeful creativity' - the ability to direct their creative abilities towards solving social problems. This would aim to build the confidence of children who may thrive in this activity but not do so well in mainstream education.

The Lab School

Our second idea was 'the lab school' - a school where new educational techniques could be trialled, and where students could also try new things. The school would be connected to an academic institution in a similar way to a university hospital. This would allow innovative education practices to build an evidence based and to be quickly discarded or iterated if they weren't working. It could look more like a campus than a school, and children could take an active role. The school could indulge the natural creativity of the teachers and the students.

Student Profiler

Another idea we had was the student profiler. This was drawn from the insight that the parents of the other kid are often stumped as to what to do, what kind of education would suit the kid. We believed that gathering information about the child's passions and strengths could give us insights into the type of education they would respond well to.

Testing and Feedback

We exposed our ideas to parents, children, teachers and educators, and were able to learn and evolve our ideas.

Our biggest learning was that 'Purposeful Creativity' did not resonate directly with parents, but that creativity in itself was a major concern across the board. We dismissed the profiler idea as being too narrow, as there was a need to focus on developing new forms of education. We took the idea of the Lab School and worked on it with educators and teachers, stripping out a lot of the randomness in favour of a more directed, considered experience. We focused on creating an environment where the students could try new things, as we realised that creating learning confidence was the core aim, and that new teaching techniques was secondary. This allowed us to refocus the brief.

Ideation and Concept
Redefining the Brief

New Brief

How might we create a supplementary learning system that enables "the other kid" to develop their learning confidence, so they too can thrive?

Learning Confidence

We realised that part of our role was to turn this spiral around, to allow children to learn in a way which builds their confidence.

We investigated with teachers as to how we might do this, and supplemented this with further desk research.

From the teachers, we learned the following:

1. Building confidence (and learning) is about allowing children to make mistakes constructively

2. This requires a supportive environment and directed praise

3. Start with what children are good at and build from there.

"Lots of praise and encouragement. It's hard when you are driven by tests. They need more time to make mistakes.

Pablo (Primary Teacher)

"Nurturing and individual attention is what leads to confidence and breakthroughs."

Martina (Primary Teacher)

This echoed what we had read in educational theory. We developed the following approach for building learning confidence:

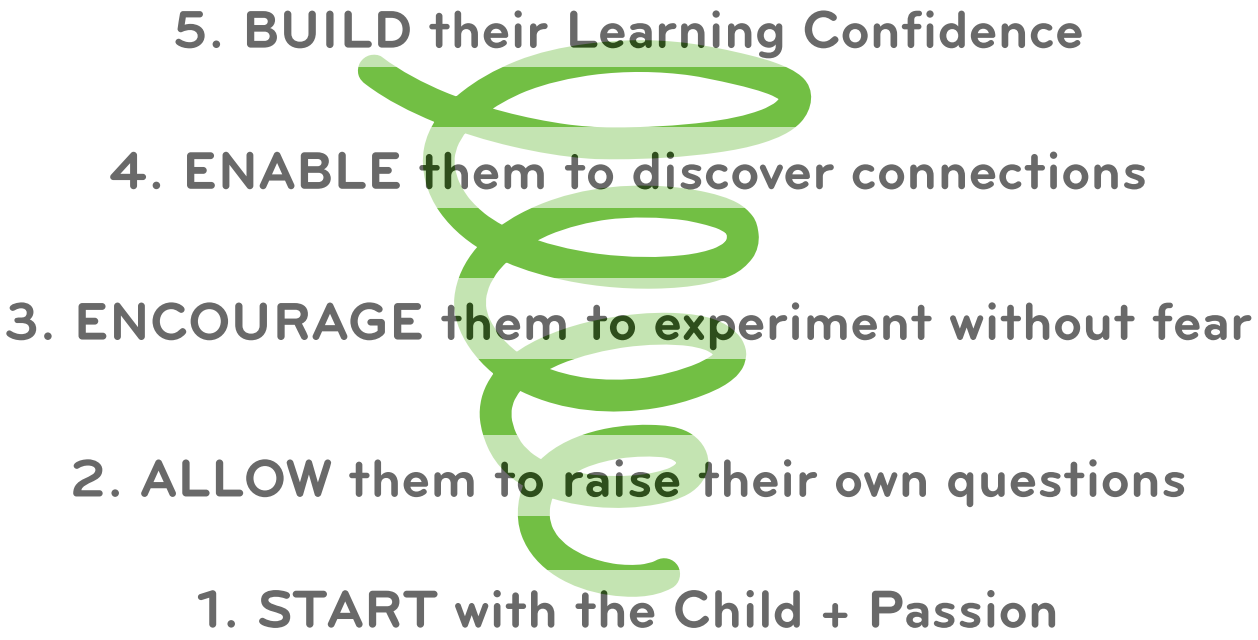
1. Start with children's strengths

2. Allow them to raise their own questions

3. Encourage them to experiment without fear

4. Enable them to discover connections

5. Build their learning confidence



Concept
Project 42

Project 42 is a learning supplement that encourages children (9 - 12 years old) to think and learn differently. There are many ways to learn, but many of our schools focus only on the 'academic' way. At Project 42, we aim to work with children's natural curiosity and creativity, allowing them to learn through hands-on activities, using all of their senses.

We believe education should celebrate individuality, question-asking and open exploration – because it's the original thinkers, makers and doers who will shape our future.

Our programme helps develop learning confidence, enabling all children to become **Fearless Learners**.

See the ideal user journey in our animation video on vimeo.com/101077416

Concept

Project 42 – Storyboard
vimeo.com/101077416

Hello!

My name is Mo. I am ten years old.

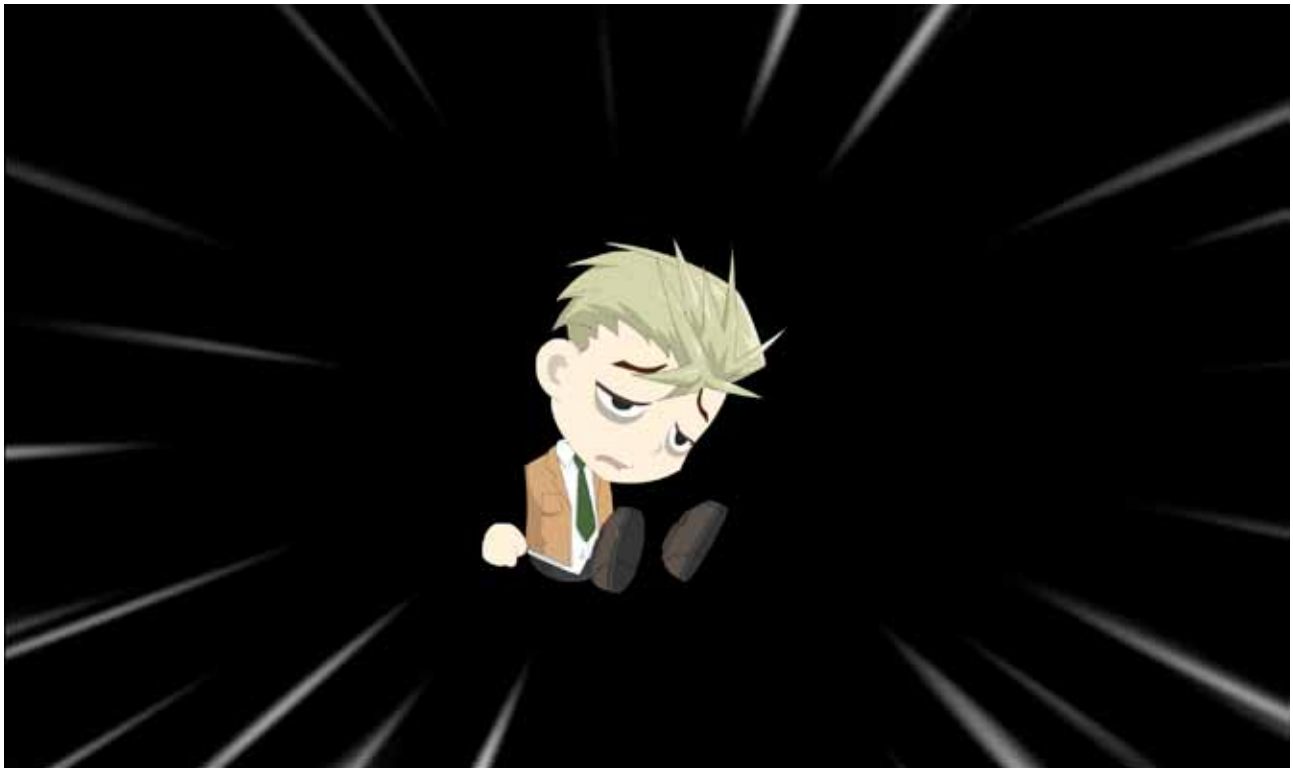
I hate school! I'm not very clever and everyone picks on me. I hate being stupid.

Sometimes I pretend to be sick. Those are my favourite days because I can play with my inventions.

I love making inventions.

Concept
Project 42 – Storyboard

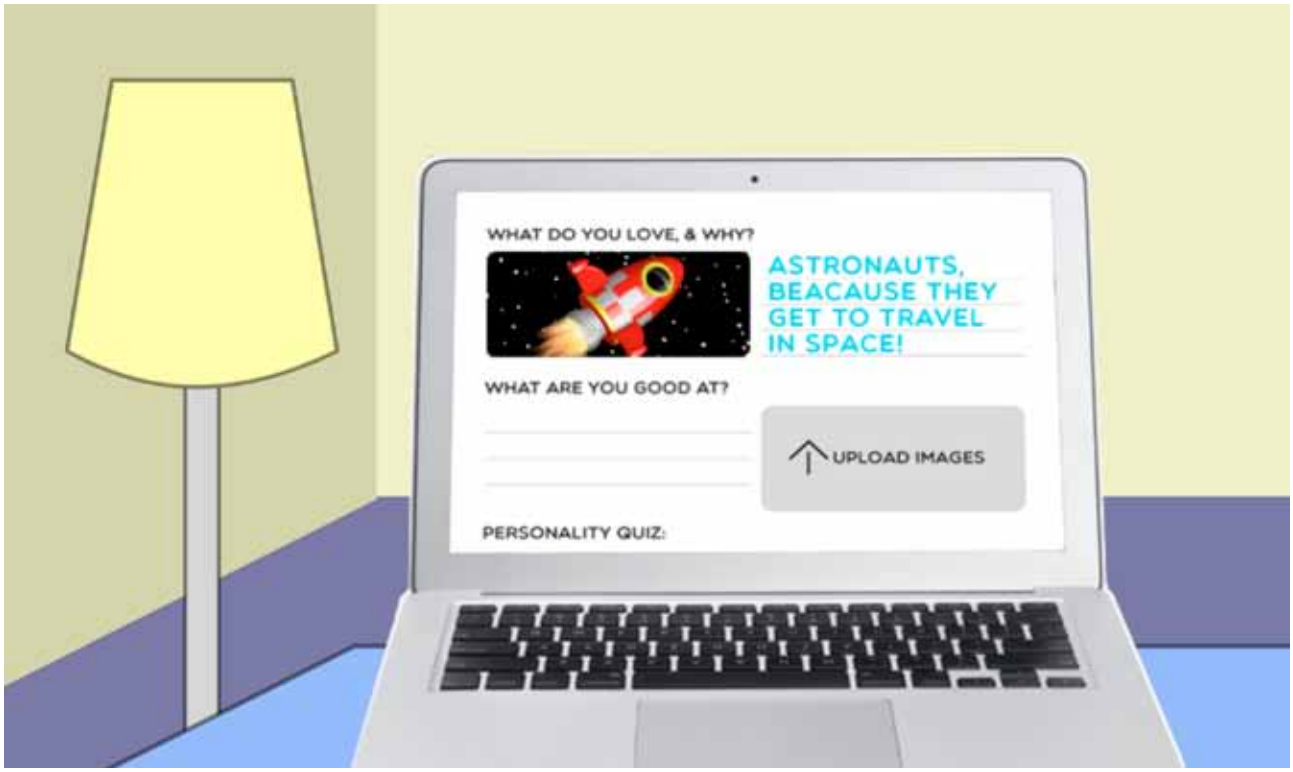
Cars, rockets, lightsabers - I make them all in my workshop.



Anyway, right now it's summer time and my mummy is worried because I am in my room all the time' and I won't play outside.

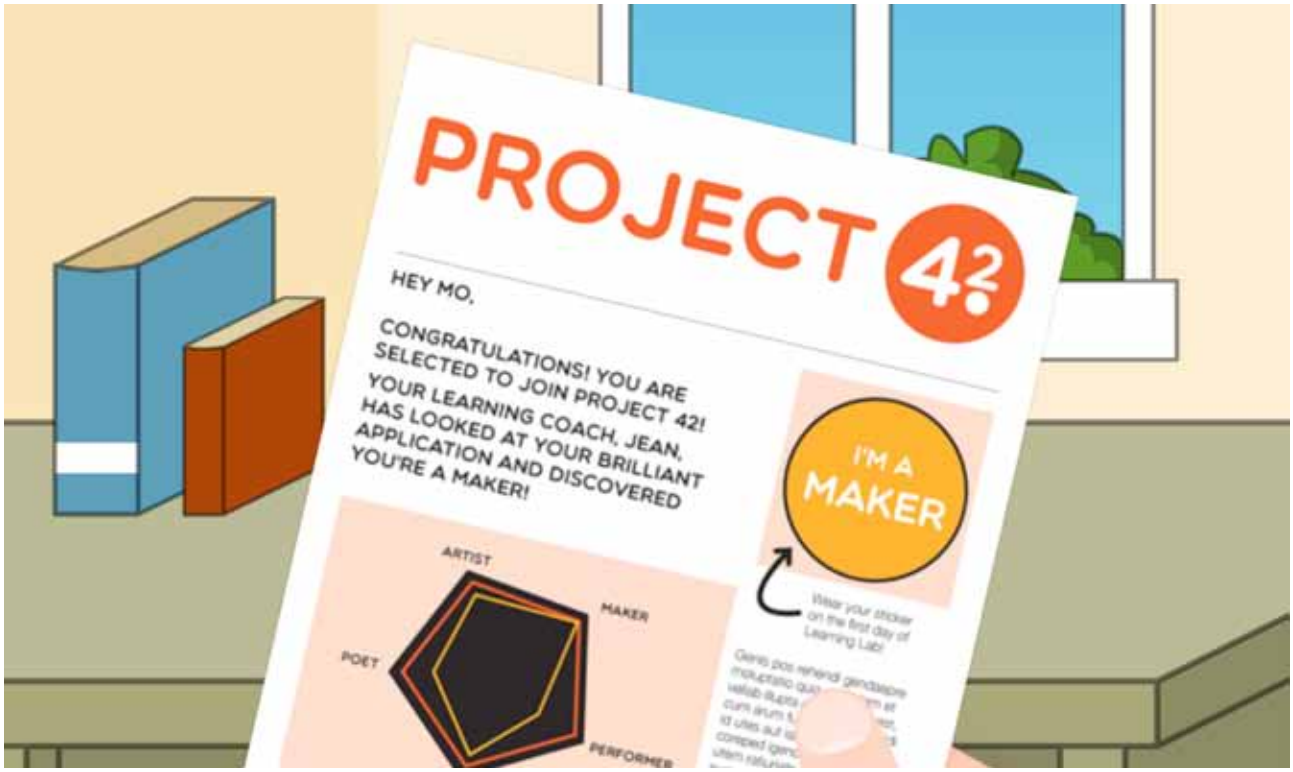
Concept
Project 42 – Storyboard

One day she comes to me with a leaflet about something called Project 42.



We go online where I have to post pictures of my inventions and also some pictures of other stuff I love, and then tell them what I want to learn. I tell them I want to learn about intergalactic travelling, and I wanna learn about force fields.

Concept
Project 42 – Storyboard



My results tell me that I'm a 'maker.' I have never heard that word before. I kind of like it... Project 42 is looking for kids like me. We can go there to invent more stuff and have lots of fun.

At breakfast on the first day, there's lots of other kids around. I'm a bit nervous and scared they will make fun of me. I wonder if the camp will use jedi technologies or normal.

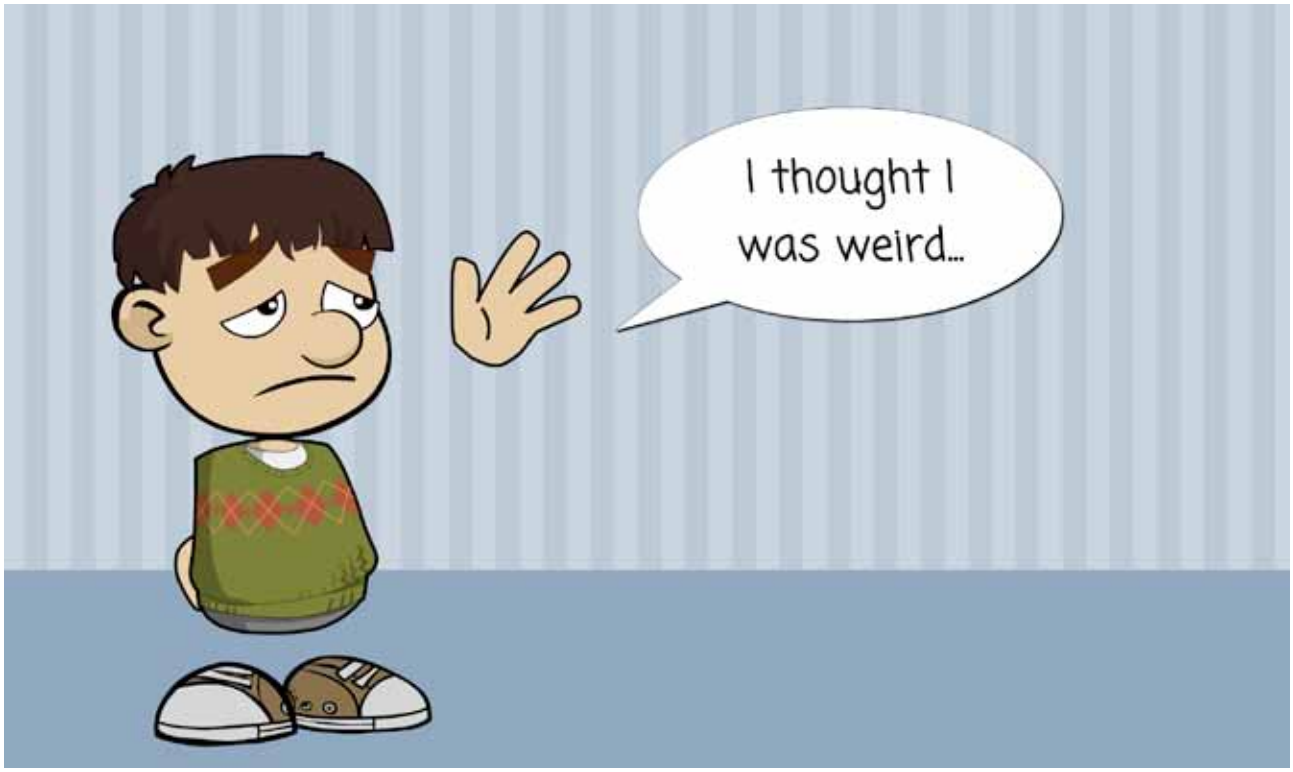
Concept
Project 42 – Storyboard

They give us a talk about all the things we can do at the camp.

They introduce us to a kid from last year who has done it all before. He steps up on the platform without a care in the world. He says:

Hi, my name is Chen and I'm a colourful chef. I'm eleven years old, and I was sitting right where you are this time last year.

