DESIGN VENTURA Evaluation

Final report, March 2016

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DESIGN VENTURA

"[Design Ventura] made me feel really professional for the first time. Working with people who work as designers as a job makes you see things differently. "

Yr 9 student, 2015 participating school

"For me it has been the openness of the brief, at first the students found it difficult to pin down an idea but once they thought about the potential of the word 'Move' they discovered that they could apply it to most things. It was great to see the 'lights' switch on once they got it."

Classroom teacher, 2015 workshop school

"…but it [Design Ventura] also changed the way I look at stuff. It changed the way I look at people, about how they think, about how the customer thinks, and about how making something would benefit the world… that was a really unique experience and feeling for me"

Design Ventura 2014, Winner

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ACKNOWLEDGEMENTS

ACRONYMS

CPD   Continuing Professional Development
DV   Design Ventura
XC   Cross-curricular
KS   Key stage
DVW Design Ventura Winner
DB   Dove Bunting (2010 winner)
CC   Card Cogs(2014 winner)

1. INTRODUCTION

1.1 Design Ventura Overview

Design Ventura[1] is the Design Museum's award winning, national, design and enterprise competition. A live brief challenges young people to design a new product for the Design Museum Shop. Now in its sixth year, Design Ventura is a free national competition for students in years 9, 10 and 11. It places design skills in a real world context, developing creativity, problem-solving, team-work and enterprise capabilities.

Design Ventura harnesses the many functions of the Design Museum to provide a unique and real world context for design and learning. Design Museum exhibitions, learning activity, its business (the Design Museum shop) and its community of professionals, are brought together to provide a rich and engaging learning experience that has become a national showcase for young design and business talent. Design Ventura aims to give young people a taste of life within the design industry and to empower them to explore ideas from both creative and business perspectives. Learners are invited to respond to a brief to design a product for the Design Museum's shop. They are supported by museum educators, practicing designers, business people and their teachers to produce a design solution, taking account of ethical, design and business criteria. The designs are judged by a panel of business and design professionals.

This 2015 evaluation, the second carried out by the Design Department at Goldsmiths, University of London, remains focused on identifying and evaluating the legacy of Design Ventura. Accordingly, the 2015 evaluation methodology (see section 2) has been updated to focus in more depth on the longitudinal impact of Design Ventura on participating students.

Responses to 2014 findings and recommendations are threaded throughout this evaluation. However, it should be noted that recommendation 2 of that evaluation, that:

- Consideration should be given to the design of the Design Ventura evaluation methodology to provide more detailed insights and contribute to bringing about change. It is recommended that some thought be given to exploring a methodology located in critical theory that is inclusive of many perspectives and participants in achieving solutions e.g. Theory of Change (Taplin, Clark, Collins & Colby, 2013). Outcome targets might also be amended to consider qualitative as well as quantitative success indicators.

Has been instrumental in informing an updated methodology for the 2015 evaluation. The project continues to focus on the development of enterprise capability in the context of design and aims to increase the skills, creativity and confidence of learners, and the updated methodology is particularly focused on gathering data in order to more reliably evaluate the impact of Design Ventura on learner confidence. In addition, Design Ventura continues to provide many opportunities for young people to be inspired by and interact with designers, business people, excellent design and the design world in general.

1.2 Updated Methodology for 2015

Following recommendations from the 2014 evaluation, the evaluation methodology for 2015 has been redesigned. Consistent with 2014 findings, the revised methodology focuses on gathering data from a range of stakeholders. Accordingly, the methodology was designed through consultation with Design Museum colleagues and with teachers and students who have participated in Design Ventura. As a result of the consultation, data from a range of stakeholders including design experts and parents has been collected and will be threaded through evaluation findings and conclusions. Case study data will focus on the longitudinal impact of Design Ventura through semi-structured interviews with previous winners. In addition, teacher and student survey questionnaires will focus on gathering data on confidence and ambition by referencing five generic skills that underpin innovative behavior (Chell and Athayde, 2009) and by reference key indicators of self-efficacy and a growth mindset (Craig, 2007)

1.3 Scope of Design Ventura 2015

As a museum education project, Design Ventura remains unusual because of its large scale and longitudinal nature. It continues to make use of on-line resources and e-learning to offer opportunities for widening participation. By the end of 2015, the 6th year of the programme, Design Ventura had reached 588 schools and 36,783 students across the UK.

Learning content for the programme maintained the focus of earlier years, with a blended approach to web-based learning materials to encourage widening participation. These included: an introductory briefing video permitting learners to be briefed on their task, images of successful projects from previous years, top tips sheets, worksheets and videos of designers and business people giving advice. Design Ventura 2015 remains a free project offering schools teacher CPD sessions, access to exhibitions, live workshops, online learning and resources and the opportunity to learn directly from industry experts.

In 2015, schools were recruited through email, social media, flyer mailings and the Design Ventura webpage. Schools submitted their entries to the Design Museum at the beginning of November 2015 and 10 teams of students, see appendix vi, Pitching Schools, were invited to present their designs at a pitching day at the Design Museum in December 2015. The winning school was announced in February 2016.

2. METHODOLOGY

2.1 Overview

The aims of the Design Ventura 2015 programme have been expressed in terms of the 5 specific impact measurement areas, with associated outcomes indicators and targets for participants[2]. Data has been captured and analysed to enable informed conclusions to be drawn about the degree to which the 2015 programme has fulfilled these specific outcome targets.

Thus, within this final report, findings from the evaluation are discussed under the following impact measurement headings:

1. Skills
2. Attitudes and Aptitudes
3. Knowledge and Understanding
4. Legacy
5. Qualitative experience

This updated evaluation methodology continues to locate within a qualitative, or interpretive, paradigm (Lincoln and Guba, 1985; Robson, 2010). Of particular relevance to this is concept of '"Individuals" interpretations of the world around them' (Cohen et al, 2007: 23), and we use this to focus on providing insightful narrative and perspectives on how individual learners and teachers use the project.

We continue to capture data about skills connected to teaching and learning about design and enterprise in a museum and classroom context, and the re-designed methodology for 2015 allows us to report more reliably on how Design Ventura impacts learner confidence and ambition. In the longer-term, the intention is to end up with 6 years of comparative data relating to the skills, confidence and ambition developed by teachers and their students as a result of participating in Design Ventura, but to also innovate where there are opportunities to do something new (see section 5, Recommendations).

This evaluation of Design Ventura uses a mixed method approach, utilising teacher and student questionnaires[3], workshop observations and interviews with teachers[4]. In addition, in 2015, 'previous winner' case study data is collected to explore the longitudinal impact of Design Ventura. Where possible, reporting of findings indicates the precise % of teachers/students in which that finding was noted. However, where this is not possible, terms such as "few", "some" "significant" and "the majority" are used.· Throughout the report, the activities being evaluated are referred to as 'the programme'.

2.2 Responsibilities

In order to take advantage of different skill-sets, minimise costs, maximize access factors and provide an independent perspective on the data, the evaluation tasks have been shared. The Design Museum recorded registration to the programme and designed and alerted registrants to the evaluation surveys, which were accessible on-line via a link on the Design Museum website. Goldsmiths, University of London was responsible for follow up survey administration, a range of stakeholder interviews, case-study data, data analysis and reporting.

[2] *See the Outcome Measurement framework in Appendix i*

[3] *See examples of survey questionnaires in Appendices ii and iii*

[4] *See examples of interview schedules in Appendix iv.*

2.3 Data Collected

During Design Ventura 2015, the following data have been collected in order to identify student and teacher reactions to the delivered programme, to explore the longitudinal impact of Design Ventura and to identify progress in relation to the outcome indicators and targets specific to performance in 2015.

Administrative data
The Design Museum has collected data relating to the characteristics of participating schools from the registration forms and details of activities they engaged in (see appendix v).

Survey Questionnaires
Two online surveys: one for teachers and one for students were designed administered during the Design Ventura programme (see appendix ii and iii). In both questionnaires, respondents were asked to choose an encoded value judgement in response to a series of themed questions.

Observation data
A CPD day at the Design Museum, involving teachers from a range of schools, was observed in August 2015. In addition, workshops were observed in October and November and industry experts were interviewed. The Pitching event in December 2015 was observed and observation data gathered.

Semi-Structured Interview data
Semi-structured interviews were conducted with a representative sample of schools/teachers (see appendix iv.)

Case-study data
Case-study data was collected for 2 x selected previous winners (see section 3.5.2.

2.4 Data Analysis

The focus of the analysis of data gathered during Design Ventura 2015 remains on uncovering broad and holistic evidence against the outcome targets, rather than an in-depth exploration of features of the Design Ventura.

Accordingly, analysis and interpretation of data was approached in a systematic and structured way, through categorising and coding data pertaining to the outcome indicators of Skills, Attitudes and Aptitudes, Knowledge and Understanding, Legacy and Qualitative Experience. Interpretation of data also sought to uncover emerging relationships, themes and issues.

Observation and survey data are response-based samples, accordingly, data for analysis is from all schools which responded. Semi-structured interview data is from a representative sample of all school types (see appendix v). Direct quotations from qualitative data are used to illuminate and compliment the researcher's commentary and interpretation (Kvale, 1996) whilst charts and graphs are used to present the frequency distribution of quantitative data (Robson, 2010).

3. FINDINGS on DESIGN VENTURA 2015

3.1 General Findings

3.1.1 Student survey profile

in 2015 the Design Ventura student survey received 776 returns, from 78 different schools. This is again well above the agreed evaluation target of 60 student responses. It is encouraging that this represents a large increase from 2014 of > 217%. Given the > 40% drop in 2013 responses, longitudinal analysis suggests that the response rate is influenced by submission of student surveys being included in the conditions of entry.

Students were asked to provide profile data (see figure 1 for an example) and this is summarised in table 1 below.

Figure 1: Example of Student Profile Questions

Gender

The survey data for the 2015 programme indicates a broadly equal gender balance, with 52% (54) of respondents female and 48% (46) of respondents male. This remains similar to the gender profile in 2013 and 2014, and, is again consistent with recruitment aspirations for Design Ventura 2013-16.

Year group

51% of the students surveyed in 2015 were in Year 9 and 47% were in year 10. Two percent (2%) of students surveyed in 2015 were in year 11. This is consistent with a year-on-year longitudinal shift to similar size Year 9 and 10 cohorts participating in the project, but, when considered alongside qualitative teacher interview data, may indicate a beginning trend away from Year 10 participation because of 'exam pressure'.

Gender	Female 52% (54%/52%/73%/51/26)*	Male 48% (46%/48%/27%/49%/74%)	
Year group	Year 9 – 51% (45%/	Year 10 – 47% 54% /	Year 11 – 2% (1% /

*Note: 2014/2013/2012/2011/2010 data is included in tables and charts throughout this evaluation, where available.

