SHAPE

SOCIAL SCIENCES
HUMANITIES &
THE ARTS
FOR PEOPLE
& THE ECONOMY

Evaluation: Full Report

SHAPE in Schools

July 2022

Written by:

Lucy Jenkins & Tallulah Machin

Contents

Tables and Figures

Tables

Figures

Figures Continued

Context

The SHAPE in Schools pilot project was established to complement and support the work being undertaken by the British Academy and London School of Economics to promote social sciences, humanities and arts subjects through the establishment of the SHAPE acronym. SHAPE stands for 'Social Sciences, Humanities and Arts for People and the Economy/Environment' and lobbies for better visibility, understanding and connectivity associated with the subjects, disciplines and skills which can be broadly categorised within those subject areas. In this way, SHAPE sits as complementary to STEM.

Phase 1 of the project took place from November 2020 to July 2021 and aimed to explore suitable messages around SHAPE which would inspire and enthuse a secondary school audience across the four UK nations. There was clear appetite and interest expressed from within and beyond education during this period and the results of the Phase 1 evaluation evidenced the positive impact of the initiative across its partner schools.

Phase 2 has built on the methodologies and approach of the first phase but has offered a more flexible and devolved approach to working with schools. This was partly in response to the recommendations made in Phase 1. The following evaluation will explore the outcomes from the second phase of the project which took place from November 2021 to May 2022 and will conclude with recommendations relating to a potential next phase of SHAPE in Schools.

Phase 1

In Phase 1, the SHAPE in Schools project had three aims. These were 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, Phase 1 aimed to understand the ways in which bespoke learning experiences could inspire a positive mindset towards SHAPE subjects by making visible where they happen and the impact they have on people's everyday experiences.

Phase 1 focused on what messages to deliver and the impact that those messages had on the attitudes towards SHAPE of the different user groups, primarily secondary school learners and SHAPE teachers. The first phase engaged with eight schools from across the UK. The target learner cohort was years 8 and 9 in England and Wales, S2 and S3 in Scotland and years 9 and 10 in Northern Ireland. Sixteen teachers from across the partner schools took part in a series of training sessions focusing on the SHAPE mindset and were introduced to the methodology underlying the SHAPE materials which included object-based learning as a way to construct and deliver inspirational SHAPE learning experiences. Following a mix of synchronous and asynchronous training, teachers went on to deliver three SHAPE workshops to learners. The approach to delivery in schools varied, with some delivering the content all in one day and others running the workshops during lesson time over two or three weeks.

An external evaluation conducted by Ondata Research Limited highlighted a range of successes from Phase 1. In brief, the successes included the following:

- Teachers enjoyed the training opportunities that they were offered and the possibility to collaborate with other teachers from across the UK and from other disciplines.
- Teachers were enthused by the methods and approaches used within the project, cascading their learnings to other teachers in their schools.
- Teachers thought the resources were of a very high quality but also felt that the MS Sway format was not ideal and that the written level of the resources was too difficult.
- Teachers felt valued and saw benefit from working in interdisciplinary ways. Many appreciated the opportunity to promote their subject when, oftentimes, they feel overshadowed by STEM.
- Learners became comfortable using the SHAPE acronym and had a good understanding of what it meant.
- Learners were evidenced to become more interested in SHAPE subjects in school through their experiences with the project.
- Learners came to be able to identify links between subjects and could see how multiple subjects could be relevant in a single discussion.
- Learners expressed a greater interest in pursuing a career involving SHAPE subjects after the workshops.
- Learners felt motivated by the opportunity to express themselves in a situation where there was 'no right or wrong answer'. This led to more inclusive classroom spaces where learners who may not normally contribute to discussions were able to do so.
- Learners expressed a desire to participate in more SHAPE activities beyond the classroom and a desire to speak to friends and family about SHAPE.

The evaluation also made a number of recommendations for future areas of development and research. These recommendations were largely beyond the scope of Phase 2 not least because they required connectivity across a range of areas which would demand infrastructure and large-scale investment from SHAPE funders.

Phase 2

Phase 2 engaged six schools from across the four UK nations, three of whom had completed Phase 1 while the other three were new to the programme. Phase 2 built on the practice developed during Phase 1 and maintained the three key aims previously established. In addition to these aims, Phase 2 also aimed to achieve the following through the delivery of the programme:

- To improve understanding of the impact and resonance of the messages used within the workshops, particularly on learners.
- To increase the number of data points collected so as to improve the robustness of outcomes evident from Phase 1.
- To provide existing partner schools with a continued experience in order to ensure partnership continuity.
- To implement recommendations relating to the learner resources to provide continuous service improvement.
- To create a more flexible approach to project delivery that gives teachers greater freedom and agency, and requires a lesser time commitment.

The key changes between Phase 1 and Phase 2 were:

- The creation of an additional workshop based on the object *Sugar* to accompany the three existing workshops on *Masks, Shoes* and *Trains*.
- The translation of all four workshops to a PowerPoint format, which included making amendments based on the findings from the accessibility audit in Phase 1 and the integration of a wide range of feedback from learners and teacher feedback from Phase 1. Primarily, this involved adjusting literacy levels.
- A lighter touch approach to training was developed to reduce the time commitment for teachers.

Recruitment of schools began in November 2021. Teacher training took place in January 2022, and teachers were able to deliver the workshops any time between February and May 2022. Schools were asked to work with a minimum number of 120 learners in years 8 and 9 in England and Wales, S2 and S3 in Scotland, and years 9 and 10 in Northern Ireland. Due to ongoing disruption caused by COVID-19, not all schools were able to work with 120 learners.

Key Findings

This section summarises the key findings in relation to the three aims of the SHAPE in Schools programme. The evidence leading to these findings is discussed in the main body of the report and also considers the key findings from Phase 1.

Aim 1: Visibility

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

- Teachers who responded to the surveys were very positive about the training experience and the supporting materials provided to them, such as the guidance notes. The guidance notes were particularly appreciated with all six respondents to the teacher exit survey stating that they were 'very useful.'

- Teachers were very positive about the resources themselves with comments relating to their variety, adaptability, creativity, interest and enjoyment being used across a variety of open-text responses. Unlike Phase 1, teachers didn't comment on the format of the resources suggesting that the adaptation to the PowerPoint format was well-received.

- Three of the schools involved in Phase 2 were newly recruited while three more had previously engaged in Phase 1. All six teachers who responded to the exit survey were able to articulate an understanding of the methods and mindsets underpinning SHAPE, with many making explicit reference to SHAPE as a project which aims to make and show connections between a range of subject areas.

- Teachers from four of the six schools trained others to support the delivery of the SHAPE workshops. This suggests that teachers were sufficiently confident in their understanding of SHAPE that they could cascade their learnings to others.

- Teachers also commented that they had learned new things through the workshops. Many found the workshops and guidance notes 'interesting' and 'enjoyable', although some commented that this had a time implication which impacted their experience. One teacher commented: 'I had to do a bit of research or read notes carefully which is quite time consuming.'

- Many teachers explicitly commented on how the resources encouraged them to deliver the workshops in a style that was different from their normal teaching style. One teacher commented: 'The activities were very active and some of the teachers enjoyed using this method of delivery as they would not typically use this style.' A minority of teachers commented on the similarities between their teaching style and the delivery methods of SHAPE, for example: 'In many ways it was very similar to the way I deliver Drama lessons - using and exploring different stimuli to create work from although I would include more drama based activities from the outset.'

- Encouraging teachers to attend training in Phase 2 was more challenging than in Phase 1. It is clear from the challenging engagement with schools throughout this phase that the impacts of COVID-19 continued to play a significant role in teachers' daily experiences in school. Only six out of the eleven who agreed to participate in the programme completed the project and four out of five schools who dropped out during the project explained that this was due to extreme workload pressures caused by staff absences as a result of COVID-19. The continued pressures on teachers will need to be considered again.

Aim 2: Relevance

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

- When learners were asked to indicate if the workshops had helped them understand how SHAPE subjects are connected to each other, the data shows that 48% of all respondents strongly agreed or agreed they could see these connections before they took part in the workshops. Following the workshops, 44% of learners strongly agreed or agreed that the workshops had helped them to further understand the connections between SHAPE subjects.

- Learners were positive about how the workshops had allowed them to see connections between subjects. A learner commented that their most enjoyable aspect of the workshops was 'discovering different subjects and how they are connected.' However, the interdisciplinary approach of SHAPE did generate some confusion with some learners still confused by what SHAPE meant at the end of the workshops: 'I'm not sure how the SHAPE subjects are linked; I can understand how some of the SHAPE subjects are linked because they release inner creativity but I don't really understand how they link to my daily life'.

- Responses to the learner surveys suggest that learners were confused by the acronym STEM which in turn also prompted confusion about the meaning of SHAPE. This was particularly evident in the questions where learners were asked to place subjects into broad categories of STEM, humanities, arts and social sciences. Respondents were most adept at identifying arts and STEM subjects. However, some subjects created confusion and were incorrectly placed. For example, some learners placed English as a STEM subject.

- There is some evidence to suggest that learners associate the STEM acronym with subjects that are compulsory for examinations. More research is required to further understand this and it will be crucial in determining the future trajectory for SHAPE.

- Following the workshops, there was an overall 3.6% decrease in the correct placement of the twelve SHAPE subjects but also a 4.4% decrease in the correct placement of the nine STEM subjects. Learners were therefore more aware of SHAPE subjects in general, as is confirmed elsewhere in the data, but were not more able to identify exactly which subjects were social sciences, arts and humanities. This is unsurprising since the workshops' intention was to draw connections between and highlight the relevance of all SHAPE subjects, even including reference to STEM subjects, rather than teach learners to correctly identify which subjects go where. That specific aim would require a more explicit approach.

- 29% of respondents indicated that they strongly agreed or agreed that the workshops had made them more likely to take SHAPE subjects for Nationals/GCSE. This is half the impact that was seen in Phase 1 where 58% of learners indicated they were 'much more' or 'a little more' likely to take SHAPE subjects. This is likely due to the fact that learners engaged in fewer workshops in Phase 2, suggesting that sustained intervention creates greater impact.

- All four workshops yielded similar outcomes and the object-based learning approach was mentioned in open-text comments made by learners and teachers. The large proportion of these comments were very positive, expressing an enjoyment in particular of looking at one object from multiple angles. For example: 'I most enjoyed learning about how one thing to us can be many different things too'; 'I like how we explored the different ways an object is viewed'; 'Getting to be creative and learn a lot about one thing.'

Aim 3: Personal Connection

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

- Learners' experiences of the workshops were overall very positive. 49% of learners strongly agreed or agreed that they found the workshops interesting. Findings from the teacher exit survey reflect very positive attitudes from learners towards the workshops, with all six teachers strongly agreeing or agreeing that learners found the content of the workshops interesting.

- When learners were asked whether 'the workshop was fun,' 60% of learners strongly agreed or agreed. Teachers' comments reflected these positive findings with all six teachers strongly agreeing or agreeing that learners enjoyed the workshops.

- In total, 42% of learners strongly agreed or agreed that the workshops had increased their enjoyment of SHAPE subjects at school. The responses to the workshops are a particularly positive outcome given that 75% of learners only engaged with one workshop. This is in comparison to Phase 1 where all respondents had to engage with three workshops. Unsurprisingly, the results from Phase 1 showed a greater impact of the workshops with 67% saying they were 'much more' or 'a little more' interested in learning about SHAPE subjects after taking part. This indicates the importance of sustained intervention in order to maximise outcomes from the learning resources but also suggests that positive impact can be had after just one SHAPE experience.

- Learners were asked to indicate if the workshops had helped them understand how SHAPE subjects are connected to everyday life. 40% of learners strongly agreed or agreed. Learner responses were very comparable between female and male learners for positive statements, with 39% and 41% selecting strongly agree and agree respectively suggesting comparable outcomes for female and male learners. This is mirrored throughout the data suggesting that the workshops were appropriate and interesting to both male and female learners.

- Learners offered a variety of comments about the things they enjoyed most about the workshops, these included the opportunity to work as a team and an enjoyment of using creativity and design skills, as well as to use their imagination. These comments suggest that learners were able to reflect on what they personally enjoyed about the SHAPE experience.

Methodology

The evaluation implements 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. This mirrors the approach taken to evaluation in Phase 1, allowing for a comparison of the results across the two phases.

This approach has been particularly beneficial in Phase 2 where the delivery mode across the schools has varied considerably and whilst some variation was expected, the range was greater than anticipated.

Survey Design

Surveys were the primary tool used in the collation of data during this phase (see Table 1). Although focus groups and interviews were planned, surveys provided the flexibility required by teachers and learners during the delivery phase. Given the variety of challenges encountered throughout the delivery phase, it was decided that interviews and focus groups were not appropriate as teachers were already overwhelmed.

The surveys collated across both phases are outlined below as a comparison. Surveys were mapped from those that were undertaken as part of Phase 1, in order to ensure that comparability in results would be robust.

As in Phase 1, it was decided that mobilising control groups for comparison was ultimately not feasible due to lack of time and resources. Recruiting schools to participate had also been problematic due to the ongoing pressures caused by the COVID-19 pandemic. It was therefore decided that delivery of the intervention should be privileged above control groups.

As in Phase 1, the project team acknowledge the added value of using control groups within this research but believe that longitudinal tracking of learners would be required in order to collate robust data to indicate any long-term impacts. Infrastructure and long-term commitment to funding would be required in order to make this a possibility in the future, not least, to gain long-term commitment from participating schools.

Table 1: Surveys Conducted in Phase 1 and Phase 2

Survey	Phase 1	Phase 2	Collation period for Phase 2
School Application	Base understanding of attitudes and intentions towards SHAPE subjects; school contextual factors; challenges/issues facing SHAPE; motivation for taking part, etc.	As in Phase 1 for new schools. Repeating schools did not recomplete.	Nov-Dec 2021
Teacher Post-training Survey	Feedback on the teachers' experience of the training.	Training took a significantly lighter touch so training feedback was combined with the exit survey.	N/A
Teacher Exit Survey	Feedback on the teachers' overall experience of the project; changes in attitudes; perceptions of pupil engagement etc.	As in Phase 1.	May-June 2022
Learner Pre-workshop Survey	Base understanding of attitudes and intentions towards SHAPE subjects within the cohort completing the resources.	As in phase 1.	Feb-Apr 2022
Learner Post-workshop Survey	Feedback on the learners' overall experience of the resources; any changes in attitudes.	As in Phase 1.	Feb-May 2022

In total, six schools completed the programme in Phase 2 with the split across nations and year groups outlined in Table 2. Three of the six schools had completed Phase 1 while the remaining three were new to the programme in Phase 2.

Table 2: Distribution of Schools and Learners Who Completed Workshops in Phase 2

	Number of Schools	Number of Learners	Year Groups
Wales	2	200	8 & 9
Scotland	1	90	S1
Northern Ireland	1	140	9 & 10
England	2	220	8 & 9

Survey Design

Six teachers responded to the teacher exit survey, representing one teacher from each partner school. In total, 626 learners responded to the pre-workshop survey, representing 96% of those who completed the workshops. This dropped to 498 responses for the post-workshop, representing 77% of those who completed the workshops. The breakdown of learner survey responses by location, gender and ethnicity can be found in Tables 3, 4 and 5 respectively.

Table 3: Learner Survey Responses by Location

Location	Pre-workshop Survey No. and % of Responses	Post-workshop Survey No. and % of Responses
Wales	200 (32%)	154 (31%)
Scotland	79 (13%)	83 (17%)
Northern Ireland	142 (23%)	91 (18%)
England	203 (33%)	170 (34%)
Total	**626 (100%)**	**498 (100%)**

Table 4: Learner Survey Responses by Gender

Location	Pre-workshop Survey No. and % of Responses	Post-workshop Survey No. and % of Responses
Female	289 (46%)	228 (46%)
Male	302 (48%)	232 (47%)
Prefer to self-identify	18 (3%)	23 (5%)
Prefer not to say	17 (3%)	15 (3%)
Total	**626 (100%)**	**498 (100%)**

Table 5: Learner Survey Responses by Ethnicity

Location	Pre-workshop Survey No. and % of Responses	Post-workshop Survey No. and % of Responses
Black, Asian and Minority Ethnic	37 (6%)	34 (7%)
White	575 (92%)	455 (91%)
Prefer not to say	12 (2%)	9 (2%)
Total	**626 (100%)**	**498 (100%)**

Data Analysis

Data collation and analysis was undertaken by Tallulah Machin in the first instance with findings discussed with Lucy Jenkins before this evaluation was co-written by both researchers. Thematic analysis has been used to review all qualitative data, collated via open-ended survey responses. The findings arising from the analysis are discussed in detail in the following sections.

Ethics

The SHAPE project team adhered to the ethical approval process of the London School of Economics (LSE). Minor amendments were made to the process of seeking parental consent for learners participation. Instead of all learners requiring parental consent to participate in the workshops, decision making powers were devolved to the teacher who would determine, based on the local policy in their school, as to whether consent was required for learners to engage in the workshops. Where school policy did not require consent, it was agreed that the project would not require it. Where consent was required, schools were provided with a consent form and information sheet for parents approved by the LSE ethics process. The process of gathering consent was then devolved entirely to the school.

Phase 2 Outline

Key components of the design and delivery of Phase 2 of SHAPE in Schools were as follows:

1. Recruitment and onboarding of schools
2. Redesign of materials
3. Condensing of training materials
4. Change to scope for delivery in schools

Many of the adaptations that were made in the above areas responded to key recommendations made in the internal reports provided by the research team in Phase 1. Key reports to refer to from Phase 1 are:

- Teacher Experience Report
- Learning Resources Report
- Programme Coordination Report
- Teacher Training Report
- Learner Experience Report

The changes made across the different areas are discussed below, with opportunities and challenges highlighted within the narrative. The aim is to provide context to the broader findings that will follow.

School Recruitment

Recruitment of schools took place November-December 2021. The team limited recruitment to schools that had been involved in Phase 1, or those that had made direct contact with the research team or those that had been in touch through the SHAPE mailing list. It was decided that the focus should be to retain and re-energise partnerships which had been established in order to ensure a continuity of experience and support for existing schools. It was acknowledged that recruitment and onboarding of new schools would be time intensive and the resource to support this was not available.