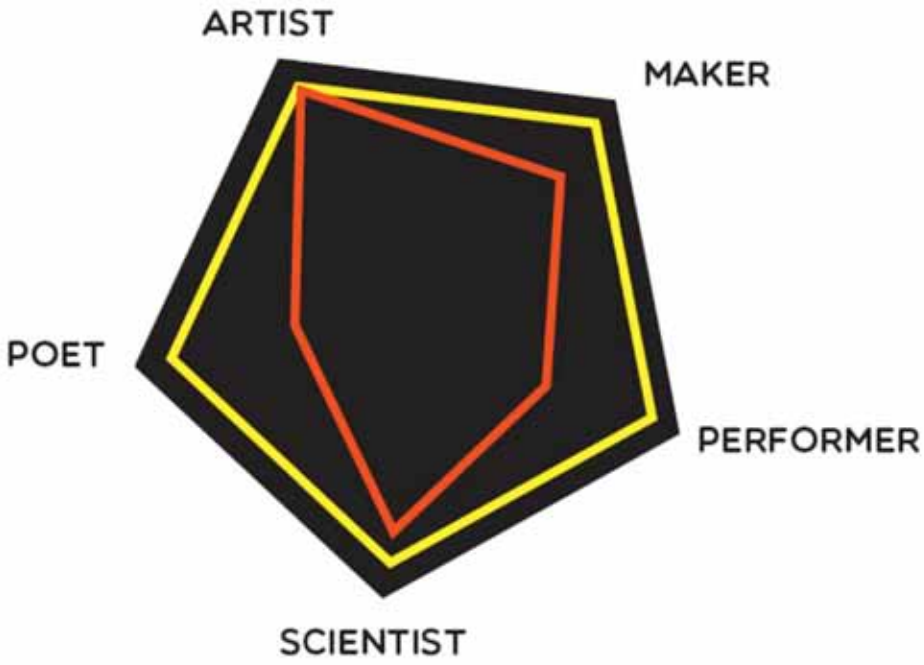
Concept
Project 42 – Storyboard



I didn't always know I was a colourful chef. Until I came here, I thought I was just weird.

I don't learn things like the other kids. I used to sit in class and watch the teacher's mouth moving, imagining like he was eating different hot dogs or donuts in different colours.

Concept
Project 42 – Storyboard



Then one day my mummy and daddy sat me down and asked me if I'd like to try Project 42. They showed me pictures of kids learning in lots of different ways. It was really colourful so I said: YES.

The teachers there told me I learn 'visually', which means with colours and pictures. So I've been doing a lot of my learning through drawing.

I went to lots of different classes in the first few weeks, cos you get to choose your own. One of them I really liked was learning about biology and chemistry through cooking. I spent the whole first week making graphs of all the different types of proteins and carbohydrates that go in the food.

Concept
Project 42 – Storyboard

I colour code the graphs, so that's how I became a colourful chef.

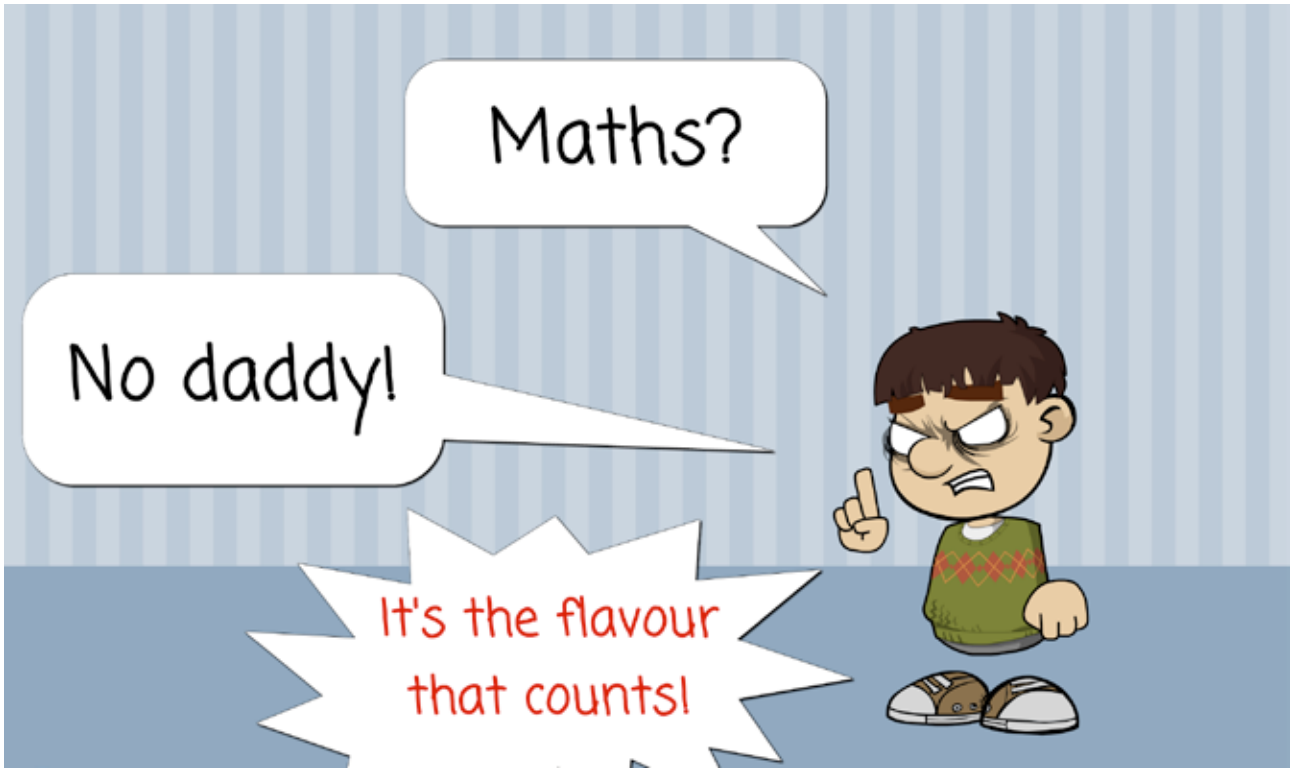
I made lots of mistakes on the way. The main thing I have learned here is that mistakes are good! They help you get there faster. Don't be afraid to be wrong.

Concept
Project 42 – Storyboard

This week, the theme is space. When I worked on this theme last year, I had to create menus that have the right calorie counts for the astronauts, but also the right weight and size to go on the spaceship. You can see my work in the exhibition space in the foyer.

My daddy was following my work on my log, and he says he never knew I was so good at maths.

Concept
Project 42 – Storyboard



My daddy thinks maths is the most important thing. But I told him no daddy, the flavour is the most important thing.

Because if it doesn't taste nice, nobody gonna eat it!

Chen is really cool.

When he leaves, they tell us again that failure is good - it helps you learn! I have never heard that before.

Concept
Project 42 – Storyboard

Then they give us our Learning Menu – and tell us about the project for the week. It's based around life in Mars - wow.

Imagine it's the year 2080 they say. The earth is under threat, and we need to set up a colony on mars, quick! Your task for the week is to develop everything we will need to make this happen - the rockets to travel there, stories about how society would be, a new martian flag and a national anthem, design the buildings, create new foods that will work in the new colony, and so on.

Amazing! I decide I am gonna do the rocket.

Throughout the week there will be talks and workshops from experts to help you with your research. On Friday, we present our work to the whole group.

I look at the menu. There's special sessions for 'makers' like me, where its all doing inventions to learn. I pick some of the options for the other types too, cos some of them look really interesting.

Concept
Project 42 – Storyboard

Then they group us all together in our groups - and I finally meet all the other makers. We do lots of fun introduction games, which usually makes me shy except there's really cool kids in the group, who can do lots of stuff! I make two friends, Lucas and Robbie. They both make inventions too.

There’s four spaces in the lab - the workshop...

Concept
Project 42 – Storyboard

the learning space...

the discover lab...

Concept
Project 42 – Storyboard

And the playspace. The maker sessions are mostly based in the workshop, but we move about to the other sessions.

We then start to create our Learning Log, where we create our plans for the day and the rest of the week. Every time we do a session we get a badge and fill in our Learning Log as we go.

Concept
Project 42 – Storyboard

Lucas and me go to a talk by a real rocket engineer to start off. He is on video hook-up from America. He tells us that his team all started like us, and that they still never get it right first time.

After the session, we meet a girl. She's very pretty. She walks right up to us and says,

Ladies and Gentlemen...

Only joking! My name is Petra, and I am a Performer.

Ever since I was little, I've been playing dress up and putting on shows for my parents. I am always the leading lady. Sometimes I cast my little brothers in supporting roles.

Concept
Project 42 – Storyboard

Except when I'm in school. When I'm in school,
I just fidget.

Concept
Project 42 – Storyboard

Then we go back to the workshop. There's lots of materials, usually I have to scrounge them. We start working together on a mega-rocket. I never invented with other people before. It's kind of fun. Although they aren't as good as me.

When it comes to lunchtime we go to this really cool free space and play. While we eat our sandwich and some space ice-cream, one of the rocket experts comes over and looks at our sketches, and makes some suggestions on our project.

Concept
Project 42 – Storyboard

After lunch, we go to our next session in the workshop, and find we are working with the same rocket expert! He's really smart and talented. He is a student at Imperial College.

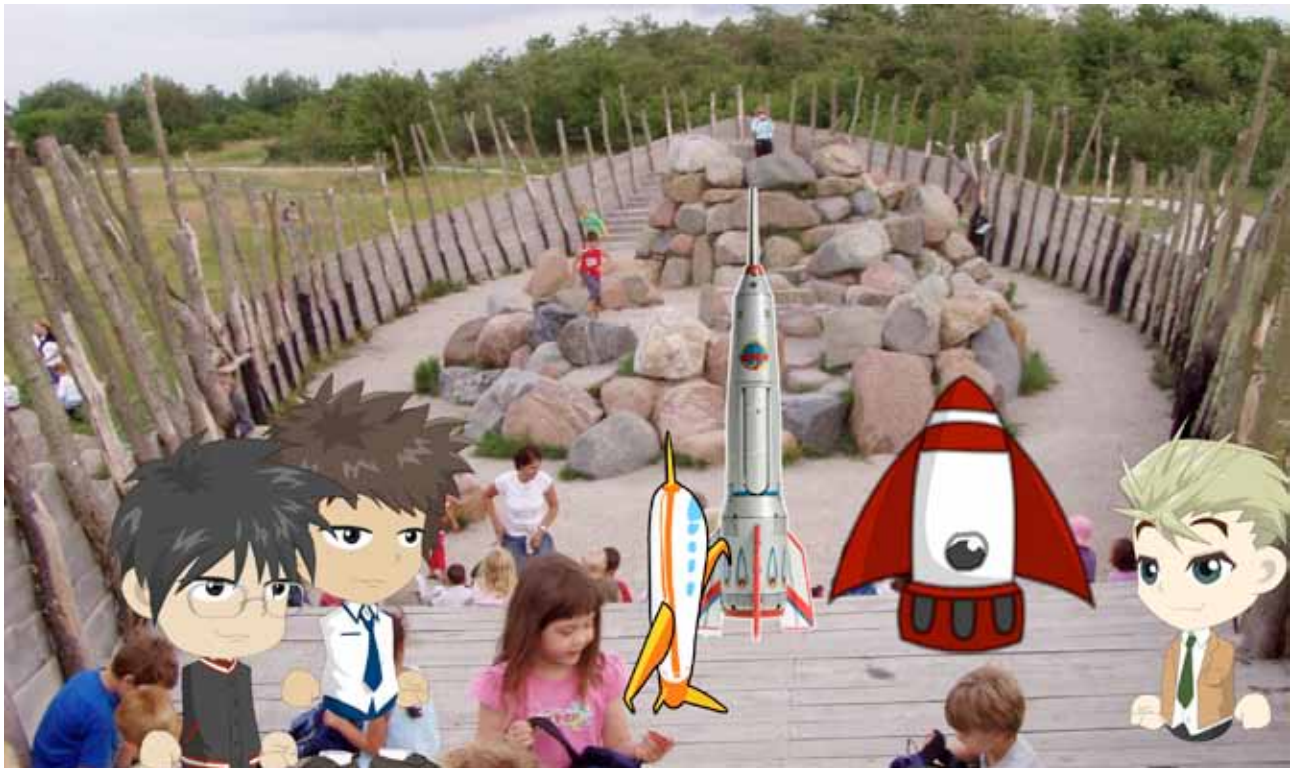
He explains that we can make our mega-rocket work for real if we want to, by using a plastic bottle and some baking soda.

Concept
Project 42 – Storyboard

I never thought I could make a working rocket. We do lots of prototypes till the end of the day.

At the end of the day, we upload all the badges from our sessions and a couple of pictures onto our daily logs. It fills in like a really nice story. I didn't realise how much I had done in just one day. I decide to choose 'prototype' as my word of the day, so I fill it in on my planner. I can't wait to see mummy when she comes to collect me.

Concept
Project 42 – Storyboard



Just before we go, they tell us more about the show on Friday. We can set our rockets off in Hyde Park in front of our parents and show everyone all the work we've done. Mmm, very exciting.

Project 42
Fearless Learning.

DELIVER
The Service Proposition

Deliver
Project 42

The delivery of a second prototype – Summer camp

Please see the second volume of this report for a detailed summary of our Summer Camp held in West London in July of 2014.

Over the next few pages there is a few of the details that led up to the delivery of the camp.

Deliver
Co-creation with experts

Co-creation workshop

We held a co-creation workshop with David Baker from Latymer Upper School and Martina Heuberger from a state primary in Kilburn.

The purpose of this workshop was to to test our assumptions for Project 42, and go through a detailed blueprint of what a summer camp might look like.

The key questions we had were:

– What type of education supplement should our intervention be? Summer camp, after-school club, etc.

– Why should parents and kids care about it?

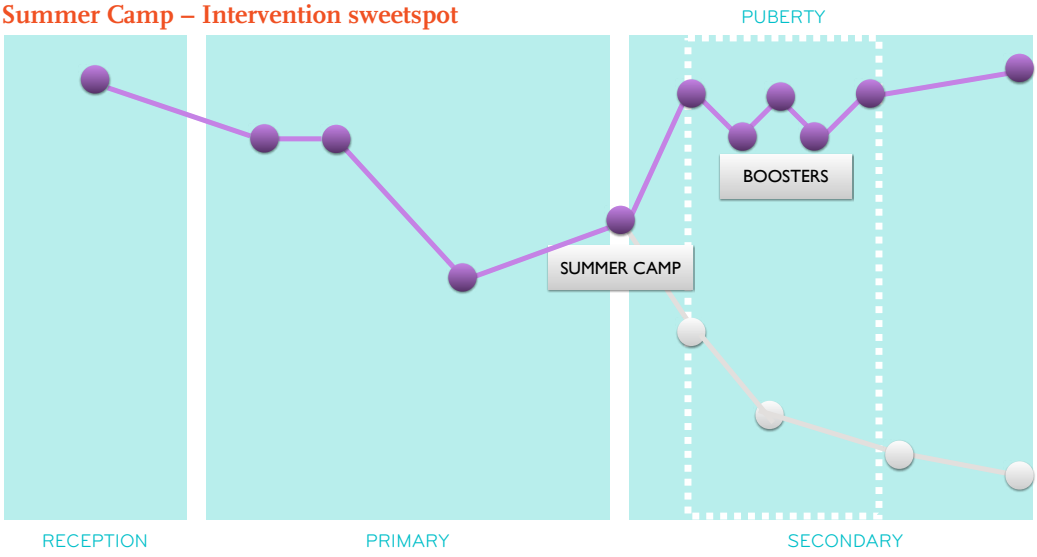
– How might that experience play out?

– Who will it involve?

– Where will it take place?

Deliver
Project 42 – Key Design Strategies

Summer Camp – Intervention sweetspot



Project 42 – Key Design Strategies

PEOPLE

- From non targeted recruitment **to targeted (the other kid)**
- From curriculum delivery agent **to adaptable Learning Coaches.**
- From Teachers only **to Learning Coaches (Pedagogy), Mentors (Empathy) and Experts (Subject & Skills)**

PROCESS

- From teacher initiated teaching **to Student initiated, interest based enquiries**
- From periodic measure of success based on narrow attainments **to constant monitoring and motivation of learning confidence and expansiveness of knowledge and skills.**
- From single linear path of learning **to dynamic personalised paths (including lunch time!)**

PLACE & PLATFORMS

- From subject silo-ed space **to adaptive activity based environments designed against learning modalities**
- From school **to school and research lab**
- From learning within the four walls **to perpetual learning across platforms (physical and digital)**

PARTNERS

- From external partners as bolt-ons **to partners being the provider of knowledge, recruitment and finance**
- From a transactional relationship **to a mutually transformational one**

Deliver
Project 42 – Blueprint

Project 42 – Summer Camp Overall Blueprint

Journey	Hear	Consider	Apply	Join	Arrive	Build Confidence	Expand Area of Efficacy	Explore	Validation & Synthesis	Integrate with curriculum	Top Up Sessions	Lifelong / Alumni
Student Confidence												
Student	Parent shows website	Hmm...could be interesting...	Upload pictures and writing	Got in - yes! I'm a maker	Met by mentor Meet group	Mentor, instructional design Group identity	Projects, mentoring, highlighting links	Mostly autonomous project work	Presentation + Rationale	Session with teachers. Learning plan	Meet friends, quick projects, help with difficulties	Digital hub, share new projects, mentoring
Learning Coach	Begin learning plan		Review Applications	Meet with child and parents	Organise	Praise	Guide projects, introduce links	Support	One-on-one prep help	Help children integrate	Organise	
Alumni Mentors			Review Applications		Greet children, introduce	Give talks, mentor kids	Give examples, answer questions	Inspire	Judging panel	Last tips on school	Support	Organise
Parent	See website, show to child	Discuss	Help child to write & upload	Meet teacher	Drop child off	Monitor Blog, Speak with child	Monitor Blog, Speak with child	Monitor Blog, Speak with child	Come to presentation	Session with teachers. Learning plan.	Arrange, blog	
Parent / Child Touchpoints	Fliers, Website	Website videos	Web-based Application, Acceptance	Info pack	Mentor Physical space	Menu + Planner + Blog	Project briefs Talks, Workshops Learning maps	Project briefs Talks, Workshops Learning maps	Final Presentation	Roadmap	Mini-experience	Alumni platform
Central team	Create website	Support	Receive applications & organise panel	Arrange meetings	Organisation	Organisation	Organisation	Organisation	Arrange final presentation	All staff meeting to review	Mini-experience	IT Support PR Alumni contact
Learning Support / Research	Create learning plan with coaches		Review applications & work on learning plan			Reviews with coaches	Reviews with coaches	Reviews with coaches + Assessments		Review	Follow-up	
Coach Materials	Email + Website	Videos	Guide to student learning plan	Coach learning plan	How-to-coach Guidebook	Coach Support	Coach Support	Coach Support	Assessment material (student and coaches)	Roadmap support		Coach alumni network