Table 1: Summary of Student Survey Profile Data

3.1.2 Teacher survey profile

82 teacher responses to the Teacher Survey were received from 78 different schools (see appendix v). This is >173% higher than the agreed evaluation target of 30 teacher responses. Again, the majority of teachers reported that the Design Ventura programme was delivered in lessons this year, 65% (77%/71%). 17% (26%/26%) said that the programme, or elements of it, were delivered after school, and a quarter during lunchtimes, 25% (16%/21%). Six percent of teachers said their schools provided an 'off timetable' day or something else (1%/2%). See Figure 2.

Design Ventura 2015: Teacher Evaluation

Your opinions really matter to us and we value you taking the time to contribute to the evaluation of the Design Ventura project. This survey forms part of your final submission, and each of your answers will help us to find out more about how teachers and students experience the Design Ventura project. The survey is being carried out by Goldsmiths College, University of London and the Design Museum. (Our Information Management Policy can be viewed at [http://www.gold.ac.uk/governance/policies/#InformationManagement])

All data collected will be treated as confidential and you will not be contacted or identified unless you give us explicit permission to do (please see web link or information sheet for details).

For further information about this survey you can contact ventura@designmuseum.org

Thanks!
The Design Ventura Team

* Required

Your Name (this information will only be used for authentication purposes and will not be identified) *
First name and surname please

Name of School (this information will only be used for authentication purposes and will not be identified) *

How was the Design Ventura programme delivered in your school? (tick all that apply) *
☐ In lessons
☐ During lunchtime
☐ After school
☐ As an off timetable day
☐ Other

Figure 2: Example of School Profile Questions

Teachers responding to the survey reported that 3,697 students participated in the 2015/6 Design Ventura programme. 40% of teachers reported between 4 and 15 participating students in their schools. Around 28% said that between 16 and 39 students had participated and 28% said between 40 and 100 students had participated, with 3% reporting over 200 students taking part in Design Ventura 2015/16.

3. Findings contd.

3.2 Skills

Section 3.2 focuses on findings pertinent to impact area 1, Skills, looking at the effectiveness of Design Ventura in improving the enterprise and creativity skills amongst young people. Success indicators include:

- Increased creativity
- Improved business and economic understanding
- Increased teamwork skills
- Increased leadership skills
- Improved decision-making skills
- Improved ability to assess/manage risk

With a specific target of:

- 60% young people experience an increase in enterprise skills and creativity.

3.2.1 Improving enterprise and creativity skills

Student survey responses indicate that participating in the Design Ventura programme has improved both students' ability to design and their business ability (see table 2). The re-designed survey instruments reveal that student responses were overwhelmingly positive with the majority of respondents indicating that their abilities had increased in all categories they were questioned on.

2015/16 findings, indicate that 96% of students report that participating in Design Ventura has helped them develop understanding of how to respond to a design brief. 94% of students report that Design Ventura has supported them in improving their design ideation, whilst 94% of responses indicate that Design Ventura supported students in understanding more about the business side of design (e.g. costs, marketing, profits). Student responses again indicate that Design Ventura has had a positive impact on their ability to 'present ideas to others', reported on for the second time in this evaluation, with 90% reporting increased ability.

92% of students reported an improvement in team working capability. With 89% reporting they understand more about how to get on with others in a team. Some students continue to find working in teams 'difficult'. Again, some qualitative comments refer to team members being unreliable, a perceived lack of effort, and lack of cooperation. 7% of students report that Design Ventura did not help them get better at team work, with a further 4% unsure if Design Ventura had improved their ability.

What emerges from analysis of student data is that the re-designed evaluation methodology appears to have had an impact on the consistency of quantitative data and qualitative comments, which again highlight working in a team as a skill they want to use in a career, and as one of the things they enjoyed most about Design Ventura.

> "I liked how we were allowed to work in groups and see what it is like to actually manufacture a product. It made it feel like it was professional, like it was an actual important situation. This was good because it prepares all of us for the future giving us experience in what the world of trading and business is like."
>
> *Yr 9 Student*

Question Stem (N=776)	Helped Overall	Helped a lot	Helped	Helped a little	Not sure	Hasn't helped
Better at responding to a design brief	96%	32%	49%	15%	2%	2%
Better at explaining design ideas	94%	31%	43%	20%	2%	4%
Better understanding of the business side of design (e.g. costs, marketing, profits)	94%	38%	37%	19%	2%	4%
Better understanding of working in a team	92%	37%	36%	19%	4%	4%
Better at presenting ideas to others	91%	29%	36%	26%	4%	5%
Better at making good business decisions	94%	31%	41%	21%	2%	4%

Table 2: Has participating in the Design Ventura project helped you improve your design or business ability? (N is total number of responses)

3. Findings contd.

3.2.2 Interest in creative and business related skills

The Design Ventura programme is intended to engage learners in the development of skills so that they will be motivated to learn in the future. The evidence in 2015 shows that this engagement continues to result in positive changes in interest for both creative and business related skills for 62% and 44% of participating students respectively (see table 3).

Consistent with 2013 and 2014 findings, the impact on creative skills was markedly greater than that on business related skills. Again, this may reflect the way that participants experience activities, however, it appears to also reflect that students (and teachers) are recruited because of their prior commitment to design. No significant gender differences were evident.

Question Stem	Increased	Remained the same	Not sure	N
My interest in creative skills such as designing and making has ...	62% (62, 61)	35% (33, 34)	2% (3,3)	*776*
My interest in business related skills such as finance or marketing has ...	44% (42,42)	42% (43, 47)	7% (7,4)	*776*

Table 3: Has participating in the Design Ventura project changed your interest in creative and or business related skills?

3.2.3 Teacher perspective on student's creative and business skills

On the whole, teachers indicated that Design Ventura had a very positive impact on students' design and business capabilities, with between 99% and 100% of teachers reporting a positive impact across the range of design and business skills. Illustrative skillset elements are reported in figures 3 and 4.

Impact of DV on Students' Creative Capabilities

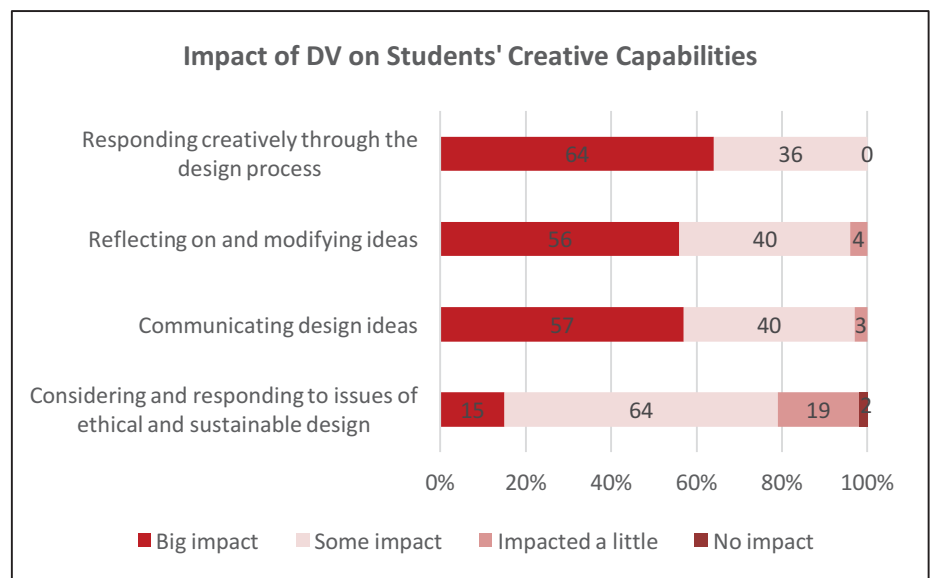|	Big impact	Some impact	Impacted a little	No impact
Responding creatively through the design process	64	36	0	
Reflecting on and modifying ideas	56	40	4	
Communicating design ideas	57	40	3	
Considering and responding to issues of ethical and sustainable design	15	64	19	

Figure 3: Teacher Perspective on Student's Design capabilities

3. Findings contd.

According to their teachers, students benefited most in terms of 'Responding creatively through the design process', 'Reflecting on and modifying ideas' and 'Communicating design ideas' where 100% of teachers reported an overall positive impact, with 100%, 96% and 97% of teachers respectively reporting significant impact. Teachers continue to report high overall levels of impact for 'Considering and responding to issues of ethical and sustainable design' (98%), however only 79% of teachers felt that Design Ventura had a *significant* impact on this element of the design skill set.

These findings are similar to last year, indicating consistent longitudinal gains, with the impact of Design Ventura 2015 on all measured elements of students' creative skill sets well above the 60% improvement target.
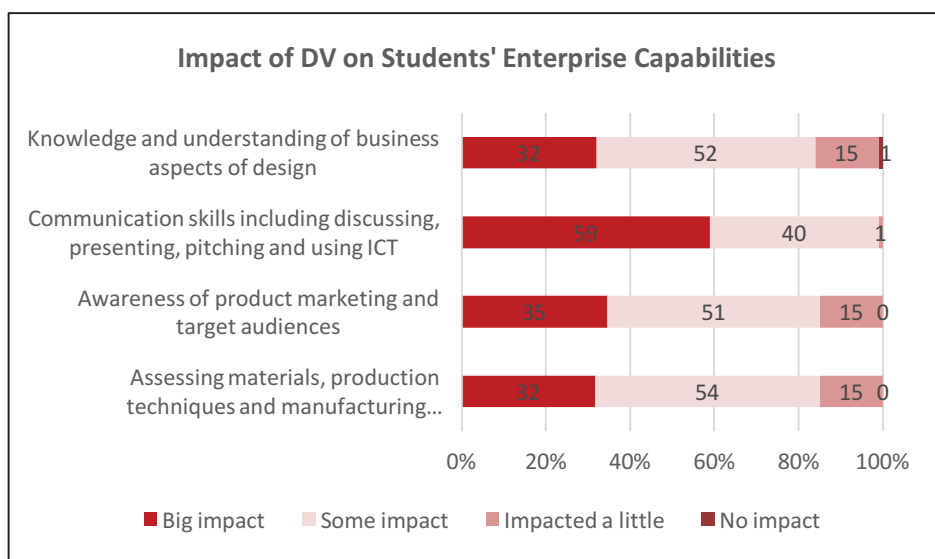

Figure 4: Teacher Perspective on Student's Business capabilities

The impact on Design Ventura on students' business skill set overall remains high, according to 2015 survey data, with teachers reporting that Design Ventura had a positive impact on 100% of the students who participated. Significant impact on measured elements of the business skillset is lower that on the design skill set, with, for example, teachers reporting a significant impact on 'Knowledge and understanding of business aspects of design' (87%) and 'Awareness of product marketing and target audiences' (86%). Qualitative data suggests that this may be, in part, attributed to teacher's own confidence in recognising business capabilities. Consistent with this, teachers reported that Design Ventura had a significant impact on 'Communication skills including discussing, presenting, pitching and using ICT' (99%). Again, the impact of Design Ventura 2015 on all measured elements of students' enterprise skill sets is well above the 60% improvement target.

