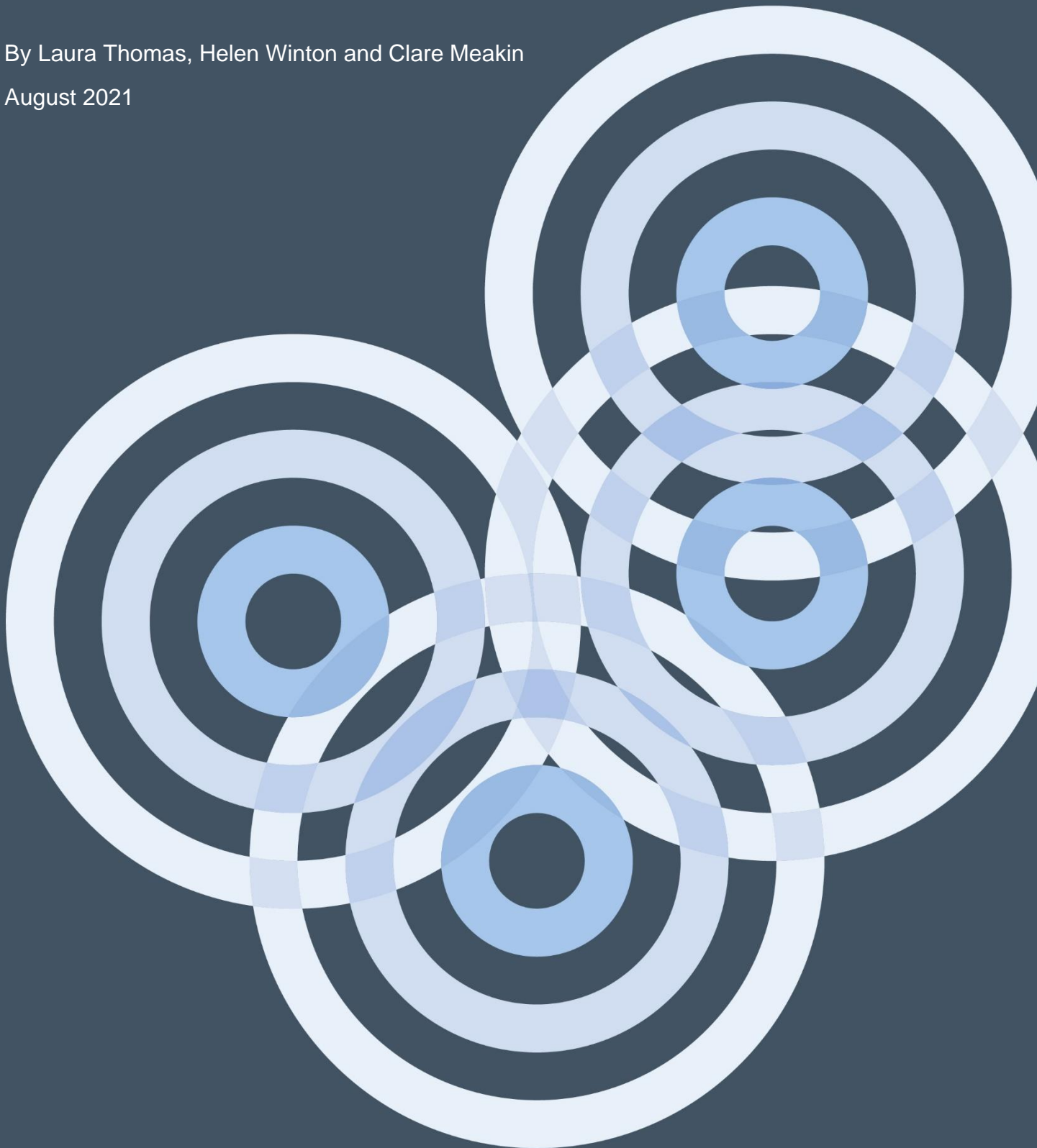




# SHAPE Schools Programme Evaluation Report

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# Executive Summary

## Project Overview

The SHAPE (social sciences, humanities and arts for people and the economy/environment) schools programme is part of a recent wider initiative to bring these subjects together and raise awareness of their impact<sup>1</sup>. The focus for the schools programme in this early phase has been to explore suitable messages around SHAPE for a secondary school audience. Specifically, the schools programme aims to:

1. Increase the visibility of SHAPE subjects in secondary school settings through the creation of SHAPE materials and the training of SHAPE teacher ambassadors.
2. Demonstrate the relevance of SHAPE subjects to people by taking a cross-curricular approach which embeds real-world relevance.
3. Challenge teachers and learners to understand their personal connection with SHAPE.

Above all, the pilot project aims to inspire a positive mindset towards SHAPE subjects by making visible where they happen and the impact they have on people's experiences. The key motivation for the pilot is not how to deliver a schools programme, but rather how the messages and content of the resources impacted on teachers, learners and schools.

Led by the London School of Economics (LSE) and in partnership with the British Academy and other organisations, project team is made up of independent education consultants Lucy Jenkins and Tallulah Machin who have worked in collaboration with Professor Julia Black of LSE and Professor Claire Gorrara of the University Council of Modern Languages.

SHAPE describes a grouping of disciplines with fluid boundaries (social sciences, humanities and the arts), such that individual subjects can fall under more than one area. For example, linguistics is considered by some universities as a humanities subject and by others a social sciences one. The last part of the acronym is concerned with people, the economy and the environment and encourages a consideration of how the disciplines connect with the world and peoples' lives (a list of subjects falling under the SHAPE description can be found in Appendix D).

Work on this pilot programme began in 2020 with the view to developing a framework suitable for both in-school and remote delivery. Eight schools from across the UK completed the programme. The target cohort was years 8 and 9 in England and Wales, S2 and S3 in Scotland and years 9 and 10 in Northern Ireland. There was a general perception amongst teachers participating in this project that the drive to increase the numbers choosing STEM post-16 and

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<sup>1</sup> <https://thisisshape.org.uk/>

at university has had a detrimental impact in terms of the attitudes and aspirations in relation to SHAPE subjects (a list of subjects falling under the SHAPE description can be found in Appendix D). The teachers participating are keen to see parity between SHAPE and STEM, rather than one to be prized above the other.

Teachers took part in a series of training sessions focussing on the SHAPE mindset and were introduced to the methodology underlying the SHAPE materials. Object-based learning is “multisensory engagement with museum collections for the acquisition and dissemination of subject specific and cross disciplinary knowledge, observational, practical and other transferable skills”<sup>2</sup>. The project team have focussed closely on objects which are familiar and accessible to learners, resulting in the SHAPE materials based on shoes, masks and trains with the focus on “*exploring all the potential ways that object interacts with our world*”<sup>3</sup>. Following training, teachers went on to deliver the SHAPE materials to learners. The approach to delivery in schools varied, with some delivering the content all in one day with others spending time on them in lessons across two to three weeks.

## Key Findings

The evaluation methodology was a Mixed Methods approach using a mixture of both quantitative and qualitative methods (surveys, interviews and focus groups). The key findings in relation to the three aims of the schools programme are discussed below.

*Aim 1: Increase the visibility of SHAPE subjects in secondary school settings through the creation of SHAPE materials and the training of SHAPE teacher ambassadors.*

- The aim of the training was around developing teachers as SHAPE ambassadors, however due to the pressures existing within schools due to the COVID-19 pandemic, there was limited time available for this aspect and instead the focus for teachers was on the delivery of the workshops to learners. In terms of the training experience itself, teachers very much enjoyed meeting and collaborating with others outside of their own subject area and from across the UK.
- The training successfully introduced the teachers to the SHAPE schools programme resources and approach and teachers felt confident in being able to go forward to deliver the workshops. There were several instances of teachers sharing the training and resources with colleagues to help with delivering the workshops in school.
- The materials were highly complimented by teachers, but all felt that they were written in an academic style and at a literacy level not suitable and accessible to all of their

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<sup>2</sup> Chatterjee, H.J. and Hannan, L., 2016. *Engaging the senses: object-based learning in higher education*. Routledge.

<sup>3</sup> Jenkins, L. & Machin, T. 2021. *Object-based learning for SHAPE*. Unpublished.

learners. This meant that all schools adapted the materials for their own setting (this was encouraged by the project team from the outset). This included teachers differentiating the content for learners, adapting the format of the materials from Sway to PowerPoint as this was more familiar to them and producing a booklet for learners.

- Teachers considered the project interdisciplinary in nature and recognised the benefits of making connections. There were different approaches in schools in terms of the interdisciplinary nature. For example, in some schools teachers from different subjects would collaborate on the delivery of the workshops, whereas others took responsibility for one workshop and led that, highlighting other subjects during the delivery.
- Many were very appreciative of the opportunity to promote their subject as they feel *“the poor cousin”* to STEM subjects (Teacher, School D). However, one teacher raised a slight concern that the project is compartmentalising SHAPE subjects separately from STEM and would like to see a truly interdisciplinary crossover between all subjects.

*Aim 2: Demonstrate the relevance of SHAPE subjects to people by taking a cross-curricular approach which embeds real-world relevance.*

- Learners had a positive experience in the workshops and felt they were *“doing something a bit different”* (Learner, School D). The object-based learning approach was popular and successfully drove discussions between learners. The *“slow-looking”* activity in particular prompted a lot of discussion between learners and has encouraged them to be more open-minded and allowed the learners to steer the direction.
- Learners were comfortable using the SHAPE acronym and had a good understanding of what it meant.
- The workshops also increased their interest in learning about SHAPE subjects in school, with 67% saying they were *“much more”* or *“a little more”* interested in learning about SHAPE subjects after taking part.
- Learners were able to identify that there were different angles and topics that could be applied to the activities i.e. art, tech, design could all feature in a SHAPE activity. They could also identify that there were links between these subjects and that making these links were important aspects of the whole task. Within the workshops themselves, learners could make links with multiple school subjects.
- Before the workshop, 49% were *“very likely”* or *“likely”* to choose a career involving SHAPE subjects compared to 50% considering a STEM career. Following the workshops, 54% were *“much more”* or *“a little more”* likely to consider a SHAPE-related career. A learner describes the impact on them: previously *“they felt like hobbies to*

*enjoy but not careers. Now I'm thinking a little more about these subjects and considering my strengths within them."*

- There is a significant increase in the intentions around post-16 qualifications, with 58% saying they are "much more" or "a little more" likely to take SHAPE subjects.
- All teachers stated that they really enjoyed the opportunity to lead and facilitate something new and engaging. Object-based learning was new to most and they could readily see the benefit of the open-ended, no wrong answer approach, with many intending on incorporating this into their classroom practice.
- Other ongoing impact included one school planning to introduce a regular timetabled slot for SHAPE projects and in others there was discussion of plans for working in a more interdisciplinary way with colleagues from across the school.