The following was undertaken through the recruitment drive:

- 17 schools were contacted
- 14 schools responded
- 11 schools agreed to participate
- 2 schools dropped out pre-training
- 3 schools dropped out during delivery
- 6 schools completed Phase 2

The table below shows the individual circumstances for the five schools that agreed to participate but then were unable to complete the programme.

Table 6: Rationale for School Drop Outs in Phase 2

	Previous Involvement	Progress Through Phase 2	Rationale for Dropping Out
School 1	Completed Phase 1	Agreed to participate	High workload caused by staff absences
School 2	New for Phase 2	Agreed to participate	High workload caused by staff absences
School 3	New for Phase 2	Delivery phase	No reason given
School 4	Completed Phase 1	Delivery phase	High workload caused by staff absences
School 5	Attended training for Phase 1	Delivery phase	High workload caused by staff absences

Many additional challenges were encountered with regards to school recruitment and retention:

- The ongoing COVID-19 disruptions caused delays and staff shortages within schools, leading to higher workloads for remaining staff.
- High stress levels and low morale due to a culmination of the last two years of the pandemic led to some schools from Phase 1 deciding not to take part in Phase 2. Such challenges have been well-documented nationally.
- The reintroduction of statutory examinations for the first time in two years and the additional pressures this placed on teachers and learners.
- A desire to know where the project is going in order to seek broader support from the school.

Resources Redesign

In response to the feedback from Phase 1, significant time was committed to the redevelopment of the SHAPE learning resources. This was not because they were deemed ineffective, but rather to reflect the research team's ongoing commitment to continuous improvement in response to user feedback. This has been a core design feature of the SHAPE in Schools project.

Recommendations from Phase 1 highlighted the following areas for development within the production and use of the learning resources. Each recommendation is followed by a reflection on its implementation:

1. **Source alternative technology that is fully accessible, familiar and easy to disseminate.**
   Teachers provided clear steer as part of Phase 1 that their technology of preference was MS PowerPoint. Despite its lack of interactivity compared to MS Sway, teachers' familiarity with PowerPoint clearly enhanced their confidence in delivering the resources. No teacher in phase 2 chose to transition the materials to any other format, in great contrast to Phase 1.

2. **Consider the volume of content and how it will be delivered; where possible, provide a variety of formats to suit different needs and expectations.**
   The focus for Phase 2 was placed on creating PowerPoints with integrated worksheets and reviewed and updated guidance notes. Greater flexibility to navigate the content in sections was also achieved by using PowerPoint's zoom feature. This allowed teachers to bypass content if they choose to.

3. **Create resources with a built-in capacity for teachers to adapt to their context under a creative commons license.**
The adaptation of the resources to a PowerPoint format ensured that teachers were able to adapt the content to suit their needs and settings. Phase 1 highlighted that seven out of eight teachers transferred the learning materials from MS Sway to MS PowerPoint, in order to feel more confident using the materials. The materials will be released under a creative commons license if deemed appropriate as part of further work being undertaken by the research team to adapt the materials ready for publication on a bespoke website for SHAPE in Schools.

4. **Source a place to house resources, such as the SHAPE website, where they can be freely and easily accessed by all.**
Phase 2 has included the repackaging of learning resources and training materials in readiness to be housed on a SHAPE in Schools website.

5. **Provide training for teachers on how to create their own resources using the frameworks and interdisciplinary approach.**
This falls beyond the scope of this package, but ought to be considered moving forward. Such a recommendation needs to carefully balance the time commitment teachers are able to make.

6. **Continue to use and refine the modes, methods, mindsets and object-based learning approach.**
The success of the object-based learning approach was evident in the evaluation of Phase 1. The same approach was used to develop a further resource focused on *Sugar*. Some activities were adapted to provide greater focus on digital skills and some adapted to make them more suitable for PowerPoint. The research team have continued to focus closely on objects which are familiar and accessible to learners, resulting in SHAPE workshops based on *Shoes*, *Masks* and *Trains* with the focus on *"exploring all the potential ways that object interacts with our world"*.

7. **To adapt the language to make the resources more accessible to all learners.**
The external evaluation from phase 1 highlighted that some teachers felt that the language used in the resources was too academic and at a literacy level not suitable and accessible for all of their learners. With an understanding that learners engaging in this phase of the project have been some of the worst affected by the impacts of COVID-19, particularly in relation to literacy levels, the research team reviewed language throughout all resources as part of the revisions.

Condensing Training Materials

A key recommendation from Phase 1 was to 'lighten the load for participating teachers, particularly at key times of the year, or provide buyout.' The ethical imperative of this was also noted through the ethics process undertaken with the LSE ethics committee. With this in mind, the research team decided to reduce the content and requirements of the training, reducing the time commitment required from each participating teacher. The training came to consist of:

- Seven asynchronous modules for teachers to complete in their own time
- One 2-hour workshop delivered online

Teachers from both new and returning schools were encouraged to attend the online training workshop. Of the ten schools invited to the training, seven attended and three were unable to attend due to prior commitments such as parents evening. Three of the four new schools were able to attend. Five of the six schools who completed Phase 2 attended the training. The sixth school had been involved in Phase 1 and so the teachers had had previous training.

Change to Scope for Delivery

In Phase 1, there was limited flexibility offered to teachers with regards to the delivery of the workshops. Teachers were asked to deliver the workshops to a minimum of 25 learners and to ensure that learners completed all three workshops. Teachers were also encouraged to team-deliver the resources with a colleague in order to set the tone for developing a discursive practice and space.

In Phase 2, schools were provided with greater flexibility in delivery method, but were asked to include more learners. Teachers were asked to run the workshops with a minimum of 120 learners but could decide if they would run one, two, three or all four workshops with the learners. This was intended to increase the reach of the project and to ascertain any changes to impact when a more devolved and flexible model for delivery is offered. Any impact of this change to delivery and reach in schools will be discussed in the findings section below.

Baseline Attitudes and Understanding

This section outlines the findings from the pre-workshop learner surveys related to overall baseline attitudes to and assumptions about SHAPE and STEM subjects. Further information about the impact of the workshops can be found in the section entitled *Experiences of the Programme*.

Identifying SHAPE and STEM Subjects

In the pre-workshop survey, learners were asked to group a selection of subjects into different subject categories in order to test their knowledge of not only subject areas but also key terms. The categories provided were:

- Social Sciences
- Humanities
- Arts
- STEM

It is worth noting that many subjects such as geography, design and technology and even modern languages could easily be placed in more than one category. For the sake of this research which focuses on subjects taken by learners aged 12-14 across the UK, the subjects were considered correctly placed when in the categories found in Table 7.

Table 7: Subject Categories Used for Data Analysis

Arts	Social Sciences	Humanities	STEM
Music	Business	History	Biology
Drama	Politics	Geography	Chemistry
Art and Design	Psychology	Religious Studies	Design & Technology
	Sociology	Modern Languages	Engineering
		English	Health & Food Tech.
			ICT
			Maths
			Physical Education
			Physics

Arts Subjects

Respondents were most adept at placing 'art and design' into the correct category (likely because of the repetition of terms) with 97% identifying it as an arts subject. This was followed by 73% correctly identifying music and 68% correctly identifying drama. Moreover, respondents were overall less likely to incorrectly place other subjects into arts compared to the other three categories (compare Figures 2, 4, 6 and 8).

Figure 1: Learner Placement of *Arts* Subjects | 626 responses

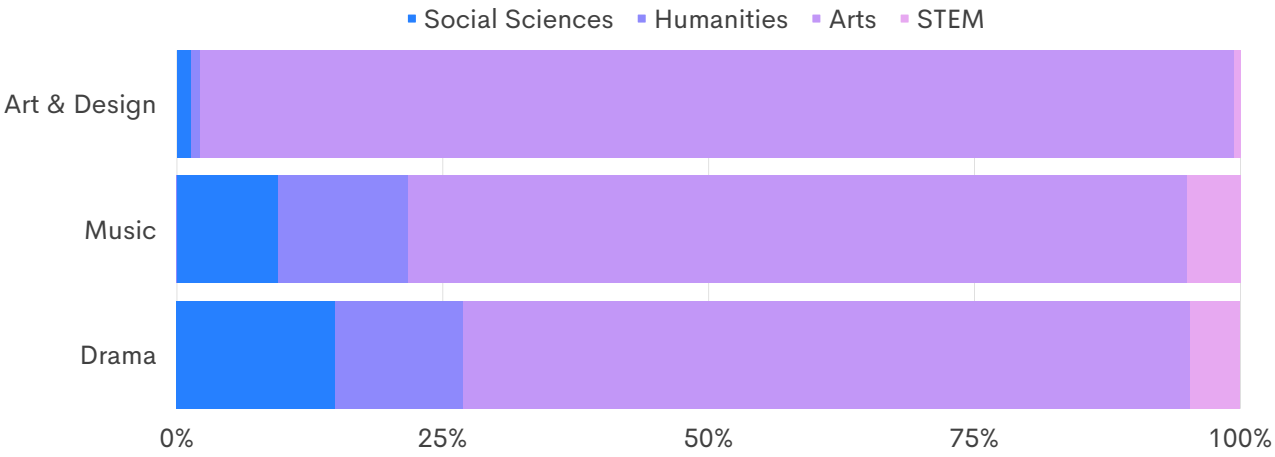
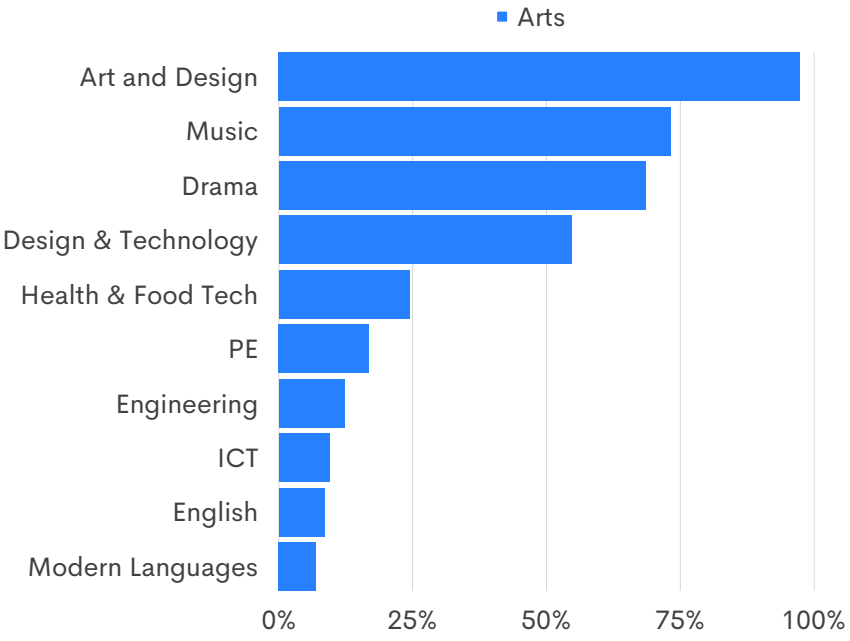


Figure 2: Top Ten Subjects Placed in *Arts* Category by Percentage | 626 responses



Social Science Subjects

Within the social science category, respondents were most adept at placing sociology (70%) and psychology (65%) but were more unsure of business and politics. While 43% correctly identified business as a social science, 36% considered it humanities. This rose to 47% and 38% respectively for politics. Over a third of respondents also placed physics, chemistry, biology and physical education into the social science category. This is likely due to confusion over the term 'science'.

Figure 3: Learner Placement of *Social Science* Subjects | 626 responses

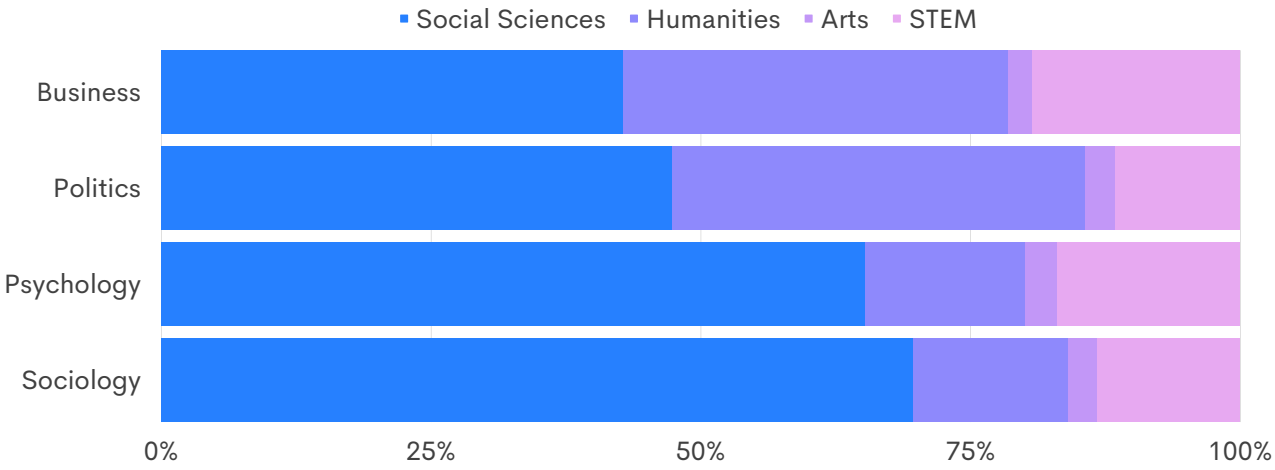
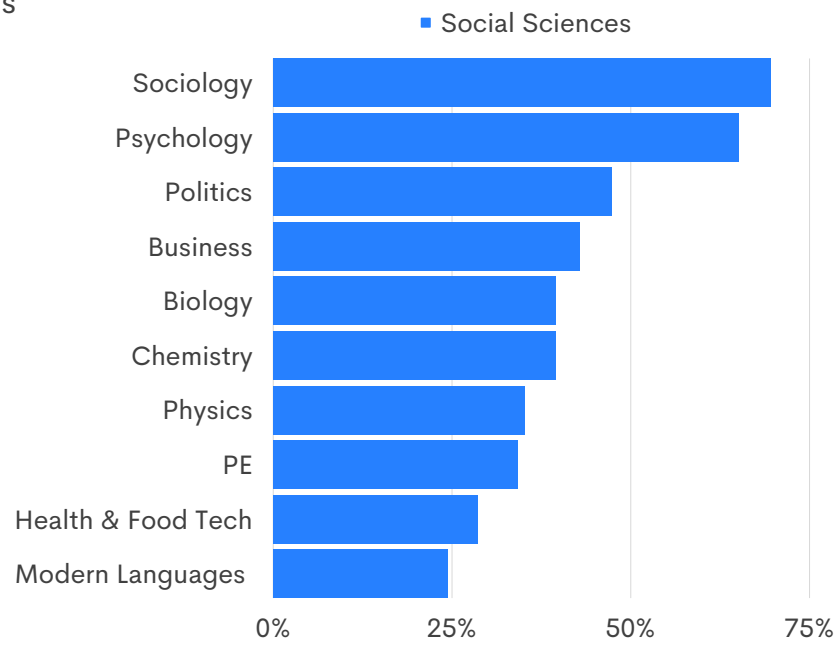


Figure 4: Top Ten Subjects Placed in *Social Science* Category by Percentage | 626 responses



Humanities Subjects

Of the humanities subjects, English caused the greatest confusion with 41% of respondents placing it in humanities and 31% placing it in STEM. This may be due to a lack of understanding around STEM and a belief that STEM constitutes the most important and compulsory subjects which includes English. Perhaps students identified English with the 'E' in STEM. More research would be required to understand how learners understand STEM subjects since this was beyond the scope of this research.

Of the remaining humanities subjects, respondents were most able to correctly identify history (80%) as a humanities subject, followed by religious studies (77%), geography (76%) and modern languages (56%). Interestingly, 24% of respondents placed modern languages into the social science category and 12% placed it in STEM, further reinforcing the conclusion that learners are confused about the meaning of STEM.