These findings remain positive year-on-year, indicating consistent longitudinal gains, with the impact of Design Ventura 2015 on all measured elements of students' creative and enterprise skill sets well above the 60% improvement target. These data were subjected to statistical testing to explore associations according to year group and gender. Consistent with 2013 and 2014 findings, no significant differences were found.

3. Findings contd.

3.3 Attitudes and Aptitudes

Section 3.3 focuses on findings pertinent to impact area 2, Attitudes and Aptitudes, looking at the effectiveness of Design Ventura in increasing confidence and ambition amongst young people. Success indicators include:

- Increased self-confidence.
- Increased ability to handle uncertainty
- Raised career and education aspirations
- Reduction of perceived barriers to success/achievement

Specific targets include:
- 50% of young people experience an increase in confidence and ambition.
- 50% of young people perceive a reduction of barriers to success/achievement.

3.3.1 Increasing confidence and ambition

Just over half of those students surveyed in 2014 (53%) reported that participating in Design Ventura had increased their ambition about what they expected to achieve in their studies, with 51% reporting increased career ambitions. Similarly, just over half of students (56%) reported improvements in their willingness to take on new tasks. Consistent with 2013 findings, 2014 findings indicated more young people felt that their general self-confidence had remained the same (52%) than increased (44%). Analysis of 2014 data revealed that this appeared at odds with the qualitative data gathered through the student survey and through semi-structured interviews, suggesting that the challenging nature of Design Ventura, combined with a lack of understanding of indicators of self-confidence and self-efficacy (see methodology section above) may have resulted in skewed data in this category. 2015 findings based on a revised data set are, therefore, of particular interest.

"I liked the whole experience of creating, designing and trying out new skills to try and create the ideal product. When I first designed the product I was not sure about what to do but when our team pitched and presented the whole product to the other team, my confidence soared. We pitched the product well and my presenting skills quickly got better. The whole experience has resulted in my overall confidence with myself and my D.T. work has got bigger within the time I have done this. I also like the competition itself, it is just so exciting!"

Yr 10 Student

Question Stem (N=776)	Helped Overall	Helped a lot	Helped	Helped a little	Not sure	Hasn't helped
I think I'm less worried about trying to solve design problems	90%	23%	46%	21%	4%	5%
It's helped me understand that mistakes and criticism can be useful as they help you learn and improve	93%	33%	40%	20%	2%	4%
It's helped me think about what I can achieve through studying	88%	25%	39%	24%	5%	8%
I understand more about how I can plan to achieve what I want to	92%	28%	43%	21%	3%	5%
It's focused my thinking about what kind of skills I might want to use in my future career	93%	35%	38%	20%	2%	4%

Table 4: Has participating in the Design Ventura project improved your level of confidence and your ambition?

2015 findings in this area suggest that Design Ventura increased confidence in 'solving design problems' in 90% of students who participated, with 69% reporting a significant impact. Similar impact levels were reported on 'It's helped me think about what I can achieve through studying' (88% and 64%) and 'I understand more about how I can plan to achieve what I want to' (92% and 71%). Design Ventura also continues to have a significant impact on young people's aspirational thinking with 93% of participants reporting a positive impact, with 73% of responses indicating that the project had a significant impact on their thinking about the kind of skills they want to use in their future careers. Data indicates that the impact of Design Ventura 2015 on all measured elements

3. Findings contd.

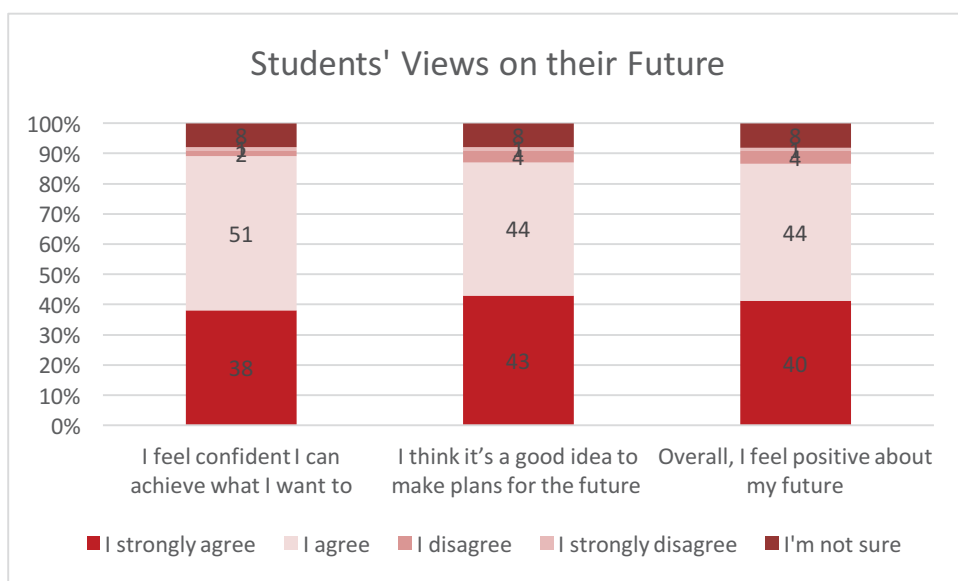of students' confidence and ambition is well above the 50% improvement target.

Figure 5: Student's Views on their Future

Student survey data also indicates that 89% of respondents feel confident they can achieve their ambitions, with 87% indicating that they understand that planning for this to happen is a 'good idea'. 88% of Design Ventura 2015 student respondents indicate they feel positive about their futures. However, 8% of respondents are unsure of how they view their futures.

3.3.2 Teacher perspectives on student's business and personal capabilities

Teachers were also asked to assess the impact that the programme had on the business and personal capabilities of students. Consistent with qualitative data, 2015 teacher survey responses indicate teachers feel that Design Ventura had some positive impact on 100% of all measured elements of business and personal capabilities associated with increased confidence. In addition, between 90% and 99% of teacher responses indicated that the programme had a significant impact on their students across the range of capabilities explored. These data are presented in table 5, below.

Question Stem (N=81)	Overall Impact	Big impact	Some Impact	A little Impact	Not sure	No Impact
Self-confidence	100%	44%	46%	10%	0%	0%
Resilience, flexibility and a 'can do' attitude	100%	42%	54%	4%	0%	0%
Team work including shared decision making and collaboration	100%	65%	33%	2%	0%	0%
Communication skills including discussing, presenting, pitching and using ICT	100%	59%	40%	1%	0%	0%

Table 5: Teacher perspectives on Business and personal capabilities

3. Findings contd.

Strongest gains during Design Ventura 2015 appear to be in relation to resilience, flexibility and a 'can do' attitude, teamwork and communication skills. Impact on self-confidence, according to both teacher and student perceptions, was slightly lower.

3. Findings contd.

3.4 Knowledge and Understanding

Section 3.4 focuses on findings pertinent to impact area 3, Knowledge and Understanding, looking at the effectiveness of Design Ventura in increasing understanding of business within the design industry. Success indicators include:

- More business and design professionals actively involved in design-enterprise education
- Number of applications to trade at Ventura Pitching Events.

Specific targets include:
- 60% of young people experience an increase in economic and business understanding.
- 60% of participating schools submit competition entries

3.4.1 Learning experiences providing access to Industry experts

Design Ventura 2015 continued to provide stimulating learning activities in schools that were rated good or very good by 81% (76%) of students. In comparison, around three out of four students gave positive ratings for the Design Museum workshop with industry experts 79% (65%) and visits to the Design Museum exhibition 77% (64%). These ratings confirm that Design Ventura has been designed and supported in such a way that it can be delivered successfully by teachers in schools. It is also interesting to note that, in 2015, students were, broadly speaking, equally satisfied with the workshops and exhibitions at the Design Museum, when compared with their lessons at school. See figure 6 below and section 3.2.
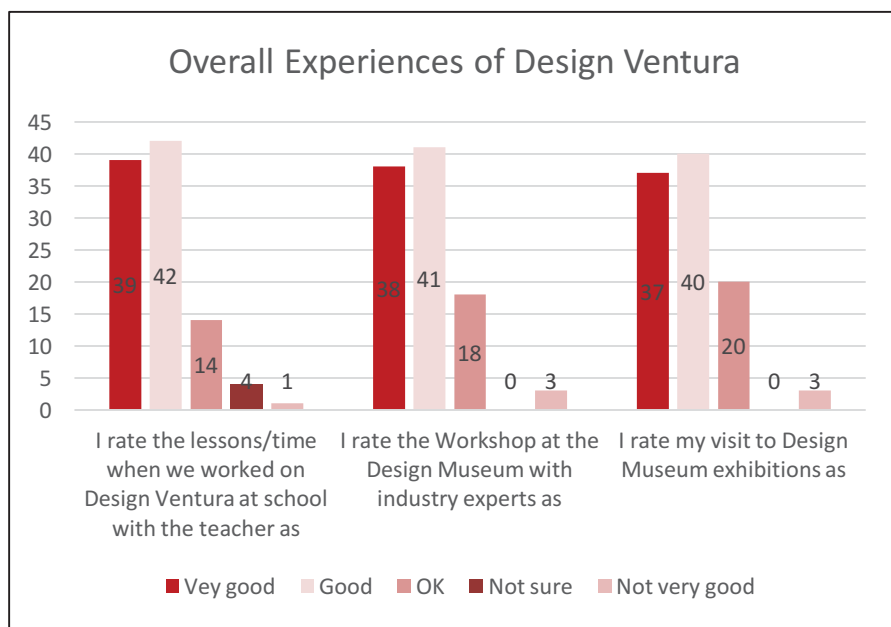
Figure 6: Satisfaction with Design Ventura learning experiences

Contribution of professionals and facilitators

Findings indicate that the presence of the business and design industry experts continued to add to the authenticity of the Design Museum activities. The industry professionals were able to interact with groups of students: witnessing and evaluating their designs, offering advice, modeling ways of developing designs and finding design and business solutions.

Industry professionals were once again focused on helping groups to move

"The students loved the design workshop to speak to designers to further improve their ideas. It boosted confidence in their own capabilities."

Teacher, Participating school

forward with their designs and their thinking. However, a small (>1%) number of students found it difficult to take advantage of this opportunity of learning directly from professionals, some saying that they found the feedback "too negative".