*Aim 3: Challenge teachers and learners to understand their personal connection with SHAPE.*

- Through the workshops learners could see connections between history and culture, for example, and with regards to the creative tasks they were encouraged to see the activity from multiple angles: *"we could see the economic side and then we can see the political and environmental and social impacts on everything"*.
- Learners felt the activities were more driven by their opinions than a *"right answer"*, and that *"having an opinion"* is less likely to be right or wrong than remembering a fact. The learners cited examples of people who wouldn't normally volunteer to speak in a lesson speaking up in the SHAPE workshops because they had confidence in sharing their own opinions and their experiences.
- 56% of learners before the workshops strongly agreed or agreed that they could see connections between SHAPE subjects which rose to 78% after taking part.
- Learners were asked about their hobbies and interests outside of school to get a sense of the levels of participation in a range of activities. Indications are that the workshops have positively impacted on the learners' attitudes to SHAPE. Following the workshops, 51% were "much more" or "a little more" likely to take part in SHAPE-related activities, e.g. museum visits, listening to live music, going to dance classes and 42% were more likely to talk about SHAPE subjects at home or with friends.
- The most enjoyable workshops were those the learners could quickly and easily connect with (shoes and masks) whereas many learners found trains inaccessible because there either wasn't a local train station or even if there was, they may not regularly travel on them.
- In general teachers felt there would need to be a longer term, sustained intervention to have a more meaningful impact. When asked whether learners had developed a

SHAPE mindset, teachers stated that it was in the early “*embryonic*” stage and, whilst awareness had been raised, continual revisiting and reinforcement would be required.

The SHAPE programme is clearly adaptable and suitable for a range of school contexts and can be implemented by a broad range of subject teachers. The findings and impact support the approach of the project team in targeting teachers as SHAPE ambassadors who can embed the SHAPE mindset approach throughout their teaching practice in the longer term to impact on learners’ attitudes and aspirations in relation to SHAPE subjects.

## Recommendations

### Resources:

- a. Use the “modes, methods and mindsets” aspect and object-based learning as the basis for developing a conceptual model or framework describing the SHAPE schools methodology.
- b. Collate the materials developed by the pilot schools and describe how the SHAPE schools programme links to the curriculum across the four nations.
- c. Increase the content relating to careers and link to best practice, working with stakeholders and careers providers across the UK.

### Training:

- d. Revisit the content and structure of the training sessions to streamline the content and focus on the SHAPE contextual model/framework.
- e. Make the opportunity widely available to teachers, ensuring there is the opportunity for schools to network.
- f. Include teachers from the first cohort in the delivery of future training allowing them to share their experiences.

### Marketing and communications:

- g. Develop information available on SHAPE. Teachers were disappointed at the lack of information on the website and a lack of a social media presence.
- h. Consider ways to recognise “SHAPE schools”. Existing awards or marks could inform this or SHAPE activities could be recognised within other programmes.

### Evaluation

- i. The project should establish an evaluation framework to allow ongoing monitoring of the impact of the project, incorporating short, medium and long-term targets for the project.

### Steering group:

- j. Begin the next phase with a more open-ended discussion on the wider issues within SHAPE education.
- k. Diversify the membership of the Steering Group in terms of individual members and the types of organisations participating. For example, this could form part of a stakeholder mapping exercise.

### Future research: there are a number of avenues of potential future research. Including:

- An audit of the uptake of SHAPE subjects post-16.
- The impact of the object-based learning methodology.
- Tracking of learner attitudes and intentions towards SHAPE subjects.
- Teacher confidence in relation to using creativity in the classroom.



## Introduction

The SHAPE (social sciences, humanities and arts for people and the economy/environment) schools programme is part of a wider initiative to bring these subjects together and raise awareness of their impact<sup>4</sup>. The schools programme, and the wider initiative, is in its early phases. The focus for the schools programme has been to explore suitable messages around SHAPE for a school audience. Specifically, the schools programme aims to:

1. Increase the visibility of SHAPE subjects in secondary school settings through the creation of SHAPE materials and the training of SHAPE teacher ambassadors.
2. Demonstrate the relevance of SHAPE subjects to people by taking a cross-curricular approach which embeds real-world relevance.
3. Challenge teachers and learners to understand their personal connection with SHAPE.

Above all, the pilot project aims to inspire a positive mindset towards SHAPE subjects by making visible where they happen and the impact they have on people's experiences. The key motivation for the pilot is not how to deliver a schools programme, but rather how the messages and content of the resources impacted on teachers, learners and schools.

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SHAPE describes a grouping of disciplines with fluid boundaries (social sciences, humanities and the arts), such that individual subjects can fall under more than one area. For example, linguistics is considered by some universities as a humanities subject and by others a social sciences one. The last part of the acronym is concerned with people, the economy and the environment and encourages a consideration of how the disciplines connect with the world and peoples' lives (a list of subjects falling under the SHAPE description can be found in Appendix D).

Work on this pilot programme began in 2020 with the view to developing a framework suitable for both in-school and remote delivery. Schools applied to participate in the project, with the project team selecting against a variety of factors. One aspect was around balancing representation from across the different subjects within SHAPE. For example, the majority of applications were from humanities subjects but the project team were keen to ensure social sciences and the arts were all represented. Fourteen schools applied, with nine being invited

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<sup>4</sup> <https://thisisshape.org.uk/>

to participate and eight completed the programme (information on participating schools can be found in table 4 page 14).

The motivations for applying varied. However, there was a general perception amongst teachers participating in this project that the drive to increase the numbers choosing STEM post-16 and at university has had a detrimental impact in terms of the attitudes and aspirations in relation to SHAPE subjects. In SHAPE pilot schools, STEM subjects are seen as the preserve of high-achievers, rather than open to all. The teachers participating are keen to see parity between SHAPE and STEM, rather than one to be prized above the other.

This evaluation report addresses whether the aims of the schools programme have been met and makes recommendations based on the findings. The following section outlines the methodology used.

## Methodology

The evaluation methodology is a Mixed Methods approach, using a mixture of both quantitative and qualitative methods. Combining both types of data provides an understanding of impact and can also provide insight into why the impact has occurred.<sup>5</sup> This has been particularly beneficial in a small pilot project where the delivery mode across the schools has varied considerably and whilst some variation was expected, the range was greater than expected. A summary of the delivery modes across the schools can be found in table 4 on page 14.

### Surveys

Contextual information about the schools and their learning context, along with the teachers' experiences of training and the learners' experiences of engaging with the resources was captured through a series of surveys.

Method	Purpose
Teacher baseline (captured as part of application process)	To provide a base understanding of attitudes and intentions towards SHAPE subjects; school contextual factors; challenges/issues facing SHAPE; motivation for taking part, etc.
Teacher post-training survey	To gather feedback on the teachers' experience of the training.
Teacher exit survey (end of programme)	To gather feedback on the teachers' overall experience of the project; changes in attitudes; perceptions of pupil engagement etc.
Learner baseline Survey (before doing the resources)	To provide a base understanding of attitudes and intentions towards SHAPE subjects within the cohort completing the resources.
Learner exit survey (end of programme)	To gather feedback on the learners' overall experience of the resources; any changes in attitudes.

*Table 1. Survey summary*

<sup>5</sup> Cohen, L., Manion, L. & Morrison, K. (2018) *Research Methods in Education*. 8th Edition. Abingdon: Routledge

As part of the applications process schools were asked to undertake evaluation activities with thirty learners per school. In some cases the schools included more learners in the activities but only a sub-set of thirty completed the surveys and took part in the focus groups. Early on in the project there were discussions around establishing control groups for comparison but this was ultimately not feasible as there was not enough time and resource allocation within the project to manage this. It was also felt that with the aims of the project being linked to teachers' and learners' impressions of SHAPE subjects, a control group would not necessarily be of benefit. The project team were also very aware of not wanting to put schools under any unnecessary pressures during an already very stressful time. In addition, there were discussions around establishing longer term tracking of learners and schools in order to understand ongoing impact. This was not pursued due to the level of funding required to establish this and due to the uncertainty over whether the pilot programme would continue beyond one year.

The learner survey responses came from all eight schools. In terms of gender: 78 female, 81 male, 4 prefer not to say, 4 non-binary. The number coming from each nation are listed below in table 2.

Year group <sup>6</sup>	S2	Y8	Y9	Y10
Scotland	18			
England		65		
Wales		49		
Northern Ireland			15	21

*Table 2. Split of learner survey responses by nation and year.*

Responses only formed part of the analysis if the learner had completed both the pre- and post-workshop surveys.

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<sup>6</sup> Years 9 & 10 in Northern Ireland are equivalent to Years 8 & 9 in England and Wales and in Scotland, S2 is equivalent to Year 8 in England and Wales.

## Interviews and focus groups

All eight schools were targeted for participation in interviews and focus groups.

Method	Purpose
Post-project interviews with teachers	How participation in the project has impacted on them and their schools. All schools participated. Two extended interviews were conducted with teachers and these went into more detail on the use of the resources and how they were implemented as part of workshop delivery. This was in place due to the lack of access to schools for observations.
Focus groups with learners	What has been their experience of the project and how they see SHAPE following participation. Five focus groups ran with 6 learners in each. Two schools were unable to participate due to the workshops taking place close to the end of the summer term and one school was unable to persuade learners to participate, due to a lack of confidence talking to people outside of the school.
Interviews with stakeholders	Stakeholders from industry, education and the museums sector were interviewed about their experiences with the project.
Interview with project team and other relevant stakeholders.	This interview involved discussions of the development and delivery of the project.

*Table 3. Focus group and interview summary*

As summarised in the introduction, eight schools completed the programme. Selected details are shared in table 4 with the schools themselves being kept anonymous and coded.

	UK nation	Number of teachers involved in delivery	Cohort	Delivery mode
School A	Scotland	4	Full year group.	In person: 3 x 80 minute lessons over three weeks.
School B	Northern Ireland	2	Class of learners selected.	In person: 3 x 6 hours (one workshop per day).
School C	Northern Ireland	2	Class of learners selected.	In person: 3 x 3 hours (across 3 consecutive days).
School D	Wales	3	Class of learners selected.	In person: 2 lessons per workshop, with one lesson per week.
School E	England	8	Full year group.	In person: all workshops delivered in one day.
School F	Wales	2	Class of learners selected.	In person: 2 hours per workshop.
School G	England	2	Class of learners selected.	In person.
School H	England	2	Class of learners selected.	In person: 3 workshops in one day.

*Table 4. Summary of school codes and information on delivery of project in each school*

## **Ethics**

The SHAPE project team followed the London School of Economics' ethical approval process. Parental consent was required for all participating learners and for teachers, stakeholders and the project team participating in interviews informed consent was sought. A data sharing agreement was in place between LSE and Ondata Research in compliance with GDPR requirements.