Project 42 – Summer Camp Daily Blueprint

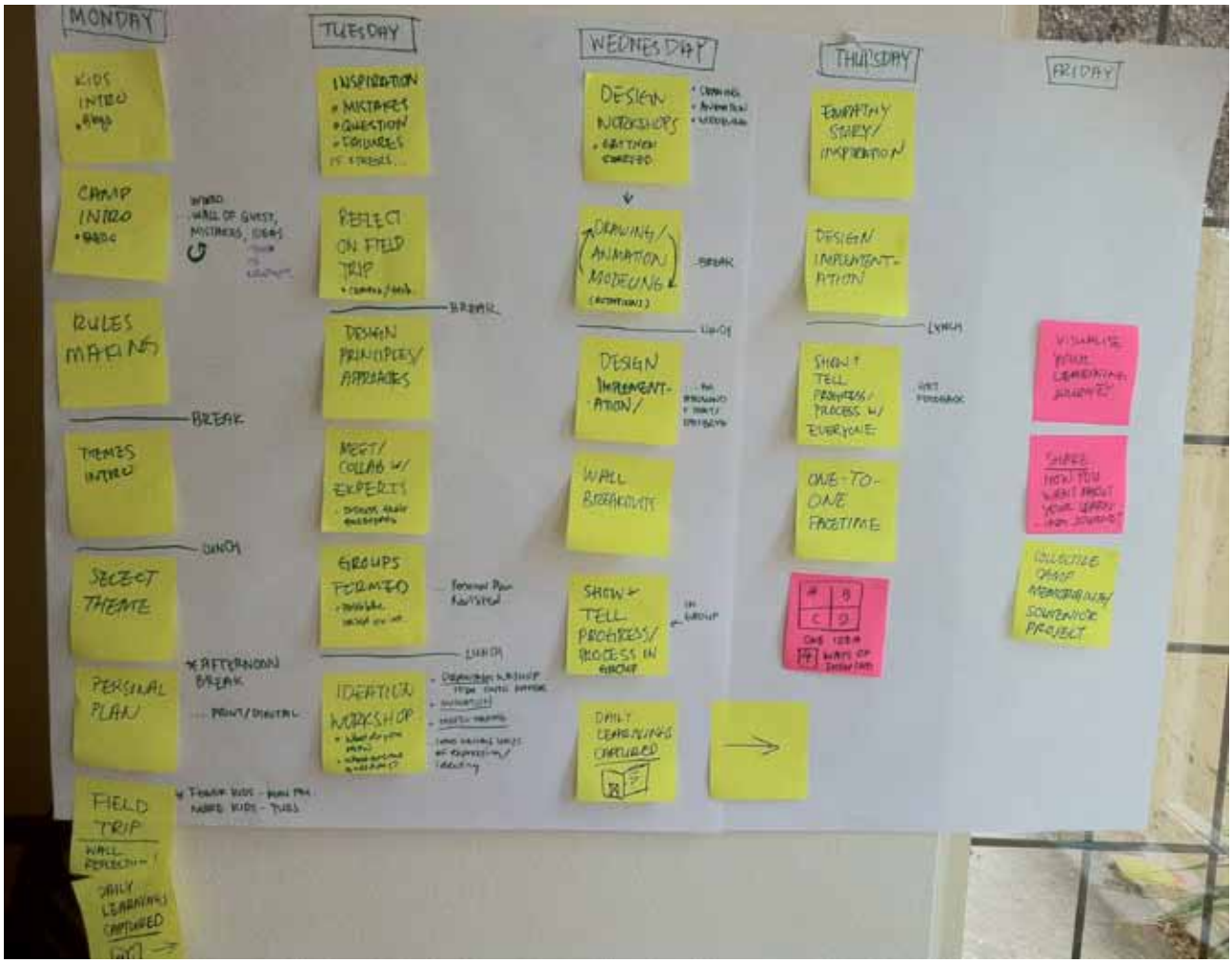
Journey	Arrive	Introduce	Plan	Learn / Do	Learn / Do	Learn / Do	Lunch	Learn / Do	Learn / Do	Review	Blog	Leave
Emotions												
Student Exp.	Breakfast & Play	Inspirational talk / Choose your path	Plan your week	Talk from experts	Open brainstorming	Making models from clay	Outdoor play	Protoyping session in the workshop	Testing prototypes	Sharing and synthesis	Upload day's work and badges onto blog	Chat with parents, prepare for tomorrow
Coach	Breakfast with the kids		Guide and help students	Learn	Facilitate, expand	Praise	Lunch, review	Support	Support	Help children integrate		
Expert				Talk	Support	Support		Inspire	Input			
Parent	Drop off child						Check Blog				Read what was done	Catch up
Menor	Greet	Talk	Support	Support	Support	Support	Support	Support	Support	Support	Support	
Touchpoints	Create website	Support	Receive applications & organise panel	Arrange meetings	Organisation	Organisation	Organisation	Organisation	Arrange final presentation	All staff meeting to review	Organise	IT Support PR Alumni contact
Support / Research	Daily check-in with coaches				Observation & Support	Observation & Support	Indiividual catch-ups	Observation & Support	Observation & Support	Review		Strategy
Management	Email + Website	Videos	Guide to student learning plan	Coach learning plan	How-to-coach Guidebook	Coach Support	Coach Support	Coach Support	Assessment material (student and coaches)	Roadmap support	Mini-experience	Coach alumni network

Deliver
Final co-creation workshop

Co-creation workshop

A month before the camp we held a final, more detailed co-creation workshop Martina Heuberger, who had agreed to work with us to deliver the camp and to be there as a 'teacher' figure during the whole camp week.

In this workshop we planned the hour-by-hour activities of the prototype, enabling us to the design all the collateral needed to ensure smooth running of the camp.



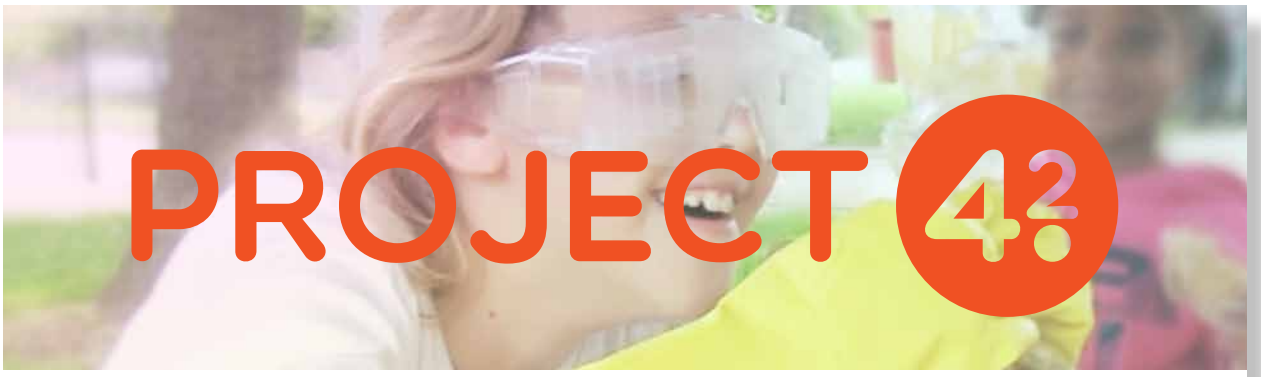
Deliver
Project 42 – Recruitment

Website and onepager

In order to attract kids to join our summercamp, we distributed widely through our networks a one pager (see opposite page) and drove traffic to our website (www.proj42.com) where a parent could sign up their to join the camp kid for a small fee.

Please see the second volume of this report for a detailed summary of our Summer Camp.

Deliver
Project 42 – Recruitment



CALLING ALL CREATIVE LEARNERS!

Project 42 is a weeklong Summer programme that encourages children to think and learn differently. There are many ways to learn, but many of our schools focus only on traditional, 'academic' methods. At Project 42, we aim to work with children's natural curiosity and creativity, allowing them to learn through open exploration and hands-on activities.

HOW DOES IT WORK?

At the beginning of the camp we engage children and build their confidence by focusing on what their strengths are and what they can bring to the camp. We inspire them by exposing them to a rich array of inputs, and allow them to form their own question, which they explore over the course of the week.

As we support them, we gently stretch their comfort zone, enabling them to make connections into new areas. By the end of the camp we aim to give every child the learning confidence they need.

THIS YEAR'S THEME: LONDON 2050

What will London look like in 2050? How will things have changed? What should we be thinking about now in order to create a better future for us all?

This year at the camp, children will have the opportunity to explore personal questions under this theme. Over the course of the week with the help of our panel of experts we will expose them to as many different aspects of the theme as possible, from a talk on the future of london fashion to a workshop on sustainable food practices.

HOW ELSE WILL CHILDREN BENEFIT FROM THIS CAMP?

They will be able to develop these skills:
Creative problem solving • Investigating • Video production • Elementary coding • 2D drawing • 3D craft • Teamwork and collaboration • Storytelling

Also they can...
Meet like-minded others and make friends • Explore new areas and interests • Build their confidence • Gain a different view on learning and the world

DATE & TIME

Monday 28th July — Friday 01st August 2014
Start at 9.00AM (optional drop off at 8:15am)
End at 3PM (3:30pm latest pick-up)

LOCATION

Burlington Danes Academy
Wood Lane, London W12 0HR

FIND OUT MORE

We're a passionate team of design professionals based at the Royal College of Art, working with fully qualified London teachers to deliver this unique experience.

Please visit www.proj42.com, write to us at hello@proj42.com or call Ed on 07763 554569.

Project 42 | www.proj42.com

APPENDICES

Appendix 1
KidCrafters Conference

Guy Claxton

We need to teach our kids how to 'flounder intelligently'.

This is what the best employers will be looking for – they ask questions like 'Why is it that ladybirds and strawberries are red?' - Just to see if you can think on the spot.

How can we prepare kids for something we have no idea about?

Schools are great at teaching kids how to knock out small essays, but that isn't the greatest life skill is it?

Often it's the case that parents and teachers have done too much for a kid. They need to be left to struggle, so that they learn the resilience, and the grit, to be able to deal with hard situations.

John Holt 1972 said 'since we don't know what happens in the future it's senseless to teach people by the past' (check recording for exact quote!)

Then, he was seen as a liberal romantic, now, this seems like utter common sense.

Jean Piaget said 'intelligence is knowing what to do when you don't know what to do'.

Michi Chitsi Maki (check recording) found through research that happiness is the state of being engaged in something that really grips you strongly and in which you make progress.

So how do we help kids discover what is going to grip them so strongly?

Enable them to be powerful learners.

Let them discover 'the joy of the struggle'

This isn't fun, it's not play, or creativity 'lite'

BUILD SKILLS AROUND THE CRAFT OF LEARNING

1. A sense of courage and adventure.

(Don't let them get obsessed with being 'right')

2. A sense of curiosity: design them to be sceptics

(The belief that what they are wondering about is worth wondering about)

'APPROPRIATELY QUESTIONING' - not being cynical, but just being critical of what's out there, not believing everything the read on the web)

3. Self resilience, self respect, self discipline

4. Imagination - encourage the 'could be' mentality

This is about the difference between 'education' and 'school. It's not about rearranging the deck chairs on the titanic. It's about how we enable kids to be intellectually curious enough to WANT to be challenged.

How?

1. Don't overpraise

2. Don't over-rescue them - allow them to struggle so they develop ways to rescue themselves

3. Allow them to be bored - this is the engine of imagination

4. Have a wonderwall in your kitchen - full of questions from them and you - encourage this inquisitiveness

5. SHIFT THE DEBATE. The wrong things are preoccupying the media. The problem of your kid crying on the way home from school is actually a PUBLIC issue. We need to make some noise (I call it the ground swell - see my new book). We have to FORCE our politicians to do something - otherwise with them it's always too little, too late. We can badger them, as well as individual schools, in a polite but engaged way.

If you're interested in this, get in touch: guy.claxton@winchester.ac.uk

Paul Phillips

Building a new school.

Looking at structure of the school day: having three lessons a day, sometimes one, having a slow start.

1944 - education act, various revisions and policies since. Haven't we sorted all this out by now?!

We are going to structure the curriculum around BIG PHILOSOPHICAL QUESTIONS. (Each term)

"What shall we do today?" - Ask the kids.

Also - bring the outside in and the inside out: A GLOBAL LONDON CURRICULUM: Use London as our base. It's not us (school institution) and them (London) - we need to be more integrated, and learn from what is happening out there. Why shut yourself out from all that learning?

Q&A

The rigidity of school - in at 8am leave at 5pm. And we wonder why they riot?!

What can we do?

Well, we can elect governments.

THINGS TO CHECK OUT

Look at the Taking Children Seriously Foundation.

Steve Vranakis - creative director of google uk.

Creativity plus technology plus doing good.

Check out WEB LAB

Check out GoogleScienceFair (summerschool)

65% of today's children will get jobs that haven't been invented yet.

How do we give them skills that will be useful for things we don't know? Collaboration, communication, etc.

Amy Solder, Nesta

Technology, creativity and making stuff

MakeStuffDoStuff initiative – by kids, for kids

Other things to help kids make and do: MakerFaire, FabLab/Moozilla Thimble/Skratch/Blender/ MakeMagazine/PrintCraft/MakeyMakey/LittleBits/ TechnologyWillSaveUs/BareConductive

Appendix 2
Parent Interviews

Ben Reason

1. What do you see as the challenges of raising and educating a child in the 21st century? Please include both general factors and factors specific to now

Obvious boring ones:

Living in a city and being able to give kids the chance to roam around and do things safely - mix of traffic and social risks.

Consuming nature and ease of access to media - games, TV, internet video meaning that time can disappear and 'should they be doing something more valuable?'

Everything kids want to do is a paid for activity - the things I did with clubs are paid for and it can cost a lot - especially a challenge for low income families

2. Do you have any concerns about your own child's development? Do you think their school is doing enough to give them a rounded education? What would you like them to get more of (e.g. one-on-one attention, exposure to new technologies, physical exercise,

Creativity, critical thinking, moral development)?

I am very happy with the primary school that the kids go to - they do philosophy lessons, it is a lot more professional than when I was at school.

Only issue with school is that it is very directed around the curriculum so it is not so easy for them to find their own passions and pursue them.

P.E. is a challenge in London school but they do enough.

3. Does your child attend any courses, camps, classes or clubs outside of school to learn additional skills (e.g. music, sports, computers, art etc.)? How are these of benefit to them?

After school - dance, drama, gym, bass guitar

Liberty loves her dance, drama and Gym - they kind of define her, are her passions so are really rewarding and lots of chats about going to dance school.

Otto less clear what his passions are - he is a geek and loves tech so happy to nerd out at home and lust after gadgets

4. Do you send your child to summer camps? If so, please describe the process you go through when selecting a summer camp for your child.

No we don't they just hang out with us and do stuff
- sometimes go to stay with friends outside London, sometimes grandparents. We also go sailing with my Dad.

Jeet

Thoughts on Education
- It's about doing what's right for the kids
- Is education giving the support that kids need?

Social Cultural background
- Indian
- Goes to temple
- Makes sure his kids understand the culture

Older Child
- Creative, plays with art materials
- Has a short attention span
- Lacking in a bit of confidence

Younger Child
- More academic

Thoughts on summer camp
- In the summer you're wanting to make sure they'll have fun, and be exposed to something they wouldn't in school
- Travel distance is also very important in terms of dropping off and picking up kids

Jeet's ideal summer camp for his kids
- Element of choice
- Try different activities as tasters

Phases of interest
- Kids probably want arty thing and want to do something easy
- Give them the choice through the activities

Alison

People rediscover their faith to get their child into a good private school

Growing minority groups have a huge impact on education system
- There's an 'immigrant mentality' to education: fighting to get the best for your child

Don't believe what the school tells you, you don't trust them because they hive off kids based on what they're good at - either bright at maths or English
- They split the class between 'clever' and 'non-clever' - the school will do it without telling parents
- "Trust was demolished from the moment I found they split the class."
- Political issue with parents

We got a tutor because assessment did not align - tutor for supplementary work or homework

Creativity is almost bypassed in school

"When you're choosing a school, there's nothing to base your decision on."

How many of your children can:
- Adjust well
- Communicate
- Get along with people

It's like football, there's the mental state and physical ability
- "If you lack confidence, forget it"
- "Doing something to the best of your ability" - allowing people to seek to use their potential

It's about pushing something that you like, things that interest you

Schools are putting complex beings into a narrow and rigid system
- There is no real problem solving
- "They're not doing enough to get kids out of the classroom"

"How can your child develop in some way beyond the classroom?"

Learning is about readiness, style and love

Awareness of the world- "it's my responsibility to expose kids to"

Take on supplements: English tutor, taekwondo, after school football and scouts
- WLife skills from Scouts could be nice at school

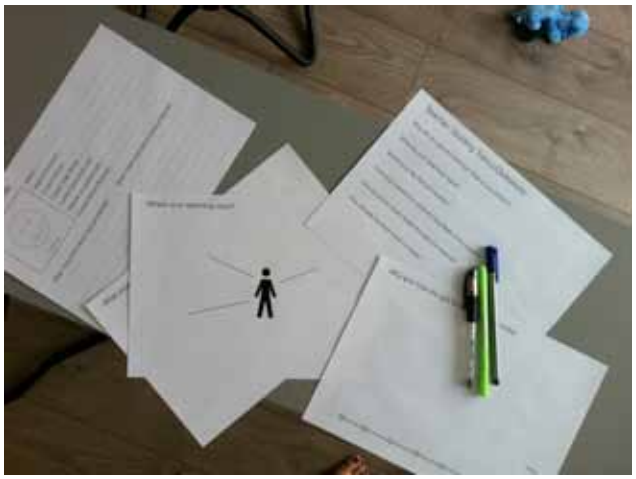
It's about allowing kids to try stuff out (i.e. comedy)

Appendix 3
Children Interviews

Emilie

Activity worksheets

Day in the life of



Liberty Reason

1. What is your name? What age are you?

Liberty, 10 years old

2. Please tell us about some things you find interesting, and why?

Art - because my teacher is inspiring

School because I learn a lot

Drama and dance because you can express yourself - Drama lets you try being someone else and dance takes your mind off things and makes you happy

3. Are there any things you would like to change in the world around you? If so, please tell us why.

I would like it if London was safer - traffic, waling to places alone - because I can get scared. I hear about what happens to other people and get scared.

4. Please tell us some things you like about school, and some things you don't like.

I like all of it except some people can be mean and that upsets me. I especially don't like it when kids are mean to other people.

I like doing art with Tracy

I like learning Mandarin together with the whole class and being better at it that my teacher

I like P.E. because we do it outside and that is good - refreshing

5. Please tell us about your favourite things you have learned, in school or in the outside world.

In school - Mandarin

Outside - cooking

Gymnastics and dancing

Appendix 4
Prototype 1 – Cressingham Gardens

Cressingham Gardens workshop


NAR
LITTERING
DOG-LITTER


Nite School
Out school

Appendix 5
Teacher Interviews

Abigail Johns, Primary Teacher, 04 April 2014

Teaches mainly year 2 (6-7years old) and also Yr 6 (10-11 years old)

What did you like about your education?

It was very HANDS ON. We were always doing activities. Eg. We had a cooking rota, each week you had to cook a meal - you had to go to the shops yourself - there was a lot of independence. You choose how far you took it. This suits the 'more able' students...

In terms of DISCIPLINE

Peer-pressure ruled it, more than the teachers. You were expected to turn up to lessons, but they didn't chase you on your homework, there were no detentions.

Also, we didn't have Parent evenings at school, we had home visits. So there was something about that pressure that the teacher was coming into your own home that made you work harder.

The nursery classes I teach at the moment are very hands on.

They are child-initiated - they learn what they wanna learn.

"You have to work quite hard to initiate hands-on learning"

The practicalities of it stop you - eg. not having the equipment

Frustrations with the current education system / your job?

Communication. Have to do a lot of stuff that has nothing to do with the kids. Box ticking.