Figure 5: Learner Placement of *Humanities* Subjects | 626 responses

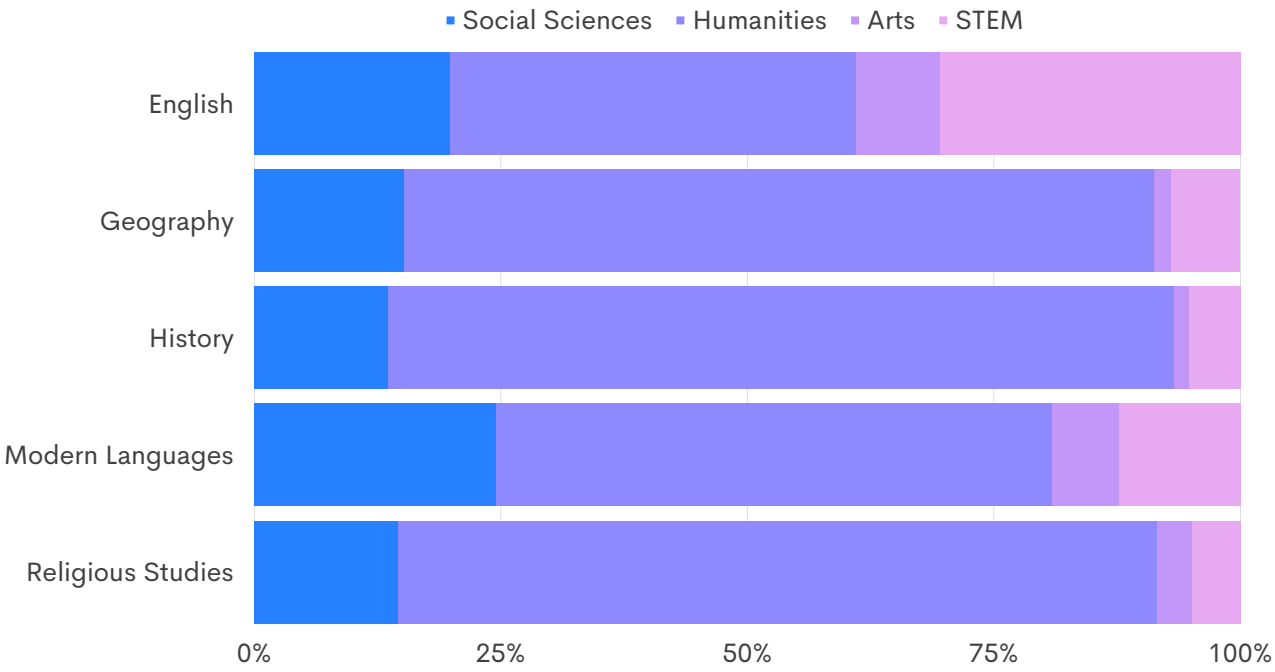
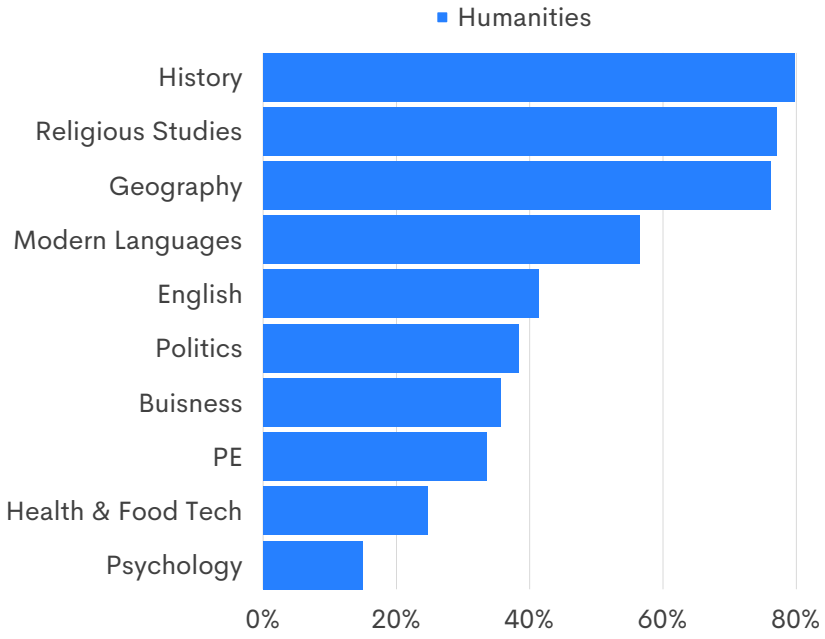


Figure 6: Top Ten Subjects Placed in *Humanities* Category by Percentage | 626 responses



STEM Subjects

Respondents were most adept at placing maths (77%) into the STEM category, followed by engineering (68%). Over half of respondents were able to identify the three 'hard' science subjects of physics (57%), chemistry (56%) and biology (55%) as STEM, despite over a third placing them in social sciences as discussed above.

ICT followed with 53% identifying it as STEM but a significant minority of 23% considering it a social science. For design and technology, more respondents placed it in arts (55%) than in STEM (36%). Similarly, health and food technology and physical education caused confusion, with more respondents placing health and food technology in social sciences (29%) than in STEM (23%) and more placing physical education in social sciences (34%), humanities (34%) and arts (17%) than in STEM (15%).

As was discussed above, it appears significant that 31% of respondents placed English in STEM, suggesting more research is required to understand how learners understand STEM subjects and the value placed on the acronym within classroom settings. This would support efforts to introduce SHAPE on equal and complimentary terms.

Figure 7: Learner Placement of *STEM* Subjects | 626 responses

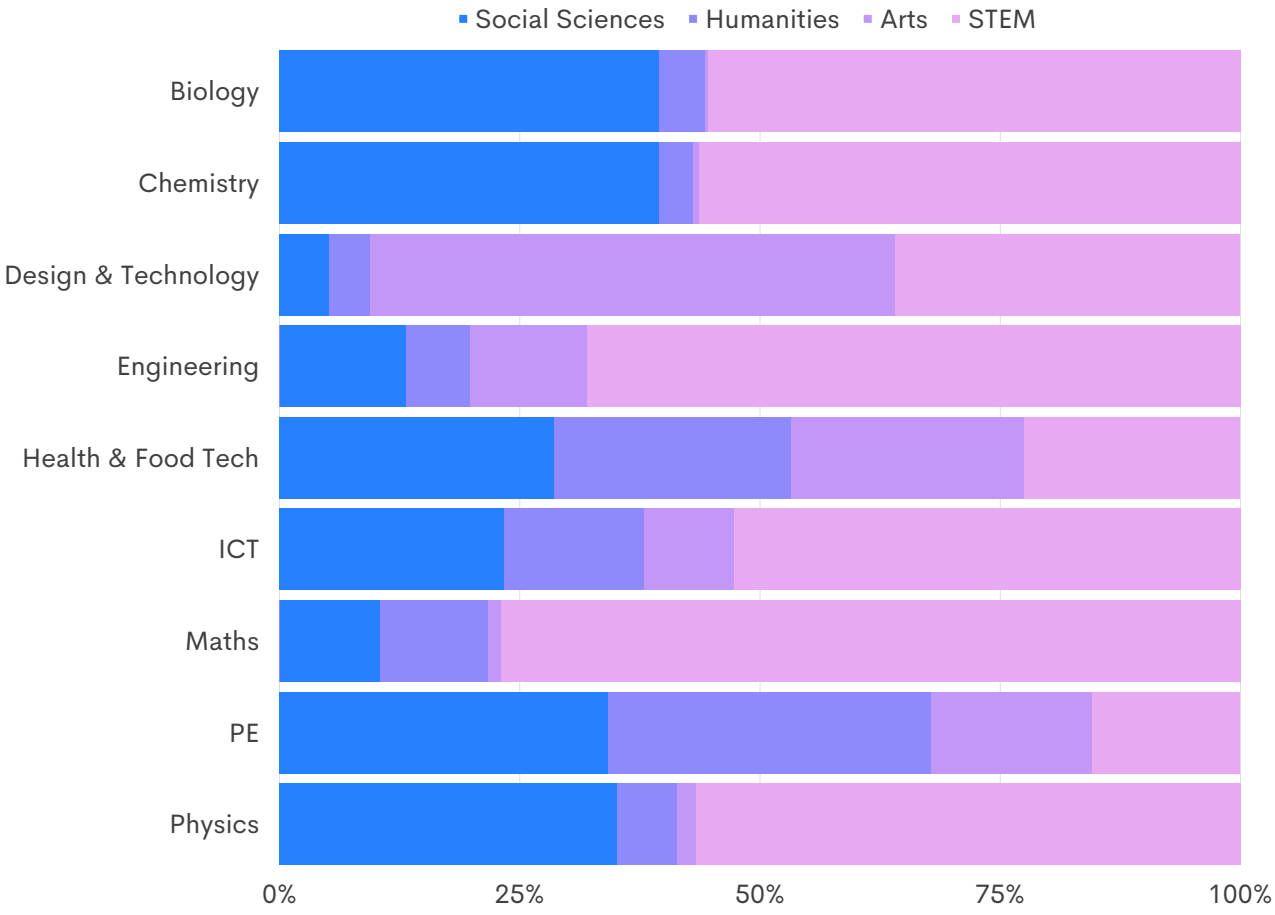
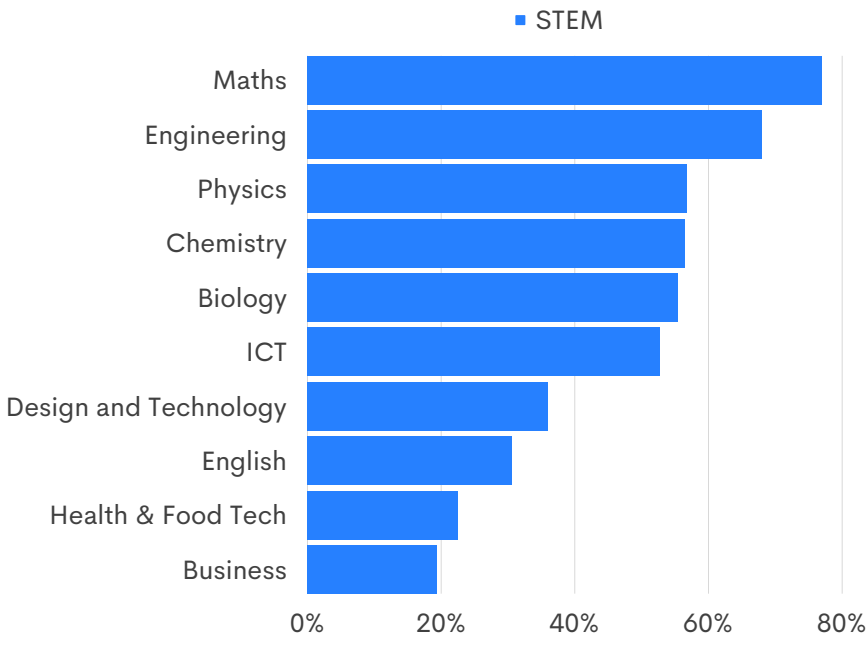


Figure 8: Top Ten Subjects Placed in *STEM* Category by Percentage | 626 responses



Subject Rankings Based on Enjoyment

In the pre-workshop survey, respondents were asked to rank twelve subjects studied in Key Stage 3 or its equivalent across the UK. Ranking was based on enjoyment, with 1 being their favourite subject and 12 being their least favourite subject.

Table 8 outlines the mean placement of subject categories by all respondents and according to gender. Social sciences was not included since no social science subjects are consistently taught at this age group across the UK, and so none appeared in the twelve subjects provided (see Table 7).

The four STEM subjects rank slightly higher than the eight SHAPE subjects overall. This gap increases for male respondents but is slightly reversed for female respondents. Male respondents display a definitive preference between subject groupings with STEM ranking highest. For female respondents the distinction between subject groupings is less marked though there is a preference for arts subjects.

Table 8: Mean Placement of Subject Category Based on Enjoyment

	All | 626 responses	**Female** | 289 responses	**Male** | 302 responses
SHAPE (8 subjects)	6.68	6.37	7.02
STEM (4 subjects)	6.14	6.75	5.45
Arts (3 subjects)	6.05	5.60	6.61
Humanities (5 subjects)	7.05	6.83	7.27

When considering the mean placement of each subject, art and design, physical education and English ranked highest whilst modern languages and religious studies ranked lowest. The findings are largely consistent with an analysis conducted in 2021 by Tallulah Machin for MFL Mentoring, based on 5,755 survey responses from learners in years 8 and 9 in Wales. Note that Welsh is included in those rankings and modern languages are referred to as international languages (IL).

When dividing the rankings by gender, the top three subjects and the bottom two subjects remain largely the same, aside from the dramatic movement of ICT which drops to 11th for female learners and rises to 2nd for male learners. Drama rises to 5th for female learners and drops to 9th for male learners. Similarly, music rises to 7th for female learners and drops to 10th for male learners. Female learners ranked history higher than male learners, while male learners ranked geography higher than female learners. Both science and maths ranked one position higher for male learners than female learners.

Figure 9: Mean Placement of Subjects Based on Enjoyment | 626 responses

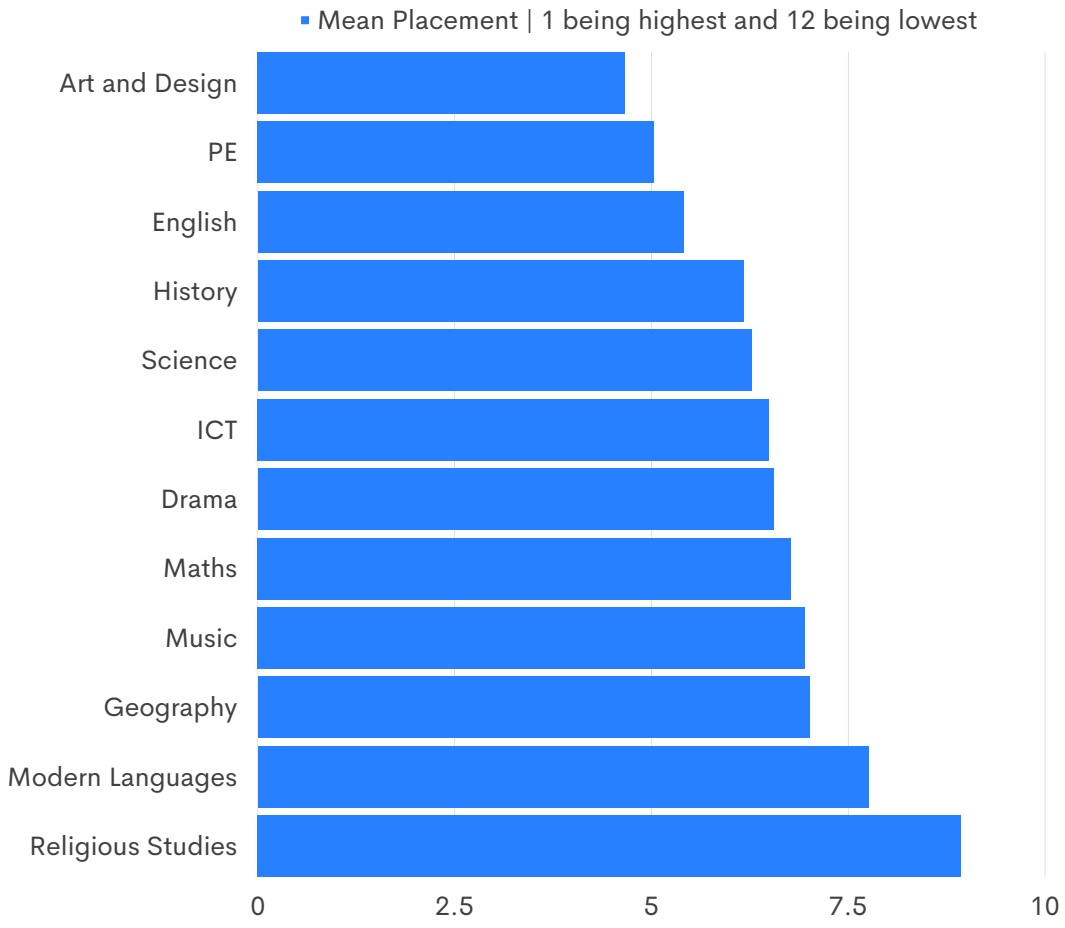


Figure 10: Mean Placement of Subjects Based on Enjoyment for Female Learners | 289 responses

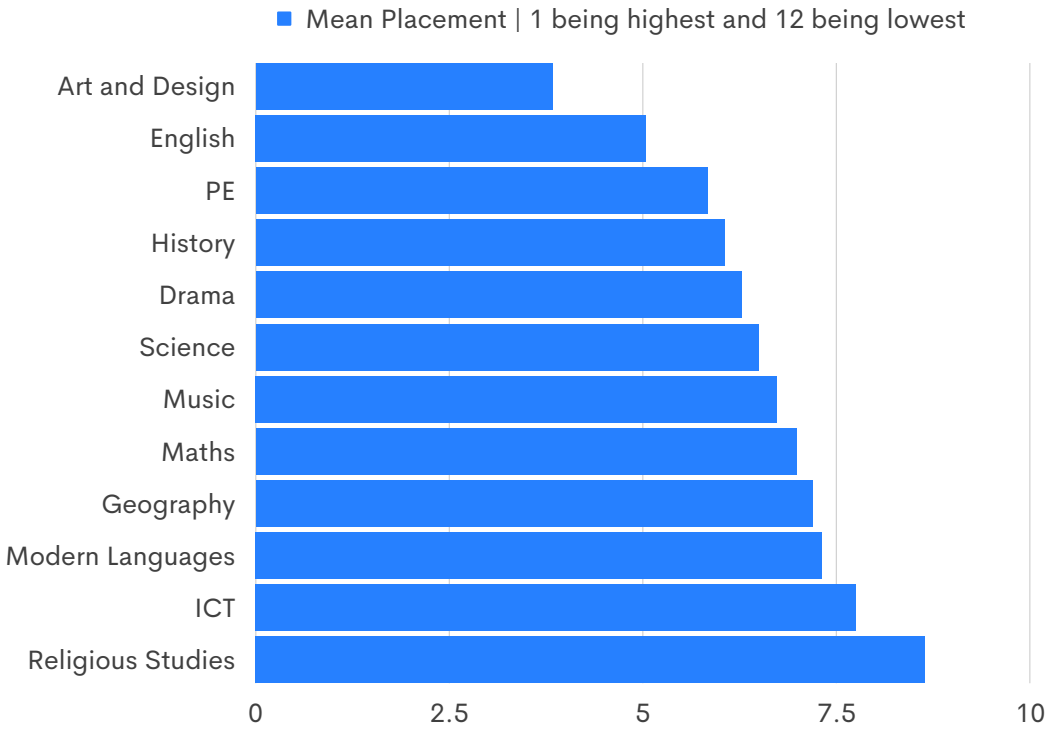
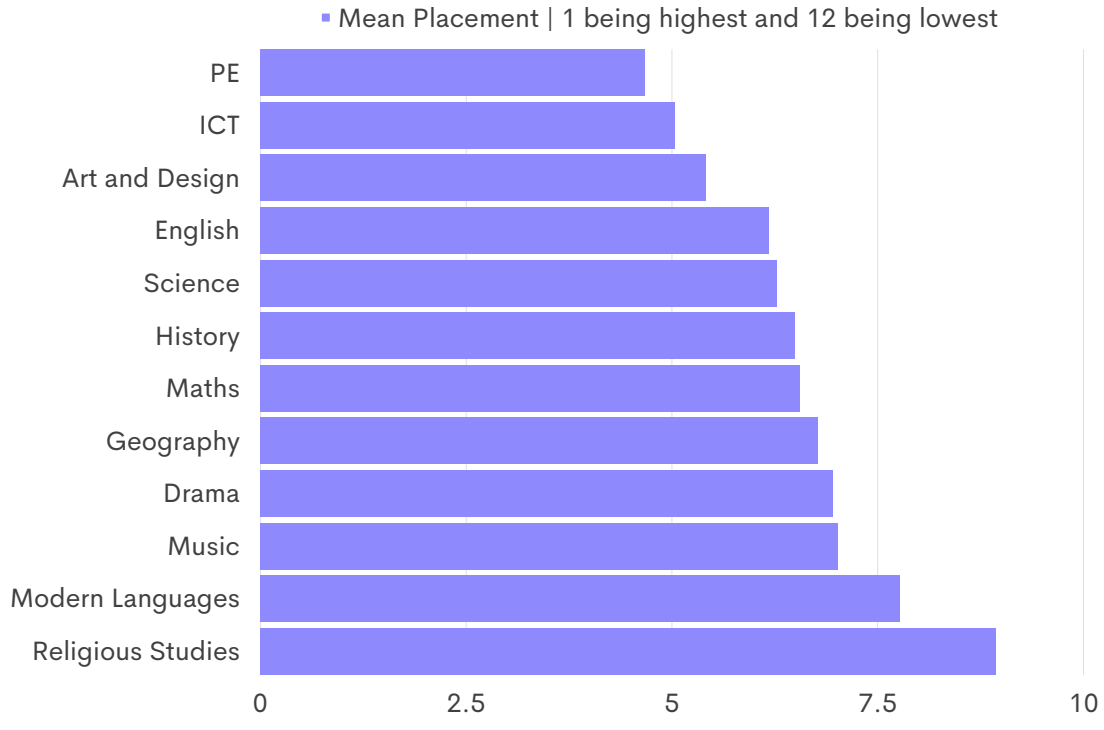


Figure 11: Mean Placement of Subjects Based on Enjoyment for Male Learners | 302 responses



Figures 12–15 show the percentage of all respondents who placed each subject in each position. The responses demonstrate a consistent preference for art and design and physical education with 49.4% and 48.6% of learners placing them respectively in their top three subjects. Conversely, 55.6% of learners placed religious studies in their bottom three subjects, followed by a less drastic trend for modern languages.