## **Data analysis**

Data collection was undertaken by three evaluation team members (one focussed on teachers, one on learners and another on the project team and stakeholders), with analysis carried out separately in the first instance with findings then discussed collectively. Thematic analysis has been used to review all qualitative data, including the open-ended survey responses, interviews and focus groups<sup>7</sup>. The findings arising from the analysis of data are discussed in detail in the following sections.

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<sup>7</sup> Braun, V., Clarke, V. (2019) Reflecting on reflexive thematic analysis, *Qualitative Research in Sport, Exercise and Health*. 11:4, 589-597

## Results and Discussion

The aims of the schools programme are to:

1. Increase the visibility of SHAPE subjects in secondary school settings through the creation of SHAPE materials and the training of SHAPE teacher ambassadors.
2. Demonstrate the relevance of SHAPE subjects to people by taking a cross-curricular approach which embeds real-world relevance.
3. Challenge teachers and learners to understand their personal connection with SHAPE.

In the following sections each of these aims will be addressed in turn with the results being drawn from a range of different sources, as outlined in the methodology.

### **Visibility of SHAPE subjects**

*Aim: Increase the visibility of SHAPE subjects in secondary school settings through the creation of SHAPE materials and the training of SHAPE teacher ambassadors.*

#### **SHAPE materials**

The SHAPE materials were developed by the project team in order to be flexible with regards to the mode of delivery, e.g. they could be delivered online or face to face. Across the whole of the project, teaching circumstances varied significantly from school to school and could change quickly. For example, schools would move to online delivery if year group bubbles were required to isolate. Or there may be the situation where smaller numbers of learners were isolating. However, when the delivery window in June 2021 arrived, all schools were able to deliver in person, although there were of course restrictions in place with regards to wearing masks and maintaining social distancing. This all had to be accounted for as part of the planning and preparation.

The cohort targeted was Year 8 or Year 9 (England and Wales) and the equivalent in Scotland (S2 and S3) and Northern Ireland (Years 9 and 10). Teachers were allowed to choose which learners should participate based on their own judgement. Two schools delivered to a whole year group, others chose classes they knew well or those where all teachers participating in the project were timetabled to teach the same class.

The methodology underlying the SHAPE materials is object-based learning. The project team have used the following description to provide context for the approach: Object-based learning is “multisensory engagement with museum collections for the acquisition and dissemination of subject specific and cross disciplinary knowledge, observational, practical and other

transferable skills”<sup>8</sup>. However, the project team have focussed closely on objects which are familiar and accessible to learners, resulting in the SHAPE materials based on shoes, masks and trains with the focus on “*exploring all the potential ways that object interacts with our world*”<sup>9</sup>.

As part of the wider policy context for the project, the concept of cultural capital is discussed within this report. In England, Ofsted has introduced it as part of their inspection framework. Ofsted describe their definition as:

*“the essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement.”*<sup>10</sup>

There are various sources discussing the inclusion of cultural capital within the inspection framework in terms of the origin of their definition and approach<sup>11</sup> and what it means for schools<sup>12</sup>. Amongst the schools participating in the pilot programme there seems to be confusion around the definition of cultural capital and how to position their learners in relation to the concept (as part of the applications process schools were asked for their assessment of their learners’ cultural capital to provide some additional context for the SHAPE project team). For some teachers it does seem linked directly to cultural experiences, e.g. the opportunity to visit museums and art galleries or go to the theatre. Whereas for others it maps more closely to the role of teachers to support learners to “*function as well-informed individuals well after they leave school*”<sup>9</sup>. Whilst the SHAPE schools programme was not focussed on supporting an individual school’s understanding of cultural capital, each of the three aims of the programme (to increase visibility and relevance of SHAPE subjects whilst highlighting personal connections to SHAPE) supports an increase in cultural capital in terms of developing well-rounded learners. In Scotland and Wales the aims of the SHAPE schools programme particularly supports the four capacities and four purposes of Curriculum for Excellence and Curriculum for Wales respectively.

In the early phases of development, the SHAPE materials were made available to all Steering Group members for comment, with stakeholders able to take the opportunity to comment on the style and content. Only one stakeholder provided detailed feedback on the resources. For

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<sup>8</sup> Chatterjee, H.J. and Hannan, L., 2016. *Engaging the senses: object-based learning in higher education*. Routledge.

<sup>9</sup> Jenkins, L. & Machin, T. 2021. *Object-based learning for SHAPE*. Unpublished.

<sup>10</sup> Ofsted (2019) School inspection update. Available:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/772056/School\\_inspection\\_update\\_-\\_January\\_2019\\_Special\\_Edition\\_180119.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/772056/School_inspection_update_-_January_2019_Special_Edition_180119.pdf)

<sup>11</sup> Cultural Learning Alliance (2019) *What is cultural capital?* Available:

<https://culturallearningalliance.org.uk/what-is-cultural-capital/>

<sup>12</sup> Riches, A. (2019) What does Ofsted mean by 'cultural capital'? *Times Education Supplement* Available:

<https://www.tes.com/news/what-does-ofsted-mean-cultural-capital>



each of the workshops there were no defined learning outcomes, instead the purpose was linked to the broader aims of the project of awareness raising around SHAPE subjects. Feedback from one stakeholder in particular was around the lack of learning outcomes but this did not seem to be an issue for teachers or learners. The lack of learning outcomes allowed freer discussions in school which followed the interests of the learners, this is discussed further on page 22. The aim for the project team was for the learners “*to experience*” the workshops and to be inspired by them.

The project team described the underlying object-based learning methodology as one where “*culture intersects with modern politics and language*”, rather than being from a purely anthropological or historical perspective. They were very aware that many of the learners would have low cultural capital and not necessarily have had the opportunity to visit museums and art galleries.

The SHAPE materials consisted of three different workshops with the topics being shoes, masks and trains. There are activities within each topic to encourage discussion allowing the learners to explore aspects they are interested in.

- Masks – discusses the role of masks with regards to four aspects: performance, personal expression, protest and protection.
- Shoes – prompts consideration of the place of shoes in our lives in terms of culture and identity, branding, environmental impact and shoe poverty.
- Trains – these were considered in the following contexts: socio-economic development, literary representation and environmental impact.

In each workshop there were a series of activities and discussion points beginning with a slow looking task and concluding with a creative task. It was up to schools how to deliver the workshops in practice.

### ***Teacher training***

The project team designed the training so that it modelled the facilitation approach they wanted the teachers to use when delivering the workshops in schools. Three of the four sessions were developed and led by the project team with one (Facilitation: tips and tricks) being brought together by an external facilitation specialist from industry. The focus was less on the practicalities of delivery but more around the “modes, methods and mindsets” relating to SHAPE. This meant discussing the underlying methodologies with teachers, e.g. object-based learning, and providing examples of how it is applied in the materials. An example from the training is shown in figure 1.

👉 **Mode:** images and discussion

👉 **Method:** slow looking; activating prior knowledge; responding to images; communicating ideas and emotions; linking and lateral thinking; forming opinion; intercultural competence

👉 **Mindset:** Though all trains share the same purpose of transporting people and goods from one place to another, they do not all have the same design or approach. Trains have developed over time and look different around the world.

Figure 1. An example of modes, methods and mindsets<sup>13</sup>

In their interview, one of the project team members summarised their approach to the training: *“We want to encourage discussion so it's not about us telling them our ideas, but about them working together to hear each other's voices and each other's perspectives”*.

As part of the training, teachers were asked to complete some asynchronous offline learning, although only a small number completed this due to time constraints. There was an emphasis on the role of the teachers as facilitators in order to ensure the ownership of the experience sat with the learners themselves, so the discussion and the activities could flow along the lines of interest to the learners.

The project team describes this approach further: *“it's about creating space, stimulating dialogue and encouraging dialogue, not dominating dialogue, taking that back seat”*.

Teachers found the training to be *“Thoroughly enjoyable, thoroughly well prepared, resourced and well delivered”* (Teacher survey comment).

The main piece of feedback from teachers was based around the time spent in the training session on preparing for delivering the workshops. The training was there to support the teachers' development as SHAPE teacher ambassadors but due to the limited time available, teachers were concentrating on the practicalities of delivering the SHAPE materials and wanted to focus their time on this aspect. With regards to the “Facilitation: tips and tricks” session, the majority of teachers interviewed felt this was unnecessary. Several of the teachers spoke about how they already used facilitation as part of their practice (particularly those who have writing and discussion as a strong part of the subject, e.g. history, geography and social sciences teachers) and would have preferred more time being able to discuss how to run the sessions and develop their ideas in collaboration with the other teachers.

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<sup>13</sup> Jenkins, L. & Machin, T (2021) Modes. Methods. Mindsets. Unpublished.

In terms of what worked best in the training, the opportunity for collaboration with other teachers was the most common response, particularly the discussion and sharing ideas via the tasks for the break-out rooms:

*“The collaboration was useful and it was good to reflect on your own teaching methods with like-minded teaching staff.”* (Teacher survey comment).

The training successfully introduced the teachers to the SHAPE schools programme resources and approach and teachers felt confident in being able to go forward to deliver the workshops. Following the training, the project team were there to answer questions arising and they kept in touch with schools to ensure they were able to deliver the workshops in the timeframe and also were able to get the parental permissions in place and ensure the learners completed the necessary surveys, etc.

### ***Delivery in schools***

All of the SHAPE materials, whether for the teachers or learners, were made available in Microsoft Sway. However, only one school used Sway throughout the delivery of workshops to learners and they had been part of an earlier user testing phase with the project team. There seems to have been an unfamiliarity with Sway and teachers reverted to using Microsoft PowerPoint because both they and their learners are *“used to it”*. Some schools who had laptops and computer labs during the workshops gave their learners access to the resources on Sway and two teachers used it as part of their session but teachers mainly relied on PowerPoint. In general, there seems to have been a misunderstanding around the use of Sway. It was purposefully chosen by the project team to provide an exploratory and interactive experience for learners and flexibility with regards to delivery mode. However, many of the schools seemed to be under the impression that they needed to have a laptop or computer available for each individual learner and many commented during the interviews that the IT equipment was not available to them. Indeed, the project team had intended for the teachers to be able to use Sway on a whiteboard or projector to help guide the workshop or for learners to follow individually. Unfortunately, only one school contacted the project team about converting from Sway to PowerPoint, other schools reported this as part of the evaluation process. If they had known, the project team would have been able to provide further support to the schools in doing this. The project team had a positive experience using Sway with another initiative based in Wales<sup>14</sup> with over seventy schools but in this case teachers have used what was familiar. The SHAPE programme schools were encouraged by the project team to adapt the resources for their own setting and this may have further supported the

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<sup>14</sup> MFL Student Mentoring. Available: <https://mflmentoring.co.uk/>

teachers' decision to move to PowerPoint. The teachers found the project team to be supportive and responsive to queries and questions and it is therefore unfortunate that schools did not communicate the change in delivery format to them. Time was perhaps a factor, given that the training and delivery of the workshops had to be carried out within the space of a month.