When the government changes, so does the curriculum. We get 3 different drafts a year, and then end up going back to the old curriculum! Topic based / subject based. There is always some kind of political bandwagon we jump on.

I believe that we sit children down at a desk at too early an age.

We teach them in a formal way, too early.

It means their social interaction doesn't develop. You see that in year 6.

My big problem is - they need more play.

After Christmas in Year 2 (age 6-7) they start to become more independent.

What WORKS for children?

Different roles. They work this out themselves, over time. The bossy one, the quiet ones...

We do something called puppet dinosaurs. This really works for them to understand their actions and how they feel, and how what they do makes other people feel. This is way better than 'you've been bad'

What do you think of the curriculum

There's nothing wrong with the curriculum, it's just the way you do it.

Different types of learning styles - there is a clear gender split - girls are more into literacy, reading, writing, boys are more into maths and sports

Often you have someone, boys more than girls, who are creative, wild, but they just can't write it down. We always find ways of catering for them.

How much of your teaching is non-curriculum?

I like doing crafty things - not always about having a project.

Intuition - free thinking - allowing the kids to come up with nothing isn't really allowed. Because it's not productive, it doesn't fit.

But actually I think kids should be allowed to be bored. They should be allowed to fall down into the pit, so that they learn how to climb out of it. We don't allow that to happen, because we are scared of being told off.

There is a fine line between support and being spoon-fed. I believe we should just allow people to JUST BE. I don't know if we are doing anything to help that - it takes very brave teachers to allow kids to get bored or to get into the pit. With 30 students that's pretty much impossible.

What makes a good teacher?

Qualities: Organised, but very flexible and adaptable. A certain amount of 'winging it'.

It's not enough to just get on and be empathetic with kids, you need to know how to progress them, which means listening.

Abigail Johns, Primary Teacher, 9 May 2014

Naming

- Big Ideas - Big Thinking for growing minds
- Needs to be kid-friendly
- Ubuntu - story used within the camp

Who are we targeting?
- Private schools?
- Gifted and talented - nominated children within schools - we could target these kids (via a headteacher at a school)
- if we're charging, then go to school sites and find ones who are set up to go somewhere
- hand out one-pager
- get in contact with school board to distribute
- network email blast, maybe?

Health and Safety
- are we covered for risk averse environment
-Food allergies
- Medical conditions
- Insurance to go outside

Design Specialist is part of the appeal
- versus having teachers be teaching
- ratio of 1:5 not a problem

Orientation
- the Friday before the two weeks
- fielding their interest
- observe to see different behaviours to then split the groups accordingly during the camp
- giving roles to each child - 'ideas man,' - to get the most out of them
- roles encourage individual thinking, and then collective reflection
- rings - concentric circles of individual thinking to collective thinking

Programme organization
- over two days or short sprints throughout the day (one in am and one in pm after lunch)
- little challenges that are fun and focused
- let them create chaos
- homework/activity to take home and share the next morning

Movement is very important to learn spatially
- run around outside during lunchtime

What do we want out of this
- Can have crazy thinking within a grounded subject/ idea
- Bill Brighton - At Home
- Thinking about what other functions/purposes there are for a certain invention
- Rules versus no rules - different parameters and times for competition
- Open challenges, small challenges
- Show that it's important to fail, and use that failure to bring inspiration
- Greatest failures, and turning them into something else

Assessment
- Writing - stream of consciousness
- how they're communicating with peers,
- language, tense
- confidence
- able to share
- able to listen to ideas, and respond to others' ideas
- motor skills

Assessing their thinking
- their relationship with other people
- their ability to be challenged without - resilience, I don't know what I'm doing but still moves forward - self-motivation
- observe and film them
- next steps for the child, what can they do next - share with the peer review, you did this well etc - team appraisal, end of day appraisal
- telling them about their impact on the school - everyone gets a positive mention
- what do you think you need to work on?

Curriculum info for design
- an ethos
- identify these schools

Angela Gibbs, Primary Teacher, 08 May 2014

Name: Big thinking for little minds

Don't use little minds, makes you think of small minded.

But 'Big Thinking' is good. What about Big thinking for growing minds?

***

Teachers 4 year olds, has previously taught kids up to age of 7.

Her school is pretty new - their philosophy is LEARNING THROUGH DOING.

Through an particular topic and activity, they will bring all the other subjects in (English, maths, etc)

Other schools don't do this, they do 'literacy hour' 'numeracy hour'

The government are taking notice and realising that's a great idea

Very free way of teaching and learning. It lasts for however long the kids keep interest. (Smallest time is about 2 weeks) (and for older kids it's longer as they go into more depth)

The kids direct their own learning. We ask the kids opinion on what they want to learn.

There are of course certain things we need to do, assessment of course - generally done by photographic evidence, observation, lots of writing down, photocopying all their work. Takes a lot of time (look at 2Simple - a tech initiative to make this simpler - photos and notes go straight into school database)

***

We need to get CRB sorted, First Aid, Risk assessment (even more things if we take the kids out on trips - insurance, travel etc). ReachOutRCA (or similar) must be able to help us here? Also - ask about the data we get on children (photos, videos, notes - we have to be careful with this.

One idea - what about doing this in a school environment? Then everything will already be risk-assessed.

Ration 1:8 teacher:child at this age. As you get younger you need more adults

'We are tied to the curriculum' you have a lot more freedom - very exciting

Be aware - all the children will have different social needs - special needs, dyslexia, etc.

If you are putting them in groups you will get natural leaders, shy ones, etc. Very good idea to have someone there to observe this and to then point it out to us and the teachers so we can help them (eg. quiet ones - sit with them and encourage them to speak so that they gain confidence).

Use different methods to enable all the different types of learners to have their say

eg. suggestion box, posits, whiteboards, drawings, etc

Different styles of learning - solitary, social, linguistic, visual. We must be able to pick up on this and be able to work with these different styles

At the beginning (or the day before?) - First get the children together for a while, 1 day, 1 hour. Have icebreakers. Let them orientate themselves and get to know each other a little

Short, sharp projects are best (one a day is great) so that they don't get bored (then you get bad behaviour) you will always need to be one step ahead of them

Parents will be very aware of the legal side of it all - make sure you have this on your posters/flyers/website

A big attraction for kids is that its NOT teachers teaching them, it's designers so think about this and who is really teaching, and who is facilitating? How is that balance going to work?

Marketing should be jazzed up and fun so it attracts kids and parents - language too - don't call it 'transport and connection' - boring!

Yes we do let the kids do research (books, library, internet), then we allow things to go horribly wrong so that they can learn from their mistakes and try to be more creative with the solutions. Definitely room here for more ethnographic research, not just desk research.

Martina Heuberger, Primary Teacher, 27 May 2014

Kids question everything

It's up to them on what they want to do

Give them the skills to access help and find the information they need

Get them to understand that there's do you

Mini version of the world is school

Teaches you the social skills, the rules, the norms

Clash of culture between school and home - how do you manage that and how does the school deal with that?

*Paint point: teachers deciding and debating controversial issues with parents - religion/spirituality

- What should and should be included in the a curriculum

Programs around emotional health:

Personal Social Educational Health - emotional well-being, social skills

Co-op - cooperation

What do we do when we're angry with somebody

How do you work when working in a team

Art therapy - kids company

After school - art and psych mixed in; manage their behaviour and their emotions

One-to-one art therapist support

Moral code that encourages acceptance, tolerance, interest/care in other people

It's all about management - it's all about the head teacher, unfortunately

Teach math/literacy through creative activity

Reading a story about a giant - can you paint a picture of him?

Bringing the characters out - class monkey

Making an experience

IPC - intl primary curriculum

Chocolate project - where it comes from

A lot of pressure to do SATs for Year 6 - tension between numeracy/literacy expectations and creative

SOHO Parish - did a very creative gallery event

Not enough time for leaders to come together - need leaders to come together to develop an engaging curriculum - unlock

CURRICULUM

Subject matter

Topics

Subjects siloed

Based on teacher's interests/strengths

What do teachers need?

Planned resources - there's already so much out there, but teachers don't have time to look through them

Hamilton trust - subscribed by the teachers/schools

Test resources

Teacher's pet

Mrs.

Twinkle

Not allowed to use worksheets - because it's not customised for students

Don't want you to use standardized worksheets, but want you to have standardized results

Smaller class sizes preferred - currently 30, preferably 20 students

TEACHING STYLE

Creative integrated learning

Visual

Kinesthetic

Auditory

Holistic approach, not just academic

Global vs local

Primary School Education

Getting kids excited about the world

Gain interest in the world, and get them excited

Child Protection

- Constant monitoring and getting in touch with the right people

Emotional involvement, how much do you get involved?

Where you can be the same

The one place kids have stability and safety

Opening kids up - I can't to I can...Takes a lot of time and investment

Children who are deprived where parents don't have time, won't be able to show them what they can do

Need to show them to use what they know

Kids who come from advantaged families, are constantly being exposed/supported

At what point do kids realise they're getting something wrong?

Children's hopes and fears for the future

Cambridge Review

Depends on the age/time

David Hicks and Catherine Holden

- From atomic energy to climate change

It's how you introduce it and make it relatable to the kids

For you and your family – neighbourhood – world

The chocolate game

Ajazeerah - where does your shoe come from?

Textiles

Brazil World Cup

Further notes from Martina:

"Teaching them about the world pulls them out of themselves and their troubles"

"Nurturing and individual attention is what leads to confidence and breakthroughs"

"I try to give them a sense of the world but it's difficult as many of them live in small, cramped accommodation. The biggest thing inner-city kids need is exposure to nature to help them imagine a world beyond themselves"

"A lot of the old, creative, free head-teachers are disappearing because there is no room for them anymore"

"If the school is in 'Outstanding', it's alright but if the school is failing it takes someone exceptional to bring any creativity in" (which is self-defeating)

"Teachers are rebellious and strong-willed by nature. Our classrooms are ours" (despite external pressures)

"[when we do enquiry-based learning, the academic kids get frustrated because they want to get to a right answer and get rewarded. They also don't know how to proceed with a task they have never faced. Other 'problem' kids go get stuck in and surprise you"

"I try to weave morality through all my classes and draw out the similarities of the different religions"

OFSTED do look to see if kids are happy etc. (though that is not the emphasis of Gove et al.)

PSHE is on the curriculum, about emotional well-being and social skills

Typology of kids (categories are fluid):

'on it' kids - curious
'fixated' kids - one interest
'slow learners' - doesn't mean 'bad learners'
'bright / good' kids
'other planet / resistant' kids
'holistic' kids - one or two in a class

Pablo Primary Teacher, 27 May 2014

"School is a hassle compared to what life becomes"

How to engender confidence?

Lots of praise and encouragement. It's hard when you are driven by tests. They need more time to make mistakes.

Pressure from parents

They come in and say "He's only getting 70%!" That is fine! At this stage. Let them fail! It's fine.

If they feel empowered by what they learn, that will stay with them.

Show them the USE of what they are learning. Eg. Learning a language is not just for the sake of learning a language. It helps you see how people think, it enables you to develop empathy. You can start to see the world in a different way.

What's the point of education?

Learning is like eating. You enjoy it like a party. (Not necessarily the process of sitting through a lesson.

It's like food - you can't just give the kids what they like.

The 'oh I didn't know that - I can do that!' Really enriches your experience of life.

The curriculum and the exam driven culture - it really kills a lot of things.

If I could do anything and had all the time in the world, I would find the time to do other stuff. I would spend a week planning - I would look at the big picture. I would think, I want to give these skills to kids, how can I retrofit them into the school day? If you plan I well, you can integrate it. I would design it.

If a teacher is passionate about something then you get this interpersonal interaction - this often happens through storytelling

Information is everywhere - we as schools and teachers don't need to funnel it to the kids. It's about what you do with that information - do you trust it? What questions does it ask? The ability to analyse information is a key skill now.

The skills kids need are different to before.

If we were to run a summer school for pre-secondary school kids, what advice would you give us? What would you like us to do for the kids?

- teach them to organise their learning

- be more independent

- show them the beauty of doing things

- teach them to take pride in what they're doing

(and this is the BEST you can do, and that's enough.)

- improve their confidence and give them better problem solving skills

How?

- Instructional Design - teach someone else to do something you love.

Sometimes it's important to deconstruct the learning their doing into smaller bits. They might not understand the whole thing, so concentrate on something smaller.

Appendix 6
Creative Educator & Policy Maker Interviews

Oliver Quinlan, Programme Manager: Digital Education, Nesta. 25 June 2014

Advice on the Camp

– Start the kids off with a rich immersive starting point - get them inspired and excited and stimulated (Probably do this at orientation, and first day)

– Get a theme with lots of problems that they can then create their own individual problems out of

Measures and Recording

– Figure out what you want them to learn. Is it specific stuff about the local area? Or is it skills (eg. confidence, learning for themselves, asking qns). If it is confidence, for example, what would you like a child to do if they had this? This becomes your learning objective/ measure.

– This can be a very light framework - (exploration skills, making connections, confidence) or you could dig deeper with each of those.

– Use Evernote, continually take pictures and tag it with those objectives and the kids name. (one person should just be in charge of this with each group of 5 kids). This then shows a nice visual journey, great for parents. Make sure you build this into your process.

– And/Or – you could get the kids to be doing this themselves. This could be part of the process they have to go through. Eg. They should be recording what they're doing the whole time... (Maybe??)

Look at:

– '2 Simple' - used in early years www.2simple.com

– '2build a profile' https://www.2simple.com/products/2build-a-profile-primary-detail

– These are integrated with 'classroom monitor' http://www.classroommonitor.co.uk/ (prob too complex for where we are at)

Funding

– This should be A) People who are interested in supporting disadvantaged kids (if we were going down this route - it could be for low income families)

B) Organisations looking to develop the skills in kids that you are.

– There are arts places, and tech places. Tech have more money.

– Try the local education authority

– Approach boroughs (Kensington & Chelsea, Westminster(?), especially if you're dealing with local issues

– Try Teach1st http://www.teachfirst.org.uk/

– In this application /funding pitch, talk about your aims and objects, but balance it with how it's going to benefit disadvantaged kids eg. Giving them more learning confidence will help them build an aptitude for learning and they will do better in normal school. eg. it's a rich experience that enables them to collaborate with others and participate in more things.

Other

Look at PISA – collaborative problem solving, and how they test this

Catherine Ritman-Smith, Deputy Head of Learning, Design Museum. 02 June 2014

Catherine's Responsibilities:

- Manage schools programme (7-19yo) (when schools come in - self directed) (then groups that come for facilitated workshops)

- Manage learning manager (HE/FE progs)

- Young peoples programme (courses during holidays 12-16yo)

- Ventura (2010) - design and enterprise - design a product for our shop

Our pedagogy is learning through objects. (classic for museums.) - Experiential learning - learning through enquiry - asking questions about objects - critical and product analysis. Whole range of collections - themes and topics - folding chairs, lights, eco products...

They run facilitated workshops for students/kids, 1 hour long, cost about £6 per student.

– Learning through discovery – given an object, and asked lots of QUESTIONS about it, encouraged to ask their own questions. Through this you discover a lot about the problem the original designer was trying to solve.

How does one of these workshops work?

We have qualified teachers who are design specialists who support children to explore existing designs around a theme - analyse the object, then answer a brief... so it's about critically engaging with different types of design, then using that design as an inspiration for ideas

We have a pedagogy 'Designerly Learning' - look this up (Helen charmer wrote a paper)

Initiative they run to encourage kids to think like a designer, act like a designer. We put them into a role and get them to understand the toolkit that a designer would use - drawing, looking etc

There's a website we have called DISCOVER DESIGN that shows a series of lenses for looking through to answer questions of objects. Very simple, add your own qns - what do you see, what does it do, what's it for, how's it made, what's it's impact ... you go through that journey and you unpack a lot about how it was designed and why...

There are often famous design stories of things that were made and didn't work, was too costly, etc etc, something's ended up on a design museum shop - it's not a functional thing

We make a clear distinction between making and designing. There's loads of stuff out there helping you make stuff. So actually designing - In terms of our small contribution to the landscape - this is the thing we felt we could support.

We really identified, in terms of the needs in schools, but also the skills that teachers have in terms of teaching design education - the making stuff is already there - but what is missing is a real understanding of how to take children through a design process.

There is an artificial approach that happens in schools, get a brief, research, you draw a picture then make the thing you've drawn a picture of. This isn't really designing. We encourage them to be more iterative, to design something, see it doesn't work, go back, design it again, make it, design it again. This doesn't fit well in a school system where you have right and wrong answers and lots of lessons - it's a bit messier - it doesn't show a clear end - you're still tinkering with it. There are lots of issues around supporting schools to feel confident to mess around with stuff to get an idea - but also having a purpose to it all.

Making stuff seems to be pretty locked down in schools. Teachers always want know ideas - so we deliver these through CPD - Continual Professional Development - train teachers and get them to bring the design process into their schools.

We look at curriculum context and the industry context - the museum is the space in-between, where you also bring culture and society in - making design relevant to the lives of people.

We really feel that design, particularly for children, is a lens through which they can understand the world. Everything around us has been designed and made, and understanding a bit about that empowers anybody to think about how things can be better, how they can solve problems in their own lives, and the tools of a designer in terms of expressing their ideas can be appropriated in all sort of different contexts.

Design has an interesting place in the National Curriculum at the moment - there is a lot of emphasis, politically at the moment, on traditional academic subjects, rigour on numeracy and literacy. Time for creative subjects is getting squeezed. For teachers, when they're grappling with it, design probably isn't the top of on their list.

We have identified how a museum can be useful to kids. We have a particular place in the landscape. We are there to compliment and extend what's going on in the curriculum. We are not there to tell teachers how to do their jobs. We are not here to do something completely different because that's of limited use realistically for schools and the time they've got.

We do think we can provide something that is inspiring, informative, and quite practical.

Other stakeholders

At a round table for discussing and developing what we do - universities, FE institutions, research and teacher education, (it's important to see the pipeline between school, college and uni), policy makers and advocates - like the design council, lots of designers, we also get councils like Creative & Cultural Skills involved - they do a lot of research around skills needed by employers, opportunities etc

We are not here to turn every young person into a designer, its that idea that by learning about design, you'll be a more critical consumer, you'll use resources better, you'll be more equipped to understand and explore your own world, and do things with your own ideas.

Problems we have is capacity and space - it's hard to reflect the industry when we've got such a small amount of space and equip

Also it's a time of change – the political climate. The value of creativity and cultural learning and understanding of design at a top policy level, in government, is not having a great time. This is affecting us and other cultural institutions

How do we track impact?

For our core workshop prog - there was an org called the MLA (Museums and Libraries Archives Association) they did a big piece of research to develop Generic Learning Outcomes (GLOs) ***- these GLOs and the GLO framework forms the questions we ask about impact

We have learning outcomes of course, we are all teachers.

We do a bit of quantitative stuff - eg. how many people book, how many people are interested, but on top of that we use the GLO framework to measure learning around - Skills, Knowledge and Attitudes. We do this by observation, spot student evaluation, survey the lead teacher at end of session.

Our Ventura programme has an Impact Measurement Framework - with a theory of change attached to it - which is around bringing business and design together, real life scenarios, live brief, etc - for this we do pre and post surveys for students and teachers, plus observation (we are helped by the University Of Warrick), plus focus groups and case studies. Plus a whole pile of quantitative data - socioeconomic groups etc.

After we explained the reasoning behind our summer school (uncertainty about the future etc) she said:

There has been a large drive for this in the last government, it was called Enterprise Education - to do with the uncertain future, society is changing, young people need to be empowered to take risks and develop resilience - and they need to be given opportunities within an education framework to do that in a school situation ... In fact Ventura came out of this.