History and geography follow similar patterns though history ranks consistently higher. The placement of drama rises at both the top and the bottom ends of the ranking and drops in the centre. Music peaks in 8th and 9th place in almost a reverse pattern to English which peaks in 3rd and 4th place. The STEM subjects (maths, science and ICT) are placed relatively evenly across all twelve positions, never dipping below 5% or above 12% of respondents in any one placement.

Therefore, whilst SHAPE subjects elicit clear preferences from learners, STEM subjects (particularly maths and science) remain consistent across the rankings. SHAPE subjects therefore polarise opinion amongst learners more readily than STEM subjects.

Figure 12: Placement of Subjects Based on Enjoyment | 626 responses | 1 being highest and 12 being lowest

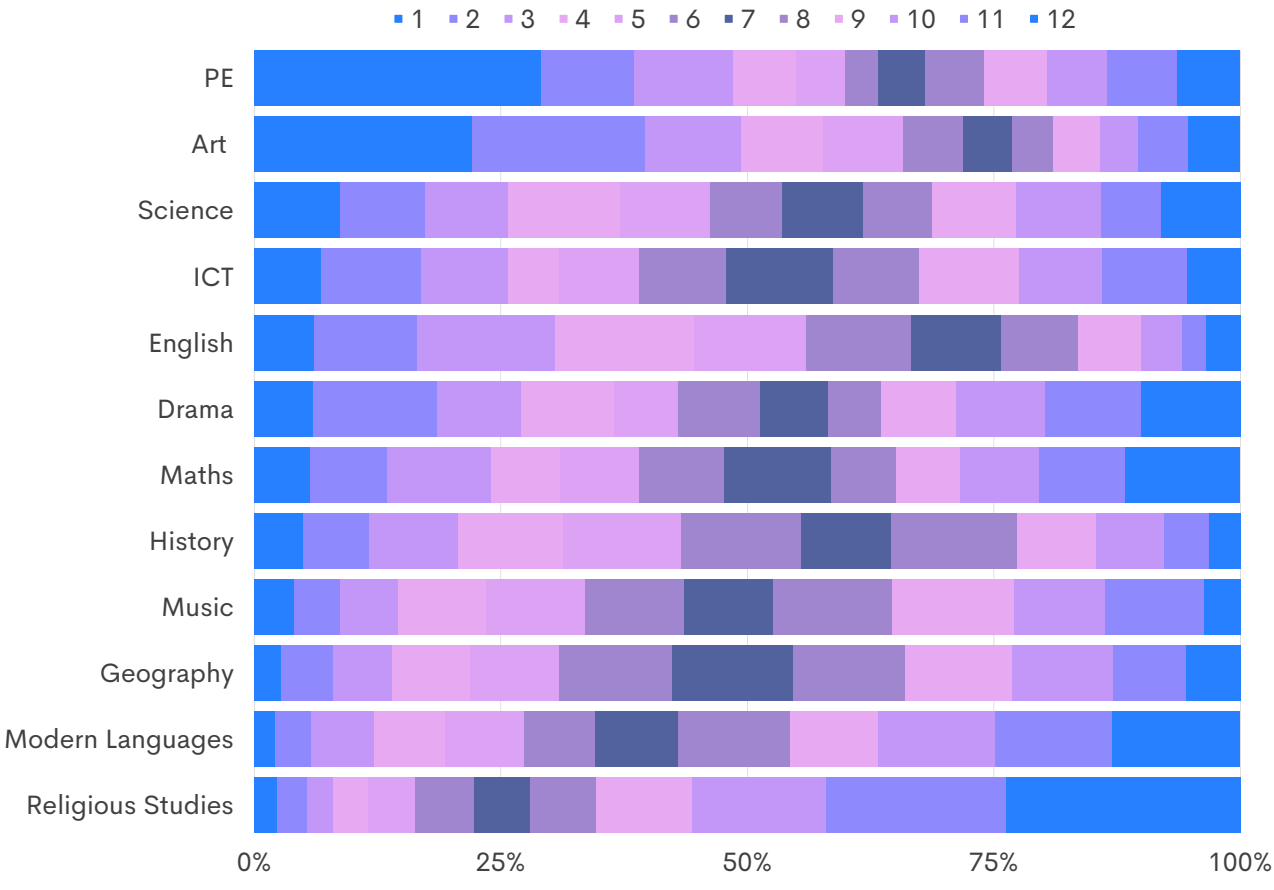


Figure 13: Placement of *Arts* Subjects Based on Enjoyment | 626 responses | 1 being highest and 12 being lowest

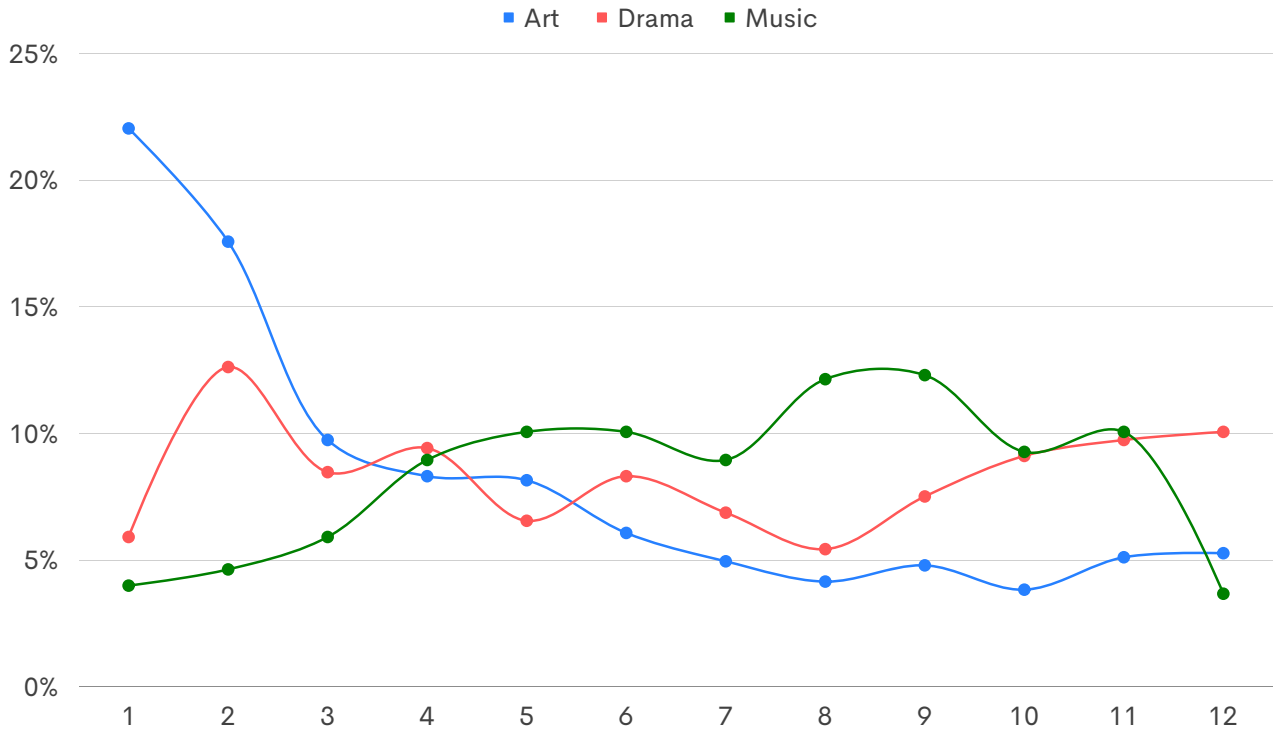


Figure 14: Placement of *Humanities* Subjects Based on Enjoyment | 626 responses | 1 being highest and 12 being lowest

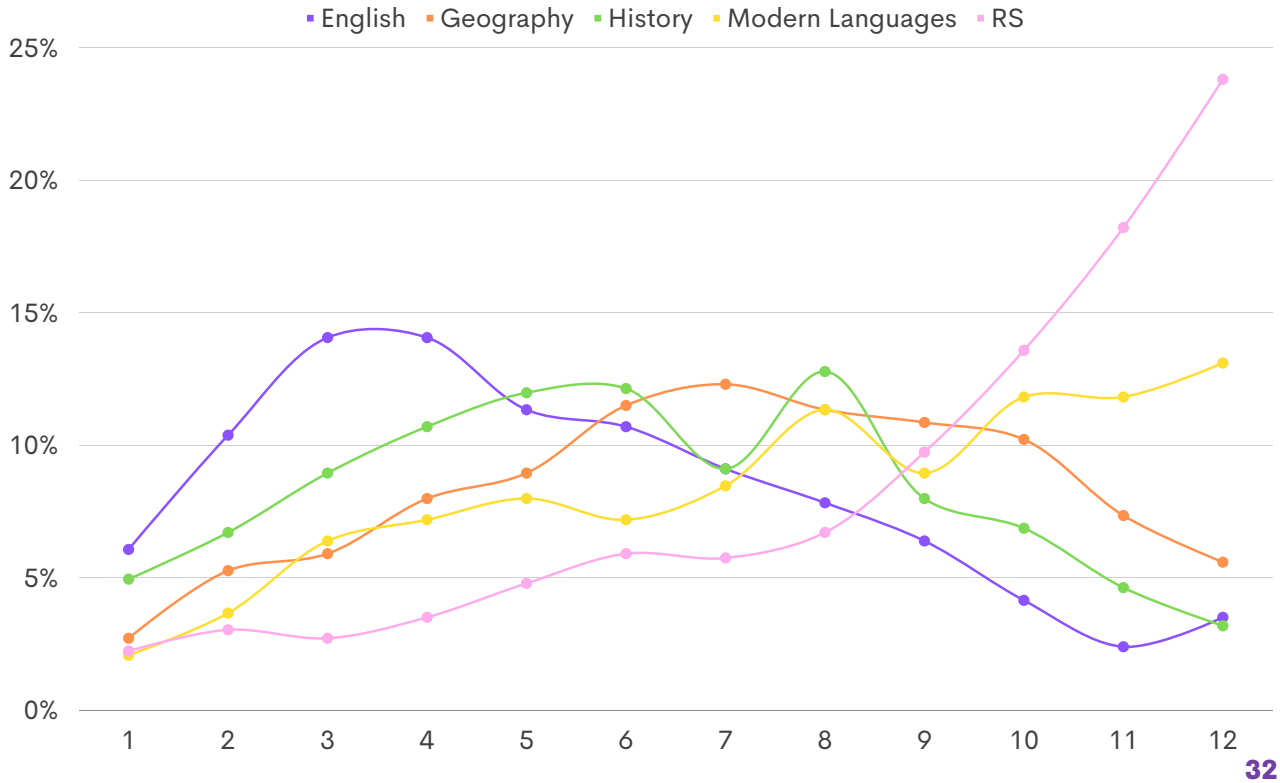
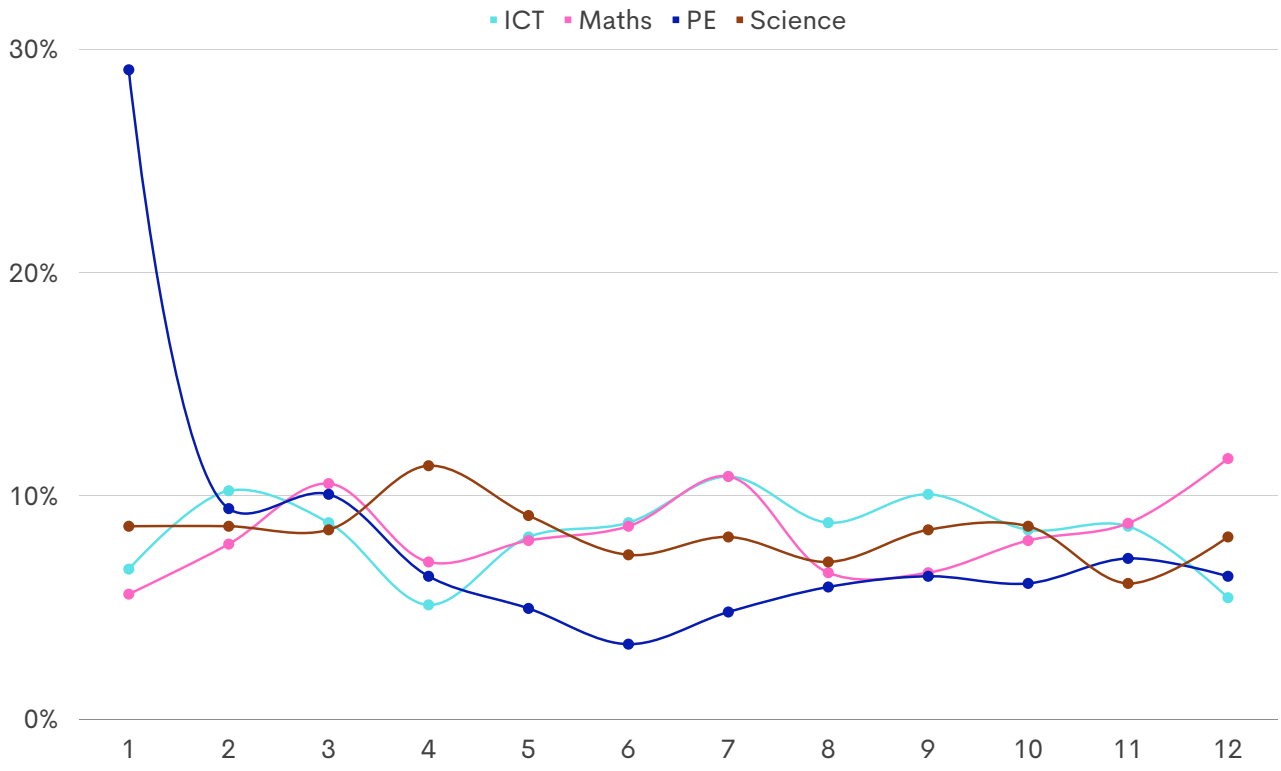


Figure 15: Placement of *STEM* Subjects Based on Enjoyment | 626 responses | 1 being highest and 12 being lowest



Enjoyment of and Interest in SHAPE Subjects

The pre-workshop survey also asked learners direct questions about their perception of SHAPE subjects. Open answers to these questions highlighted that, even after the SHAPE acronym had been explained by their teacher and in the survey, 13% of learners did not know what SHAPE was. These responses have therefore been removed from the analysis of any questions that used the SHAPE acronym.

> *I don't know what [SHAPE subjects] are, we don't have them.*

> *I haven't learnt about SHAPE subjects yet.*

> *I haven't done any SHAPE tests.*

41% of learners agreed or strongly agreed that they find SHAPE subjects fun. This rose to 50% when asked if they find SHAPE subjects interesting. When analysing the responses by gender, female students were marginally more likely to agree and male students more likely to disagree to both statements. A large proportion of respondents answered '*neither agree nor disagree*'. Corresponding open answers suggest this is because they enjoy some SHAPE subjects but not others and find it difficult to group them as one or other because other factors, such as the teacher, impact on their attitude to the subject.