The resources were highly complimented by teachers, but all felt that they were written in an academic style and at a literacy level not suitable and accessible to all of their learners. For the target cohort there was significant time lost in school due to the COVID-19 pandemic and the impacts of the school closures were still emerging, so whilst the project team worked hard to anticipate the effects this would have on learners, issues such as reduced literacy levels were still emerging and indeed, it wasn't raised as part of the user testing<sup>15</sup>. Some teachers mentioned that they did not have adequate time to collect their own resources to accessorise the workshops and others mentioned it was not possible to use artefacts due to COVID-19 restrictions. For those that used only the provided photographs for the slow looking activity they did note that physical items would have been greatly beneficial but this was outside of the control of the project team. COVID-19 restrictions meant that in some schools, delivery was classroom-based. This was noted as being less than ideal, especially when all three workshops were scheduled in one day. Some schools were able to secure a range of delivery venues including art rooms, computer suites and auditoriums and this latter open space option appeared to work well compared to sitting at regular classroom desks.

In all schools, learners were mixed into groups that they would not normally work with. They enjoyed working with others and through the more discussion-based activities they liked being able to share the responsibility of the outcome with others.

*"It was fun to work with new people from classes that we hadn't really worked with before"*  
(Learner, School E).

All schools produced some sort of booklet or handout and felt that learners needed something tangible as a guide or record of activity. It was mentioned that this would also help facilitate discussions with parents and carers. The project team had invested significant time around ensuring the layout and design of the resources were accessible and this was reviewed with learners as part of the user testing process and it is unclear how much of this was maintained in the materials adapted by the schools. All teachers commented that the intervention was pitched at an appropriate time of year and year group i.e. prior to them making subject choices

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<sup>15</sup> Jenkins, L. & Machin, T. (2021) SHAPE Schools Programme UX Report 2021. Unpublished.

for GCSEs or Nationals. Accommodating such an intervention at other times within the school calendar would present a challenge for all schools.

Teachers considered the project interdisciplinary in nature and recognised the benefits of making connections. However, there were different approaches in schools in terms of the interdisciplinary nature. For example, in some schools teachers from different subjects would collaborate on the delivery of the workshops, whereas others took responsibility for one workshop and led that, highlighting other subjects during the delivery. Many were very appreciative of the opportunity to promote their subject as they feel *“the poor cousin”* to STEM subjects (Teacher, School D). However, one teacher raised a slight concern that the project is compartmentalising SHAPE subjects separately from STEM and would like to see a truly interdisciplinary crossover between all subjects. The subsequent sessions look more closely at the impact of this approach in schools.

### **Relevance of SHAPE subjects**

*Aim: Demonstrate the relevance of SHAPE subjects to people by taking a cross-curricular approach which embeds real-world relevance.*

#### ***Learner impressions of the workshops***

Teachers made a concerted effort to raise the profile of the opportunity with both learners and parents. For example, in the correspondence sent home they mentioned the connection with LSE and the British Academy and the prestige of being part of a pilot. In one school, the teacher explained it was a pilot project similar to STEM enrichment programmes. Learners who were already part of a STEM club so were familiar with multiple subjects coming together for a day or for an activity, although learners were surprised to learn that *“STEM wasn’t always a thing”* (Teacher, School B).

Through discussions with learners in the focus groups there was a definite sense of participation in the SHAPE workshops as being a positive experience. The general impression was of *“doing something a bit different”* (Learner, School D). In particular, the discussion prompted by the object-based learning and slow looking approach was popular. Learners were comfortable using the SHAPE acronym in the discussions about the workshops and they had a good understanding of what it meant, describing it as a collective group of subjects that fit together. In terms of their experience, learners seemed to have a preference for participating in the workshops over multiple weeks or days to allow them time to *“process”* as *“sometimes too much knowledge can just overwhelm you”* (Learner, School A).

The workshops also increased their interest in learning about SHAPE subjects in school, with 67% saying they were “much more” or “a little more” interested in learning about SHAPE subjects after taking part. Summary in table 5 below.

Question	Survey	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I find learning about SHAPE subjects in my school interesting.	Pre	10% (n=17)	54% (n=90)	32% (n=53)	2% (n=4)	2% (n=4)
I find learning about SHAPE subjects in my school fun.	Pre	9% (n=15)	45% (n=75)	39% (n=65)	4% (n=8)	3% (n=5)
		Much more interesting	A little more interesting	The same	A little less interesting	Much less interesting
After the workshops, how interesting do you find learning about SHAPE subjects in school?	Post	27% (n=46)	40% (n=68)	21% (n=35)	6% (n=10)	4% (n=6)
After the workshops, how fun do you have learning about SHAPE subjects in school?	Post	23% (n=39)	45% (n=76)	22% (n=37)	2% (n=4)	5% (n=9)

Table 5. Interest in learning about SHAPE subjects in school. Source: pre- and post-participation surveys.

In terms of the experience of learners, they talked about two approaches in the focus groups: either the teachers gave them a variety of activities they could choose from or there was a set activity for everyone to do at the same time. However, the activity had minimal input/instruction from the teacher. In general, when they were given a task, learners were given the freedom to decide how they wanted to carry it out. In the focus groups learners described how they had to work together to find consensus in the group in order to complete tasks and throughout the discussion there were frequent differences of opinion. The “slow-looking” activity in particular prompted a lot of discussion between learners and has encouraged them to be more open-minded and allowed the learners to steer the direction. One teacher noted:

“[the discussions] *could have gone on for a long time*” and “*they were making all the links to society and other subjects and businesses without us telling them anything. It was just coming out of the discussion from themselves, which was exactly what we wanted to happen.*” (Teacher, School F).

Learners were able to identify that there were different angles and topics that could be applied to the activities i.e. art, tech, design could all feature in a SHAPE activity. They could also identify that there were links between these subjects and that making these links were important aspects of the whole task. Within the workshops themselves, learners could make links with multiple school subjects. This was further emphasised by the use of “logos” for key subjects chosen by the project team, e.g. paintbrush icon indicating art content.

*“I definitely see more subjects now like in geography or history. I can see the other subjects that are in that that we’re learning about at the same time, not just history.”* (Learner, School E).



Figure 2. Example icons indicating the relevant subjects within the SHAPE materials

In terms of the sessions which were most popular, masks and shoes were preferred over trains as they were felt to be more relatable and relevant. Many learners hadn’t travelled on a train before, nor did they necessarily have access to one locally. This finding was consistent across the survey responses (see table 6 below) and focus groups.

*“You aren’t really going to go on trains much anymore. Because of COVID. The masks one I understood, we’re wearing those at the minute, and the shoes, I understood as well. But the trains one just stood out in my opinion”* (learner, School D).

	Masks	Shoes	Trains
Which of the workshops did you enjoy the most?	52% (n=87)	28% (n=47)	18% (n=31)
Which of the workshops did you enjoy the least?	15% (n=26)	26% (n=44)	56% (n=94)

Table 6. Most/least enjoyable workshops indicated by learners in post-workshop survey responses

The workshop topics allowed learners to discuss issues of interest to them. Some teacher observations are below:

- *“It was a really good opportunity to address misconceptions because we were looking at the Masks as a form of protest and that led into a discussion of Black Lives Matter. Our students really loved to have discussions about things that are going on in the world. So for us, it was a brilliant [opportunity] to kind of increase awareness, but also address misconceptions. It’s massively important for us to do that”.* (Teacher, School H).
- *“Learners were all very respectful of each other. And they were, without even us leading it, having a conversation between themselves across the room after we posed the question of the task, which was really quite nice. There were a few that were at times a little dominant maybe and wanting to answer, but not in a horrible, intimidating way. They were just really eager”.* (Teacher, School F).

By pursuing topics of interest, learners felt able to relax and go wherever the discussion led and it was a different experience to a normal lesson:

*“You might not get all the objectives done, but you enjoy yourself, you might think differently about things, about subjects than you do in a lesson, which I think is good.”* (Learner, School G).

### **Learner career intentions**

One of the other aspects explored with learners, was their career intentions. There was, unsurprisingly, a significant amount of uncertainty around career choice amongst the cohort: 45% were unsure pre-workshop, dropping to 36% post-workshop.

Question	Survey	Yes	Not sure	No
Do you know what career you want to go into?	Pre	46% (n=77)	45% (n=75)	9% (n=15)
	Post	51% (n=85)	36% (n=60)	12% (n=20)

Table 7. Learner career intentions

Before the workshop, 49% were “very likely” or “likely” to choose a career involving SHAPE subjects compared to 50% considering a STEM career. Following the workshops, 54% were “much more” or “a little more” likely to consider a SHAPE-related career. Table 8 summarises learners’ intentions towards careers. One of the learners commented on the impact on their career intentions:

*“I really enjoyed this :) I never really understood the significance in the long-term of SHAPE subjects, they felt like hobbies to enjoy but not careers. Now I’m thinking a little more about these subjects and considering my strengths within them.”* (Learner survey response).



Pre-workshop:	Very likely	Likely	Neither likely nor unlikely	Not likely	Not very likely
How likely are you to choose a career that involves SHAPE subjects?	14% (n=23)	35% (n=59)	40% (n=68)	7% (n=11)	4% (n=6)
How likely are you to choose a career that involves STEM subjects (science, technology, engineering and maths)?	15% (n=26)	35% (n=59)	27% (n=46)	17% (n=29)	4% (n=7)
Post-workshop:	Much more likely	A little more likely	The same	A little less likely	Much less likely
After the workshops, how likely are you to choose a career that involves SHAPE subjects?	21% (n=36)	33% (n=55)	35% (n=58)	5% (n=9)	4% (n=7)
After the workshops, how likely are you to take SHAPE subjects for Nationals/GCSEs?	18% (n=31)	40% (n=67)	35% (n=58)	1% (n=1)	5% (n=8)

Table 8. Learner intentions towards careers and qualifications

It is interesting to see the positive influence the content has had on the learners, particularly given the limited explicit references to careers in the workshops. Although touched on, few schools had enough time to spend on discussing careers and teachers agreed that this was a missed opportunity. The careers aspect was addressed as part of the creative tasks but not all schools were able to complete all three. Given additional time this aspect could be built on with potential support from external speakers. All schools appreciated the value outside professional/experts could bring although again it was stated that time would be required to build meaningful relationships and appropriate impact with those acting as 'SHAPE Ambassadors'.

Consideration of the involvement of parents and families in future iterations of the project will be needed. From the learner focus groups there was a very strong sense of the influence of family on qualification and career choices and there were regular mentions of high-profile role models, particularly sportspersons, having an influence. This is an aspect which could be addressed through having 'SHAPE Ambassadors' available to schools.

There is a significant increase in the intentions around post-16 qualifications, with 58% saying they are "much more" or "a little more" likely to take SHAPE subjects. This has of course been a short-term intervention so far, but there is the potential to explore this aspect further and track whether these intentions are maintained in the longer term. However, the content of the programme has clearly supported learners' understanding of what SHAPE subjects and careers can do for them, therefore providing the potential for longer term impact even following a short, but high quality, intervention.