With the drive for more academic learning it's gone back on itself.

There is the combination of increased centralisation with local fragmentation - that leaves people floating in the middle

Advice for us?

Give them something real to deal with - eg. young children - here's a teddy with a bad back - design him a chair. Older kids - here is a community without water - what can you do.

Make their stuff real. If they can see that their ideas and designs might be used, will be shown to important people, could be made and put into a shop next to other important products. That's why we use the shop. - We exhibit their work - this really empowers them.

Also get people to help them - with drawing, or making, skills etc.

They are just kids, they have great ideas and can design to a very high standard but there's a limit - what's empowering is having someone that does it professionally who takes their ideas very seriously and will work with them to help them realise their idea.

That's where the magic happens. They realise they're not just playing with this (Although playing is super fun and good), it's actually got a purpose and I'm proud of it and it's going to be made.

Playing with a Purpose.

The other kid.

Completely true. Lots of evidence for great creatives and entrepreneurs not achieving at school. We see it with competition kids too.

But this is partly about being taken out of their normal environment - away from the situation where they're told you're good at this and you're not good at that.

It's also about the language and tools of design - you have to be a bit of an outsider in order to do something a bit different to everyone else.

Alternative learning styles, dyslexia - makes it harder for individuals to succeed in the conventional learning environment.

The empathy exercise you did - making them dress as old people - that's about playing, role-playing. It's more than empathy. That's actually putting them in a situation. That's how kids learn from day one.

Professional playfulness - the ability to play is important.

For summer schools - a lot of freedom to explore your own learning styles, because you're not in a formal learning environment - this is a really good idea.

Where can we fit specifically?

There are lots of challenges out there and competitions... it'll be really nice to have something that's just about solving a problem. Maybe the kids come together and identify the problem on the first day, and by the 5th day you've got some kind of working response (that goes through the process you've identified really well), that has a purpose... that you could take to all sort of different communities.

Formal learning - it's pretty sewn up. But the basic skills - creativity being the central thing you're working around - there are so many lo-fi things around play, drawing, making, being with others, role playing, collaboration, are really needed.

If you are going for 10-11YO, maybe make it 8-11, what you're doing seems like a really good approach. Working with others, role play etc - a good space to be in.

Be more specific about your age range, the activities, the outcomes.

Also, for older kids (12YO+), the opportunity to work with RCA students is a big thing ... so stay in touch... if you are still doing this in a few years time!

Keep me in the loop, any ways we can help, do let me know.

Emily Campbell, Director of Programmes at Creative Education Academies. 18 June 2014

Multi-academy trust. 6 secondary schools. 2 primary schools, we are expanding to 14 schools in total next year. They all have a special Key Stage 3 design programme, of which I am the principal author.

Our Chief Executive - when he mentions Design he quickly qualifies it with 'practical creativity'

He started this with not only a commitment to educational improvement (to get maths grades up etc) but also the central idea that if you put design, engineering, 'practical creativity' (is his favourite synonym for this) at the centre of the curriculum then you will raise those grades, you will give children skills for employability.

We tendered the curriculum design but the submissions were pathetic, so we ended up writing it ourselves. I and a few others have does this.

Started with this (see handbook) with a list of concepts that were really important in design - structure, pattern, fabrication, meaning, performance, human interaction, but that also were obtained in some way in other subjects. Eg. Contrast - a huge concept in design, but also applies to drama - conflict, or Science - osmosis.

I was trying to give some definition to design for these poor D&T teachers who had never done design themselves, and also trying to propose a conceptual framework that would give children the opportunity to slide between these various areas of knowledge - to relate what they learn in maths to English - this is actually what educated and creative people do. Bottom line is that it does behove anyone to be able to distinguish a 'structural' problem to a problem of 'meaning'. Is it because things are in the wrong order, or is it because we're using the wrong words? What is the problem here? Or 'performance vs 'human interaction' - is it a flaw in the way something preforms or a failure to recognise what people are like and how they behave. What's the problem here? Is it that the machine isn't working properly, or that people don't understand it?

National Curriculum

If you are an academy, (everyone still does national exams, GCSES, at Key stage 4),but at key stage 3, - 11-14yrs, you can do any curriculum that you like - you don't have to follow the national curriculum. So they don't do the nat curic, they follow ours structures.

Our schools are inducted in our programme - we talk them through the concepts and some exercises - eg. I give them paper and ask them to make it 3-dimensional. Then we have masses of resources

for teachers - we have 45 exemplar schemes of work, example materials, for year 7 - exercises that are usually quite short but are designed to embed this sense of structure, or pattern, etc. Then we have more for yr 8, and 9. We are working with teachers who have actually never learned design. We work with who we've got, we don't recruit teachers - they are already at the school.

The teachers love it - D&T has got very low status, so they like that its ramped up. It's very Bauhaus. An example is giving them a photograph, they have to find a shape and simplify it.

Or, show them a Paul Rand picture of an ice cream and a picture of a normal one. I ask them - what has Paul Rand done to this ice cream? He's taken out details, shadows, etc.

Normal size school D&T classes - no more than 20 students.

In year 9 they loosen up a bit - much more holistic.

Yr 9 project - that I am doing with Chris Downs (part of LiveWork) - called 'data as creator' - brief is - by examining quantities of data, design a product or service that responds to the behaviour disclosed within that data. So rather than just observing people (user-centred design), just look at the data and see what that tells you.

Some kids finish fast and so we have given them extra little cards with extra exercises - an image on one side and a question on the other. We are gonna publish these at some points - great IP thing. One example - how can you connect a tin and a baton.

Marking and assessment -

I could show you my progression chart of skills and understanding at Key Stage 3, my exam we've written for yr 7, doing this for yr 8 and 9 too. We examine understanding and knowledge, we don't examine skills - these are tested in the projects they do.

First qn on my exam sheet is a picture of Ram and next to it Alan Flechers graphic reduction of a sheet - the question is name 2 ways with Alan simplified this shape.

Another question to do with structure is 'put the following object in order' - arrowhead, pyramid, symbol, iphone, fishing rod, caravan. You could do this by size, you could do date of invention, complexity, alphabetical.... Various answers. So we give them a mark out of 3 for plausibility. But in design, it's about plausibility - you've pitched the idea to me, am I gonna buy it?

The teachers have such a lack of confidence and experience in design so part of the reason for writing this exam is to help them understand what we are after.

Enforcing/helping the teachers to deliver this programme?

Meet Kate - works on the programme too - the enforcer in schools - going and observing, reviewing it, what they're doing, helping teachers to improve it. Often what we see them doing is not what we had in mind. It takes time to the get into it.

What are we doing with our summer school? Quick design sprints focussed on social problems. Do you know Design for Change?

We are figuring out how much we want to prescribe problems to them, or let the kids define them by their interests and issues.

It takes a lot to get kids to identify problems, they'll get typical stuff, but it's hard to push them beyond that. It's really worth doing, but it can take a long time. At primary, though, they're not quite so programmed. They're quite used to doing a project over longer periods of time, but it's broken down into little things that fit into the overall theme.

They will love being a task force on a design problem. It makes them feel important and it gives them a sense of their own capability.

Recruitment?

Our networks, hit the streets.

Learning styles.

There is the convention of putting the learning objectives on the whiteboard - teachers say this means the kids learn better.

I don't really know what you mean by this... learning better if we knew our own learning styles. In secondary school, learning styles are less catered for.

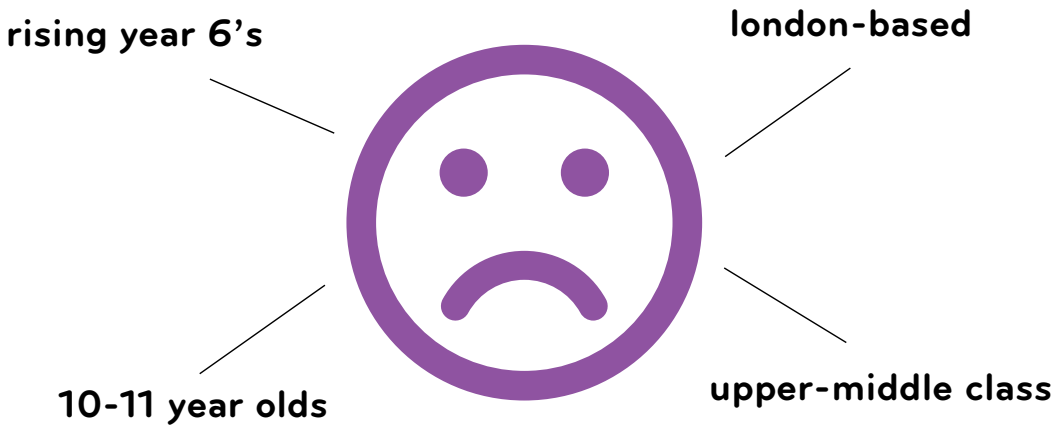
There are lots of different ways of teaching. But I don't really understand what you mean by kids understanding their learning style.

School is so prescriptive. Where as we let the kids figure it out for themselves. As a 'learning style' giving yourself a need to know the answer and work it out yourselves is what we do.

I saw some nice catering for learning styles for a yr 9 class the other day. They split the kids up into three groups - 1 group got just the pieces and no instruction, one group got a picture, and one group got some more detailed instructions. Because those groups learnt in different ways.

Appendix 7
Presentation collateral

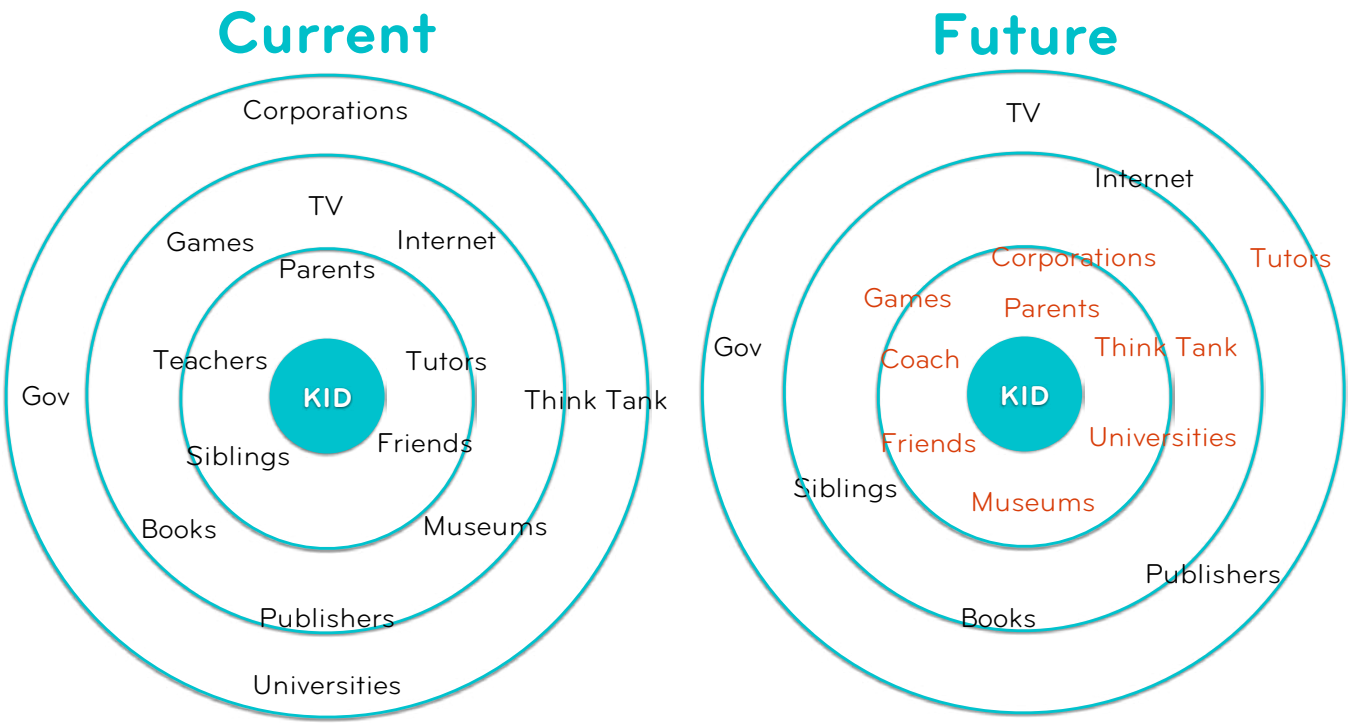
‘the other kid’



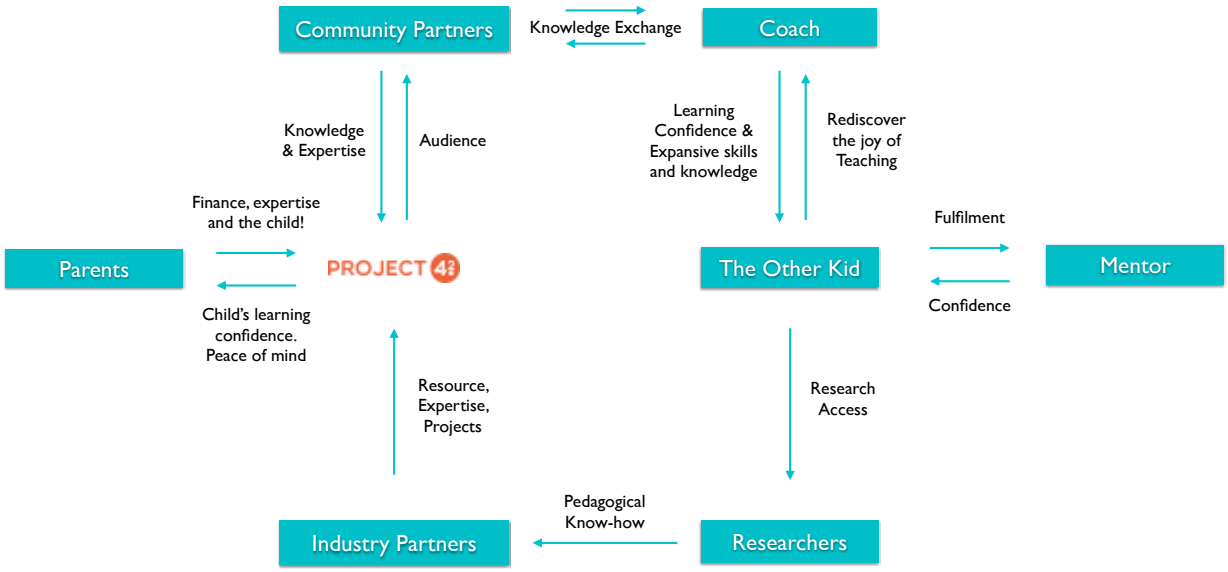
Stakeholder Challenges and Opportunities

	Challenges	Opportunities
The Other Kid	• Have to go to a school where s/he is made to feel stupid.	• Unleash his/her potential
Parent	• School is not providing a holistic education. And is searching for supplements within her reach.	• Provide a second opinion • Be the supplement
Teachers	• Not being the best versions of themselves because of admin pressure.	• Create a creative outlet • Help them improve
School Admin	• Busy fending off inspectors and overall attainment for everyone (focus on the top and bottom)	•[ ]
Local Education Authority	• Supporting and tracking all the schools in the catchment [?]	•[ ]
Government	•Drive national attainment which is currently lagging behind in the world (narrow definition)	• Introduce a more balanced view of attainment

Appendix 7
Presentation collateral



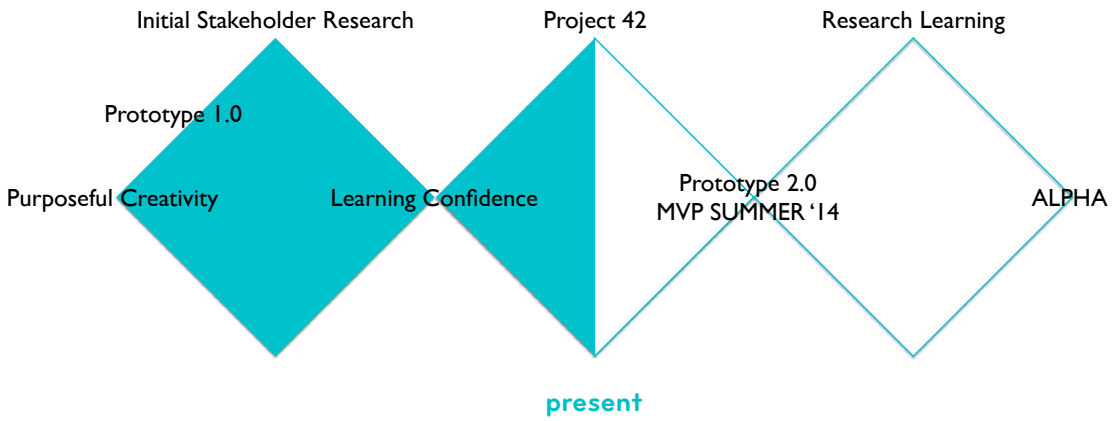
A Vibrant Eco-System



Opportunity Matrix

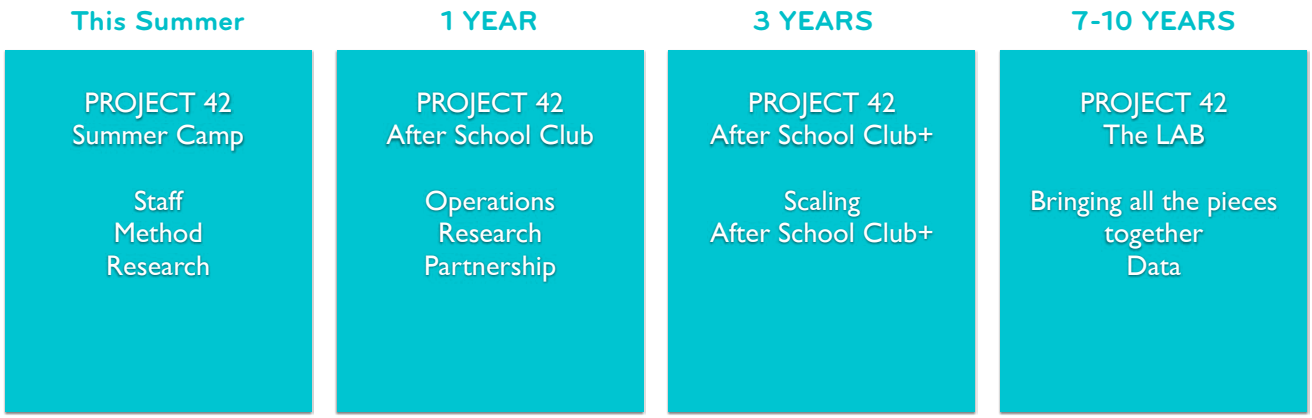
	Pain Level	Cost of Sale	Competition	Budget	Dependency	MVP	Value	TOTAL
Weighting	4	2	5	1	5	4	5	
After School Club	5	3	3	5	4	5	3	**101**
After School Tutoring	3	3	2	5	5	5	3	**93**
Curriculum Plug-in	2	2	4	4	2	2	1	**59**
Online Learning Tool	5	4	1	5	5	2	4	**91**
Summer Camp	3	3	4	2	4	5	4	**100**
Alternative School	1	1	4	1	1	1	5	**61**
Definition	(Lo1, Hi5)	(High 1 - Low 5)	(Stiff 1 - Easy 5)	(Dear 1 - Cheap 5)	(Depend. 1 - Inde. 5)	(Hard 1 - Easy 5)	(Bad Fit 1 - Good Fit 5)	

Timeline



Appendix 7
Presentation collateral

Growing that seed



Project 42
Report – Volume 2

Royal College of Art
Lynn Esther Chung, Holly May Mahoney, Niall Morahan, Ed Tam

With Thanks

We wanted to thank the many people that have been part of our journey and making Project 42 possible:

Mulgrave Primary School for shared vision and passion in childhood development,

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The many parents and guardians who have embraced our approach and provided invaluable feedback,

And finally, our tutors at the RCA for their unwavering support and encouragement.