Group work in a professional setting

Apart from the contributions of facilitators and experts, most of the learning time in the professional setting of the Design Museum took the form of group work. In the museum sessions, group work usually took the form of common tasks defined by the facilitator. Less able students continued to find this mode of working very challenging and their progress was sometimes slow. This, again, appears to be compensated for by a high level of input from facilitators, teachers and professionals. In both professional and school settings, group work had a number of benefits: it again facilitated learning between students within and between groups, it encouraged learners to take responsibility for their own learning, it permitted learners to make learning relevant to their own concerns and it facilitated powerful interactions with adults. Some issues with group work remain, with survey responses indicating time was "wasted" when groups failed to manage their own learning and work effectively or when they failed to sustain motivation to focus on learning activities at the Design Museum

Ideas Workshops in a professional setting

All schools participating in Design Ventura continue to be offered an 'Ideas Surgery' workshop at the Design Museum. The museum sessions in 2015 were designed by museum educators and led by facilitators from the Design Museum with inputs from designers and business professionals.

3.4.2 Holistic Design Ventura learning experiences

Design Ventura 2015 teaching and learning experiences remain notable for:

- being recognised as a unique opportunity to engage with a 'live' brief
- being shaped by a complex and authentic challenge
- the focus on a solution that must be commercially viable
- opportunity to engage with the design industry in an authentic context
- providing a creative learning experience free from 'exam constraints'
- the character and extent of the contribution of adults other than teachers
- the extent of group work

Challenge

Teaching and learning in Design Ventura was again valued because, increasingly, it not only supplements the subject curriculum, but rather provides a unique opportunity for students and teachers to engage with an authentic and complex design challenge and design process, where students were expected to have discussions, make decisions and carry out tasks which were 'inter-disciplinary' and non- linear.

This kind of learning continues to be perceived by students and teachers as a major strength of Design Ventura. Many learners continue to report that learning as part of Design Ventura was stimulating and worthwhile. They report it was clear how knowledge and skills could be applied, although may continue to describe their frustration at the lack of time they can spend on the project with, consistent with teacher data, many citing 'exam' pressure as the root cause. It should be noted, that some less confident learners continue to be challenged by this approach, often because of the contrast to curriculum based learning where they know 'the script' and are often presented with 'solutions', rather than problems.

3. Findings contd.

Professional Design methods – Product focused design

It was again observed that, where students were encouraged to use industry practices when working upon a particular design or product, this provided a focal point for learning. For example, where a design idea supported application of knowledge and understanding about marketing, pricing, design development, end users, marketing or environmental issues. This kind of pedagogy was often supplemented effectively by an expert/teacher providing generalised rules or principles in person or online.

Starting the learning conversation from a particular product and theme continues to appear to help some students to understand and participate actively. It was again observed that some students only became fully engaged once they were given the opportunity to engage in physical making, for example, producing a model of their design ideas.

Products as part of a 'handling' collection, both real and virtual, provided a shared focal point that facilitated engaging and constructive conversations with different adults: for example, handling and reviewing models again helped to develop conversations about materials, social impact and design value. This observation suggests that design and making activity can continue to provide a nexus for a network of learning conversations between students and with different educators and professionals.

3.5 Legacy

Section 3.5 focuses on findings pertinent to impact area 4, legacy, looking at the effectiveness of Design Ventura in building sustainability through training for teachers, partnerships, online resources. Success indicators include:

- Longitudinal impact on participants
- Participation in online activity and delivery of the project across the UK
- Establish national partnerships to provide accreditation and next steps for teachers and learners

Specific targets include:

- 50% of schools participate in the Ventura programme more than once.
- 30 priority schools are supported over three years.
- 1 national accreditation partner

3.5.1 Longitudinal Benefits to Participants

As part of the Design Ventura 2015 evaluation, case studies of previous winners were conducted. These were included in the 2015 evaluation methodology in order to explore whether participating in Design Ventura had a lasting impact on:

- Skills
- Attitudes and Attributes.
- Knowledge and Undersatnding

In-depth semi-structured interviews were carried out with the first (2010) and latest (2014) winners of Design Ventura. The findings from analysis of the case study data offered the first in-depth insights into how Design Ventura impacts in the longer term.

Case Study 1: 2010 Winner Dove Bunting
Members of the winning team from 2010 were interviewed as a method of evaluating the continuing and longer-term impact of Design Ventura. The team were Year 9 students attending Haberdasher's Aske's Hatcham College in Lewisham, London. Interviewing the girls six years later offered an opportunity to gauge lasting impressions of the competition. The ninety-minute interview was semi-structured, with questions based on the Evaluation's Impact Measurement Criteria, focusing on Skills, Attitudes and Aptitudes, Knowledge and Understanding, Legacy and Qualitative experience. Here direct quotations are used to illuminate the winners' experiences, however a full transcription of the interview is available in appendix vii. Consistent with ethical guidelines, data has been anonymised.

The team's winning design 'Dove Bunting' had comprised a set of twelve grey-board doves, see figure 7, some already featuring colourful patterns, and others left blank for customers to decorate and assemble themselves with the ribbons provided. The dove motif had been inspired by the Design Museum Shop's bird logo at the time.

Figure 7: Dove Bunting

"I remember going to the Design Museum and… there was this other building where everyone was working, and just seeing that behind the scenes… people being in control of Twitter, and then we got to take over Twitter which was fun... Seeing this whole other side and thinking… "Oh you don't just have to be creating yourself, but also work and help other people to do this… there are so many different fields!"

Design Ventura 2010, Winner

When asked which aspects of Design Ventura had been most enjoyable, the girls stated the combined factors of the brief's "creative freedom" and working as a team. The opportunity to answer a real and open brief had contrasted with the structured, "step by step" approach of their Design Technology lessons in school:

We all had to do the same thing… and then it really made a difference to do something like Design Ventura where you can just come up with your own ideas and… start thinking a bit more about being creative and about how you would work in a design field… Design Ventura allowed us to be independent. (Student 1)

Throughout the interview the girls reflected on the learning that had emerged from their teamwork on a project about which they felt "passionate":
With this project we had to kind of really rely on each other... because we did work during lesson time, but also after school, so we'd make sure that everyone was able to attend and work together... that kind of communication was really vital… learning to be in a group. (Student 2)

The team also recalled that as the project had progressed they had learnt skills such as working effectively within time restraints, sharing ideas, resolving conflicts and faster decision making.

Longitudinal impact of working with industry professionals

The opportunity to develop their winning product with professionals had introduced the girls to Design in a live context that was very different to their experiences of Design as a school subject. During the final stages of the process they had visited the Design Museum offices and developed their product with the design agency 'Build':

It was very exciting actually. Speaking to people… we also got to see what the environment's like…their work space and… it was about learning stuff generally as well… life skills... [In] the design area we were learning things that would be beneficial for us, as an experience, not just for this product. And it was also really good for networking too, they remember us you know... it was nice to talk to them later on about things. (Student 1)

The students felt that this had had particular significance because Design had not been "prioritised" at school; other subjects appeared to receive greater recognition and were perceived as leading onto more financially secure careers. Working with professionals during Design Ventura however had opened up a range of creative career possibilities that the students had been previously unaware of:

I remember going to the Design Museum and… there was this other building where everyone was working, and just seeing that behind the scenes… people being in control of Twitter, and then we got to take over Twitter which was fun... Seeing this whole other [side and thinking]… "Oh you don't just have to be creating yourself, but also work and help other people to do this… there are so many different fields!" (Student 2)

Longitudinal impact of valuing design skills

Taking part in Design Ventura had broadened the students' appreciation of design skills as a whole. They described how the Design Ventura process had helped them make several key realisations. They developed understanding that a creative process was not "always one order" (a clear, linear process culminating in a presentation), but could instead mean moving between previous stages several times over. They had also begun to realise that design did not necessarily have to be "incredibly beautiful and extravagant", but could also be a "very simple idea".

3. Findings contd.

Immersion in the design process at this age had helped change the students' perception of the world around them. They recognised that even if they had not decided to follow a career path in Design, participating in Design Ventura had helped them to value the impact of design skills differently:

…Just kind of seeing things…even the pavements that we all walk on. They're so calculated, because also there's also a lot of maths to it as well, the distance between things, and how we walk on those things -and they were cared for and paid attention to, and someone did do that. (Student 2)

Student 1 also described how she now had a "better eye for seeing the flaws in things, in everyday objects". She reported frequently asking how objects might be "better designed", citing as an example a recent takeaway coffee cup that had leaked when she drank from it.

Case Study 2: 2014 Winner Card Cogs

Members of the team were interviewed one year after winning Design Ventura 2014 with their product 'Card Cogs', see figure 8. The students had been part of a team of six Year 10 students from Burnage Academy for Boys in Manchester. The interview was semi-structured with questions based on the Evaluation's Impact Measurement Criteria, focusing on Skills, Attitudes and Aptitudes, Knowledge and Understanding, Legacy and Qualitative experience. Here direct quotations are used to illuminate the winners' experiences, however a full transcription of the interview is available in appendix vii.

'Card Cogs' had been developed as a response to the brief 'Connect'. The construction game included a pack of playing cards and acrylic 'cogs' (slotted disks), from which the customer would be able to build a multitude of structures. In this way a traditional pack of cards had been imbued with playful new possibilities.

Figure 8: Card Cogs

Teamwork and creative freedom

The students described the strong sense of "unity" that had emerged from working together as a team to make one product. They reflected that developing a concept through teamwork was one of the key differences to Product Design projects undertaken at school.

Working together, working as part of a team, puts you in a very practical environment. You have to make sure you're working at the same pace, at the same quality to make sure that all aspects of the product are suitable. (Student 3)

They agreed that this process had been a useful introduction to different problem-solving approaches, improving how they currently worked. Working as a group of six had been challenging initially for the students because they had each put forward a design before selecting one to enter Design Ventura. They recalled how they had managed to resolve one of their more "heated debates" when it came to choose between the final two options by trialling their designs with students from lower year groups and utilising feedback to reach a decision. At the end of this process the team voted and were happy with their selection.

As result of this process, Student 3 said he now frequently asked for feedback from students in other years as a way of improving his designs for school projects. Student 4, whose design had been selected by the team, said that taking on the role of Team Leader had made him feel significantly more "mature" and "responsible". His lasting impressions of Ventura had been of the role he had played in the team's progress:

Well for me it was like, working in a team and organising the team, and how to be sure that everyone gets the right part that they're best at. That was the main part but it also changed the way I look at stuff. It changed the way I look at people, about how they think, about how the customer thinks, and about how making something would benefit the world… that was a really unique experience and feeling for me.

Student 4 also indicated that his self-confidence had increased considerably through the role he was assigned during the project. As with the Dove Bunting case study, both students said their team had become close friends through the process of working intensively together on a common goal.