### ***Interdisciplinary learning***

When asked if challenged by the approach and content of the SHAPE project, all teachers stated that they really enjoyed the opportunity to lead and facilitate something new and engaging. Object-based learning was new to most and they could readily see the benefit of the open-ended, no wrong answer approach, with many intending on incorporating this into their classroom practice.

The SHAPE programme is clearly adaptable and suitable for a range of school contexts and can be implemented by a broad range of subject teachers. In terms of subject areas, some teachers commented on the suitability of the SHAPE approach in disciplines where there was already a lot of writing and discussion, such as history and R.E. However, there were a range of subject areas represented in this pilot and all felt confident in delivering the SHAPE materials and taking on the role of facilitator. The main difference being some subject areas already use facilitation as a regular teaching pedagogy. Teachers whose subject wasn't explicitly mentioned within the SHAPE acronym, did not feel out of place:

*“Although our subjects were not huge aspects of any of the projects [e.g. shoes, masks and trains] we really, really enjoyed the delivery. It wasn't something that we felt out of our depth with and was definitely cross curricular with lots and lots of different aspects coming in. And that was very clear to the students as well. They sort of very quickly picked up on that”.* (Teacher, School F).

Being part of an interdisciplinary group was of benefit:

*“I felt stretched”, “I quite like being out of my comfort zone to be honest. We get too comfortable within our own subjects”* (Teacher, School H).

### ***Ongoing impact***

In the interviews many of the teachers mentioned integrating the SHAPE approach into their future teaching and all expressed great interest in continued involvement in the SHAPE programme. For example, one school is planning a timetabled slot dedicated to SHAPE-related projects. In terms of building on the initial work of the pilot, several teachers commented that there was an intention to include more teachers and subject areas in the future and it was lack of time which had been the barrier to this so far. In one school, they have more confidence collaborating with colleagues from other subjects:

*“We have already started discussions on how we can make more links between our two subjects within the curriculum for next year. And that's all come off the back of working with the SHAPE project because it's just given us a lot more ideas of how it actually can work. Those positive things have already happened.”* Teacher O, School F.

Based on the survey responses, 100% of teachers would recommend the training to others. Teachers commented that SHAPE has relevance across subject areas and this training will raise awareness of its importance with colleagues both within and beyond SHAPE subjects.

Importantly there was support from Senior Leadership Teams to expand the involvement in SHAPE. Some had already undertaken training of colleagues but this was focussed directly on the practicalities of delivering the workshops and time for the context and detail on the modes, methods and mindsets would have been limited. Other schools are motivated to continue working to embed SHAPE to ensure their learners have a range of options:

*“I definitely think in a school like ours that additional SHAPE style input would be beneficial to the learners, to get a feel of options, because sometimes, if they're not STEM inclined and they aren't good at STEM subjects, they're just sort of lost”. Teacher G, School C.*

Making connections with others also extended to meeting teachers from across the four nations of the UK, which teachers found *“useful”*. All teachers *“found [the training] useful to learn about other subjects' approaches to teaching”* (62% strongly agree, 38% agreed). This was further discussed with teachers in their interviews:

*“The training itself was very good at just raising awareness of how easy it is to link with other subjects. When you go looking for cross curricular links, they're everywhere but you don't tend to look for them unless somebody tells you to”* (Teacher, School B).

Learners and teachers have enjoyed the cross-curricular and interdisciplinary approach, with impact on learners in terms of interest in SHAPE subjects and careers whereas teachers enjoyed working with those from other subject areas. Schools are keen to build on the start provided by participating in the SHAPE schools programme. The following section looks more closely at the connections made by learners and teachers between themselves and SHAPE.

## Personal Connection with SHAPE

*Aim: Challenge teachers and learners to understand their personal connection with SHAPE.*

One of the aims of the workshops was to encourage learners to see the connections between SHAPE subjects and their own lives and learners were able to make these connections. They could see connections between history and culture, for example, and with regards to the creative tasks they were encouraged to see the activity from multiple angles:

*“We could see the economic side and then we can see the political and environmental and social impacts on everything” (learner, School E).*

Another example can be drawn from a comment from one of the teachers in a survey response: *“Students particularly enjoyed learning about masks as a form of protest - they enjoyed a discussion about expressing politics in the workplace and were able to mirror their experience of politics in the North of Ireland”.*

In particular, learners identified connections between the activity and things they already use or have a good awareness of, e.g. in the shoes workshop they commonly discussed trainers and in the masks workshop they discussed COVID masks. This was one of the drivers for choosing masks, shoes and trains; the project team wanted learners to be able to connect to them immediately and to then extend their understanding and curiosity.

Learners felt the activities were more driven by their opinions than a *“right answer”*, and that *“having an opinion”* is less likely to be right or wrong than remembering a fact. The learners cited examples of people who wouldn't normally volunteer to speak in a lesson speaking up in the SHAPE workshops because they had confidence in sharing their own opinions and their experiences. There was also more emphasis on the discussion aspect than in more *“regular”* lessons:

*“Everyone can say what they wanted [in the workshop] and say what they thought instead of being judged. Usually in the classroom there's a lot of people and then the teacher moves on and you don't really get your say. But with this, everyone got to say what they wanted to say” (learner, School G).*

The survey responses indicated learners were more able to see more connections between SHAPE subjects in school and in their daily life:

- 56% of learners before the workshops strongly agreed or agreed that they could see connections between SHAPE subjects which rose to 78% after taking part in the workshops.

- There was a smaller increase in those seeing connections to their daily life with the pre-workshop responses of strongly agree and agree at 50%, rising to 55% post-workshop. A full description of the responses to these questions can be found in table 9.

Question	Survey	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I can see connections between the different SHAPE subjects in school.	Pre	7% (n=11)	49% (n=82)	35% (n=59)	6% (n=10)	3% (n=5)
	Post	24% (n=41)	54% (n=90)	14% (n=24)	4% (n=7)	2% (n=3)
I can see connections to SHAPE subjects in my daily life.	Pre	8% (n=14)	42% (n=71)	38% (n=64)	7% (n=13)	3% (n=5)
	Post	16% (n=27)	39% (n=65)	36% (n=60)	6% (n=10)	2% (n=3)

*Table 9. Attitudes towards SHAPE subjects. Source: pre- and post-participation surveys.*

As part of the pre-workshop survey learners were asked about their hobbies and interests outside of school to get a sense of the levels of participation in a range of activities. A summary of the responses can be found in figure 3. Learners were asked to answer based on their pre-COVID activities. Responses are ordered according to the responses to “very often” (low to high). Social media, YouTube and watching television were the responses with the highest proportion of “very often” whilst it was very unlikely for the majority of learners to visit art galleries, museums or science centres.

The experiences of two schools are explored further in case studies in Appendix C on page 44.

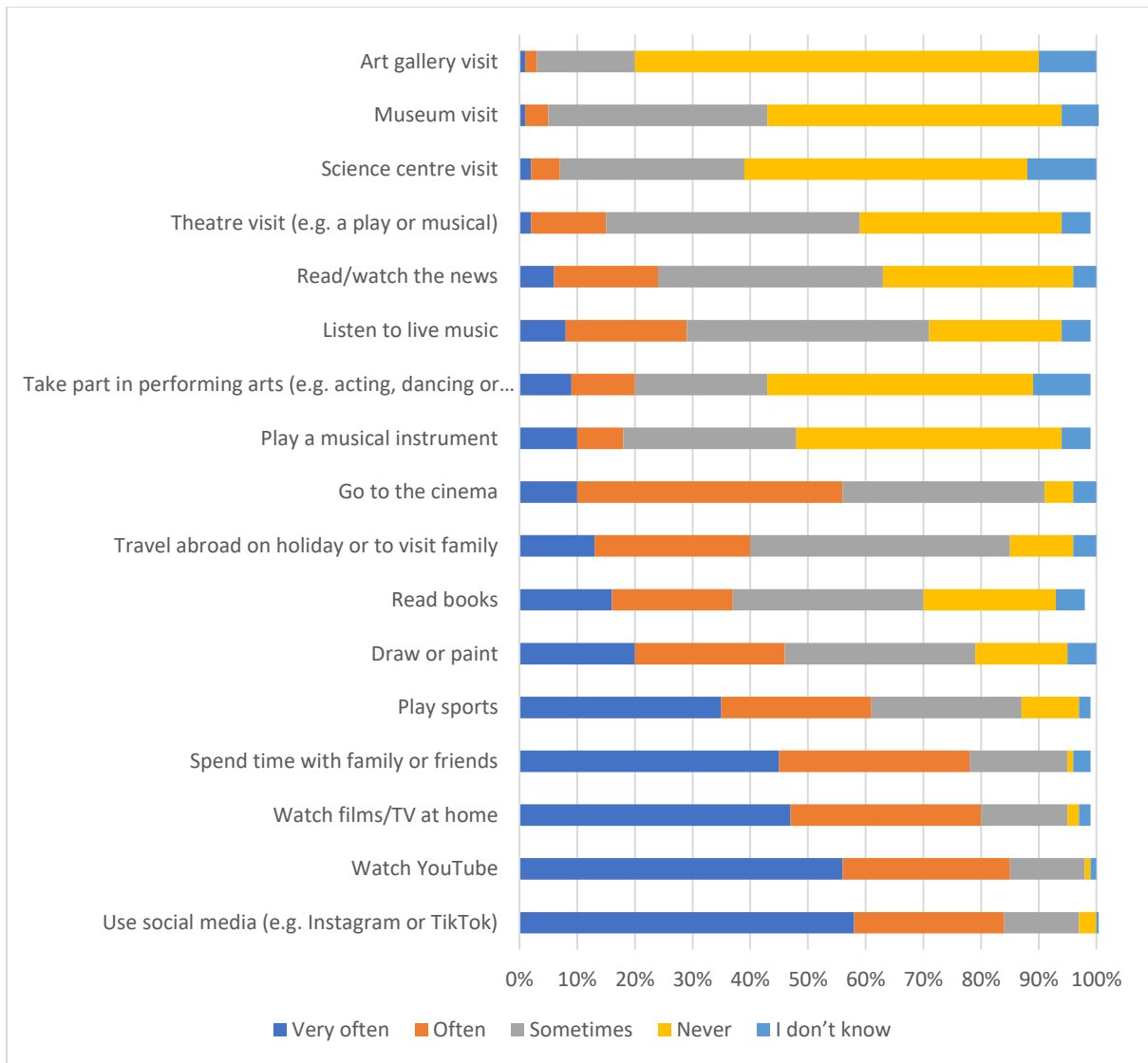


Figure 3. Responses to the pre-participation survey question: "Which of the following activities and hobbies would you normally take part in and how often would you do them?"