> *It is difficult [to] class them as one.*

> *I find the arts part fun but I don't find many others fun like humanities. I do however find the humanities interesting.*

> *For the second answer I put either/or because it depends on who's teaching you.*

Figure 16: Responses to *'I find learning about SHAPE subjects at school fun'*
| 547 responses

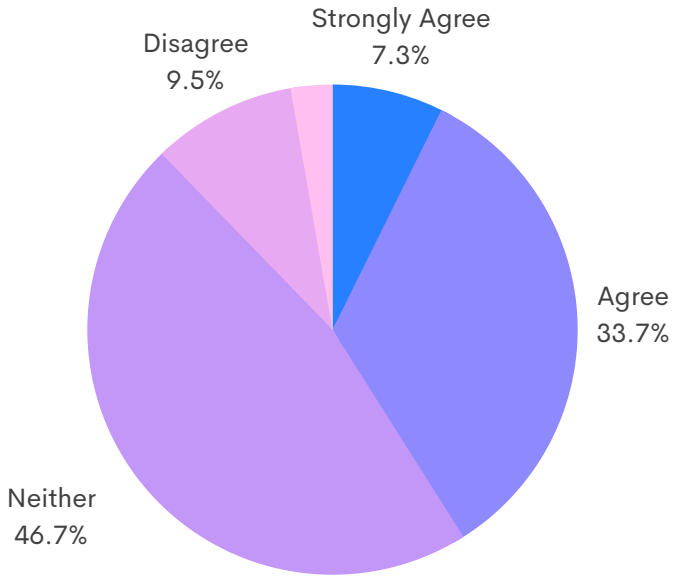


Figure 17: Responses to *'I find learning about SHAPE subjects at school interesting'*
| 547 responses

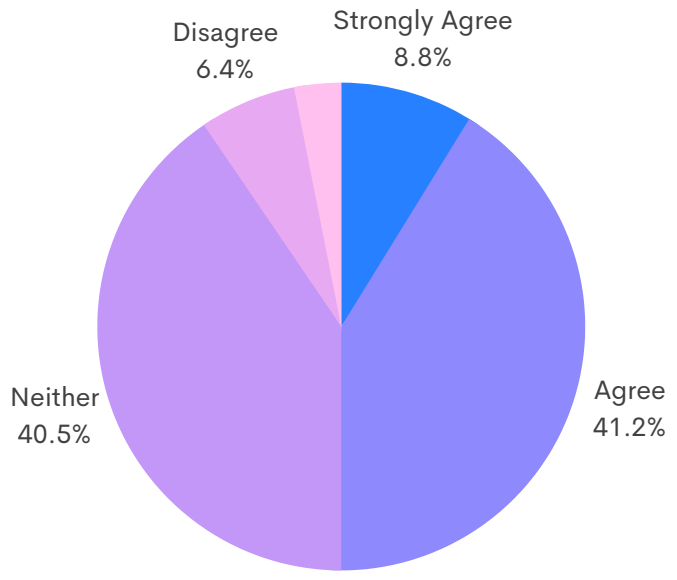


Figure 18: Responses to '*I find learning about SHAPE subjects at school fun*' by Gender

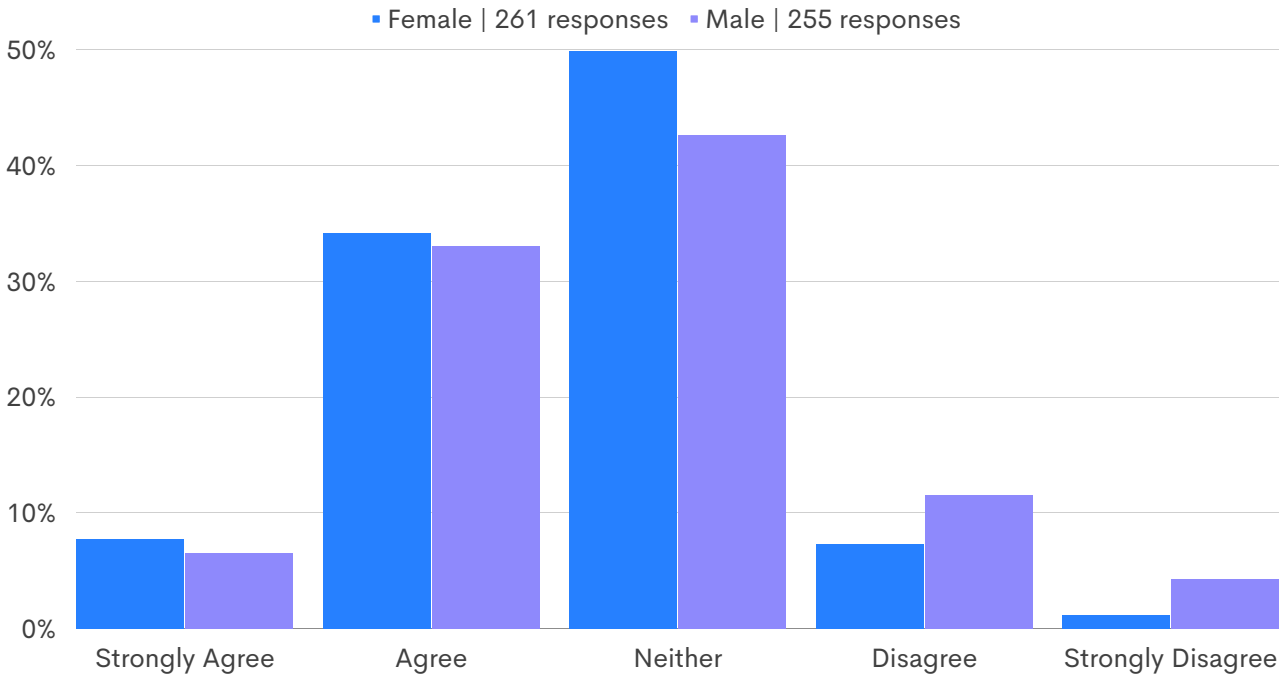
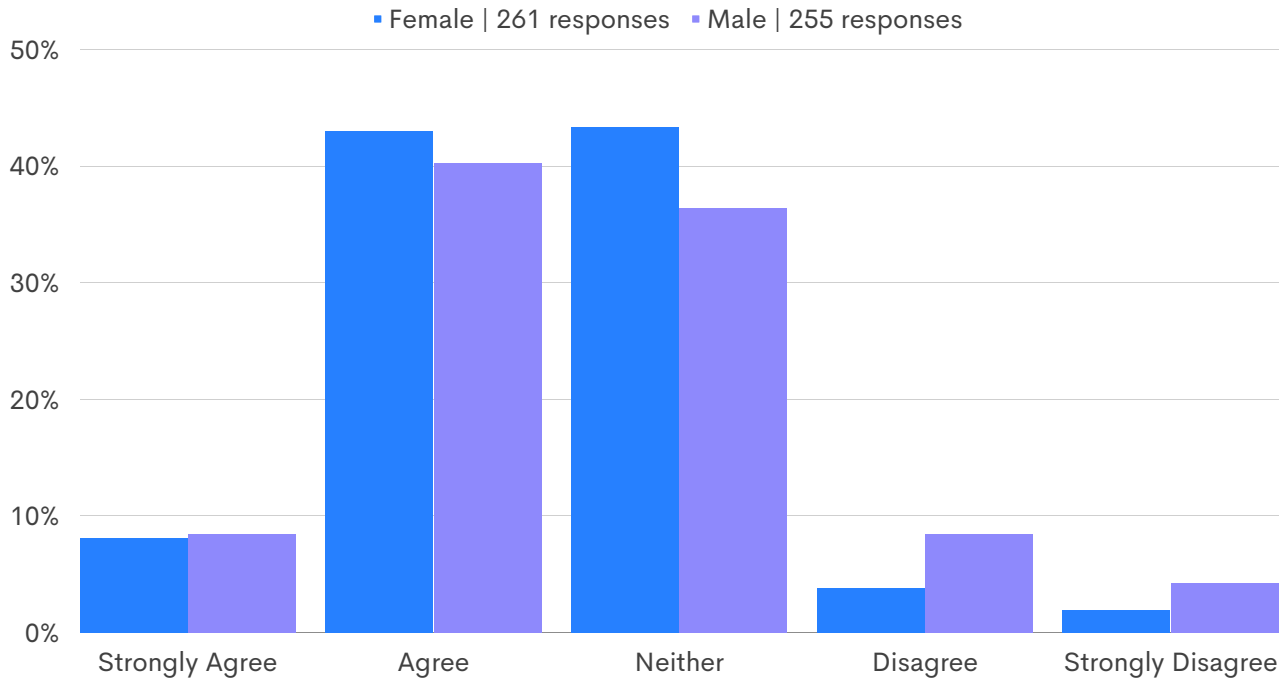


Figure 19: Responses to '*I find learning about SHAPE subjects at school interesting*' by Gender



Connecting Subjects

When asked if they could see connections between SHAPE subjects in school and with their daily lives, respondents were more likely to agree to the former (53%) than the latter (46%). As above, female students were marginally more likely to agree and male students more likely to disagree to both statements. A large proportion again answered 'neither agree nor disagree' suggesting an uncertainty or indifference to the notion of connectivity amongst subjects and between school and home life.

Open answers highlighted a range of key themes in response to the statements. Some learners were able to see and articulate the connections with examples, particularly for the arts.

> *Everyday we experience things related to the lessons of SHAPE, for example we see different languages, pieces of art, etc.*

> *Music helps with languages, history helps with geography and so on, so forth. These all take place in my life as I use them every day.*

> *As someone who wishes to do something with art in the future, it is easy to see the links between other subjects. Art can link in with almost every subject I know.*

> *Growing up in a household full of different languages I see SHAPE a lot in the house.*

Other learners highlighted how SHAPE subjects relate to people and the world around us.

> *I think that SHAPE subjects are about us so they do connect with our daily lives.*

> *I can see them in most human nature and the world itself.*

> *They involve understanding people.*

Some learners highlighted the importance of careers and skills as a way that SHAPE subjects relate to their lives.

> *Some subjects I can see the connections between SHAPE and school but some lessons I can't see how they would relate.*

> *I can see them in school but not outside of school because outside of school I don't think about lessons.*

> *School subjects don't really interfere with my daily life.*

Some learners agreed they saw connections but drew examples from STEM rather than SHAPE, highlighting a continued misunderstanding as to the difference between the two acronyms.

> *I believe that some subjects have connections to each other like science and maths.*

> *I can see when subjects join together like PE and science. I can recognise when in my daily life these things show up as well.*

> *The teachers sometimes link each subject together for example maths and science.*

Other learners disagreed, were unsure or were confused by the question.

> *I do not know what these statements mean.*

> *I wasn't really sure but I can't think of any links.*

> *I can't really see any links between SHAPE subjects in school, but I'm not sure why this is.*

> *I can't see any comparisons between life and SHAPE except art.*

Figure 20: Responses to *'I can see connections between the different SHAPE subjects in school'* | 544 responses

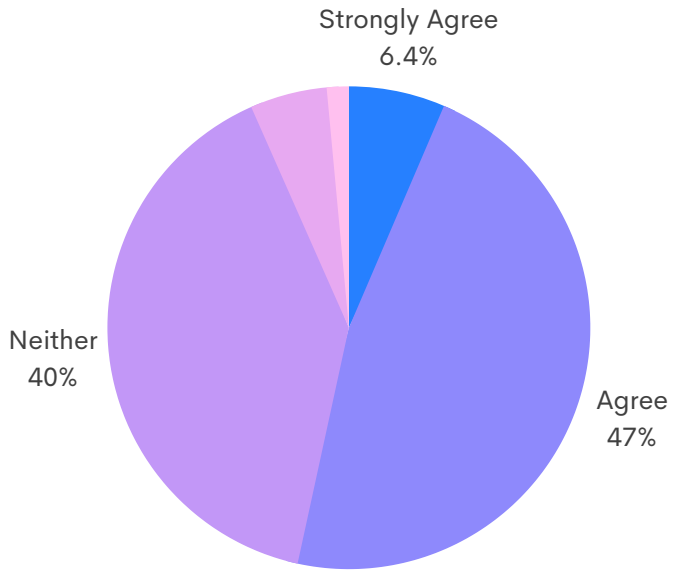


Figure 21: Responses to *'I can see connections to SHAPE subjects in my daily life'* | 544 responses

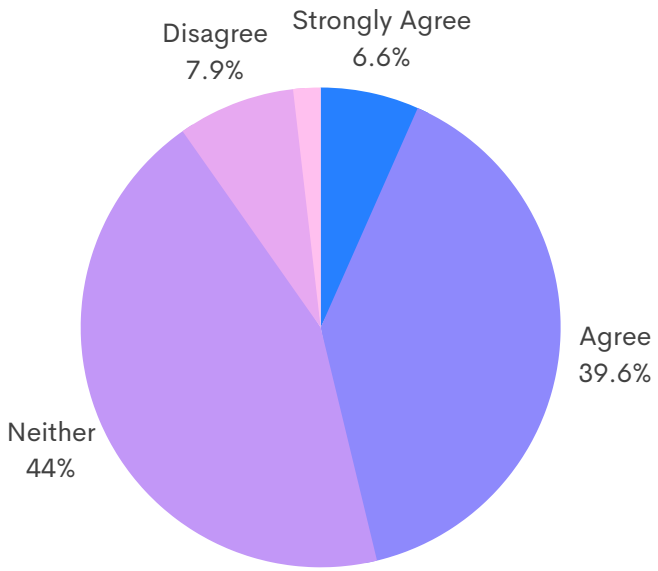


Figure 22: Responses to *'I can see connections between the different SHAPE subjects in school'* by Gender

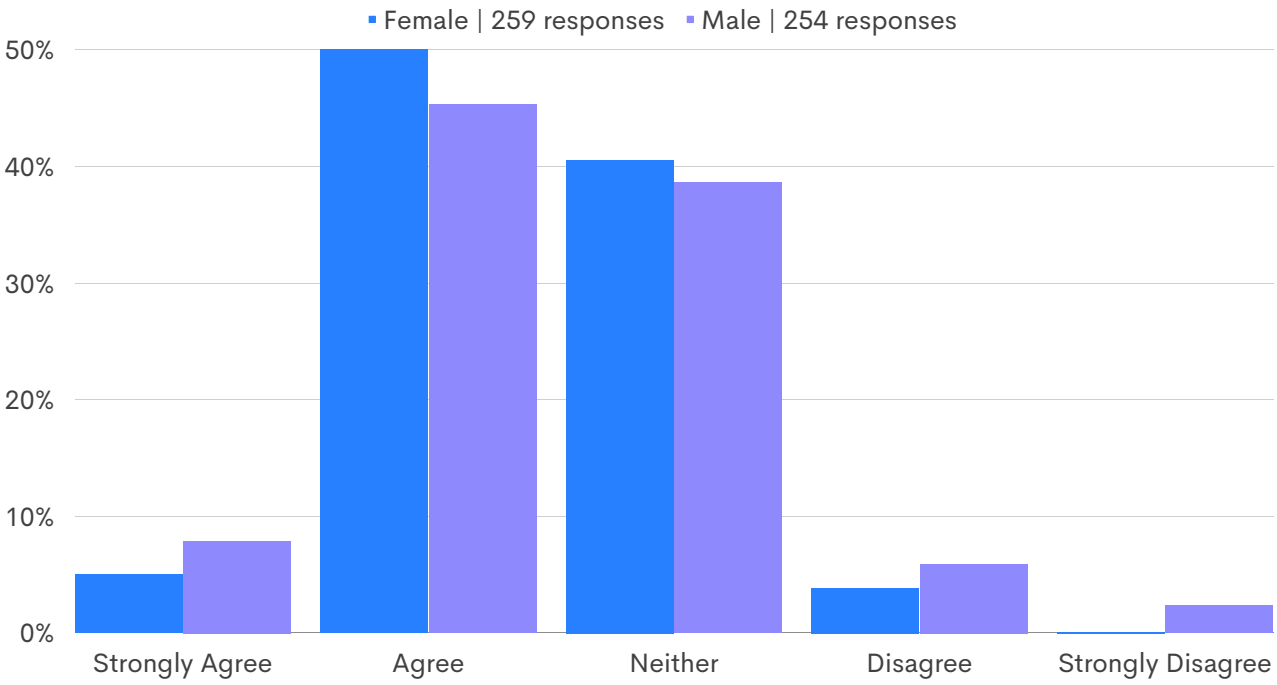
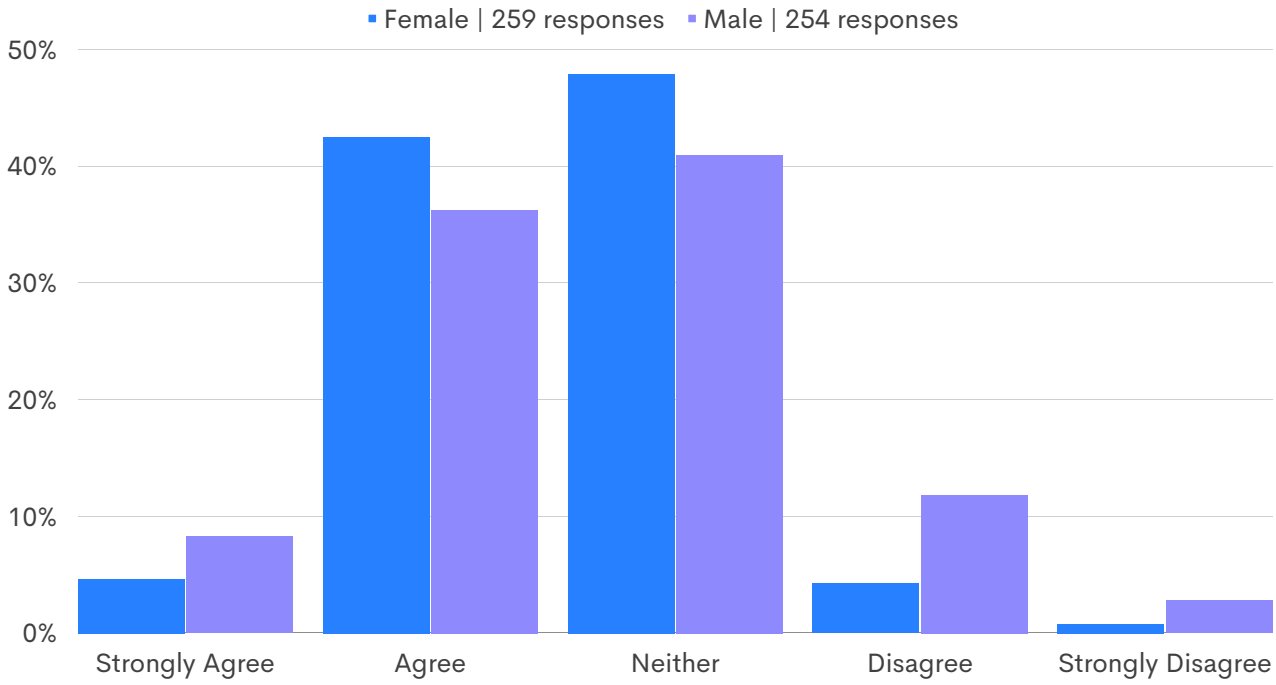