Contents

Executive Summary

In the second volume of our Project 42 report, we celebrate the work of our project partners in helping us bringing Project 42 Summer Edition to life. We believe that the success of Project 42 is based on the wonderful collaboration between teachers, parents and learners, grounded by our shared passion of Fearless Learning.

While Volume I outlines the philosophical and pedagogical foundations of Project 42, Volume 2 takes on a more practical tack. This volume is focused on the physical application of our pedagogical system. Within, you will find all of the methods and collateral that we used, as well as the learning we have gathered from our camp. All of our teaching tools can be found at http://tinyurl.com/nokobkx, free for all to view, use and share.

With the graduation of the first cohort, we draw a close to the Summer season but our work is not done. We've been working hard to fine tune our model with the aim of creating a format that could benefit more people in our community. We are currently working with a number of teachers in London to infuse Project 42 philosophy and methods into their classrooms.

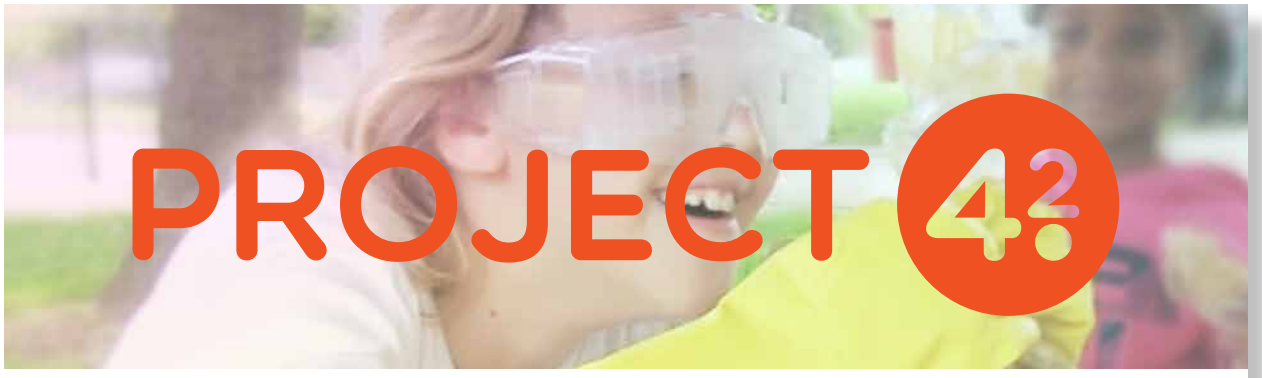
Our end goal is to create a learning system that be used and enjoyed by all. As such, we are always looking for feedback and input from people around us. Please use our feedback to us via our website proj42.com, and if you have any further questions or comments, please get in touch at hello@proj42.com.

We hope through reading this report you will be inspired to bring Fearless Learning to your classrooms and homes.

Best regards,

Ed, Holly, Lynn and Niall

SETUP
Project 42 delivery



CALLING ALL CREATIVE LEARNERS!

Project 42 is a weeklong Summer programme that encourages children to think and learn differently. There are many ways to learn, but many of our schools focus only on traditional, 'academic' methods. At Project 42, we aim to work with children's natural curiosity and creativity, allowing them to learn through open exploration and hands-on activities.

HOW DOES IT WORK?

At the beginning of the camp we engage children and build their confidence by focusing on what their strengths are and what they can bring to the camp. We inspire them by exposing them to a rich array of inputs, and allow them to form their own question, which they explore over the course of the week.

As we support them, we gently stretch their comfort zone, enabling them to make connections into new areas. By the end of the camp we aim to give every child the learning confidence they need.

THIS YEAR'S THEME: LONDON 2050

What will London look like in 2050? How will things have changed? What should we be thinking about now in order to create a better future for us all?

This year at the camp, children will have the opportunity to explore personal questions under this theme. Over the course of the week with the help of our panel of experts we will expose them to as many different aspects of the theme as possible, from a talk on the future of london fashion to a workshop on sustainable food practices.

HOW ELSE WILL CHILDREN BENEFIT FROM THIS CAMP?

They will be able to develop these skills:
Creative problem solving • Investigating • Video production • Elementary coding • 2D drawing • 3D craft • Teamwork and collaboration • Storytelling

Also they can...
Meet like-minded others and make friends • Explore new areas and interests • Build their confidence • Gain a different view on learning and the world

DATE & TIME

Monday 28th July — Friday 01st August 2014
Start at 9.00AM (optional drop off at 8:15am)
End at 3PM (3:30pm latest pick-up)

LOCATION

Burlington Danes Academy
Wood Lane, London W12 0HR

FIND OUT MORE

We're a passionate team of design professionals based at the Royal College of Art, working with fully qualified London teachers to deliver this unique experience.

Please visit www.proj42.com, write to us at hello@proj42.com or call Ed on 07763 554569.

Project 42 | www.proj42.com

Setup
What we delivered

Project 42 Summer Camp

We created a one week summer camp to deliver and test the physical application of our pedagogical system that we had previously developed with Project 42.

The week was shaped around a main project brief which was looked to answer the question: What would the world look like in 2050? We had three specialist areas for the kids to focus their attention: Transport, Fashion and habitat. For each area, we brought in an expert to outline the future trends and problems to the kids, and set them their brief for the week.

Each day started with a 'Check in Activity', where we would ask a question such as 'what do you hope to learn today' or 'what did you most enjoy about yesterday', and then we would all 'check in' with an answer and commit to taking part that day. We would also end the day with 'check out'.

'Morphing' was a key activity we did after the check in each day, to get the kids brains going and also get them moving around. After choosing two pieces of paper with random words written on them, they would have a limited amount of time to make that 'thing'. Each day, time got shorter and materials got more limited, meaning they would have to think on their feet and get quicker and cleverer each day.

A brief outline of the week was as follows, with more information on each part detailed later in the report.

Monday
Presentation: Camp introduction, theme introduction with expert briefs
Activities: Morphing, Q&A in teams, Learning logs

Tuesday
Presentation: Introduction to the design process
Activities: Morphing, Q&A in teams, initial research, ideation in groups, working individually, Learning Logs

Wednesday
Presentation: The benefits of making mistakes
Activities: Morphing , design workshops (drawing, animation, making), model making, feedback within groups, Learning Logs

Thursday
Presentation: The importance of empathy
Activities: Morphing, empathy exercise, development of prototypes, feedback from designers, Learning Logs

Friday
Presentation: How to pitch your idea
Activities: Finalise designs and prototypes, create pitch, exhibition setup, feedback from experts, public show to friends and family.

Setup
Expert Briefing

Briefs for our three experts

We employed experts in our three themes; Fashion, Transport and Habitat, to come in on the first day of camp and set the briefs for the children to work on throughout the week.

PROJECT 42

INTRODUCE YOUR AREA

Introduce the theme to the children, be it Fashion, Habitat, Transport, or Food. Make this as simple and inspirational as possible – use images (print outs would be great, and/or a presentation that we can project). Perhaps focus on 3-5 key things to know about in this area, and express why you've chosen to be an expert in the area.

LONDON 2050 – WHAT PROBLEMS MIGHT WE BE FACING WITHIN YOUR AREA IN THE FUTURE?

Introduce some of the key issues and problems that you see facing us in the future. These could be emergent trends and things you've noticed in your own practice, or things that are in the media.

SET THE BRIEF

Set the children a brief. This needs to be specific to your subject area, and can be set around a particular problem. But remember, it does need to be open enough for the kids to bring their ownvquestions to it. As you can see on the Project 42 website, this programme is about the children bringing in their own interests and being able to form their own questions – this needs to feel different from school where they are given a specific task or a problem that is already completely formulated.

Suggestions on brief structure

- Background/Current Situation – linked to what you introduced
- Problem (or problems) – keep it open as above
- Research activities – what should they look at in order to inform the problem and help create ideas?
- Audience – who is this for?
- Project Goals – what do you want to achieve?
- Potential expected outputs (just suggestions)

NOTE

This is free and flexible to introduce as you would like, but we suggest including an exercise to get them excited and thinking: Eg. 'close your eyes and imagine' / shout out your thoughts and we'll record them on post-its / etc…

The focus is to share your passion and energy on the topic with the children. Use videos, games and interactions to get them going!

ALSO

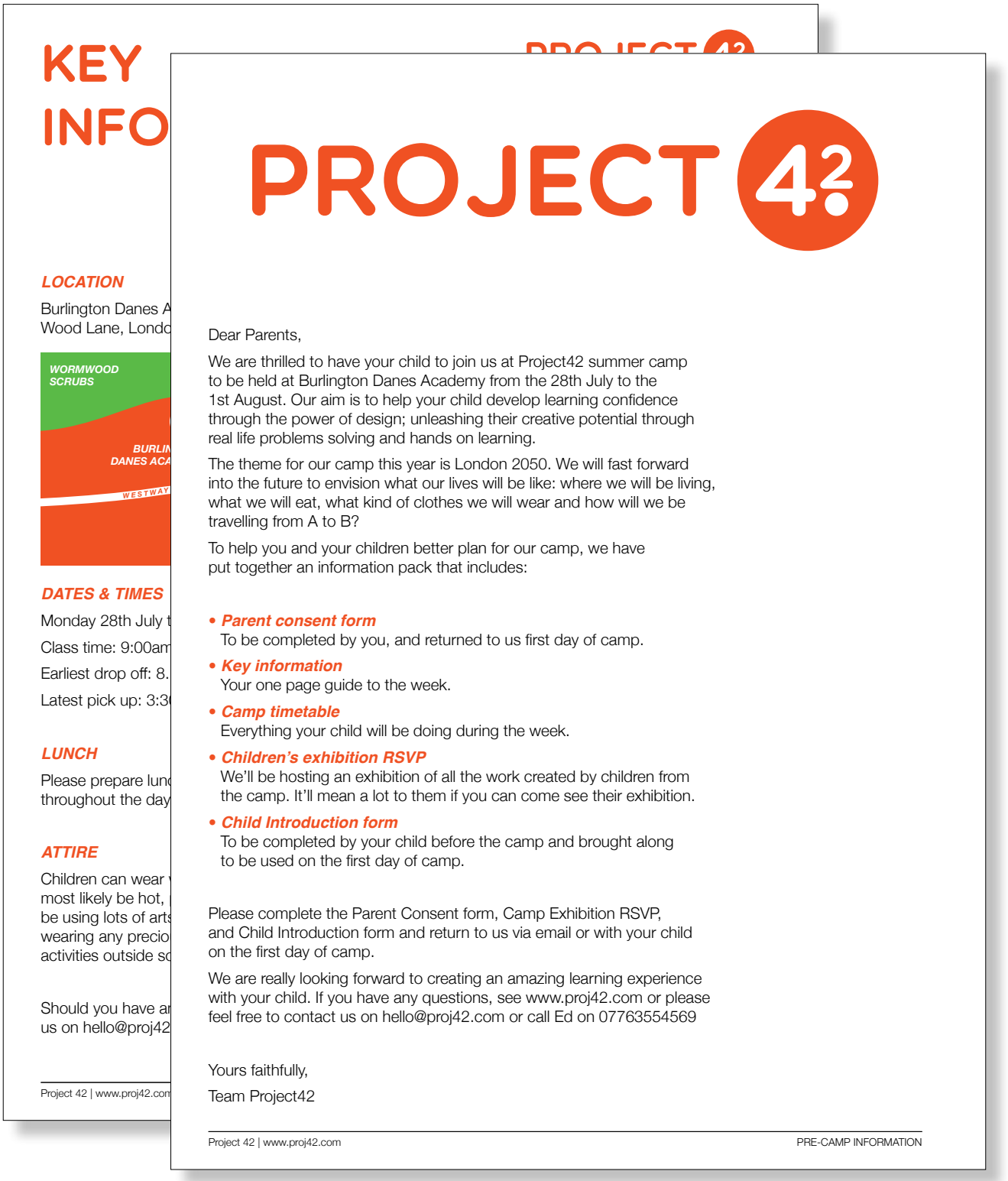
We would be very grateful if you can pull together and lend us any resources/materials for the kids to use as research and inspiration throughout the week. This could be a few books, magazines, web-links, pictures, specific materials.

Project 42 | www.proj42.com EXPERT BRIEFING FRAMEWORK

Setup
Information for Parents

Information, consent forms and RSVPs

Fully aware that parents were putting their kids in our care for a week, we sent out an information pack a week before the camp started for the parents to digest and respond to. This included a welcome letter, a key information sheet, a parent consent form, a camp timetable, an exhibition RSVP and a child introduction form.



KEY
INFO

PROJECT 42

LOCATION

Burlington Danes A
Wood Lane, Londo

DATES & TIMES

Monday 28th July t
Class time: 9:00am
Earliest drop off: 8.
Latest pick up: 3:3

LUNCH

Please prepare lun
throughout the day

ATTIRE

Children can wear
most likely be hot,
be using lots of arts
wearing any precio
activities outside sc

Should you have ar
us on hello@proj42

Project 42 | www.proj42.com

PROJECT 42

Dear Parents,

We are thrilled to have your child to join us at Project42 summer camp to be held at Burlington Danes Academy from the 28th July to the 1st August. Our aim is to help your child develop learning confidence through the power of design; unleashing their creative potential through real life problems solving and hands on learning.

The theme for our camp this year is London 2050. We will fast forward into the future to envision what our lives will be like: where we will be living, what we will eat, what kind of clothes we will wear and how will we be travelling from A to B?

To help you and your children better plan for our camp, we have put together an information pack that includes:

- ***Parent consent form***
  To be completed by you, and returned to us first day of camp.
- ***Key information***
  Your one page guide to the week.
- ***Camp timetable***
  Everything your child will be doing during the week.
- ***Children's exhibition RSVP***
  We'll be hosting an exhibition of all the work created by children from the camp. It'll mean a lot to them if you can come see their exhibition.
- ***Child Introduction form***
  To be completed by your child before the camp and brought along to be used on the first day of camp.

Please complete the Parent Consent form, Camp Exhibition RSVP, and Child Introduction form and return to us via email or with your child on the first day of camp.

We are really looking forward to creating an amazing learning experience with your child. If you have any questions, see www.proj42.com or please feel free to contact us on hello@proj42.com or call Ed on 07763554569

Yours faithfully,

Team Project42

Project 42 | www.proj42.com PRE-CAMP INFORMATION

Setup
Pre-camp Questionnaire

Questionnaire for Kids

It was important for us to know the type of children who were attending; their interests and passions as well as their needs. Not only did the mean we could cater better for them upon arrival and throughout the week, but it gave us some baseline data to measure against after the camp had finished.

INTRODUCE YOURSELF...

PROJECT 42

NAME & AGE

WHAT THINGS DO YOU LOVE, AND WHY?
What are you most passionate about?
e.g. animals, sports, food, art, etc.

WHAT ARE YOUR SPECIAL SKILLS?
What are your talents? What are you good at?
eg. swimming, drawing, acting, etc.

WHAT ARE YOU MOST I'M INTERESTED IN?
What catches your attention? What do you like talking about? What do you like reading about?
e.g. people, materials, other countries, etc.

WHAT THINGS DO YOU HATE?
What things really annoy you? What makes you sad? e.g. people shouting, animals dying, etc.

WHO ARE YOUR HEROS, AND WHY?

WHAT DO YOU WANT BE WHEN YOU'RE OLDER? AND WHY?
What skills do you think you need for that?

******** THANK YOU FOR FILLING ME OUT! ********

Project 42 | www.proj42.com CHILDREN PRE-CAMP FORM

Setup
Daily Plan

Timetable

We had carefully designed the activities in our previous co-creation workshops with teachers and other experts. We disseminated these timetables to parents in the information pack a week before the camp, but we also had a simplified version printed large on the wall as our research had told us that children need to have an idea of what the day will entail, without being overwhelmed with information.

PLAN FOR THE WEEK

PROJECT 42

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
9:30am	CHECK IN	CHECK IN	CHECK IN	CHECK IN	CHECK IN
9:45am	KIDS INTRO GAMES Check in, share interests, paper game, morphing game	INSPIRATION Learn from mistakes, outrageous questions and pivotal failures	DESIGN WORKSHOPS Drawing – your ideas Animation – storyboard Modeling – making	EMPATHY STORIES An empathy workshop introducing designing for other people	DESIGN & MAKE Continue designing, personal check-ins with designers
11am	CAMP INTRO What we'll be doing and why, create rules, introduce walls	BREAK OUT Share your current questions, ideas and mistakes	DESIGN & MAKE Choose your preferred design methods and start designing	DESIGN & MAKE Continue designing, personal check-ins with designers	FINALISE DESIGNS Chance for final input from designers
11:30am	B G	R A	E M	A E	K & S
12pm	THEME INTRO The 3 themes will be presented by experts, select your theme	DESIGN INTRO Learn the process of designers	DESIGN & MAKE Continue designing, personal check-ins with designers	DESIGN & MAKE Continue designing, personal check-ins with designers	FINALISE DESIGNS Finish your ideas and decide how to show them
1pm	L G	U A	N M	C E	H & S
2pm	THEME Q&A Group into themes, ask experts questions	GROUP & IDEATE Get together in your theme groups and start question and ideate	DESIGN & MAKE Continue designing, personal check-ins with designers	DESIGN & MAKE Continue designing, personal check-ins with designers	SHOW PRACTICE Practice how you're going to show your ideas to the experts
2:30pm	LEARNING LOG Fill out logs and use stickers to plan tomorrow	IDEA FOCUS Choose the idea you want to work on	SHOW & TELL Show your ideas to your group	SHOW & TELL Show your ideas to the whole group	EXHIBITION! Present to the expert panel, your parents and your friends!
2:55pm	CHECK OUT	CHECK OUT	CHECK OUT	CHECK OUT	CHECK OUT
3pm	F	I	N	I	S H

Setup
Learning Outcomes

The five E's – Engage, Empower, Encourage, Enjoy, Enable

Throughout our research we had developed five principles of 'Fearless Learning' that in turn we realised would be the 'behaviours' that we wanted to instil in the kids that attended Project 42. Fearless Learning is pedagogical system specifically designed to help creative learners develop long-term learning confidence. Here are the principles of Fearless Learning:

Engage them through their passion and interests

We capture children's imagination through their passion and interests. This puts them at ease and in their element. Whether it's rockets and computer games or cooking and model making they allow us to gain access to the world of the child.

Empower them to ask their own questions

We believe that learning cannot be forced. Children learn best when they are allowed to ask their own questions. Self initiated questions have context and are naturally motivating. How does a rocket keep burning in space without oxygen? How is it possible that every time I play this computer game, the computer does something different? What happens to the food I eat? How do I turn something 2D into 3D?

Encourage them to explore without fear

A good question is naturally expansive. They open up new insights and pathways for learning. We encourage children test out their hypotheses and learn from their mistakes. Constructive failure is not only character building but also a critical part of innovation. Our resident designers, artists, scientists and engineers are on hand to help our students explore.