There are indications that the workshops have positively impacted on the learners' attitudes in relation to SHAPE. Following the workshops, 51% of the learners were "much more" or "a little more" likely to take part in SHAPE-related activities, including museum visits, listening to live music, going to dance classes and 42% were more likely to talk about SHAPE subjects at home or with friends. Table 10 provides the full set of responses to these questions. This wasn't an outright aim of the project but a consequence of there being a successful increase in interest amongst learners about the subjects.

	Much more likely	A little more likely	The same	A little less likely	Much less likely
After the workshops, how likely are you to take part in activities outside of school that involve SHAPE subjects? This might include museum visits, listening to live music, going to dance classes etc.	16% (n=27)	35% (n=58)	40% (n=67)	3% (n=5)	5% (n=8)
After the workshops, how likely are you to talk about SHAPE subjects at home or with your friends?	13% (n=22)	29% (n=48)	44% (n=74)	5% (n=9)	7% (n=12)

Table 10. Learners intentions in relation to SHAPE interests and activities, post-workshop.

In terms of contributing to learners' cultural capital and impacting beyond and across traditional subject boundaries, there are indications that the SHAPE schools programme can have a wider effect. The most enjoyable workshops were those the learners could quickly and easily connect with (shoes and masks) whereas many learners found trains inaccessible because there either wasn't a local train station or even if there was, they may not regularly travel on them. "Personalising and localising" subjects for learners can have a positive effect, in this case this concept been developed as part of the theory of science capital<sup>16</sup>. The focus of this theory is not around encouraging learners into science centres or museums, although informal learning experiences are one aspect, instead the main aspects of science capital can be summarised as: what you know (science literacy), how you think (science-related attitudes and values), what you do (out of school science behaviours), who you know (science at home)<sup>1718</sup> and as such it encourages the development of well-rounded learners. It is the object-based learning methodology which has been the driver for learners being able to personalise

<sup>16</sup> Archer, L., Dawson, E., DeWitt, J., Seakins, A., & Wong, B. (2015). "Science capital": A conceptual, methodological, and empirical argument for extending bourdieusian notions of capital beyond the arts. *Journal of Research in Science Teaching*, 52(7), 922-948.

<sup>17</sup> Archer, L., Dawson, E., DeWitt, J., Godec, S., King, H., Mau, A., Nomikou, E. & Seakins, A. (2016). *Science capital made clear*. London: King's College London

<sup>18</sup> Jennifer DeWitt, Louise Archer & Ada Mau (2016) Dimensions of science capital: exploring its potential for understanding students' science participation, *International Journal of Science Education*, 38:16, 2431-2449, DOI: 10.1080/09500693.2016.1248520

their connection with SHAPE. The description of science capital recognises the role of parents, families and friends and there are clear indications of how these groups influence learners in SHAPE subjects, especially through exam subject and career choice. Without learners and their families having a personal connection to SHAPE it is difficult for them to see the learners being part of that world and for there to be anything of value to them there. Therefore, as has been found for those who have low science capital<sup>19</sup>, there could be a similar situation in SHAPE whereby those with low cultural capital may be less likely to progress into a SHAPE related career or be interested in SHAPE subjects in general.

In their assessment, teachers have found there to have been an impact on learners beyond the workshop itself:

*“They're still talking about the workshop now. They really loved the task because it was something different to what they'd normally do in the classroom. They could be creative. They could put their own ideas. There could be a bit a comedy if they wanted or a bit of horror.”* (Teacher, School H).

However, in general teachers felt there would need to be a longer term, sustained intervention to have a more meaningful impact. When asked whether learners had developed a SHAPE mindset, teachers stated that it was in the early “*embryonic*” stage and, whilst awareness had been raised, continual revisiting and reinforcement would be required. The teacher expanded:

*“I don't think three days is enough to permanently form those ‘connections’ in their little brains. I think they definitely have the potential to start seeing SHAPE in the holistic way in the same way they view STEM”.* (Teacher, School B).

This would support the approach of the project team in targeting teachers as SHAPE ambassadors who can embed the SHAPE mindset approach throughout their teaching practice in the longer term.

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<sup>19</sup> Archer, L., Dawson, E., DeWitt, J., Godec, S., King, H., Mau, A., Nomikou, E. & Seakins, A. (2016). *Science capital made clear*. London: King's College London



# Conclusion and Recommendations

## Conclusion

The project team have been successful in delivering a project which has been effectively adapted and implemented by schools across the four nations of the UK. There were no issues arising in relation to the location of the schools or as a result in the differences in education policy. The project has been delivered on time and in collaboration with schools under extremely difficult circumstances and the commitment of the teachers should be commended. All of the main challenges experienced by the project team and teachers were linked to the effects of the COVID-19 pandemic, namely time pressures and delivery modes. For example, changes to teaching circumstances with schools moving back from online to in-person teaching and teachers needing to collate evidence for awards such as GCSEs, A-levels, Nationals and Highers. In particular, the training week coincided with the deadline for 'teacher assessed grades' in England.

In terms of achieving the aims of the schools programme to:

1. Increase the visibility of SHAPE subjects in secondary school settings through the creation of SHAPE materials and the training of SHAPE teacher ambassadors.

Teachers have been successfully trained to use and develop their own SHAPE materials. There was a clear understanding of the importance of making the content relevant to their learners: *"We tailored all topics and activities to be relevant to our learners so they could get the most out of the project."* Providing flexible resources for the teachers to adapt to their own setting has been well received and has allowed for the SHAPE materials to be used successfully in a range of different circumstances, even within a small pilot project. In several cases this included training other teachers on the materials. Overall, both teachers and learners were comfortable talking about SHAPE as a collective.

2. Demonstrate the relevance of SHAPE subjects to people by taking a cross-curricular approach which embeds real-world relevance.

Learners were able to make connections between SHAPE subjects and see their relevance to their own lives and future careers. In terms of using a cross-curricular approach, this was supported by stakeholders. For a museums stakeholder, they felt that this *"fits the way that arts and cultural organisations approach things"* (Museums stakeholder).

3. Challenge teachers and learners to understand their personal connection with SHAPE.

Teachers saw this as an opportunity for “*serious professional reflection*” and there will be long term effects on teachers, who “*will be implementing all the training and skills I have learned into my future teaching.*”

Learners enjoyed being able to pursue topics of interest to them and they felt comfortable speaking up and sharing their opinion in a setting where there was no right or wrong answer:

“*Somebody said, Oh, miss, this is probably wrong. I said, no, it's not wrong!*” (Teacher, School G).

Underpinning the successful achievement of the three aims was the object-based learning approach. This underpinned the SHAPE materials and the modes, methods and mindsets aspect of the training. This resulted in learners and teachers seeing the relevance of SHAPE subjects and were able to make personal connections between subjects, the real world and with their own personal experiences.

## **Recommendations**

The following set of recommendations are based on the evaluation findings and are made with the understanding that there is an additional year's funding available to the project team to further develop the schools programme based on the pilot year. The current pilot schools are keen to continue their association with the project and many of the recommendations could be done in collaboration with teachers. Following the recommendations there is a section summarising areas of potential further research.

Resources:

- a. Based on the experiences of working with the pilot schools it is recommended that the project team describe their conceptual model or framework in order to communicate what SHAPE is to schools. This will help to communicate the vision for SHAPE and the impact the project would like to have in schools. The project team talk about the “modes, methods and mindsets” aspect and object-based learning as being at the heart of the project and this could be used as a basis for the conceptual model or framework. There is the opportunity to ensure this also highlights links to STEM rather than promoting SHAPE as being separate and unconnected.
- b. Based on the resources provided to schools and the adaptations made by the pilot schools, the project team can collate a set of activities which are available in a range of formats. Whilst this pilot has been composed of a series of in-school interventions, these materials can be the basis of ongoing activities and materials to be used throughout subject teaching. To support this, more explicit curriculum links detailing where the resources fit in across the four nations could be developed. In particular, there is the opportunity to emphasise the link to developing literacy skills, especially

as progress has been limited amongst learners due to lost learning time through the COVID-19 pandemic. The project team had limited time available during the pilot to do this themselves, but this could be collated in partnership with the pilot schools.

- c. Significantly increase the content relating to careers and link to the relevant best practice and connect with stakeholders and providers across the four nations. For example, the content could be linked to the Gatsby benchmarks of Good Careers Guidance<sup>20</sup> and the project could link with organisations with responsibilities for careers, such as Skills Development Scotland and Careers Wales.

#### Training:

- d. Revisit the content and structure of the training sessions to streamline the content and focus on the SHAPE contextual model/framework.
- e. Updated training resources should be made available widely to teachers. This should be a mixture of asynchronous and synchronous content. The linking and networking of schools was an important feature of the experience for those attending training, especially when they were able to discuss how the workshops were going to be used in schools and ideas for delivery.
- f. Include teachers from the first cohort in the delivery of future training allowing them to share their experiences, in particular helping to head off any challenges or barriers to adoption amongst colleagues and Senior Leadership Teams and to provide feedback on the response of different learners to this approach. Teachers from the pilot phase could also help to promote the SHAPE approach with their subject networks and local school networks.

#### Marketing and communications:

- g. Whilst out of the scope of this evaluation, there were many comments from teachers and stakeholders around the marketing and communications of SHAPE. There was an understanding that this was a pilot project but there was also a sense of disappointment at a lack of information on the SHAPE website and a lack of a social media presence. These would have been of help to schools when persuading SLT about the benefits of participating in the programme and when highlighting it to parents. Teachers who have participated in the pilot would have tagged the social media accounts and would like to be able to point colleagues to a source of further information.

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<sup>20</sup> Gatsby Good Careers Guidance. Available: <https://www.gatsby.org.uk/education/focus-areas/good-career-guidance>

- h. Teachers felt that the programme would benefit from being part of a high-profile campaign. For example, through awarding the school and/or the learners with certificates or badges. Many mentioned the potential inclusion of the SHAPE logo in school headed notepaper, on Facebook and Twitter feeds as well as a physical certificate to be displayed in school. Individual pupil awards/certificates were deemed appropriate but less important than school recognition. Teachers all agreed that being seen as a “SHAPE school” would be very beneficial and appreciated in particular by school leadership. There are other awards or marks which could inform this aspect or there are perhaps opportunities for SHAPE to be recognised in existing programmes. The project team could explore whether there are existing awards or frameworks, e.g. the Arts Award, where a SHAPE activity or brief could form part of the offering or where there could be explicit recognition. This would not necessarily be limited to one single partnership but could see SHAPE activities being recognised across a range of existing awards and activities. This would embed and support the awareness-raising aim of SHAPE.

Evaluation:

- i. With regards to evaluation, the project should establish an evaluation framework to allow ongoing monitoring of the impact of the project. This could be a set of evaluation tools based on those developed for the pilot which can be picked up by any participating school. A set of metrics should also be agreed to monitor progress in terms of uptake and implementation with schools. There is the opportunity to revisit the aims and objectives of the schools programme and establish some short, medium and long-term targets for the project. Teachers felt strongly that this opportunity should be open to all, therefore we do not recommend learner selection nor would it be appropriate to have a ‘control group’ for comparison. If there are areas of interest emerging for further research then there may be arguments for these approaches but that would be specific to the design of the proposed study.