Figure 23: Responses to *'I can see connections to SHAPE subjects in my daily life'* by Gender



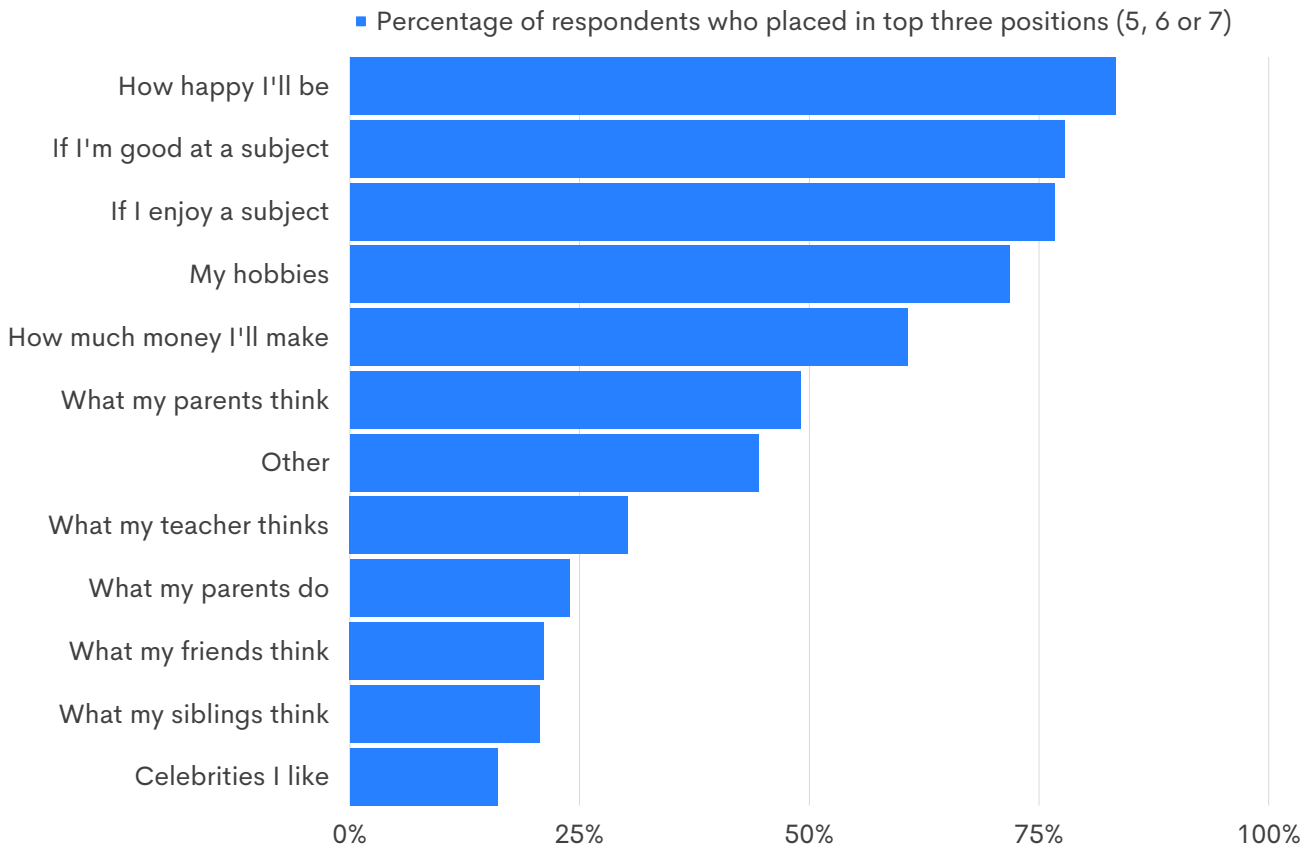
Skills and Careers

Value is often placed on subjects when they are viewed as most important for gaining skills and leading to careers. The pre-workshop survey therefore sought to understand learner perspectives on SHAPE and STEM subjects in relation to careers.

Factors Influencing Career Choice

When asked the extent to which a list of given factors influence their choice of career, the most influential factor was happiness (83%), followed by aptitude in a subject (78%), enjoyment of a subject (77%) and hobbies (72%). The opinions of others, such as parents, teachers and siblings, all ranked lower; however, it should be noted that 49% of respondents still agreed that their parents' opinions were influential and 30% agreed that their teachers' opinions were influential.

Figure 24: Responses to '*How much do the factors below influence your careers choice? 1 is the lowest (not at all an influence) and 7 is the highest (very much an influence)*' | 612 responses



Subject Rankings Based on Careers

Respondents were asked to rank twelve subjects taught at Key Stage 3 or its equivalent in terms of the subjects they consider most important for their future career, 1 being the most important and 12 being the least important. As with the ranking for enjoyment, none of the subjects listed were considered social sciences.

Table 9 outlines the mean placement of subject categories by all respondents and according to gender. When compared to the rankings for enjoyment of subjects (see Table 8), the prioritisation of STEM subjects remains and is in fact more acute, suggesting that there is greater consensus amongst learners as to the importance of STEM subjects above SHAPE subjects in relation to their future career.

The difference between the mean placement of SHAPE and STEM subjects based on enjoyment was 0.54 in favour of STEM (see Table 8). This difference rose to 1.44 in favour of STEM for importance for career, marking a shift of 0.9 further towards STEM when comparing the difference between rankings (compare Tables 8 and 9).

The difference between the two rankings was less marked for male learners since the preference for STEM over SHAPE was clear in both rankings, a difference of 1.57 for enjoyment compared to 1.86 for importance for careers, marking a shift of only 0.29 further towards STEM. The difference was far more marked for female learners who favoured SHAPE subjects for enjoyment (a difference of 0.38 in favour of SHAPE) but favoured STEM subjects for careers (a difference of 1.16 in favour of STEM), marking a shift of 1.52 towards STEM.

Humanities subjects rank higher for importance (6.50) than enjoyment (7.05), while arts subjects rank significantly lower for importance (7.78) than enjoyment (6.05), a shift most stark for female learners.

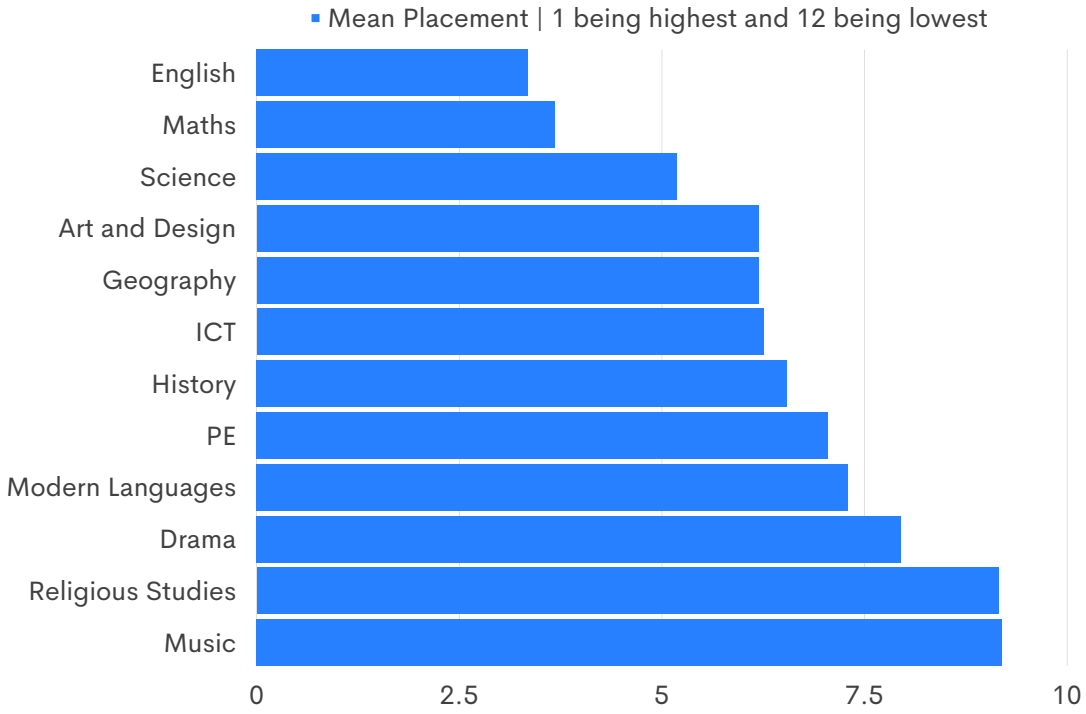
Table 9: Mean Placement of Subject Category Based on *Enjoyment*

	All | 626 responses	**Female** | 289 responses	**Male** | 302 responses
SHAPE (8 subjects)	6.68	6.37	7.02
STEM (4 subjects)	6.14	6.75	5.45
Arts (3 subjects)	6.05	5.60	6.61
Humanities (5 subjects)	7.05	6.83	7.27

Table 10: Mean Placement of Subject Category Based on *Importance for Future Career*

	All | 608 responses	**Female** | 277 responses	**Male** | 297 responses
SHAPE (8 subjects)	6.98	6.86	7.12
STEM (4 subjects)	5.54	5.73	5.26
Arts (3 subjects)	7.78	7.69	7.99
Humanities (5 subjects)	6.50	6.36	6.60

Figure 25: Mean Placement of Subjects Based on *Importance for Future Career* | 608 responses



The mean placement of each subject based on importance for careers highlights a clear privileging of English and maths followed by science. Music and religious studies were placed lowest followed by drama and modern languages. When comparing these responses to ranking based on enjoyment (compare Figures 9 and 25), some subjects are similarly placed while others move up or down the ranking. Geography, for example, ranked 10th for enjoyment but 5th for importance, surpassing history. Conversely, PE ranked 2nd for enjoyment but 8th for importance.

When dividing the rankings by gender, the mean placement does shift (as explained above) but the ordering of subjects remains relatively similar compared to the differences found in the earlier ranking based on enjoyment (compare Figures 10, 11, 26 and 27). For example, while ICT does drop in the ordering for female learners compared to male learners, it is only by three places compared to nine places previously. There is therefore greater agreement between genders in regards to the importance of subjects for careers compared to their enjoyment of them.

Figure 26: Mean Placement of Subjects Based on *Importance for Future Career* for Female Learners | 277 responses

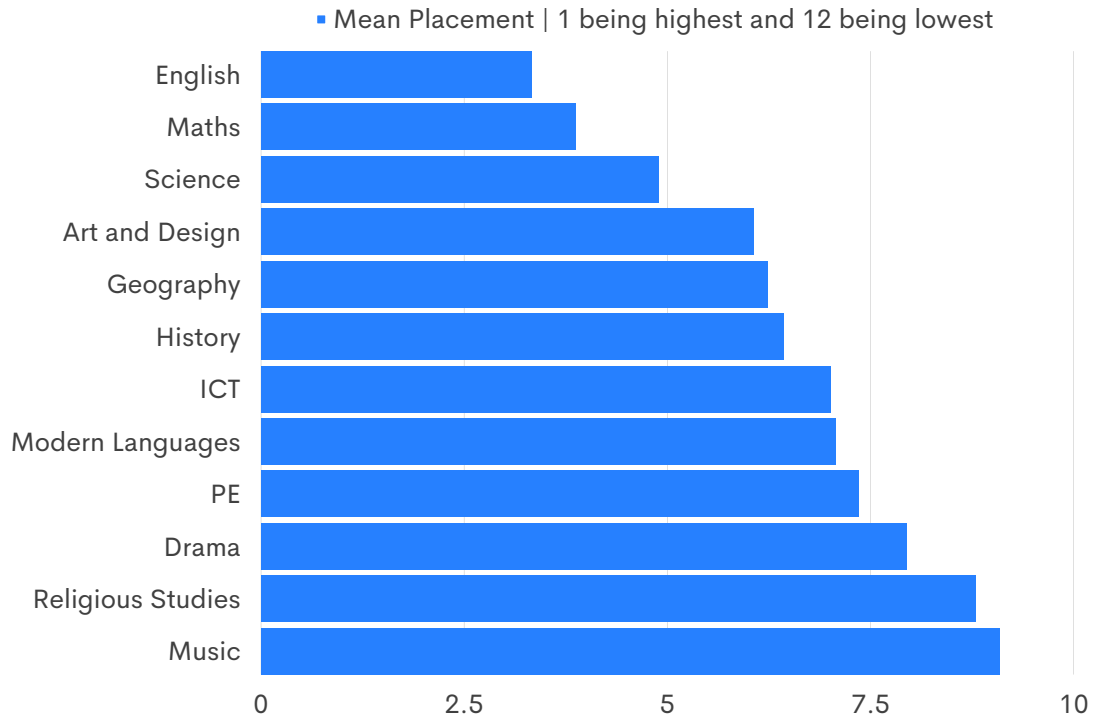
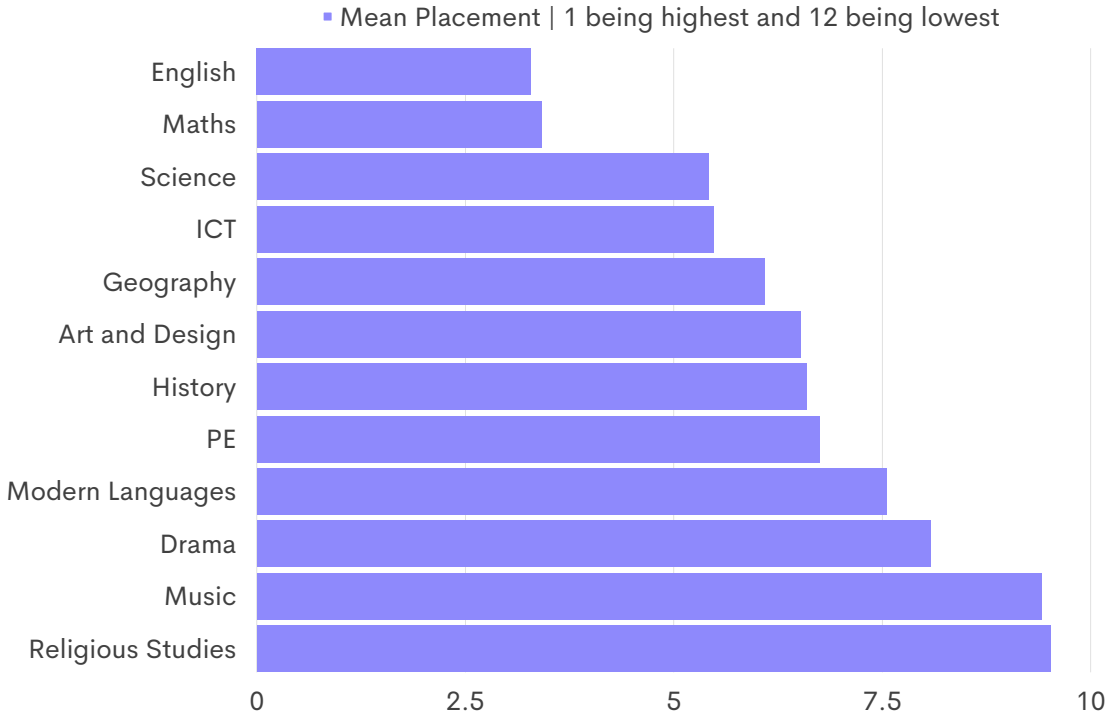


Figure 27: Mean Placement of Subjects Based on *Importance for Future Career* for Male Learners | 297 responses



Likelihood of Careers in SHAPE and STEM

Respondents were asked if they knew what career they would like to go into and then asked the likelihood of their career involving SHAPE and STEM subjects. Respondents who indicated they did not understand SHAPE or STEM were removed from the analysis.

50% of respondents agreed they knew what career they wanted to do, while 42% were unsure; there was little to no variation based on gender. 49% agreed they were likely or very likely to choose a career that involves SHAPE subjects. This rose to 62% for STEM subjects with learners more certain of their answer.

Dividing the responses by gender highlights that female learners (46%) were less likely than male learners (49%) to agree for SHAPE but more likely to agree (64% compared to 61%) for STEM. Female learners were also more uncertain with SHAPE subjects while male learners were more uncertain with STEM subjects. This is a reversal of trends found elsewhere in the data where male learners privilege STEM and female learners privilege SHAPE, indicating more research would be required in this area.