Students again indicated that the structure of the Design Ventura brief had elicited a different approach to school Design briefs, which had often already contained a built-in 'solution'. Consistent with the views of students in the Dove Bunting case study, they had found that Design Ventura enabled a more creative approach to Design:

The main difference with the Design Ventura brief was that it was just one word. And getting our head around the fact that we had to design a product just off one word was quite… a challenging task but then also it allowed us to think up different ways, different methods as well. We'd be given design briefs that were like sentences and sentences… pinpointing us with what we had to do and then Design Ventura was like a very open brief and we had a lot to work with. (Student 3)

The students reflected that since Design Ventura they had found themselves looking at Design briefs "completely differently". Having understood what they were capable of producing from the "limitation" of one word meant they had a "broader way of thinking" once they returned to their school briefs. This had impacted on how the students now produced their ideas, giving them confidence to try new things.

Longitudinal impact of participating and being shortlisted
The team described winning the competition as "a very unique feeling" that had impacted significantly on their confidence levels. Student 3 reflected, as a consequence of winning, he was "a lot more ambitious" and willing to "try a lot more things out".

They recounted their 'Card Cogs' product sold successfully in the Design Museum Shop, described by the Ventura blog as a "best seller". After the interview the boys were due to present the £1900 cheque generated by sale profits to the Manchester-based NHS cancer centre 'The Christie'. Student 4 described how his confidence had increased knowing that they had not only "made a product for ourselves, but… for wider people". Knowing that others had enjoyed their product and that it had sold successfully had given him "a different perspective on the Design Industry".

Now in Year 11, the boys were beginning to consider their career options and reported that winning Design Ventura had reinforced their confidence in making decisions about the future:

I would say it's given me a unique outlook on everything. It's just changed my way of looking at Design as a subject… I know how it feels to make something and put it in a store… I just see everything differently now. I'm really interested in

Design/Engineering now after doing Design Ventura... I enjoyed going through the process that we had to go through to get this product... I know what I'll enjoy, I will enjoy making products for a living. (Student 3)

It really showed me what I'm really good at, what I really enjoy, and it pushed me more towards the Design/Engineering path, and more designing new stuff, stuff that would help people and help yourself. (Student 4)

Winning had "inspired" students in younger years at Burnage Academy to consider Design differently. The boys described this impact on the rest of the school, illustrating how their success had begun to change perceptions of Product Design:

*Before the Design Ventura project... it was a very small part of the school and some people overlooked it, didn't really care about it, and after we won, people thought... "This is more than just a drawing, or making"... and then more people started asking questions, like "how was the experience?", and "how did it go?"... more people started joining in and choosing Product Design for GCSE. (*Student 4*)*

As in the Dove Bunting case study, participating in a nation-wide competition was cited as being an important aspect of Design Ventura, as the students were able to contextualise their work in a wider community of students. The students felt that through participating they had noticeably improved their design work, demonstrated by the differences between how they and fellow team members approached Product Design briefs to peers at school who had not participated in Design Ventura. They felt they now had a "much more... critical way of thinking", and were more likely to consider aspects that their peers might neglect when answering briefs.

Presenting their work to fellow students, other schools, and judges had been a new experience for the boys. Student 4, who had been assigned the role of Team Leader, described how he had felt during the process:
For me it was pretty challenging. I never spoke in front of a proper audience and I did, like, have to rehearse a bit before the actual presentation and I was kind of nervous before.

Students indicated that participation in Design Ventura had taught them to listen to feedback from different sources, including their peers. The boys described the difficulties of listening to "negative feedback" but said they realised on reflection that this this had helped them to "improve our product even more". They recounted how they had made been able to spot a mistake in their prototype by asking Year 7 students to "play" with the design. These processes, they said, had taught them how mistakes and negative feedback could make a positive contribution to the development of ideas.

Longitudinal impact of valuing design skills
The Card-Cog students indicated that Design Ventura had changed how they perceived their bigger designed world:

When you look at stuff now... there's a part of me that thinks about how it's made... Stuff you normally wouldn't think of, like when you see a bike, you just see a bike, but because of Design Ventura, when you see a bike, you start wondering... "How did they make the frame? How were the wheels made? How were they put on the frame, what kind of manufacturing process did they go through?" It's a really interesting way to look at the world. (Student 3)

Student 4 described how he had begun to think about improving the design of everyday designed objects:
For me, it was like more how to improve the product, rather than how it was made. So if I look at something, use it, and if I find anything, how would I improve it if I was

the designer and directly help everything; buildings to phones, to small toys and stuff, and it really changed the way I look at the world.

3.5.2 Benefit of Design Ventura to teacher's practice

Teachers were once again asked what they had gained from participation in Design Ventura 2015. Findings indicate that all respondents agree that Design Ventura has given them a better understanding of how to engage students (100% (96%)) and how to plan and teach enterprise and design together (100% (95%)) and also knowledge and understanding of what resources and people that could be used to support teaching in this area (99% (91%)), an increase across all categories from 2014. See table 6.

Question Stem (N=81)	Helped Overall	Helped a lot	Helped	Helped a little	Not sure	Hasn't helped
A better understanding of how to engage students to learn about enterprise and design	100%	30%	62%	8%	0%	0%
A better understanding of how to plan and teach enterprise and design together	100%	29%	59%	12%	0%	0%
A better understanding of what resources and people can be used to support the teaching of enterprise and design	99%	23%	62%	14%	0%	1%

Table 6: Benefits of Design Ventura to teacher's practice

The majority of teachers continue to enjoy and value the opportunities provided by participation in the Design Ventura programme. This year they were again asked to rate the value of particular features of the programme. As in previous years, teachers rated working to a live brief and team working very highly, with combined ratings of valuable and highly valuable, achieving 100% (97%) and 100% (96%) respectively. Teachers also valued the fact that Design Ventura makes it possible to combine design and enterprise teaching 96% (97%) and most welcome the stimulus of competing with other schools 80% (92%). In all categories, features were rated more often as highly valuable than valuable. The value of competing has dropped in 2015, with analysis of qualitative data indicating that some teachers' regard the pressure of 'exams' as a 'competitive' or 'pressured' on their teaching that they would rather not encounter in authentic design activity of this type. These data are presented in figure 9.
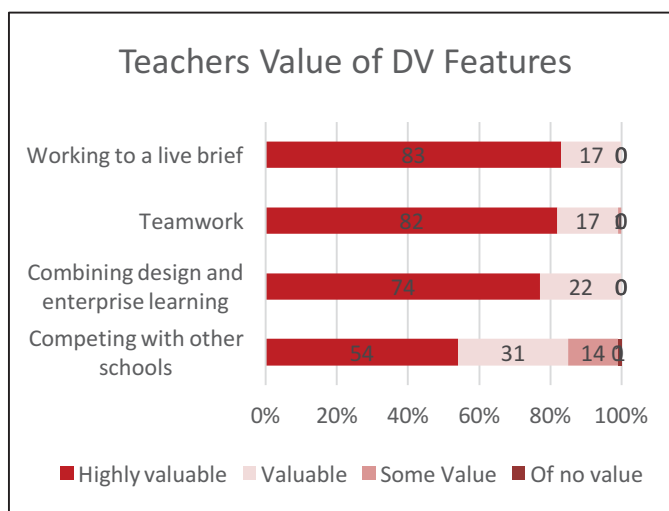

Figure 9: Value of different Design Ventura features

3. Findings contd.

3.5.3 Resource-led legacy

The dissemination phase of the Design Ventura programme maintains a focus on widening participation. Consistent with last year, this ongoing vision depends in part on the use of web based resources. Consistent with 2014 findings, it appears that teaching and learning resources, short films and industry expert profiles were most highly valued of the web resources, with between 98% and 100% of teachers finding them valuable in some way. The blog, Q/A feature and web-chats appear to be less valuable, with 78%, 72% and 65% respectively rating them of some value. See figure 10.
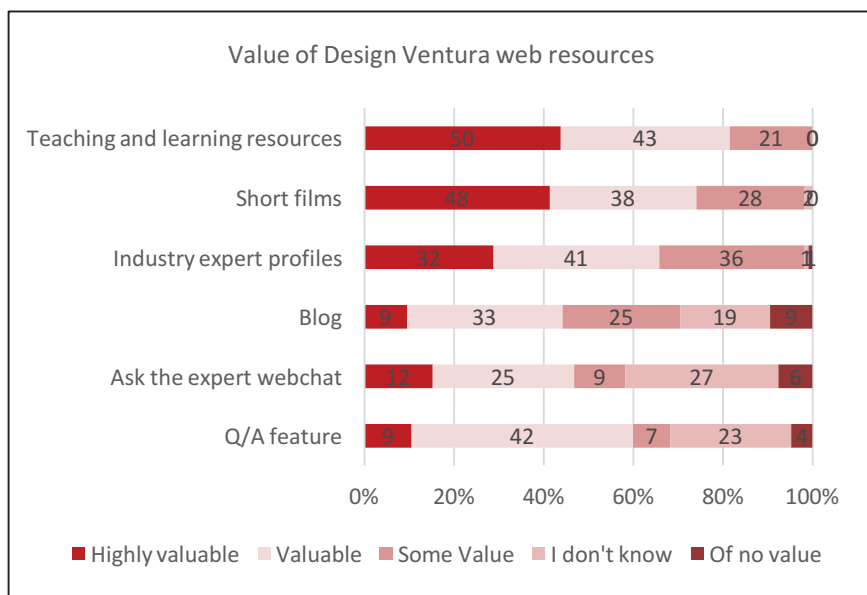

Figure 10: Design Ventura web resources

Evaluation data indicates that around 70 participating schools took advantage of the offer of a Design Museum workshop, with almost a fifth (19%) participating online, 6% participating in workshops at their school and the three in four (75%) attending workshops in the Design Museum.

In addition, 2015 teacher survey data indicates a growing trend toward a blend of face-to-face and remote participation as a continuing trend for Design Ventura as the programme moves through the dissemination phase, with 94% of teachers visiting the Design Museum shop website, 85% visiting the main Design Museum website, 67% downloading online posters and 30% participating in online CPD.

3.5.4 Longitudinal legacy: Participation

A key success indicator in this category is whether schools participate in the Ventura programme more than once, with a returning target of 50%. Teachers were asked:

Figure 11: Teachers Longitudinal Intentions

3. Findings contd.

Their responses suggest that participation in Design Ventura has again developed their pedagogy and increased their interest in this kind of approach:

- 100% (95%) said that they would participate in the Design Ventura programme again
- 95% (87%) will look out for other opportunities to combine enterprise and design in teaching
- 1% are unlikely to do this kind of [design and enterprise] project again

This, again, represents an increase from 2014 in all intended participation categories reported.