Steering group:

- j. Stakeholders have commented on the “*academic style*” of the steering group meetings. The group was established to discuss the education issues relevant to SHAPE but in the pilot year the main business has related to the delivery of the SHAPE Schools programme. Therefore there was the feeling that the group was being reported to and asked for approval rather than having the opportunity for a discussion of the issues,

although in several instances when feedback was sought on the schools programme there were small numbers of responses. In particular, stakeholders would like the opportunity for a more open-ended discussion of the opportunities and challenges arising around SHAPE education issues in general. Whereas in the pilot year, discussion may have been limited to the SHAPE Schools Programme due to the tight timetable for delivery and the limited resources available, it is recommended that the second year could begin with a more open-ended discussion on the wider issues within SHAPE education, with the schools engagement work forming a part of that. Stakeholders also had comments and suggestions relating to the wider role of the SHAPE initiative in awareness-raising more generally which is perhaps outside of the scope of the group but could none the less be fed back to other colleagues within the SHAPE initiative.

- k. In addition, there is the opportunity to diversify the membership of the Steering Group in terms of individual members and the types of organisations participating. Following the pilot year there is likely to be increased awareness of the project and there could be an open call for expressions of interest for new members. For example, the project team have expressed an intention to undertake a stakeholder mapping exercise and as a result of this, the membership of the steering group could be reviewed to ensure diversity. The steering group members could themselves bring in other organisations they are aware of. The project team themselves have expressed a desire to bring in a broader range of voices to provide feedback.

Future research:

There are a variety of areas where further research could be pursued. The areas described below are drawn from discussions the evaluation team has had with a range of project stakeholders and teachers and based on findings drawn from the surveys, interviews and focus groups.

- An audit of SHAPE subjects at GCSE/Nationals and Higher/A-level: what SHAPE subject areas are available to learners in schools across the UK? Are there gaps in provision? If so, why? Gaps could exist due to various reasons but could include a lack of subject teachers. Various SHAPE subjects are on teacher shortage lists (e.g. in Scotland Art, English and Modern Languages are considered shortage subjects<sup>21</sup>). What is the uptake of SHAPE subjects at GCSE/Nationals and Higher/A-level? Are there any differences in gender? What is the progression onto SHAPE subjects at

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<sup>21</sup> Scottish Government (2021) Teacher Workforce Planning <https://www.gov.scot/groups/teacher-workforce-planning-advisory-group/>

university? There is existing research for individual subject areas<sup>22</sup> but not across the SHAPE grouping.

- At the heart of the SHAPE education resources is the object-based learning approach<sup>23,24</sup>. Some teachers were aware of this approach, for others this was new to them. One area for further research could be around how object-based learning is currently used in schools and what potential is there to use the approach more broadly across the curriculum.
- Learner attitudes and intentions towards SHAPE: the survey tools developed for the education pilot could be further developed in order to track any changes in learner attitudes and intentions over time. This could be supplemented by interviews and focus groups. This could extend to understanding the learners' cultural capital and impact of participation in SHAPE-related activities. There is also the opportunity to revisit the same learners to understand the longer-term impact on their attitudes and intentions, particularly in relation to uptake of SHAPE subjects post-16. Existing research addresses attitudes of learners towards the individual subjects such as music<sup>25</sup>, history<sup>26</sup> and geography<sup>27</sup> but is mainly focussed on GCSE uptake in England. Extensive work has been undertaken around attitudes towards science through the longitudinal ASPIRES project (currently in its third phase of funding) and this has resulted in a broad range of research findings<sup>28</sup>, in particular the theory of science capital, which has influenced research and education policy across the UK.

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<sup>22</sup> Rodeiro, C.V. (2017) The study of foreign languages in England: uptake in secondary school and progression to higher education, *Language, Culture and Curriculum*, 30:3, 231-249, DOI: 10.1080/07908318.2017.1306069

<sup>23</sup> Chatterjee, H.J. and Hannan, L., 2016. Engaging the senses: object-based learning in higher education. Routledge.

<sup>24</sup> Jenkins, L. & Machin, T. 2021. Object-based learning for SHAPE. Unpublished.

<sup>25</sup> Lamont, A. and Maton, K., 2008. Choosing music: Exploratory studies into the low uptake of music GCSE. *British Journal of Music Education*, 25(3), pp.267-282.

<sup>26</sup> Terry Haydn & Richard Harris (2010) Pupil perspectives on the purposes and benefits of studying history in high school: a view from the UK, *Journal of Curriculum Studies*, 42:2, 241-261, DOI: 10.1080/00220270903403189

<sup>27</sup> Adey, K. & Biddulph, M. (2001) The Influence of Pupil Perceptions on Subject Choice at 14+ in Geography and History, *Educational Studies*, 27:4, 439-450, DOI: 10.1080/03055690120071894

<sup>28</sup> UCL (2021) ASPIRES research project publications. Available: <https://www.ucl.ac.uk/ioe/departments-and-centres/departments/education-practice-and-society/aspires-research/publications>

- Teacher confidence around using creativity as part of the curriculum: most of the teachers taking part in the project were not confident in using creative approaches as part of their teaching practice. Those who were more comfortable were schools who already participated in the Arts Mark or the teachers involved were from the creative and performing arts. Research could explore confidence levels of teachers and whether the SHAPE training and resources help to improve teachers' confidence in using creative methods. This would support work being established as a result of the Durham Commission on Creativity and Education<sup>29</sup>.

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<sup>29</sup> Durham Commission on Creativity and Education (2020). Available: <https://www.dur.ac.uk/creativitycommission/report/>

## Appendix A – Steering Group membership

<b>Organisation</b>	<b>Link Colleague</b>
University Council of Modern Languages (UCML)	Claire Gorrara - Chair
Sky Arts	Tim Hole
Group for Education in Museums (GEM)	Rachael Tranter
Odyssey Trust, Director: Arts and Culture	Steve Berryman
The Victoria & Albert Museum	Elizabeth Galvin
Director of the City of London's Schools, Education and Culture Programme	Anne Bamford
City of London's Schools, Education and Culture Programme	Daniel McGrady
Reading Sparks (ACE funded)	Katie Pekacar
Chair of the Cultural Learning Alliance and Director of Education at the Royal Shakespeare Company	Jacqui O'Hanlon
Birkbeck University	Joanne Leal
Creo Skills Limited	Mike Cole
Independent Consultant	Tallulah Machin
Independent Consultant	Lucy Jenkins
MFL Student Mentoring Project	Becky Beckley
Creative Scotland	Colin Bradie
Ondata Research Limited	Laura Thomas
Queens University Belfast	Robin Hickie
SHAPE lead	Julia Black



## Appendix B – Teacher Training

Session	About the session:
1. SHAPE context and policy	<ul style="list-style-type: none"> <li>• Summary of SHAPE from Professor Julia Black with focus on motivation and wider policy context.</li> <li>• Lots of opportunities for teachers to network and get to know each other.</li> <li>• Project team discussed the aims and objectives of the project and the training sessions and summarised the practical support available.</li> </ul>
2. Modes, methods and mindsets	<ul style="list-style-type: none"> <li>• Modelled experience learners would have on first viewing of activities, to help teachers understand what they will need to do in order to scaffold activities for their learners.</li> <li>• In breakout rooms, they were able to discuss the practicalities of working with learners, e.g. thinking about the scaffolding that would be appropriate for the chosen ability groups they're going to work with. For example, one talked about working with 'mid- to low' ability group and that they'd need more simple questions to interrogate an object.</li> <li>• Discussed how to practically organise the discussions with learners.</li> </ul>
3. Facilitation: tips and tricks	<ul style="list-style-type: none"> <li>• Different ways of facilitating tasks are modelled by external coaching and facilitation specialist.</li> </ul>
4. Learner resources	<ul style="list-style-type: none"> <li>• Opportunity for teachers to develop activities for learners based on the workshop materials. These could be linked to their own subject (e.g. music, drama, art, geography, languages).</li> <li>• Emphasis from the project was that there are no specific learning outcomes for each workshop. Instead there is the overarching aim of the project: for learners to see that subjects are connected, that they're all valid and interesting.</li> <li>• Links made to previous session on facilitation and teachers encouraged to do some 'blue sky' thinking.</li> </ul>

*Table 11. Summary of training sessions for teachers*

Additional feedback on the experience of the training can be found below.

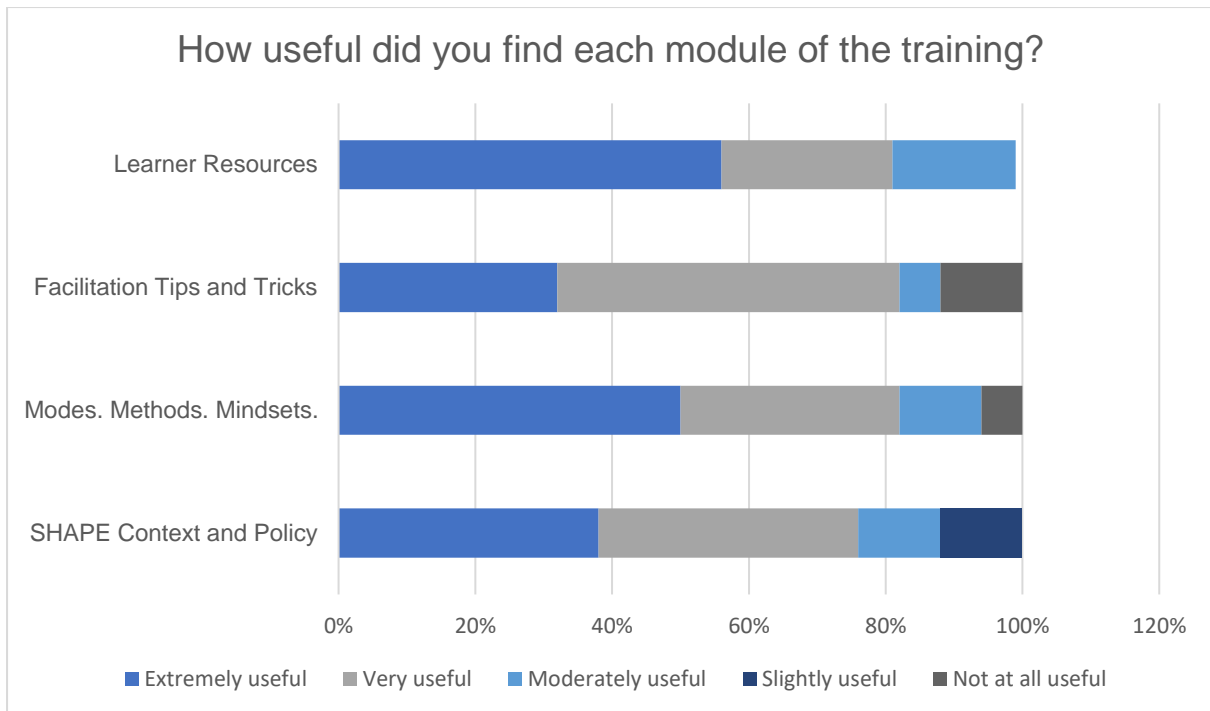


Figure 4. Responses from teacher survey to "How useful did you find each module of the training?"