Figure 28: Responses to *'How likely are you to choose a career that involves SHAPE/STEM subjects?'* | 530 responses

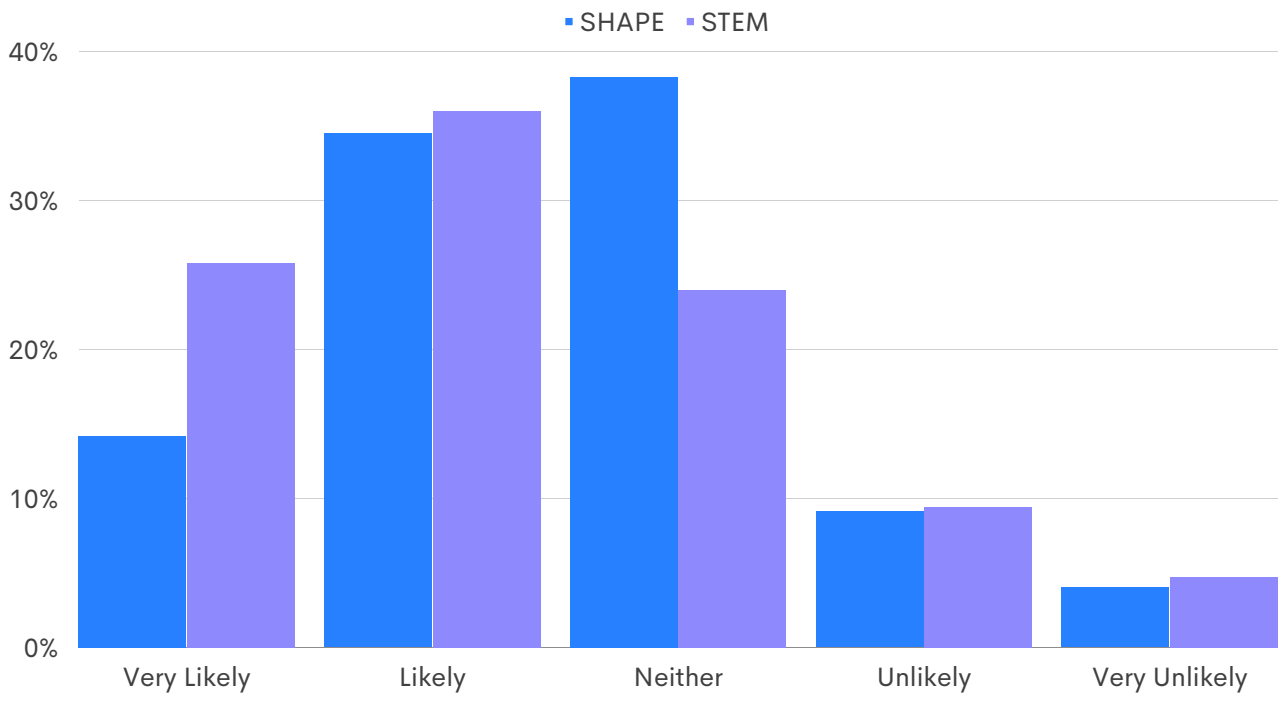


Figure 29: Responses to *'How likely are you to choose a career that involves SHAPE subjects?'* by Gender

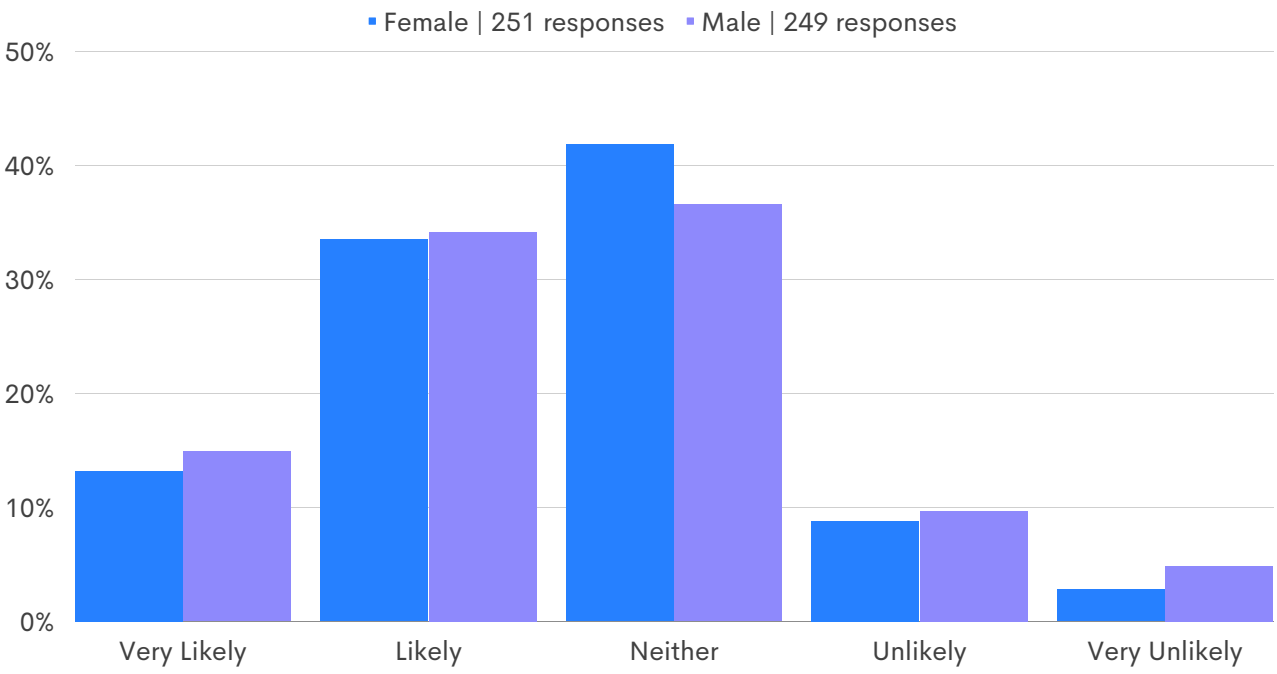
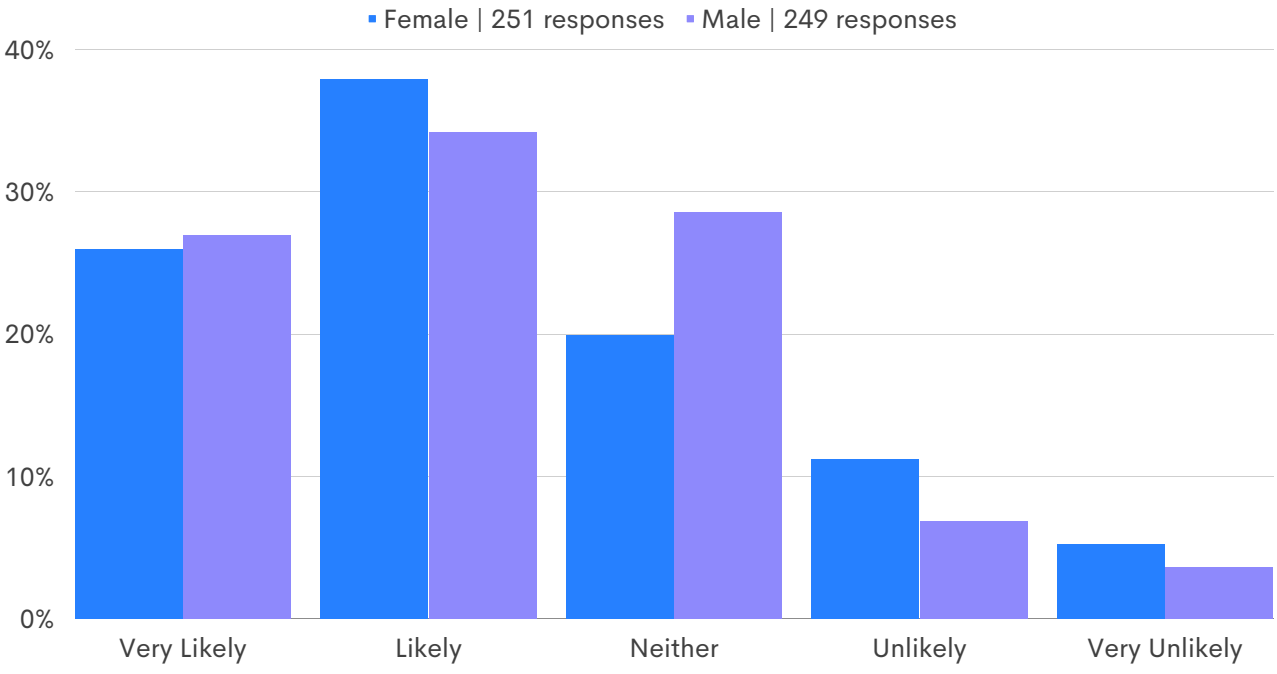


Figure 30: Responses to *'How likely are you to choose a career that involves STEM subjects?'* by Gender



In response to an open question about the involvement of SHAPE and STEM subjects in their careers, many learners understood the value of both.

> *Most jobs that pay highly involve STEM and the jobs that are more enjoyable include SHAPE.*

> *If I want to be an Architect then I will need maths and technology and parts of the other STEM subjects and Architect uses art and DT SHAPE subjects.*

> *Because the STEM and the SHAPE subjects are some of the core subjects.*

> *I think I will join careers involving SHAPE and STEM.*

Other learners privileged or only mentioned STEM subjects.

> *I honestly think that most things include science or maths so I think it is kind of difficult not to include science or maths in a career.*

> *STEM subjects involve core subjects.*

> *Because most jobs include STEM subjects.*

One learner highlighted their parents' impact on their choices. Another learner didn't see the value of either SHAPE or STEM despite providing SHAPE subjects as examples of the ones they would need.

> *I don't really have an idea on what I want to do in the future but based on my favourite subjects I think it's very likely for me to rather go into a career that involves SHAPE but based on what my parents [want] it's more likely for me to go into STEM.*

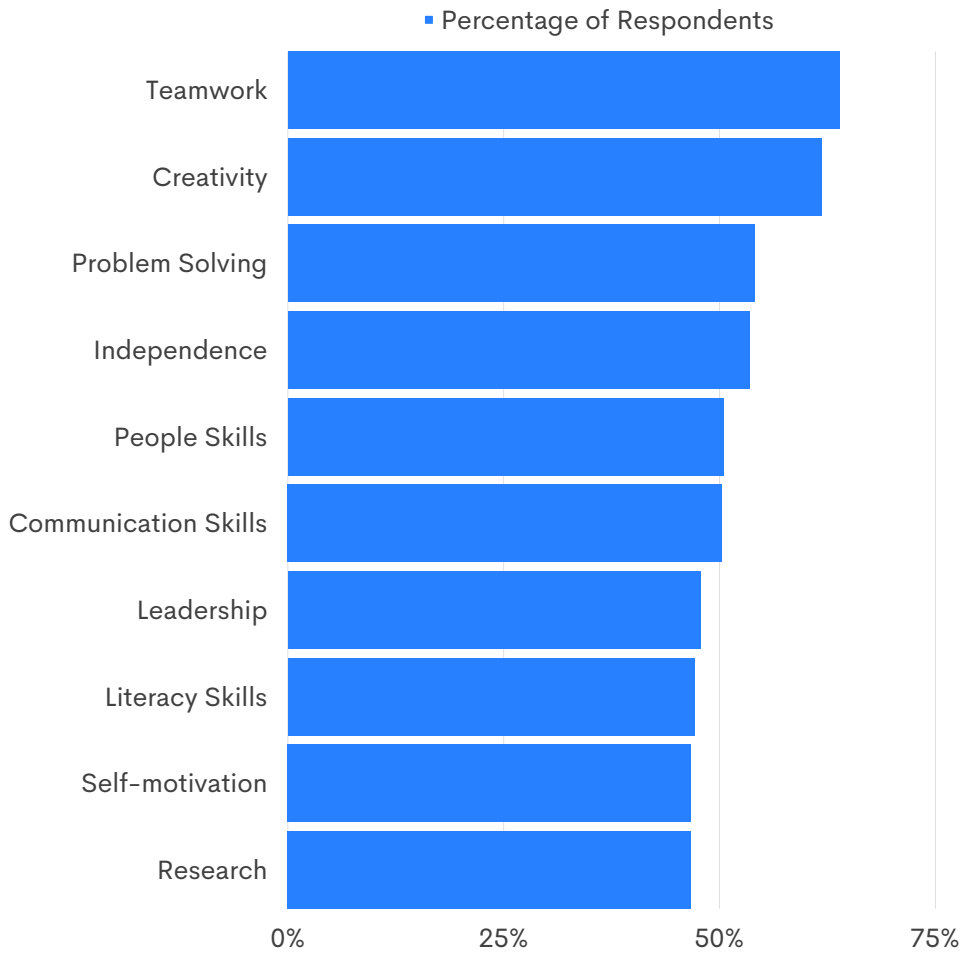
> *I'd like to work in the travel industry, so STEM and SHAPE subjects don't impact that very much. English might be needed, but the jobs that matter the most are foreign languages and maybe Geography (depends on the job in the travel industry).*

Skills in SHAPE Subjects

When presented with a list of 24 possible skills and asked to select which skills they think are developed in SHAPE subjects, respondents chose an average of ten skills. A list of the top ten skills chosen can be found in Figure 31. Note that respondents who indicated that they did not understand the SHAPE acronym have been removed from the analysis.

Teamwork (64%) and creativity (62%) were the most frequently selected skills, followed by problem solving (54%), independence (53%), people skills and communication (both 50%). This suggests an understanding of the interpersonal nature of SHAPE subjects ('P' for people) and the value of creativity, both of which are highlighted elsewhere in the responses.

Figure 31: Top Ten Skills Selected in Response to *'Which skills do you think you develop in SHAPE subjects?'* | 529 responses



Experiences of the Programme

This section will analyse the outcomes from the learner workshops with particular reference to the impact the workshops have had on learner understanding and attitudes regarding SHAPE subjects. The analysis will also explore teacher attitudes, experiences and reflections on the workshops and the training.

Workshop Delivery

Unlike Phase 1, where all learners completed three workshops, teachers were given flexibility regarding the number of workshops that learners undertook in Phase 2. There were four workshops available to teachers in Phase 2 (*Masks*, *Shoes*, *Sugar* and *Trains*). In Phase 2, therefore, 75% of learners completed one workshop, 16% completed two workshops, 5% completed three workshops and 4% completed four workshops.

The practitioner delivering the workshops varied from school to school. The approaches can be summarised as follows:

- All schools ran the workshops as individuals with no co-delivering taking place as it had in Phase 1.
- All schools ran the workshops during normal class time and the content was delivered over one or two timetabled classes. No learners were taken off timetable to complete the workshops as some had been in Phase 1.
- The final creative tasks were either completed in class or as homework tasks.
- In two schools, only the teacher/s who had participated in the January training ran the workshops, seeking no additional support from colleagues.
- In four schools, the teachers partnering with SHAPE trained colleagues or PGCE students to run some of the workshops. The extent of the training offered to these additional colleagues varied from school to school.

Teacher Training

Critical to the success of the workshops was supporting teachers to develop their own relationship with and understanding of SHAPE. Teachers were provided with both synchronous and asynchronous training.

When teachers were asked in an exit survey to explain their understanding of SHAPE it was clear that teachers had taken the opportunity to reflect and develop their own understanding of SHAPE both as part of and after the training. Teachers particularly commented on how SHAPE shows connections between subjects and supports learners onwards journey through education and life.

When teachers were asked to explain what they understood SHAPE to be, teachers commented the following:

> *"The awareness of how the humanities subjects can work together to give people a deeper understanding of themselves and the world around them."*

> *"SHAPE is the study of society and how subjects integrate and work together."*

> *"SHAPE is about sparking curiosity in learning by opening pupils' eyes to the links between subjects and the skills needed for the world of work. It is taking an object and pulling it apart in a creative way to see the bigger picture of learning."*

> *"SHAPE is a group of subjects which help us understand and make connections with the world around us, and understand what it is to be human. As an organisation SHAPE's aim is to promote understanding of the importance of these subjects in school and to encourage students to see them as critical to their current and future development."*

> *"SHAPE is a workshop which shows pupils that multiple subjects within school link with each other. Showing that each subject within school is important for pupils to learn. SHAPE also shows the potential that is open to every pupil. Pupils do not have to stick to the academic route of going to college and then university. However they can go down other routes such as an apprenticeship."*

As in Phase 1, teachers were very positive about the different aspects of the training and resources. All six respondents found the training in January 2022 very useful or useful. Attitudes towards the creative tasks were more ambivalent with three respondents stating them to be very useful, one stating useful and two stating neither useful nor useless. When offered the opportunity to elaborate, teachers commented on the variety of the tasks and the flexibility in the way that they could be delivered as positive features of the resources. Teachers made particular note of the usefulness of the guidance notes provided with all six respondents agreeing they were very useful.

> *As I am not a specialist in those subjects, the notes were very useful to prepare for the lessons.*

> *Excellent resources, very creative & easily adapted.*

> *Loved the extra information that helped assist in the delivery of the lessons. Really enjoyed the variety of tasks that pupils could work on as teachers were able to pick and choose what they completed with pupils.*

Overall, teachers enjoyed the experience of engaging with SHAPE and delivering the workshops. Some comments suggest that teachers felt they had had the opportunity to develop different practices, in particular integrating discussions as a core feature of their lessons, and others enjoyed the opportunity to challenge themselves with new content which they felt was beyond their 'specialist subject knowledge'.

Some teachers also reflected on how the workshops had encouraged them to engage in discussions in lessons, which in turn had led them to get to know more about their learners.

> *I personally loved teaching and facilitating the delivery of the workshops as it allowed pupils to explore and discuss their views. I have learned how to incorporate deeper thinking and discussions in my lesson by following the SHAPE ideology.*

> *It was really interesting to link things with my own knowledge of languages and my European background. I also got to learn new things from my pupils' background and experiences.*

Identifying SHAPE and STEM Subjects

The post-workshop survey began with the same subject categorisation question found in the pre-workshop survey to understand if participation in the workshops increased learner understanding of how different subjects are categorised. Only a very small number of respondents to the post-workshop survey indicated they did not know what SHAPE subjects were (this is compared to 13% for the pre-workshop survey); however, respondents ability to correctly identify subjects as social sciences, arts, humanities or STEM did not improve substantially.

When comparing answers from the 364 learners who completed both the pre- and post-workshops surveys, there was a 5% increase in learners placing any subject, including STEM, under the SHAPE umbrella. Learners' ability to correctly distinguish between the three different types of SHAPE subjects varied. There was a 1.2% increase in the number of respondents correctly identifying the four social science subjects compared to a 1.0% decrease in those correctly identifying the three arts subjects. By contrast, the five humanities subjects saw the largest decrease of 8.8% as more respondents placed them into social sciences, particularly for history and modern languages.

Overall, there was a 3.6% decrease in the correct placement of the twelve SHAPE subjects but also a 4.4% decrease in the correct placement of the nine STEM subjects. Learners were therefore more aware of SHAPE subjects in general, as is confirmed elsewhere in the data, but were not more able to identify exactly which subjects were social sciences, arts and humanities. This is unsurprising since the workshops' intention was to draw connections between and highlight the relevance of all SHAPE subjects, even including reference to STEM subjects, rather than teach learners to correctly identify which subjects go where. That specific aim would require a more explicit approach.

Enjoyment and Interest

When considering responses to learner interest and enjoyment, it is worth noting that 75% of respondents only completed one workshop, 16% completed two workshops, 5% completed three workshops and 4% completed four workshops. The number of responses therefore doesn't correspond with the number of overall respondents, but rather the number of responses per workshop.