3. Findings contd.

3.6 Qualitative Experience

Section 3.6 focuses on findings pertinent to impact area 5, qualitative experience, looking at the effectiveness of Design Ventura in providing a learning experience of the highest quality. Success indicators include:

- Levels of enjoyment amongst all participants
- Perceived efficacy of the project in achieving its stated aims
- General feedback – comments, quotes etc. gathered from all participants.

Specific targets include:

- 80% of participants rate their experience of the project as 'good'.
- 80% of participants agree that the project achieved its stated aims.
- Range of positive feedback collected from cross section of participants

3.6.1 The Student Experience

Overall ratings for Design Ventura 2015 were once again very positive. Around four out of every five students (78%(72%)) rate their experience as good or very good (see figure 12). Despite the increase in participation and the increased use of web-based resources, ratings again remain pleasingly similar to previous years. There were no discernible differences in student ratings between year groups.
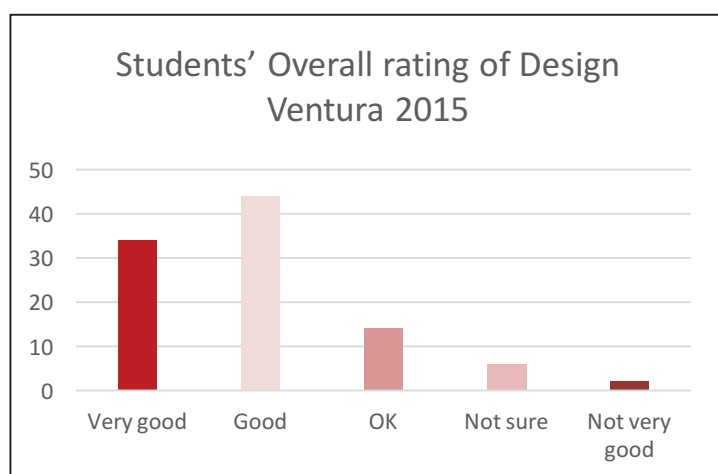

Figure 12: Students' Overall rating of Design Ventura

In a year on year drop, 14% (25%) of the students gave Design Ventura a rating of OK, which suggests that improvements are being made.

The Design Ventura student survey 2015 again invited students to give written comments on what they liked best about working on Design Ventura. As in previous years, working as a team (32%), freedom to develop and design products (38%) and the experience of being creative (23%) were the most popular features of the programme.

Teamwork and working in groups	32%
Live brief/Freedom to develop the product	38%
Fun/design/creativity	23%
Working on the product and X curricular links	15%
Business-like/working to a product brief	16%
Visits to museum and/or workshops to work with designers and professionals	14%
Other	8%
The competition	1%

Table 7: Students most liked about Design Ventura (N=776)

"I have learnt to work in a team more which has a effect on what I want to be when I am older and my self confidence has gone up so I can share my ideas with my team, it has been a good experience in my life I can do similar things like the Design Ventura in the future with no hesitation."
Yr 9 student

Students repeatedly highlighted the freedom for authentic design that Design Ventura offers:

"We got the freedom to create whatever we wanted in our group without being told what we had to do by the teacher." Year 10 student

"I liked that it was a real design scenario and also that we weren't that limited with the design brief. This meant there was a lot of room for interpretation and creativity." Year 9 student

"I liked that we were only given the word 'move' as a design brief and that was all. It gave me the chance to be very creative with the work, unlike previous projects." Year 10 student

Consistent with 2014 data, 2015 student data confirmed an emerging theme around the value of Design Ventura in providing authentic cross-curricular links to subjects such as maths, with students and teachers identifying opportunities for application of knowledge from other subject areas.

One year 10 student commented:

"I really like prototyping and experimenting with different materials. I feel like I have learnt more about how different materials can be used, and some of what we did in Chemistry makes more sense now, and the quality and how expensive they can be…"

Teacher survey data also identified the role of Design Ventura in developing social awareness:

"The awareness of social needs and how we can supply answers to the ever growing problem of the people's self-esteem." Teacher, 2015 Participating school

Once again, in order to get balanced data, students were also invited to comment on what they liked least about Design Ventura (see table 8). This generated 183 comments. Comments were broadly similar to those offered in previous years. The most frequent comments were again about the lack of time available to students to finish the project (21%). For some, the finance, costing and documenting side of things was least liked (16%), while others disliked the research, presentation and pitching side of things (15%).

Documentation/finances/worksheets/	16%
Timing/Lack of time	21%
The pitch/presenting	15%
Working on the product	9%
Not winning/competing	3%
Visits to the museum &/or workshops to work with designers & professionals	4%
Pressure/stress	4%
Teamwork and working groups	1%

Table 8: Students least liked about Design Ventura (N=776)

Illuminative comments in 2015 include:
"I did not like the time scale as I feel that we could have come up with a better product if our team had a bigger time scale. It was not a time that would be sufficient for any other shop to design a product." Year 10 student

"I didn't like the workshop because they told us to start again 2-3 weeks from the time the design had to be in." Year 9 student

"The stress of trying to make sure everything was in on the deadline" Year 9 student

3. Findings contd.

3.6.1 The Teacher Experience

2015 findings revealed that 100% (91%) of teachers gave a rating of good or very good for their overall experience of Design Ventura 2015. These data are presented in figure 11, and represent a 9% increase on 2014, and a 14% increase on 2013.
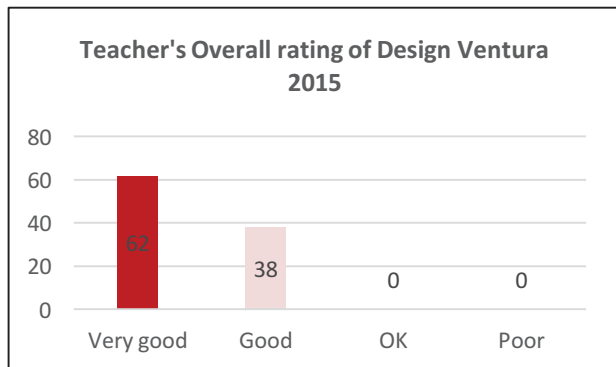
Teacher's Overall rating of Design Ventura 2015

	Very good	Good	OK	Poor
Value	62	38	0	0

Figure 13: Teachers' overall satisfaction

"It was a joy to participate. It lifted me and my professional practice and it [Design Ventura] lifted the students… away from the day-in, day-out pressure of exams" Teacher, participating school

When asked to comment on the outstanding feature of participating in Design Ventura, teachers offered 81 responses. The majority emphasised the value of students being involved in an "authentic live brief". Illuminative comments included:

"Reality! Actually design for a real situation and people, not just hypothetical."

"Links to a real world brief is brilliant, as this has helped to inspire students."

"Challenging pupils to think about the cost associated with design was very valuable. This was not something that they have done before but I think they learned a lot from it."

In 2015 teachers again highlighted the chance to engage in collaborative design and work in a group as a key value:

"Watching the teams come together and observing their pitches."

"Working to a live brief and particularly the winning pitch team rising to the challenge of really pulling out all the stops to get their presentation and product completed for the deadline."

They also emphasised the benefit of working in a museum setting, accessing products and access to industry expertise:

"A real brief and understanding that their ideas are valued by a professional design organisation."

"The chance to work with and talk to experts in the field of Design. It was great for the students and it was great for colleagues in the department to re-engage with real-world concepts and issues"

"The visit and workshop at the museum. Students found this invaluable in the design ideas process.".

"Excellent administration and help from the DV team"

Teachers were again invited to comment about their experience of running Design Ventura for their students. This attracted 58 comments in total, the majority of which focused on positive aspects of the programme. The thread of these comments is summarised in table 9 overleaf:

Student engagement	55%
Teacher resources & support	18%
Teamwork	27%
Timing issues	8%
Other	4%

Table 9: Teacher comments about running Design Ventura for students

Illuminative comments include:

"For me it has been the openness of the brief, at first the students found it difficult to pin down an idea but once the thought about the potential of the word "Move" they discovered that they could apply it to most things. It was great to see the "lights" switch on once they got it."

"My students really enjoyed this process and experience; it enabled them to be creative without the restraints of exam specifications and achieving grades."

"They loved the online feedback and valued the professional support from the online workshop."

Teachers were also invited to give written comments on how Design Ventura might be improved and/or comments about their experience of running Design Ventura for their students. Their responses fall under the broad themes outlined in table 10.

Timing issues/lack of time	30%
Teacher resources & support /instructions	23%
Workshops/ designer visits	14%
Access to Design Ventura website/videos	7%

Table 10: Teachers comments about how Design Ventura might be improved

The majority of these comments were again about time available, organisation and the timing of certain events, including the project launch. These were typified by the following:

"An incredibly busy half-term and a bit for pupils involved in challenge"

"The resources were useful, it was our first time and difficult with deadline being so soon after half term. It was our first time and we very much left the students to it, I do wonder whether some teachers would support students more?"

"I need to organise myself better to make full use of all the guidance and facilities that you have on offer as I did not use these to their full potential..."

4. CONCLUSIONS: What we found out from Design Ventura 2015

4.1 Overall Impact

Design Ventura 2015 findings reveal that the programme continues to provide a learning experience of the highest quality for those who engage with the activities. Students and teachers have again indicated high levels of satisfaction and enjoyment for all elements of Design Ventura. Overall ratings of the Design Ventura experience remain consistently high and show a year on year increase from 2013. This year 100% of teachers (91% in 2014, 86% in 2013) and 78% of students (72% in 2014, 68% in 2013) rated their experience of the project as good or very good. This represents a 9% increase and a 6% increase in the respective categories

Data analysed in relation to outcome indicators for 2015 confirms that the Design Ventura programme again improved enterprise and creativity skills for the vast majority of participants. The target set was that 60% of participants should experience an improvement of a range of identified enterprise and creativity skills. An improvement > 90% of participants was achieved for all categories These gains were confirmed by the judgements of teachers.

Confirmation of the high level of success against 2015 outcomes indicators is welcome. This is consistent with findings in previous years and provides longitudinal insights into the success of Design Ventura as a blended model of face-to-face and on-line mode learning. This is consistent with the aim to widen participation in Design Ventura without any appreciable reduction in outcomes for participants.

The revised methodology and student survey instrument greatly enhanced the collection, and subsequent analysis, of data concerning student confidence and ambition. 2015 data analysis indicated for the first time that the Design Ventura programme has impacted on all attitudes and attributes, exceeding the 50% target target set for these types of outcomes. 90% of students reported an increase in confidence solving design problems. 93% of participants reported increased confidence in responding to mistakes and criticism. 88% of participants reported Design Ventura had impacted on their ability to recognise the role of study in achieving their ambitions. 87% of participants reported increased focus on future careers, with 87% also reporting that Design Ventura had increased their awareness of the need to plan for this to happen. Again, these gains were confirmed by the judgements of teachers.