- Based on the survey responses 88% of teachers felt the time spent on training was enough, 12% felt it was too much. However, when discussed further in the interviews, teachers reported that whilst they had enjoyed the training they generally felt that it could have been compressed into a shorter time period.
- Twenty per cent of teachers preferred the asynchronous training (via resources on Teams) and seventy five per cent the synchronous training, with several commenting they liked the combination of the two.
- *"The reading material and training sessions were excellent in providing information, research material and ideas to work with other colleagues around SHAPE"* (Teacher survey comment).

One of the key aims of the training was to raise the confidence of teachers when leading the workshops and in relation to SHAPE in general. Table 12 summarises the responses to the survey questions on this aspect.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I feel confident to deliver the workshops to my learners.	50% (n=8)	44% (n=7)	6% (n=1)		
I now feel more confident to talk to learners about the benefits of the skills developed as part of SHAPE subjects.	56% (n=9)	44% (n=7)			
I now feel more confident to talk to learners about the SHAPE subject-related career opportunities available.	38% (n=6)	50% (n=8)	12% (n=2)		
I now feel more confident to talk to colleagues about the benefits of SHAPE subjects.	44% (n=7)	56% (n=9)	6% (n=1)		
I now feel more confident to improve cross-curricular or inter-disciplinary links with other subjects.	50% (n=8)	44% (n=7)	6% (n=1)		
I now feel more confident to make my own SHAPE resources in future.	44% (n=7)	44% (n=7)	12% (n=2)		
I now feel more confident to train another teacher to develop a SHAPE mindset.	44% (n=7)	50% (n=8)	6% (n=1)		

Table 12. Teacher survey responses on confidence levels following training

## Appendix C - Case studies

The following case studies describe how the SHAPE workshops and resources were used in two different schools. School A was chosen as it was one of two schools to deliver to the whole year group and school G had existing experience incorporating creativity into the curriculum.

### School A

This school is located in a rural area of Scotland. The school was very appreciative of the opportunity offered by SHAPE as they are aware that learners have limited exposure to other cultures and examples of diversity, with racism an area of concern. STEM subjects are considered particularly important in the school and by parents, with social subjects considered less so and of little value in terms of employability.

The project was led by an unpromoted teacher of Geography and Modern Studies. The Head of the Social Sciences department participated in the project but in a supporting role. Prior to delivery, the lead teacher adapted resources from Sway to PowerPoint and prepared a pupil booklet. These were shared and discussed with colleagues at a departmental meeting as part of the staff awareness and training. Subsequent SHAPE delivery was classroom based led by four teachers of social sciences subjects.

The learners participating were in transition from first to second year (S1 to S2), with the whole year group involved. The content was delivered over the course of three weeks, in the one period a week when learners were timetabled for Modern Studies. Whilst an hour was recommended for delivery, the lead teacher suggested that even with 80 minute periods there was too much content with little time available for the creative tasks, which were then offered as homework activities. Amazon vouchers were offered to the 'best' creative task and this potential financial reward greatly incentivised engagement. These were able to be offered due to the £300 bursary provided to the schools by the project.

*"I had kids take away the creative tasks to finish and bring back, because they were really invested in it. They willingly took it away due to the incentive of a potential gift card."*

Two teachers from the school took part in SHAPE training. At the training, the idea of facilitating rather than teaching was promoted. However, the lead teacher felt that they had to initially *"drag conversation from learners"* because they could not readily make the links themselves. The language and vocabulary proved challenging for learners and they did not have the concentration skills to read suggested articles. Despite this, the content was engaging: *"Every week they have been coming and thinking, oh this is quite interesting. And this is a bit different. This isn't what we're used to."*

The lead teacher had not taught the learners previously but felt that, over the three weeks, the learners progressed in terms of being able to express themselves and develop their own opinions and they had a chance to determine the direction of the discussion.

*“We got to decide what we want to do”* (Learner, School A).

Through the SHAPE activities, the learners all got to know each other and learned to work together quickly and in a different way. Learners enjoyed the project and the teacher felt that it raised awareness of SHAPE subjects and the interconnections. The content which had a particular impact was that which they could relate to, for example *“When we did the story of Nike half of them were wearing Nike trainers. So they find that really interesting because that was something that they could relate to”*. The discussion and activities also encouraged them to start *“thinking in a different way”*. For example:

*“When talking about different shoes, like heels and flat shoes and who would wear them and why they would wear them, there were some stereotypical responses like a boy wouldn’t wear heels. But by the end of the lesson actually, they were really open. And I was like, well, that’s maybe your view, but is that the view of everyone? And they were all like maybe it’s not our choice to wear it but it is not negative for somebody else to do it if they wanted to. It did take a bit of coaxing and twisting from me but we are always trying in our department to encourage diversity.”*

The school is keen to continue to develop the SHAPE approach. The lead teacher suggested that the approach would make for a meaningful interdisciplinary day, with input from Drama and English as well as the other SHAPE subjects: *“We are really open to working together and create a different environment and a different ethos within the school”*.

The impact of the project extends to the lead teachers’ own practice: *“I’ll take elements of this and put it into my class, into my lessons, because they’ve really, really taken to it in a way that I don’t think we expected.”*

## School G

School G is in England and has previously achieved Arts Mark Platinum Award and was therefore particularly keen to be involved in the SHAPE project as it provided an appropriate follow on, allowing the school to progress with their commitment to developing creative teaching approaches. The SLT liked the gravitas of being associated with an opportunity that included involvement of the London School of Economics and the British Academy and this association was flagged to both learners and parents when sharing about the school's involvement in this pilot opportunity.

The project was delivered by the Head of Drama. The training content around careers was particularly helpful as it expanded the teacher's knowledge. They were "surprised" that a similar proportion of STEM and SHAPE graduates (89% and 88% respectively) get a job on graduation. They also felt being able to talk about "*next steps*" was valuable: "*One of the things that we need to promote is the validity of studying not just subjects you enjoy, but those will lead to fulfilling careers*".

They selected learners from Year 8 who they had taught previously and who they considered had a creative mindset and would engage in the opportunity. Learners were taken out of regular lessons to attend the SHAPE workshops. The workshops were delivered in the school auditorium using a 'circle time' approach. All sessions were delivered within an eight day period.

They used an interesting activity to introduce the Shoe workshop: a range of different pairs of shoes were laid out and learners had to stand by a pair of shoes and say a line as the character or person who would wear the shoes. The teacher felt this really got learners engaged and talking.

The teacher felt the SHAPE approach was close to the drama methodology. They initially started with a traditional teaching style using the Sway resources directly on a board with supplementary PowerPoint presentations and print outs for learners but delivery became more drama based, with more freedom for learners to discuss, make videos and create blogs.

The teacher felt this approach really excited and encouraged involvement and they considered it important for learners to be active, especially when discussion could be for extended periods of time. Learners really enjoyed and engaged in the sessions and, although not yet embedded within their classroom learning, the teacher did suggest that they were starting to make and appreciate connections and interdependencies.

*"You don't get opportunity to properly debate about these things with people in normal life. So you had a lot to say that you hadn't said before, it really, really helped you get a new perspective on things you were talking about"* (Learner, School G).

The teacher advocated that the next stage of the programme would be to disseminate across the school allowing the approach to become part of the general teacher toolkit. To become truly interdisciplinary additional training would be required to allow teachers of all subjects to explore how the approach could be integrated into their regular curricular teaching. Time could also be allocated to mapping out where similar approaches are already being used in regular classroom teaching. The teacher shared that in their school Music, Drama and Art frequently work together in an interdisciplinary way, however this is not the case in other subject areas and may well be where effort needs to be placed. The school has previously benefitted from the local museum visiting with artefacts and, through working with both learners and teachers, worked on an art/music project. The teacher suggested that a similar model could be used to introduce SHAPE to the school – a vibrant kickstart provided by SHAPE ‘ambassadors’ that would promote collaborative working with teaching staff across different curricular areas.

## Appendix D – List of school subjects within SHAPE

Please note that not all subjects are available across the UK and the exact title of the subject may vary between the four nations. This list is not exhaustive.

Art and Design  
Business  
Classical Studies  
Creative Arts  
Dance  
Design and Technology  
Drama  
Economics  
English  
French  
Gaelic  
Geography  
German  
Graphic Design  
History  
Irish  
Italian  
Latin  
Literature  
Media Studies  
Modern Studies  
Music  
Performance Arts  
Philosophy  
Photography  
Politics  
Psychology  
Religious Studies  
Sociology  
Spanish  
Welsh



## Appendix E – Example SHAPE materials

An example of one of the materials from the Mask resource is shown below. The set of three learner resources can be accessed using the following links:

1. [Masks](#)
2. [Trains](#)
3. [Shoes](#)

### Slow Looking



History



Culture



Politics




Drama



Art & Design

Let's begin with some *slow looking*.

 **Look** at the pictures below.

 **Discuss...**

- What makes each mask different?
- What makes each mask similar?
- What does each mask represent?



The SHAPE schools programme evaluation was undertaken by Laura Thomas, Helen Winton and Clare Meakin.

Laura has extensive experience with a range of education projects across formal and informal education. In addition to evaluation she is experienced with project and resource development, delivery and training for a variety of organisations such as schools, museums, education charities, universities and professional bodies. She is undertaking research relating to professional development of teachers after having recently completed an MRes in Educational Research with the University of Stirling. Ondata Research collaborates with clients to help them understand project impact, whilst also providing mentoring and support through the phases of project development and delivery.

Helen is an experienced educator with 12 years classroom teaching and more than 20 years working at local authority/national level in STEM & Environmental Education. Most recently she held the position of Head of STEM Education at SSERC and continues to work with this organisation on special projects. Particular areas of expertise include school/business partnerships and effective educational leadership.

Clare has worked in science engagement for national and local museums in London and across Scotland for the past 10 years. Working in both delivery and development, her museum-based projects have ranged from tinkering workshops for secondary students to science events for over 4,000 people. Most recently as Science Engagement Manager at National Museums Scotland, her work has focused on science engagement strategy development alongside evaluation of a wide range of funded STEM projects for funders such as Scottish Power Foundation, the Scottish Government and Children in Need. As a freelancer she has worked with regional museums such as Andrew Carnegie Birthplace Museum on ASN and digital science engagement, and previously worked directly with primary schools for outreach, after school STEM clubs and teacher consultations



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