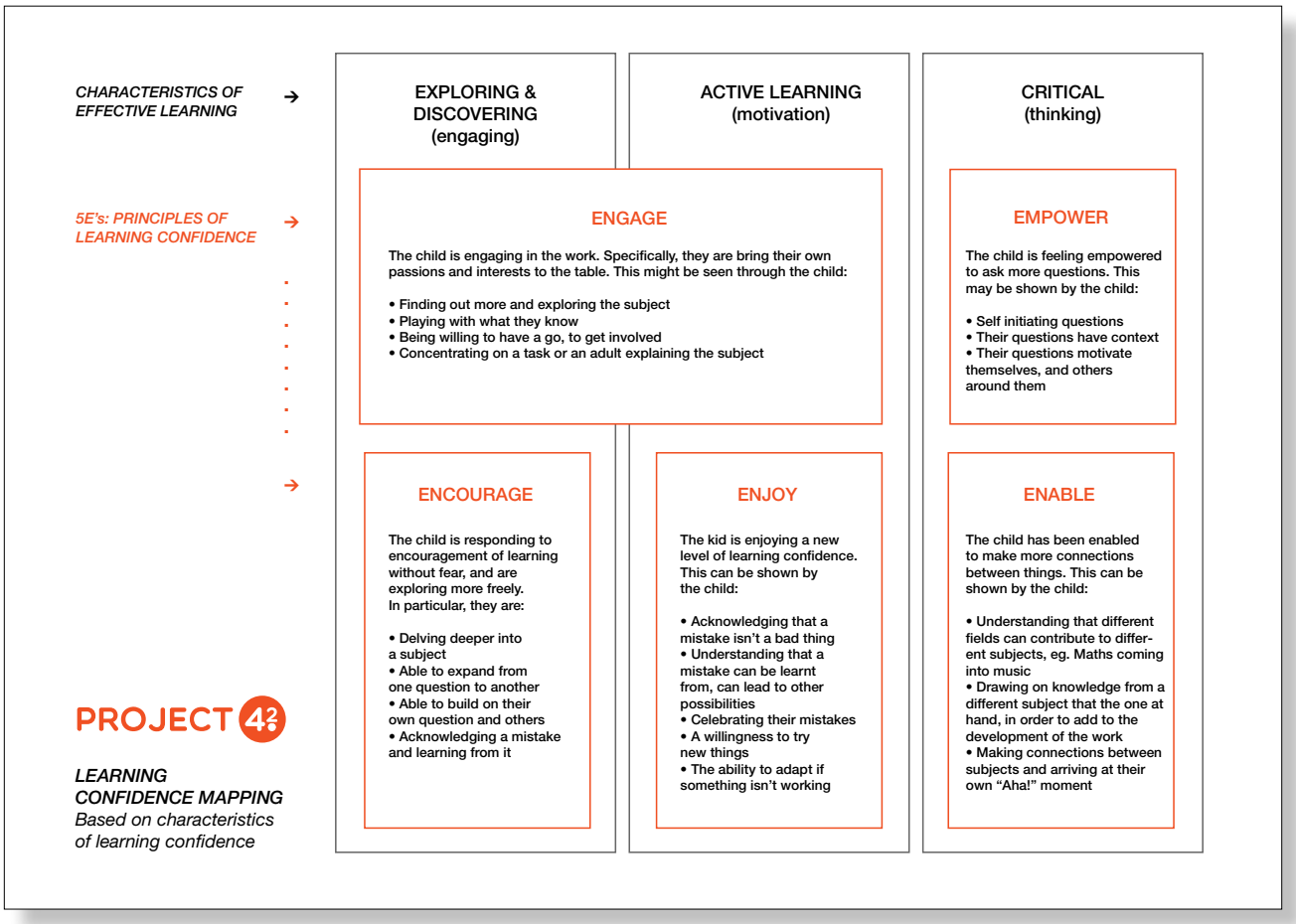
Enable them to make connections

Solutions to complex problems require us to draw on knowledge and skills from different places. We encourage our learners make connections between subjects and arrive at their own "Aha!" moment. Creativity, in its purest form, is the ability to make connections between seemingly disparate things.

Enjoy a new level of learning confidence

Learning confidence is defined as the willingness to learn something new. In a rapidly changing world the person who can learn and adapt the fastest will most likely to thrive and succeed. Our professionally trained team has one goal and that is to help your child to become Fearless Learners.

We setup an Evernote account with these tags built in, so that we could write notes and take pictures of the children developing these '5 E's' in order to evidence their progress and the success of Project 42.



Setup
Learning Logs

Learning Logs

We designed 'Learning Logs' for each child, essentially daily diaries that they could fill out in order for them to record their learnings from each day.

Setup
The three Walls

Epic Mistakes, Wicked Questions and Awesome Ideas

It was important in the camp to have an space where the children could openly share their ideas, questions and mistakes. We created three large walls for this, and encouraged the kids each time they either had a question, idea or importantly made a mistake they could learn from, to write it up and publish it publicly on the wall.

CONTENT
Project 42 material

Content
Expert Presentations

Briefing from the experts

The experts in our three thematic areas came in on day one and briefed the children on the different challenges. The kids were then allowed to choose which project they wanted to work on for the rest of the week; Fashion, Transport or Habitat.

Transport – Craig Tomkins

The brief from Craig was as follows:

Imagine your new school is on the other side of London, design a mode of transport that enables you to get to school.

See further details of the brief below, and to see Craig's full presentation, visit http://tinyurl.com/nokobkx.

Transport 42

Imagine your new school is on the otherside of London, design a mode of transport than enables you to get to school.

It can't pollute the city.
It needs to fit in with a huge population.
It needs to be fun to travel.

Will you use your legs or arms to power you, or use power from electricity or even your pet dog?

Will you be travelling on your own, or will all your friends be with you in the same vehicle?

And remember, it needs to be really fast!

Imagine your best friend lives in China, design a mode of transport that enables you to visit them from here in London.

Will your vehicle travel in the air, along the ground or through water?

What will power your vehicle? Think about power sources like solar, hydrogen or even ion thrusters (new types of rocket boosters), but also what about simple energy like magnets or slingshots?

But remember, it should be an easy trip to take, not a long annoying journey. As fast as the internet!

Want to be extra awesome?

See if you can make your transport solutions work together, to make future journeys really easy.

How to show your ideas

Everyone loves to see a drawing, so I want to see lots but also see if you can make it! Paper and card models are great and maybe use plastic bottles that would be put in the bin.

All great transport systems have their own maps, so it would be incredible if you can draw a map to explain your idea!

Good luck! I'm excited to see your ideas!

Fashion – Naoise Farrell

The brief from Naoise was as follows:

Create a fashion show for the year 2050

See further details of the brief below, and to see Naoise's full presentation, visit http://tinyurl.com/nokobkx.

Brief

- Create a fashion show for the year 2050
- This can be done through drawing, collecting, collage, reusing, video, and story telling.

Trends now

Because we have created so many trends already, the trend now is just a combination of before.

How can we reuse clothes we don't need anymore?

Jacket and shirt made into a bag

Lots of ties made into a dress

Habitat – Moa Dickmark

The brief from Moa was as follows:

Create solutions for the home of the future:
(I) Define needs and (II) think big by building small.

See further details of the brief below, and to see Moa's full presentation, visit http://tinyurl.com/nokobkx.

TASK

- develop a home for 2 adults and 2 children in the space of 2-3 containers
- outside green area
- come up with new smart solutions for charing and using spaces with neighbours

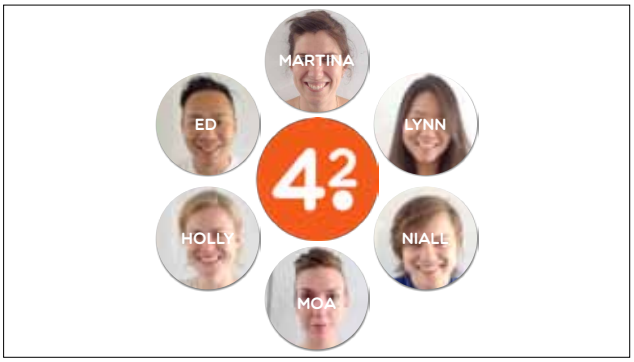
RESEARCH

- small spaces
- youtube videos
- materials
- folding, bending
- flexible solutions
- light and dark
- origami
- openings and closings
- houseboats
- boats
- shipping container homes
- small living
- space ships
- futuristic homes
- sci-fi homes
- trailers
- refugee camps
- dogville

Content
Project 42 Presentations

Introduction to Project 42

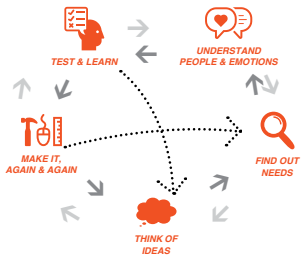
Our introduction presentation to the kids included an explanation of why they were here, who we were, and what we were going to be doing during the camp. The full presentation can be viewed online at http://tinyurl.com/nokobkx.



What is design and why is it needed

On day two, we introduced our view of design and the user-centred process we take to design things around human needs and emotions. The full presentation can be viewed online at http://tinyurl.com/nokobkx.

WHAT IS DESIGN?



FOLDING BICYCLE

Mistakes

A key part of Project 42 is showing children that it is okay to make mistakes. This presentation on day three explained this, and how the kids could their mistakes. The full presentation can be viewed online at http://tinyurl.com/nokobkx.

Mistakes


JK Rowling


Kanye West


Walt Disney


Steve Jobs


Lionel Messi


Richard Branson


5,126 failed prototypes

Exercise:
Can we think of the reasons that mistakes and failure might be good things?

Question:

What's the opposite of success??

Empathy

On day four we introduced the idea of empathy, and we followed this presentation with the empathy exercise we had prototyped at Cressingham Gardens. The full presentation can be viewed online at http://tinyurl.com/nokobkx.

EMPATHY

THE ABILITY TO UNDERSTAND
AND SHARE THE FEELINGS
OF ANOTHER PERSON

GETTING INTO THE SHOES
OF SOMEONE ELSE

SEEING THROUGH SOMEONE
ELSE'S EYES

PATRICIA MOORE

EMPATHY EXCERCISE

PREPARE TO EXPERIENCE LIFE
AS AN ELDERLY PERSON...

Content
The Kids

Our kids/clients/users!

We started the week with 12 children but grew to 15 by the end as we were joined by friends and siblings of the original group. Ten of the kids came from Mulgrave Primary School, where we asked the teachers to choose their 'other kids' so we could really test some of our theories. The remaining children came from connections we had made throughout the creations of Project 42.

Anita, age 11

Avery, age 8

Caesar, age 13

Hafsa, age 10

Maddy, age 8

Marie, age 11

Milo, age 10

Milotz, age 11

Rita, age 11

Tioluwani, age 10

Toby, age 10

Tomiwa, age 11

Jamie, age 9

Omotoshio, age 10

Samuel, age 9

OUTPUTS
Work created

Outputs
Learning Logs

Learning log structure

The learning logs were a very useful tool to give the kids as in them they could not only record what they had done each day but also reflect on their experience.

Each page of the diary represented a day, where they were asked a question on each of the following: Questions, Ideas, Mistakes and feelings.

Questions were as follows:

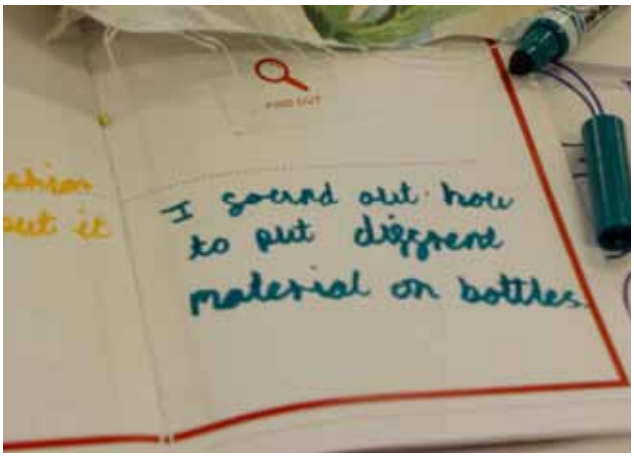
1) Write down 3 questions you've had today...

2) Write 3 ideas you had today...

3) Write 3 mistakes you made today... remember, mistakes are good!

4) How has today made you feel?

Each day was then followed by a blank page were they were able stick down stickers showing what they'd done and write a little bit about it. The stickers related back to the design process that we had taught them about early on in the camp and reinforced each day: 'Find Out', 'Think About It', 'Make It.'



Outputs
Transport Team

Future Transport 2050

Each camper researched, designed and presented their own designs, ranging from a personal jetpack to a vehicle fuelled by garbage.

Outputs
Fashion Team

Future Fashion Show 2050

Each camper researched, designed and presented their own designs, ranging from skirts made of solar panels to gloves that collapse into a ring.

Outputs
Habitat Team

Future Habitat 2050

Campers worked as a team – the group researched, designed and presented a boat as the future habitat in response to rising sea levels.

OUTCOMES
Measures of success

Outcomes
Measures of Success

How we measured our success

Impact in educational programmes is notoriously difficult to measure, especially in the short term. However, throughout this pilot we sought to triangulate feedback on whether our theory of change was bearing up in practice. We used several methods, both quantitative and qualitative.

The User Perspective – Subjective experience of the child

Coming from a background in user-centred design, in manys way the direct experience of the children was the most important indicator of success for us. Before the camp, each child filled in a pre-camp questionnaire. This took a baseline on several things – their attitude towards school/learning, their interests and hobbies, and how they saw themselves. During the camp, the children kept Learning Logs, in which they recorded some of their work including significant breakthroughs, and also what they had learned each day. The diary gave children a chance to reflect on the camp as a whole and what they had learned over the week. As well as understanding the qualitative experience of attending the camp, we were interested in intermediate outcomes here such as enjoyment of the camp, reflections on learning, and sense of achievement.

Searching for the 5 E's – Coded analysis of the children's work

Along with the children's own opinions on their work, we also used the Evernote programme to capture and code examples of the 5 E's where we saw them emerging (Engage, Empower, Encourage, Enjoy, Enable – see page 14). We did this following discussions with some of the teachers during the research phase where this approach was repeatedly recommended to us as one of the best ways of tracking learning in a detailed way. Following the camp, we analysed the data we had captured to see if the 5 E's did come out the way we expected them too.

Leveraging the experts – Impartial review by teachers

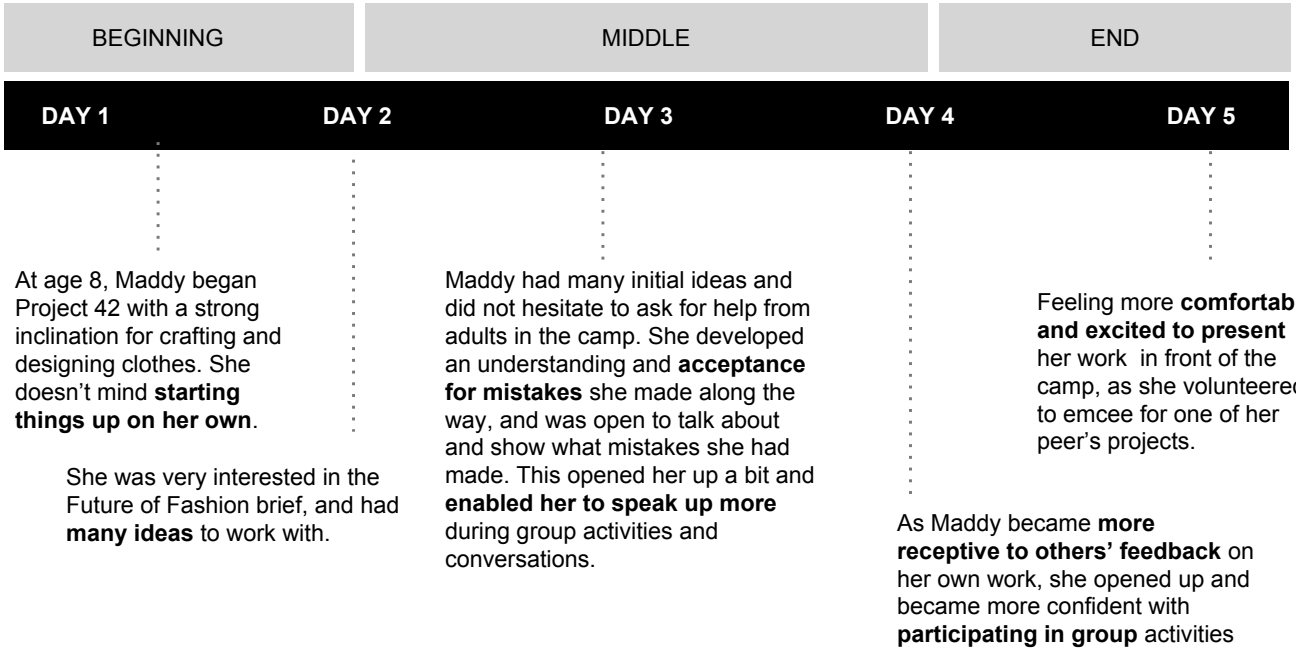
We were lucky to have three primary school teachers on site throughout the week. We leveraged their expert point of view, asking them for impartial analysis of what happened with the children during the camp.

Post-Camp analysis

After the camp, we engaged once again with the teachers, children and parents to see if the camp had brought any lasting change to the children. This time we were interested in how the camp had affected their learning/school performance, general confidence, and overall well-being, which are some of the final aims of the programme.

Outcomes
Children's progress

Maddy – 8 years old



Outcomes
Children's progress

Milo – 10 years old

BEGINNING	MIDDLE	END

DAY 1

At age 11, Milo began Project 42 with an **attentive and self-initiating mindset**. He was open and willing to listen to his peers.

Milo had a strong **curiosity and interest for the Future of Transport** brief, and was excited to consider the scenario of finding a new way to get to school in the year 2030.

DAY 2

Milo was interested in how a vehicle could do more than transport people, but also generate its own energy and use compost to fuel its engine. Through desktop research and open discussions with camp advisors, Milo was able to sketch and construct a 3D prototype of his vehicle. He considered each part of the model, and asked questions along the way as to how he might be able to build certain compartments. Milo's **openness to suggestions and his attentive inquiry helped him open up his mind and willingness to learn through his iterations**.

DAY 3

Milo's progress and ability to iterate and question his design helped him open up to his peers; **Milo made suggestions to his friend, Avery**, helping him figure out the sequencing in the build of his parachute-vehicle.

DAY 4

Milo confidently presented his prototype during the show; he thoroughly described the functionality of the solar panels and garbage compost system in the vehicle. The **research helped him feel confident about his design** as he realised how research can inform design in a direct way.

DAY 5

Toby – 10 years old

BEGINNING	MIDDLE	END

DAY 1

At age 11, Toby began Project 42 **with many questions and an inquisitive mindset**; he wasn't afraid to ask about anything that was top-of-mind.

Toby didn't hesitate to **ask 'what-if' questions, which helped others open up to asking questions** in a group-setting

DAY 2

DAY 3

Toby focused on the Future of Transport brief, by designing a bus that was fueled by hydro-electricity. He began by sketching and going right into prototyping using a double-decker approach for the bus. He considered height regulations of the bus through desktop research- looking at photos of double-decker buses that have failed to mobilise under low bridges. **He was excited to discover such issues in height, and found himself dwelling on this.** Much of his progress was assisted by camp advisors, to help him reimagine how a double-decker bus would operate in the future.

DAY 4

Through a second prototype, Toby developed a plan for installing a water tank and considered the plan for the interior seating arrangement. **His focus was largely deflected by specific considerations**, such as how many people would this bus transport- attention to detail was a struggle.