Design Ventura 2015 data confirmed also an increase in student's teamwork ability. 91% of students reported that Design Ventura had helped develop their understanding of the value of teamwork, with 89% getting better at working with others. 92% of 2015 participants understand more about how team members have their own strengths and weaknesses.

All the main features of Design Ventura were individually rated highly or very highly by the vast majority of teachers. In particular, working to a real brief, teamwork and combining design and enterprise were rated highly or very highly, by at least 90% of teachers.

Design Ventura also helped to develop teacher capability: 100% of all participating teachers agreed that the programme helped give them a better understanding of how to engage students in learning about enterprise and 100% agreed that it helped give them a better understanding of how to teach enterprise and design together, while 99% of teachers said that they gained a better understanding of what resources and people could be used to support this kind of activity These improvements are confirmed by the responses of students who continue to report

very high levels of satisfaction with the quality of their teaching and learning within Design Ventura sessions taught by their own teachers. In addition, 96% of teachers report that they will look for further opportunities to combine enterprise and design teaching outwith Design Ventura in the future.

4.2 A Sustainable Legacy

For the first time the 2015 evaluation of Design Ventura considers the longitudinal legacy of participating in Design Ventura, through case studies of two previous winning teams: Dove Bunting, winners in 2010, and Card Cogs, winners in 2014. Conclusions from the previous winner case studies indicate that participants lasting impression of Design Ventura is that it had been an invaluable experience which had taught them a range of design and business skills and helped develop their career confidence. Both previous winner groups indicated that participation in a nationwide competition was an important aspect of Design Ventura, allowing them to contextualise their work in a wider community of students.

The Dove Bunting group, winners in 2010, were proud of what they had achieved, including Design Ventura on their CVs and in their Personal Statements. Participation in Design Ventura had impacted on their view and understanding of the designed world, and influenced their choice of career. The Dove Bunting students concluded it was a "unique chance", that they would recommend to everyone.

The Card Cogs team, winners in 2014, reported that participating in Design Ventura had noticeably improved their design work, illustrated by the differences between how they and fellow team members approached product design briefs when compared to peers at school who had not participated in Design Ventura. The students felt that a major impact of Design Ventura was they now had a "much more… critical way of thinking", and were more likely to consider aspects that their peers might neglect when answering briefs. The Card Cogs student reflections indicate an increase in features of confidence and self-efficacy, impacting on both design capability and career ambitions. They report that participation in the competition had developed their understanding of the potential of teamwork and was highly valued by the students. The chance to see their idea "evolve" from concept to saleable product had been a "unique" process that made the design process a tangible and valuable reality. Lastly, both sets of case study participant report the longitudinal impact of Design Ventura in raising the status and profile of Design and Technology in their schools.

As demand for Design Ventura continues to grow, some schools have sustained their participation and new schools have joined. 99.5% of teachers said that they would like to participate in Design Ventura again. 96% of teachers will look out for other opportunities to combine enterprise and design in teaching and only 0.5% of teachers are unlikely to do this kind of project again.

4.2.1 Factors Impacting Participation

Continuing Opportunity to engage in authentic Enterprise and Design

As the curriculum and associated examination system in England and Wales moves away from a focus on creative subjects, such as design, Design Ventura appears to provide an ever rarer opportunity for students and teachers to engage with authentic practice in this area. It continues to address the curriculum areas of enterprise and design together, by identifying a set of learning outcomes that are complementary or common. The increasing take up of Design Ventura demonstrates that the curriculum and learning experience on offer is attractive to more and more schools and the on-line resourcing of the project supports this widening participation. However, there remain some issues with resources and a continued focus on refining these should be maintained.

4. Conclusions contd.

The opportunity to engage with the museum as educator

The Design Museum remains effective in the role of a broker between schools and the worlds of design and business and the move to a new site in 2016 offers an exciting opportunity to consolidate this role. In developing Design Ventura, the Design Museum is continuing to experiment with different forms of communication and interaction with the aim of spreading the benefit of education-work links to more and more learners. However, it is again recommended that focus should be maintained on emerging themes from evaluation to inform strategic development.

Alternative modes of teaching and learning

Design Ventura continues to supplement and compliment the teaching and learning that is going on in schools. This is achieved through providing both an opportunity for authentic design and enterprise, with additional modes of teaching and learning. It continues to offer learning through: object-handling, direct contact with professionals, learning in a museum, role play, project work and real tasks set by a client. Developing and spreading expertise in these modes of teaching and learning remains an important outcome for the project.

4.3 Emerging Themes

The following themes emerged form analysis of Design Ventura 2015 evaluation data:

- A retained focus in 2015 survey questionnaires upon core design competences, such as communicating design ideas, indicates that these continue to be developed through participation in Design Ventura.
- Findings continue to highlight the potential of Design Ventura for application and development of cross-curricular learning e.g. Science and sociology.
- Findings confirmed that the benefits to students of participating in Design Ventura appears to be longitudinal.
- Findings again revealed the potential of Design Ventura in raising the profile and highlighting the value of Design education to the secondary curriculum.
- The importance of Design Ventura has increased as curriculum reform impacts on the opportunity for authentic Design activity in secondary schools.
- The re-designed Design Ventura evaluation methodology appears to be successful in gathering data to support reporting on confidence and ambition and should continue to explore beyond headline findings in order to focus on and support change.
- The redesigned survey questionnaires appear to be effective in minimizing inconsistencies between qualitative and quantitative data.
- Submission of survey questionnaires as a condition of entry greatly enhances submission rates and, consequently, the data set on which to evaluate Design Ventura.

5. RECOMMENDATIONS

The systematic analysis and interpretation of data collected during the evaluation of Design Ventura 2015 have resulted in the following recommendations:

1. Design Ventura remains highly effective in offering an authentic opportunity for Design, achieving success against all key performance indicators. Given the importance of the programme, the Design Museum should continue to consider how to develop and resource the project in the longer-term.

2. In light of teacher concerns around timescale, consideration should continue to be given to ways to quickly and effectively communicate key information to schools.

3. Consideration should continue to be given to how the the Design Ventura evaluation methodology might be developed to provide more detailed insights from a range of stakeholders and contribute to bringing about change.

4. Learning in Design Ventura remains dependent upon the quality of group work. Consideration should again be given to development and assessment of group work capability in design through sharing exemplar approaches and resources.

5. As Design Ventura continues to moves to a more blended approach of face-to-face and on-line learning, it is recommended that some thought be given as to how the richness of face-to-face workshops might be recreated virtually.

6. Data collected in 2015 again highlighted the potential of Design Ventura to offer authentic cross-curricular learning opportunities. Consideration should be given as to how this might be shared with schools to encourage widening participation.

7. Design Ventura continues to be slightly more effective in raising learner's interest for creative rather than in business-related skills. Consideration should continue to be given to ways of integrating business skills more effectively and making them more attractive.

8. Collection and analysis of longitudinal impact data, done for the first time in 2015, offers encouraging insights into the long-term benefit to students of participating in Design Ventura. This should continue to establish whether this is an ongoing trend, rather than a one-off finding.

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Appendix i – Design Ventura Outcome Measurement Framework 2013-2016

Impact Measurement Area	Aim	Outcome Indicators	Anticipated outcomes
1.Skills	To improve enterprise and creativity skills amongst young people (= to increase skills and confidence of learners as they answer a live brief supported by inspiring role models and museum exhibitions and collections)	-Increased creativity -Improved business and economic understanding -Increased teamwork skills -Increased leadership skills -Improved decision-making skills -Improved ability to assess/manage risk	• 60% young people experience an increase in enterprise skills and creativity.
2.Attitudes/Attributes	To increase confidence and ambition amongst young people (= to fire a passion for design amongst young people and connect this to practical next steps that relate to achievement in future careers and education)	-Increased self-confidence. -Increased ability to handle uncertainty -Raised career and education aspirations -Reduction of perceived barriers to success/achievement	• 50% of young people experience an increase in confidence and ambition. • 50% of young people perceive a reduction of barriers to success/achievement.
3. Knowledge and understanding	To increase understanding of business within the design industry (= to provide a real business context for design, informed by designed objects and case studies from industry)	-More business and design professionals actively involved in design-enterprise education -Number of applications to trade at Ventura Pitching Events.	• 60% of young people experience an increase in economic and business understanding. • 60% of participating schools submit competition entries
4. Legacy	To build sustainability through training for teachers/volunteers, partnerships and online resources. (Build lasting relationships with teachers/schools, volunteers and national partners)	- Schools participate in project for two or more years -Participation in online activity and delivery of the project across the UK -Establish national partnerships to provide accreditation and next steps for teachers and learners	• 50% of schools participate in the Ventura programme more than once. • 30 priority schools are supported over three years. • 1 national accreditation partner
5. Qualitative Experience	To provide a learning experience of the highest quality. (=Identify new pedagogic approaches to enterprise education within a museum context that will support the development of Learning at the Design Museum in the longer term)	-Levels of enjoyment amongst all participants -Perceived efficacy of the project in achieving its stated aims -General feedback – comments, quotes etc. gathered from all participants.	• 80% of participants rate their experience of the project as 'good'. • 80% of participants agree that the project achieved its stated aims. • Range of positive feedback collected from cross section of participants.

Appendix ii – Design Ventura 2015 Student Questionnaire

Design Ventura 2015: Student Evaluation

Your Design Ventura feedback is really important to us and by answering the questions below you can help us find out more about how well the project works.

The survey is being carried out by the Design Museum and Goldsmiths College, University of London.

Personal details are only collected so that data can be matched up - personal information will not be included in the analysis or in the reporting. Further information about data protection is available from your teacher.

Your views really matter, so please answer all questions.

Thanks!