DAY 5

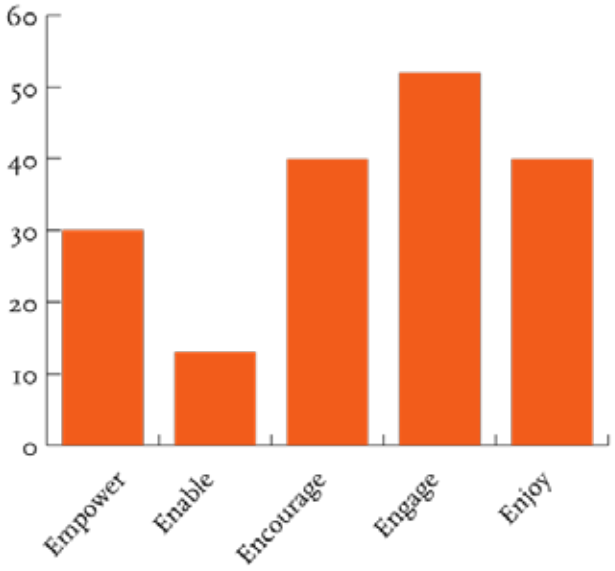
Toby had finished two prototypes by the end of the week, by which he showed progress and design considerations. However, the attention to detail is what deterred Toby from enjoying his work and feeling confident in the presentation. Posing detailed questions along the way might have helped keep his intrigue/interest.

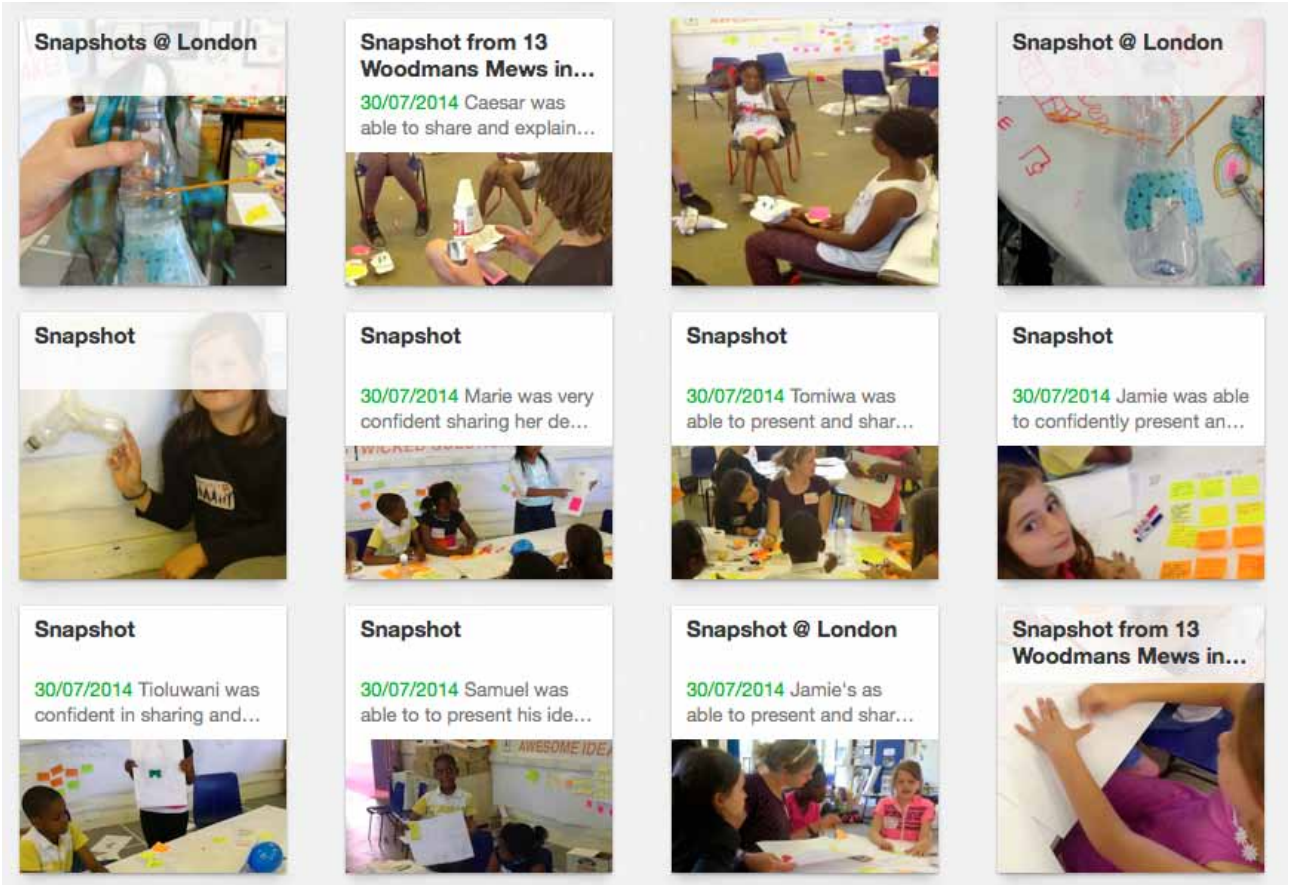
Outcomes
The 5 E's and Evernote

Throughout the week, the five principles of Fearless Learning served to evaluate and challenge growth to achieve learning confidence among campers. These Five E's: Engage, Empower, Encourage, Enjoy, Enable, were captured through Evernote via notes and pictures, and tagged with the kid's name so we could track their progress over the week (see example image below).

As seen in the graph, campers demonstrated high levels of engagement throughout the week. Most of the engagement gradually grew as campers became more confident and comfortable with their environment and peers. The encouragement among campers themselves also attributed to campers engaging in more conversations and question-asking during group gatherings. As campers began to gain learning confidence by demonstrating agency in their projects, they enjoyed the process of asking questions, making mistakes and sharing ideas.

Enabling campers to make connections between research and new possibilities was one the our most challenging tasks, however, the children's natural instinct towards making before thinking played a large role in iterative design.





Outcomes
Learning Logs

Learning logs helped campers reflect on their design research, thinking and executions. They were completed near the end of each day (with the exception of Friday), with the intention of helping campers keep track of their thinking and process.

Throughout the week we saw the children's engagement with these increase, and their depth of their reflections grow.

Outcomes
Morphing

Morphing was an exercise that was introduced on the first day of the camp, early in the day. Campers chose words from a stack of nouns and adjectives, which determined what they were tasked to create with the given art materials.

Interestingly, the campers grew more comfortable working with the various materials over time, and soon became more quick and experimental with their constructions over time. By the end of the week they were more keen to make mistakes and iterate on their projects through this morphing exercise.

Outcomes
Parent and Child Feedback

Alison Victory, mother of Milo Darwell-Taylor

What were your expectations of the camp before you brought your child here?
After a year of repeated Maths and English tests for SATs I was really looking forward to Milo experiencing a learning experience of a completely different kind. One where there would be a sense of free thinking which would boost his creativity. I was concerned that he would hate it as although once he starts to draw he enjoys it, he's not really an arts and crafts kind of kid, in that he would not choose to do that at home. He would always choose Xbox or computer activity over hands on creating and reading.

Did the camp meet your expectations?
It exceeded my expectations especially when he seemed to really enjoy going everyday. I was half expecting him to say he never wanted to go back after day one. When he asked me over dinner what the opposite of success is, I was very impressed that he could explain why it's about giving up and not about failing.

"For a child that hated making mistakes and gets easily embarrassed I wonder what sort of child would come out after a month of this type of learning?"

Before the camp, on a scale of 1-10, how would you rate your child on the following areas?
– Creative problem solving: 8
– Confidence: 1
– Social ability: 1
– Acceptance of making mistakes in order to learn: 1

Do you think the camp improved your child in any of the above areas? Please show any rise or fall by putting numbers on a scale of 1:10 for your child now they've done the camp:
– Creative problem solving: 8
– Confidence: 6
– Social ability: 2
– Acceptance of making mistakes in order to learn 9

Alison agreed with all of the following statements:
1. The camp improved the kids' confidence
2. The camp taught them about mistakes
3. They learned lots of new things about the world around them
4. They made lots of friends
5. They were encouraged to learn more

Milo Darwell-Taylor, age 10

Did you enjoy Project 42? How much (scale 1-10)?
Yes – 10

What did you learn at Project 42?
I learnt that the opposite of success is giving up, not failure.

"It's good to make mistakes; that you can make anything with your imagination and it wouldn't be wrong."

What was your favourite part?
The actual making of the creation.

What was your worst part?
The beginning was the worst part. I was nervous and didn't want to go because I didn't know anyone.

Milo agreed with all of the following statements:
1. The camp improved my confidence
2. The camp taught me about mistakes
3. I learned lots of new things about the world around me
4. I made lots of friends
5. I was encouraged to learn more

Now that you've done Project 42, what do you feel about making mistakes?
I feel like it is perfectly normal to make mistakes and that you can learn from them.

Outcomes
Teacher Feedback

Martina Heuberger

Martina Heuberger, a Primary School teacher who had helped us to co-design Project 42, was instrumental in the delivery of the Summer Camp. She worked very closely with us throughout the week – helping us understand how children think and learn and bringing her breadth of teaching experience into all our activities.

What were your expectations of Project 42 before attending the camp?
I was looking forward to working with a small group of children who were interested in this type of learning.

"I was excited about having an extended amount of time to get to work with children creatively as it can be limited in schools."

I had a few reservations about the time scale and resourcing (in terms of, would the children be able to produce their designs in time giving we had no idea which resources they were going to want to use).

Where your expectations met, or exceeded? How?
They were met in that it was great getting to work with a small group of children and helping them create and finish their designs. My expectations were exceeded in that the designers and their colleagues (the speakers) were able to help each child create/finish and assess creations with a purpose and of a high standard.

What new things did you learn at Project 42?
– How the design process works
– How to guide children's ideas to create realistic/functional designs
– Some new 'designer' warm up games
– The difference in the thought process of designers (i.e. that designers see all the 'problems' in the world as opportunities to create something new/a solution)

What specific activities or learnings do you think you'll be able to take back to your classroom?
– Some of the warm up games
– Using the design process for D&T lessons
– Using some of the design examples that you used (the homeless sleeping bag/coat, the floating houses in Holland)
– Using some of the guest designers to come and do workshops/talks
– Making a little video/presentation showcasing the children's work
– Inviting parents in to see their children's work

Do you think it was a useful camp to attend, in terms of your teaching development?
Yes, as it showed me how rewarding it can be to get projects completed with children, to a high standard. Also how useful it is to have experts in to inspire and encourage the children (and adults!).

"It also helped me remember how good it is for some children to be given complete freedom in a creative task, but how hard that is for others, who need limitations/guidance to achieve the best outcome."

What do you think we should improve on for next time?
– Ensuring consistency across the groups in terms of adult input and also outcomes (are all children taking something home?).
– Including (if at all possible) an outing that relates to the chosen topic
– A bigger range of resources

Martina agreed with all of the following statements:
1. The camp improved the kids' confidence
2. The camp taught them about mistakes
3. They learned lots of new things about the world around them
4. They made lots of friends
5. They were encouraged to learn more

"The ones that apply the most are statement 1 and 3 [the camp improved the children's confidence and they learnt a lot of new things about the world around them] as in they are the most relevant to this camp."

Statements 2 and 5 I believe children get at school also.

Jeremy & Michelle

Jeremy and Michelle from Mulgrave Primary School came along to the camp to accompany the kids from their school. We interviewed them towards the end of the camp to get their feedback on how they felt the camp went and what we could improve on. Below are some of the key quotes from the interviews.

Michelle, Early age practitioner

What have you enjoyed the most as a participant as well as a teacher?
I love the fact that the children, at this age, are exposed to design and ideas. In our school we haven't got the time to do this amount of art and work, and art and design are lacking.

It's fantastic to see the children come up with these ideas and see that they're not afraid to carry out this art, to make it into real models.

How could we make a bigger impact to the teaching community and to the children?
It would be great if you could have a website where we could all log in to see all the things you've done and show us how to develop these skills, and also have a workshop where the teachers can embrace that learning.

How is what we've done been different to how you've been taught in teaching college?
The beauty of this course is that you have experts, with expertise, professionals talking about their different fields, and then it suddenly becomes real and the children thing 'Wow!'.

These children are from a very deprived area. Some of them wouldn't even have dreams of going to university. To have these professionals here... it's like they can look up to something and have that dream. To be able to make this model...it's amazing for them.

What does fearless learning mean to you?

"Children that are not afraid, not afraid of learning, having the ability to express their ideas without being afraid or feeling intimidated by anything. This is absolutely relevant in this day and age.

Jeremy, (Year 3 teacher)

What has been useful this week to you as a teacher?
As a teacher, I have really picked up on the idea about they questioning – why, why, why...I really like this.

And then getting the chance to make something, and then make it again and again and again. I've seen, looking at people like Milosz, his car went from that to that to that – it was such an improvement just in the space of three days. I love it.

To be able to do this, with in-expensive resources, an afternoon a week, or two afternoons a week if we can fit it in, as teachers, I think the idea of changing your design and improving it is a really good idea.

Which elements do you think you'll bring back to your own classroom?
Morphing, straight away – very easy to set up.

"The technique of questioning – you can apply that to a lot of different subjects. The idea of building, testing and improving, and thinking about what it's really for – I can definitely do that in my school."

How might we as an organisation help teachers better?
I think coming into schools, doing insets with teachers. Not everybody is artistically inclined in school, and they might lack confidence. Having a go, rather than being told through a slideshow, and actually making it themselves is better – you remember it better.

What could we improve?
Just organisation – I heard you saying, we should have done it this way, so today we'll do it like this... actually that is really good for the kids to see – that adults make mistakes too!

You should advertise this in a bigger way – maybe with boroughs or local authorities.

Would be great for you to come into a classroom and do this – I know my children would have loved it.

"We need more opportunities to do things like this: more making and more designing."

A digital resource would be great, so we can bring it into school and who them – this is what you could do when you grow up, look at what a great job it could be. Inspire them!

Outcomes
Our Key Learnings

Camp debrief

Shortly after the camp, we all met with Martina to discuss our learnings from the camp. We pulled out our key learnings from the camp, and discussed how it could be improved on. We also began to think about how we could take the principles from the camp and apply it in other education scenarios.

Overall, we were amazed that we had been able to pull this together. We felt it went so well, and for many of us it was dream come true; a lot of hard work had paid off. Every little thing counted, so we know for next time never to give up.

Below is a summary of this conversation.

Adult to Child Ratio

Adult to child ratio made a massive difference. Every kid was able to get access to adult help, at any point under the below guidelines:

– Four adults (one teacher), plus experts
– One teacher, three designers (who are also experts)
–Each project group needs two adults (one person to do the logistics)

Relationships with the kids were the highlight. That is what created we think helped to create most of the confidence. It is something we must design this into everything we do.

Thoughts to consider
Could we run the camp with one theme (e.g. fashion) and pre-specify this? Or run three camps with one theme per camp?

Teachers

Teachers (Martin/Jeremy/Michelle) were there to help them make kids' ideas real, to turn their ideas into something which is unusual for teachers to carry out in a normal school setting/environment.

Martina and Michelle believe it will be hard to hand this to teachers in a traditional curriculum, as they will naturally slip into their 'teacher' role with hierarchies

Thoughts to consider
Should we have the experts all week? Would this become too specific, too directed?

How could we make this more of a service for teachers? How can we teach the teachers, so they can deliver it?

Open or Directed Projects

Martina's remarks: It was good that we left the kids to be open, to follow their own paths, have their own exploration... But when it's too open they struggle.

You can direct them in a few ways: Reference the brief – clarifying what it needs to answer. And tell kids what they are aiming for.

Perhaps we could have also made our own project too, to really create a meritocracy; kids would get inspired by this, but they would be prone to copying ideas off of adults.

Thoughts to consider
Templating will help guide the kids (e.g. mannequins for fashion group)

Culture

A Project 42 culture is needed. Kids should call us by our first names, not 'Miss'/'Mr.' We are all on the same level here; we can all learn from each other.

Thoughts to consider
Do we have principles among the kids for interaction?

Extra Workshops?

Specific workshops and talks could have been added to teach kids a specific skill related to their project, e.g... renewable energy, putting joints together...

Thoughts to consider
Bring the drawing workshop up to day 1/2, so kids could use the skills throughout the week.

Process vs. Output

A balance of process and output is necessary.
We should have communicated a bit better to the parents and kids that the programme was intended to address the importance of process rather than output.

Key messages to kids

We need to tighten up the messages we are sending the kids. Lets create a hierarchy of messages we want them to take away:

Fearless learning is about making mistakes and learning from them to build confidence

Mistakes help us learn; questions keep us curious; ideas keep mistakes and questions going

Building confidence

Sustainability and social awareness

Thoughts to consider
Get these sorted, and make sure these are then key messages throughout the camp, and that the kids leave with them.

Iteration
How do we get kids to iterate more? Say to kids: "That's really good. But, let's think about this, how could we do it differently? What if we tried this? You don't have to, you haven't made a mistake, but it could help if you tried this..."

Research
The finding out / research part needs to be extended. Take the campers out on the Monday afternoon for a field trip, e.g. to a fashion exhibit.

Let kids brainstorm; ask them about their ideas; introduce them to different ideas/patterns, e.g. "Do you know that there are different ways of creating energy? Such as XYZ...Think of ways of including this into your design."

Outputs
One of the outputs should be a how-to guidelines for running the camp.

Our playbook:
Learning for ourselves, for our school.

Externally facing tool-kit: resources that you need to run this without us.

Could we do this in the weekend?
Martina does not think so. Camp needs to be a week-long, high-touch experience.

After school? Link with play centres? Can only do half terms and holidays.

Can parents do it with their kids? Yes, if we give them a pack.

Online course does not allow for collaboration, but may work with older kids – mid/older teenager. General Assembly style – completely online?

Pitch
Creative confidence is better than learning confidence: schools will get this better

Martina – Schools will be keen if you say: this is an opportunity where you can learn from experts

This always has to be a supplement to the education system – we are here to help fuel the future. We are here to complement learning in schools. The message on our site needs to show this.

All kids' interests are different – design and making is the hook, for kids and parents alike; if your kids are into design as a career – this is how they get a flavour of what it's like.

Martina's Feedback
The strength of your project is that there was time for them to finish the whole thing. It was about realising something that had a real function. That's what was so good about us being there, as experts to help them get their ideas out of their head.

It was nice for Maddy and Milo to have a space where they met kids they wouldn't normally see...

Presentation
The kids were so good at the end. We can compare and contrast between the fashion kids as we have videos of them presenting earlier on.

Measurement
The 5 E's were to complicated to used in the heat of the moment. These should have been simpler rather than so coded. They should align with the key messages. E.g. Confidence, mistake, question, idea, etc.

Could the kids to do their own measure my and recording? Mix learning log with Evernote or similar – each have their own football sketchbook.

Learning Logs needed to be built into the end of each day – or as you go along and have a question/make a mistake – put it in your log. Too many things were going on with three walls plus a log – perhaps it should be one or be other.

Next Steps

Towards the next iteration...
Project 42 is an ongoing project, of which the Summer camp in July 2014 was just the first prototype. If you're interested in seeing in further detail the content that we delivered during our camp, please go online and visit http://tinyurl.com/nokobkx

We are now working as a team to develop the next iteration of Project 42, which is about how we can teach the teachers to be able to deliver Fearless Learning, using design-based processes and methods.
To find out more about this, please do get in touch at hello@proj42.com

If you took part in either our Summer Camp or any of our teacher training sessions, we would love to hear your feedback. Please get in touch directly on the email address above, or visit our website at proj24.com

Royal College of Art