The Design Ventura Team

* Required

What is the name of your school *

[   ]

What is the name of your teacher for the Design Ventura project? *

[   ]

Are you male or female? *

○ Female
○ Male

Year Group at School *

○ Year 9
○ Year 10
○ Year 11

Tell us about your Design Ventura experience *

	Very good	Good	OK	Not very good	Not sure
I rate the lessons/time when we worked on Design Ventura at school with the teacher as:	○	○	○	○	○
I rate the					

Workshop at the Design Museum with industry experts as:	○	○	○	○	○
I rate my visit to Design Museum exhibitions as:	○	○	○	○	○

How would you rate your overall experience of Design Ventura? *

	Very good	Good	OK	Not very good	Not sure
I rate my overall experience of Design Ventura as:	○	○	○	○	○

Tell us what you liked best about working on Design Ventura *

Tell us what you liked least about working on Design Ventura *

Tell us how the Design Ventura project has helped you with your designing *

	It's helped me a lot	It's helped me	It's helped me a little	It hasn't helped me at all	I'm not sure if it has helped me
I understand more about how to respond to a design brief	○	○	○	○	○
I am better at explaining my design ideas	○	○	○	○	○
I am better at presenting ideas to others	○	○	○	○	○
I understand more about the					

business side of design (e.g. costs, marketing, profits)	○	○	○	○	○
I understand more about making good business decisions about my designs	○	○	○	○	○
I understand more about how working with others can help achieve more overall	○	○	○	○	○
I understand more about how to get on with others in a team	○	○	○	○	○
I understand more about how team members have their own strengths and weaknesses	○	○	○	○	○
Design Ventura has helped me see what it takes to make my ideas happen	○	○	○	○	○

Tell us how Design Ventura has helped improve your level of confidence and your ambition *

	It's helped me a lot	It's helped me	It's helped me a little	It hasn't helped me at all	I'm not sure if it has helped me
I think I'm less worried about trying to solve design problems	○	○	○	○	○
It's helped me understand that mistakes and criticism can be useful as they help you learn and improve	○	○	○	○	○
It's helped me think about what I can achieve through studying	○	○	○	○	○
I understand more about how I can plan to achieve what I want to	○	○	○	○	○
It's focused my thinking about what kind of skills	○	○	○	○	○

I might want to
use in my future
career

Tell us a bit more about how Design Ventura has changed your interest in the following skills: *

	Increased	Remained the same	Decreased	Not sure
My interest in creative skills, such as designing and making has	○	○	○	○
My interest in business related skills, such as finance or marketing has	○	○	○	○
It's helped me become interested in other skills (tell us what they are in the box below)	○	○	○	○

The other skills I am interested in are...

Tell us a bit more about what you think about your future: *

	I strongly agree	I agree	I disagree	I strongly disagree	I'm not sure
Overall, I feel positive about my future	○	○	○	○	○
I think it's a good idea to make plans for the future	○	○	○	○	○
I feel confident I can achieve what I want to	○	○	○	○	○
But, if I'm going to do this I will need to make a plan	○	○	○	○	○

Appendix iii – Design Ventura 2015 Teacher Questionnaire

Design Ventura 2015: Teacher Evaluation

Your opinions really matter to us and we value you taking the time to contribute to the evaluation of the Design Ventura project. This survey forms part of your final submission, and each of your answers will help us to find out more about how teachers and students experience the Design Ventura project. The survey is being carried out by Goldsmiths College, University of London and the Design Museum. (Our Information Management Policy can be viewed at [http://www.gold.ac.uk/governance/policies/#InformationManagement])

All data collected will be treated as confidential and you will not be contacted or identified unless you give us explicit permission to do (please see web link or information sheet for details).

For further information about this survey you can contact ventura@designmuseum.org

Thanks!
The Design Ventura Team

* Required

Your Name (this information will only be used for authentication purposes and will not be identified) *
First name and surname please

Name of School (this information will only be used for authentication purposes and will not be identified) *

How was the Design Ventura programme delivered in your school? (tick all that apply) *

☐ In lessons
☐ During lunchtime
☐ After school
☐ As an off timetable day
☐ Other

if other please specify

How many students participated in the Design Ventura programme? (Please provide a quantity response) *

[   ]

How have your students gained from Design Ventura?

Tell us a bit about how you think Design Ventura has impacted upon your students' learning in the following areas *

	It's had a big impact	It's had some impact	It's impacted a little	It hasn't had any impact	I'm not sure if it's had any impact
Knowledge and understanding of the design industry	○	○	○	○	○
Responding creatively through the design process	○	○	○	○	○
Assessing materials, production techniques and manufacturing considerations	○	○	○	○	○
Communicating design ideas	○	○	○	○	○
Knowledge and understanding of business aspects of design	○	○	○	○	○
Awareness of product marketing and target audiences	○	○	○	○	○
Reflecting on and modifying ideas	○	○	○	○	○
Considering and responding to issues of ethical and sustainable design	○	○	○	○	○

Tell us a bit about how you think Design Ventura has impacted upon your student's business and personal capabilities in the following areas *

	It's had a big impact	It's had some impact	It's impacted a little	It hasn't had any impact	I'm not sure if it's had any impact
Resilience, flexibility and a 'can do' attitude	○	○	○	○	○

	It's helped a lot	It's helped	It's helped a little	It hasn't helped at all	I'm not sure if it's helped
Team work including shared decision making and collaboration	○	○	○	○	○
Communication skills including discussing, presenting, pitching and using ICT	○	○	○	○	○
Self-confidence	○	○	○	○	○

What have you gained from Design Ventura? What has worked best?

Tell us a bit about how taking part in Design Ventura has helped your practice in the following areas: *

	It's helped a lot	It's helped	It's helped a little	It hasn't helped at all	I'm not sure if it's helped
A better understanding of how to engage students to learn about enterprise and design	○	○	○	○	○
A better understanding of how to plan and teach enterprise and design together	○	○	○	○	○
A better understanding of what resources and people can be used to support the teaching of enterprise and design	○	○	○	○	○

Tell us a bit about how you rate the value of the following features of Design Ventura: *

	Highly valuable	Valuable	Some value	No value	I don't know
Working to a live brief	○	○	○	○	○
Competing with other schools	○	○	○	○	○
Combining design and enterprise learning	○	○	○	○	○

Teamwork	○	○	○	○	○

Tell us a bit about how you rate the value of the following sections of the Design Ventura website *

	Highly valuable	Valuable	Some value	No value	I don't know
Teaching and learning resources	○	○	○	○	○
Short films	○	○	○	○	○
Industry Experts Profiles	○	○	○	○	○
Blog	○	○	○	○	○
Ask the Expert web chats	○	○	○	○	○
Q&A Feature	○	○	○	○	○

Tell us about other resources you used to support Design Ventura *

☐ Products from the Design Museum shop (Design Ventura Handling Collection)

☐ Online CPD

☐ Live Online Student Design Workshop

☐ Idea Surgery Workshop at the Design Museum

☐ Design Museum shop website

☐ Design Museum main website

☐ Visit to the Design Museum exhibitions and shop

☐ Design Ventura e-newsletters

☐ Design Ventura posters

☐ Other resources

If other, please tell us what

Looking forward, tell us a bit about how Design Ventura has encouraged you to engage with enterprise and design *

	Yes, I would like to do this	No, I won't do this	I don't know

I plan to participate in Design Ventura again	○	○	○
I will look out for other opportunities to combine enterprise and design in teaching	○	○	○
I plan to bring students to visit the Design Museum	○	○	○
I will recommend Design Ventura to other teachers	○	○	○
It is unlikely that I will do this kind of project again	○	○	○

If you are unlikely to do this kind of project again, please tell us a bit about why

Tell us a bit about your overall experience of participating in the Design Ventura project *

○ It was very good

○ It was good

○ It was OK

○ It was poor

Tell us how you think Design Ventura could be improved

Tell us if you have any other comments about your experience of running Design Ventura for your students

[ ]

Tell us what you think the outstanding feature of Design Ventura has been for you and your students

[ ]

We might need to clarify some of your survey reponses. Are you happy for us to contact you to do this? *

◯ Yes

◯ No

If yes, please provide your contact details:

Email address

[ ]

Daytime telephone number

[ ]

Thank you for participating in this survey. Good luck in the competition!

Submit

Never submit passwords through Google Forms.

Appendix iv – Design Ventura 2015 Teacher Interview Schedule

Interview Prompts

- What has the impact of Design Ventura Been on your classroom practice?

- Do you think there will be a longer term impact?

- Is Design Ventura important to the learners in your school? Why?

- Is Design Ventura important to you? Why?

- Were there any issues with Design Ventura this year?

- What could be done about them?

- Does Design Ventura impact on the whole school community?

- What do your students tell you/say about Design Ventura

- How does Design Ventura compliment the Design Curriculum in your school?

- Would you miss it?

- Do you think Design Ventura will have a legacy for you? Your students?

- Is there anything else you like to say about Design Ventura 2015?

Appendix v – List of Schools that Participated in the 2015 Evaluation

- Altrincham Grammar School for Girls
- Archbishop Holgate's School
- Beal High School
- BEDFORD MODERN SCHOOL
- Borden Grammar School
- Brentwood School
- Bromley High School for Girls
- Bullers Wood
- Caedmon College, Whitby
- Camden School for Girls
- Caterham High School
- Caterham School
- Central Foundation Boys school
- Charterhouse
- Charters School
- Chigwell School
- Chislehurst and Sidcup Grammar
- City of London Girls School
- Cranleigh Abu Dhabi
- Dame Alice Awens school
- Dartford Grammar School for Girls
- Discovery School
- Endon High School
- Finchley Catholic High School
- Focus Schoo - Ochil Campus
- Fortismere
- Hailsham Community College
- Herts & Essex
- Hitchin Girls' School
- JCoSS
- King Henry VIII School Coventry
- Latymer Upper School
- Les Quennevais School Jersey
- Manningtree High School
- Mayfield Grammar School for Girls
- Medway UTC
- Melksham Oak Community School
- Mill Hill School
- New Hall School
- Newcastle Royal Grammar School
- Norbury Manor Bus & Enterprise College

- Notley High School and Braintree 6th Form
- Orleans Park
- Paddington Academy
- Park House School
- Queen Mary's Grammar School
- RGS Newcastle
- Richard Lander School
- Richmond Park Academy
- RMGS
- Rushcliffe School
- Saint Olaves
- Selly Park Tech College
- Simon langton boys
- St Alban's Catholic High School
- St Albans High School for Girls
- St Anthony's Girls' Catholic Academy
- St Clement Danes School
- St James Catholic HIgh School
- St Laurence
- Swakeleys School For Girls
- SWGS
- The Brittons Academy
- The FitzWimarc School
- The King's School Chester
- The Latymer School
- The priory school
- The West Bridgford School
- Thistley Hough Academy
- Torquay Girls' Grammar
- Townley Grammar
- Trinity Academy
- Upton-by-Chester High School
- Ursuline High School
- Wallington High School for Girls
- Weavers Academy
- Wilmington Grammar School for Girls
- Woking High School

Appendix vi – Pitching Schools 2015

- Caterham High School
- Central Foundation Boys' School
- Dame Alice Owens School
- Finchley Catholic High School
- Orleans Park School
- Park House School
- Royal Grammar School, Newcastle
- South Wilts Grammar School for Girls
- The Hertfordshire & Essex High School and Science College
- Trinity Academy
- Caterham High School
- Central Foundation Boys' School
- Dame Alice Owens School
- Finchley Catholic High School
- Orleans Park School

Goldsmiths
UNIVERSITY OF LONDON

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