Enjoyment of the Workshops

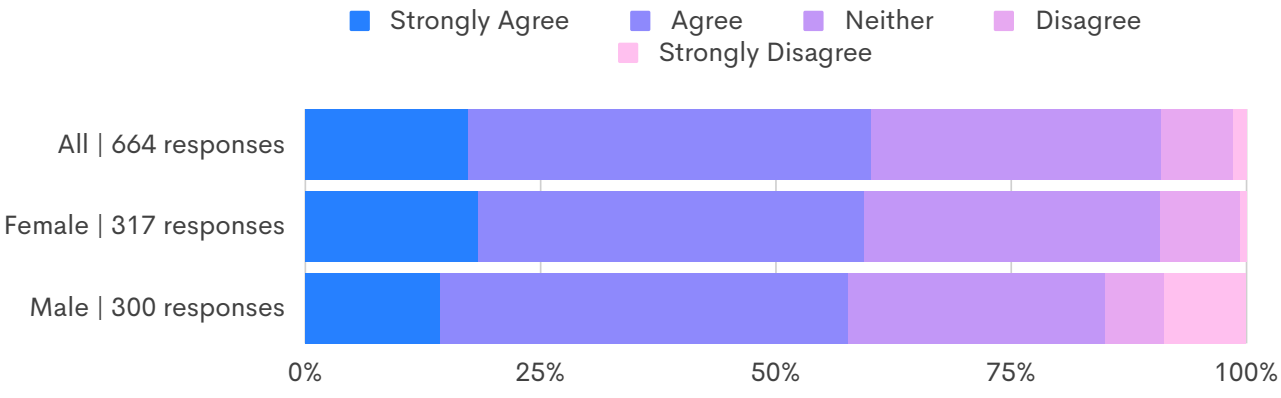
The workshops were intended to create a fun learning experience for learners. When learners were asked whether 'the workshop was fun', 60% of learners strongly agreed or agreed and 9% of learners either disagreed or strongly disagreed. The difference between the enjoyment of female (59%) and male (57%) participants is marginal with the most significant difference being that male learners strongly disagreed to a greater extent than female learners.

Teachers' comments reflected these positive findings with all six teachers strongly agreeing or agreeing that learners enjoyed the workshops.

> *Pupils seem to have enjoyed the workshops overall. They liked talking about different things and [going] around the world. [...] I am also hoping that it would have given them a view of the world outside their area and that they would fancy knowing more and travel.*

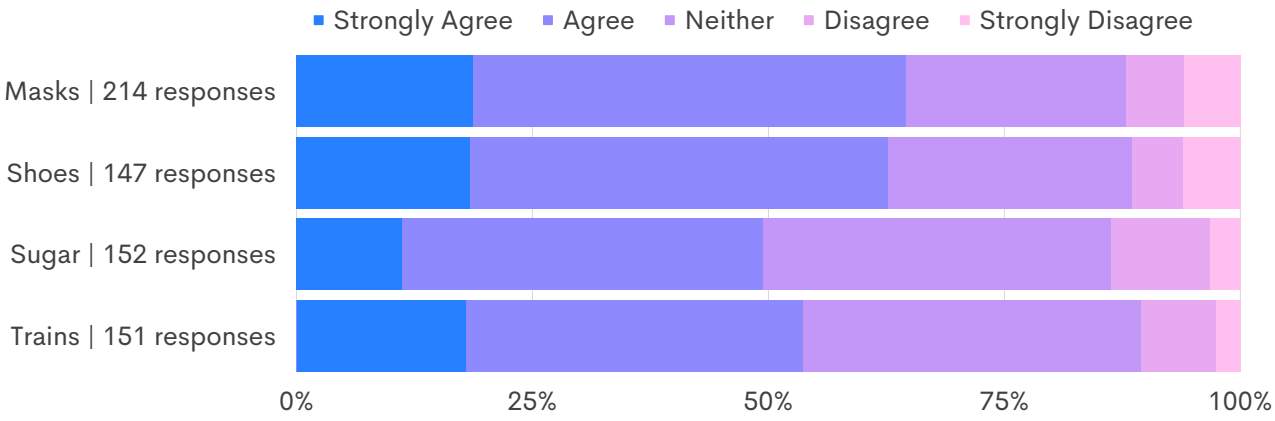
> *Students enjoyed the workshops and I think liked the links to their everyday life as well where sugar is concerned. They especially enjoyed the creative task of the sugar skull fashion.*

Figure 32: Responses to *'The workshop was fun'* by Gender



When divided by the topic of the workshop, *Masks* and *Shoes* drew the greatest number of learners to strongly agree or agree that they enjoyed the workshop, but also drew the highest number of strongly disagree respondents, demonstrating a more polarised outcome in attitudes. *Sugar* and *Trains* were considered marginally less enjoyable, and drew a higher proportion of responses of neither from respondents, suggesting that there was greater indifference towards the *Sugar* and *Trains* workshops than towards *Masks* or *Shoes*. One teacher commented: 'I found the sugar workshop a little more tricky than the other three as it was the newer workshop. The tasks were a little more tricky to complete than the others'. This goes some way to explaining these outcomes.

Figure 33: Responses to *'The workshop was fun'* by Workshop



Increased Enjoyment of SHAPE Subjects

Learners were asked to indicate if engaging in the workshops had improved their enjoyment of SHAPE subjects at school as part of the post-workshop survey. This was a secondary aim of the workshops as the research team acknowledged that it would be challenging to impact on wider experiences of SHAPE with only a limited exposure to the workshops.

In total, 42% of responses strongly agreed or agreed that the workshop increased their enjoyment of SHAPE subjects at school. Outcomes were similar for both male (42%) and female (43%) respondents, although there is a continuing trend of male respondents showing a greater inclination to indicate a strong disagreement.

The responses to the workshops are a particularly positive outcome given that 75% of respondents only engaged with one workshop. This is in comparison to Phase 1 where learners had to engage with all three workshops. Unsurprisingly, the results from Phase 1 showed a greater impact of the workshops with 67% saying they were "much more" or "a little more" interested in learning about SHAPE subjects after taking part. This indicates the importance of sustained intervention in order to maximise outcomes from the learning resources.

The data also shows a difference in the impact between the different workshops. *Sugar* once again comes out as the lowest in terms of respondents strongly agreeing or agreeing that it improved their enjoyment of SHAPE subjects at school. Overall, it is evident that the comparability of the approach used throughout the workshops is having a similar impact regardless of the focus object.

Figure 34: Responses to *'The workshop increased my enjoyment of SHAPE subjects at school'* by Gender

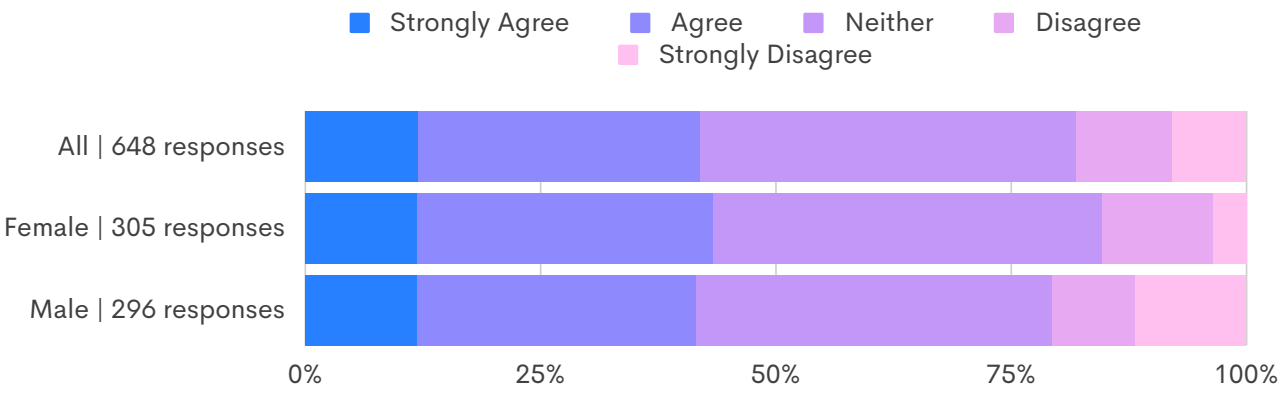
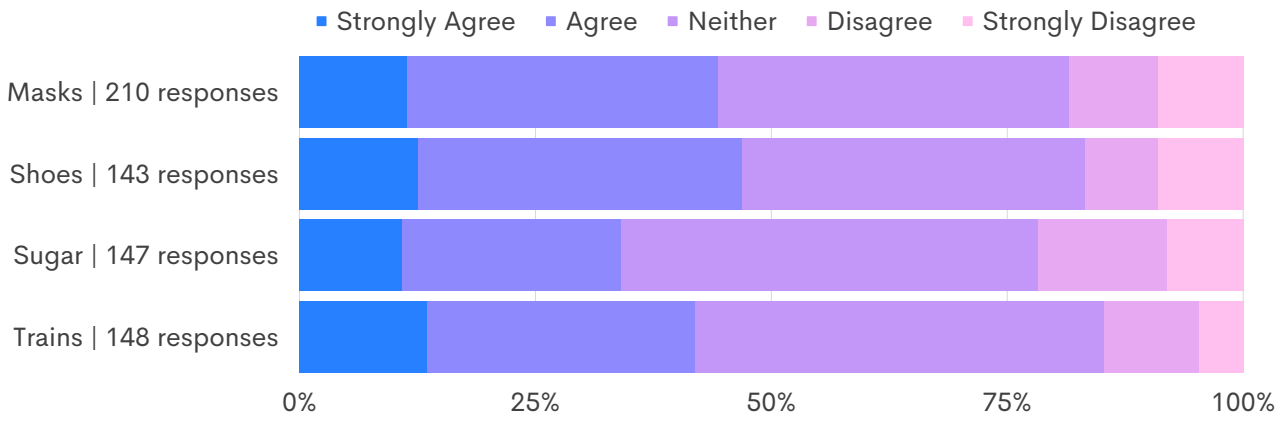


Figure 35: Responses to *'The workshop increased my enjoyment of SHAPE subjects at school'* by Workshop



When learners were asked what they enjoyed most about the workshops, many commented on the opportunity to work as part of a team and the freedom to use their creativity and imagination.

> *I like the ability to work as a team and problem solve.*

> *I really enjoyed the freedom of creativity.*

> *I enjoyed making a storyboard about trains as it gave me a chance to use my imagination.*

> *It was fun because some people did things that they liked.*

Others commented that the workshops offered something different and new.

> *I enjoyed doing the masks because it is something new.*

> *I enjoyed learning about the sugar because I didn't realise what really went on and how today's sugar is still not all fair trade.*

> *I enjoyed learning new things that were different to what we would usually do in lessons.*

Some learners commented on how they enjoyed the opportunity to explore a single object in multiple ways, directly drawing on the methodology of object-based learning.

> *I most enjoyed learning about how one thing to us can be many different things too.*

> *I like how we explored the different ways an object is viewed.*

> *Getting to be creative and learn a lot about one thing.*

Teachers also reflected on the positive outcomes generated by the object-based learning approach, commenting on how this approach had positively engaged learners with the materials:

> *I think the material really fascinates the students and makes them think about everyday objects in a new way. The different aspects/areas explored in the workshops are well presented and interesting.*

> *These are a great way to engage pupils in a different way of learning. All of them offer something different worth exploring.*

When learners were asked what they enjoyed least about the workshops, answers were fewer and more varied than the responses to what learners enjoyed most. Many learners used the opportunity to comment on the fact that they had enjoyed all of the workshop.

> *There was nothing I did not like.*

> *I loved it all.*

Other learners commented that they disliked certain activities, the volume of content or wished for more variety.

> *I don't like performing in front of people.*

> *I didn't enjoy how much information there was.*

> *I feel there could have been more variety in the tasks.*

Some learners mentioned a lack of personal connection with the objects chosen or that they didn't understand the reason behind the workshops, which impacted on their enjoyment of them.

> *The fact that it was about trains and trains don't really interest me.*

> *I didn't enjoy these workshops because it didn't make sense to why we were doing them.*

> *I understood the concept but I still don't understand why we had to learn about Trains.*

These comments underline the importance of the wider SHAPE context being understood in order that learners can maximise the experience of the workshops. It was evident from the teachers comments that they themselves had understood the purpose of SHAPE, but these learner comments suggest that not all teachers were able to successfully convey this to all learners.

Interest in the Workshops

The workshops were intended to create an interesting learning experience, allowing learners to see things from a variety of perspectives and to engage in creative tasks that would draw on hidden skills. When learners were asked whether 'the workshop was interesting', 59% of learners strongly agreed or agreed and 12% of learners disagreed or strongly disagreed. Findings from the teacher exit survey reflect a positive response to the workshops, with all six teachers strongly agreeing or agreeing that learners found the content of the workshops interesting:

> *Students seemed genuinely interested in the topics and enjoyed the creative tasks (although I did make my shoes ones a bit more Drama focused!). Many were beginning to make the connections between the object and their own lives.*

> *They were intrigued as to why we looked at the objects and how it connected to their everyday life.*

When considering the findings by gender, the difference is far greater than for enjoyment. 64% of female learners found the workshops interesting compared to 54% of male learners. Greater interest from female learners is also reflected in the baseline findings.

Figure 36: Responses to *'The workshop was interesting'* by Gender

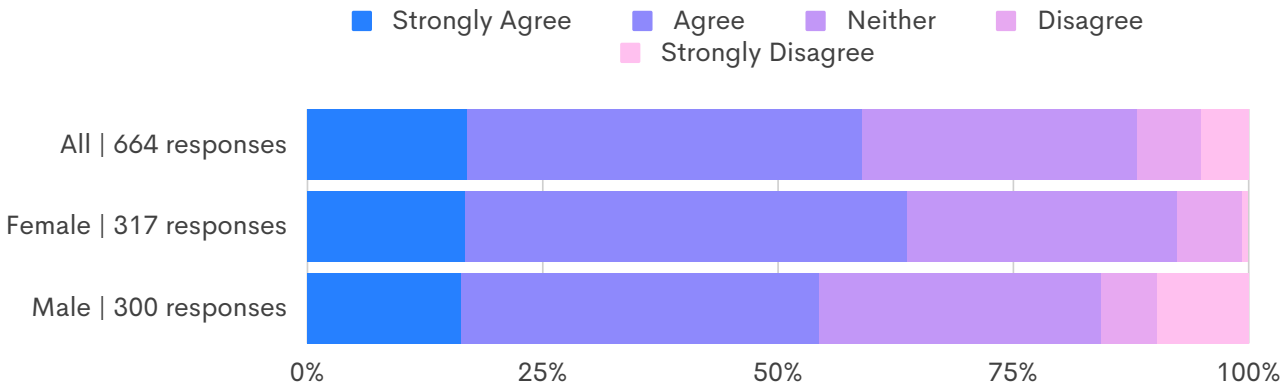
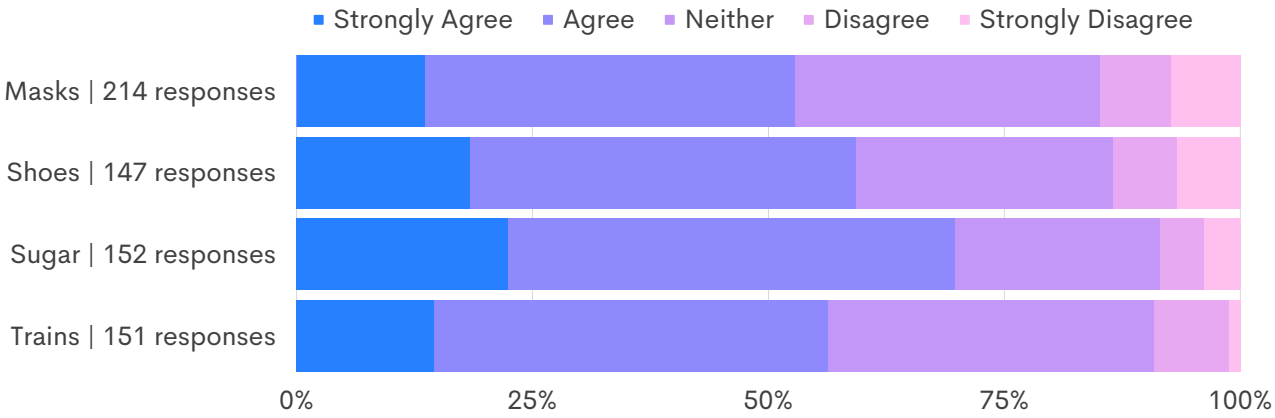


Figure 37: Responses to *'The workshop was interesting'* by Workshop



In terms of each individual workshop topic, there is a more marked difference in interest than was evident in enjoyment. Whilst *Sugar* was the least enjoyed of the workshops, the data shows it to rank as the workshop eliciting the greatest interest; 70% of learners strongly agreed or agreed that the *Sugar* workshop was interesting. By contrast, 59% strongly agreed or agreed for *Shoes*, lowering to 56% for *Trains* and 53% for *Masks*. As with enjoyment, *Masks* drew the most polarised opinions eliciting the highest number of strongly disagree responses (7.5%) to this question.

Increased Interest in SHAPE Subjects

Learners were asked to indicate if engaging in the workshops had improved their interest in SHAPE subjects at school as part of the post-workshop survey. In total, 38% of responses strongly agreed or agreed that the workshop increased their interest in SHAPE subjects at school. This is marginally lower than the outcomes for enjoyment.

Despite female learners finding the workshops more interesting, outcomes for increased interest in SHAPE subjects were similar for both male (38%) and female (38%). As for enjoyment, an indication of a wider impact is a particularly positive outcome given that 75% of respondents only completed one workshop.

Responses by workshop suggest *Masks* and *Shoes* had the greatest impact on increasing interest in SHAPE subjects, as they had done for increasing enjoyment. *Sugar* had the lowest impact for increasing both interest and enjoyment, despite it being considered the most interesting of the four workshops.

Figure 38: Responses to *'The workshop increased my interest in SHAPE subjects at school'* by Gender

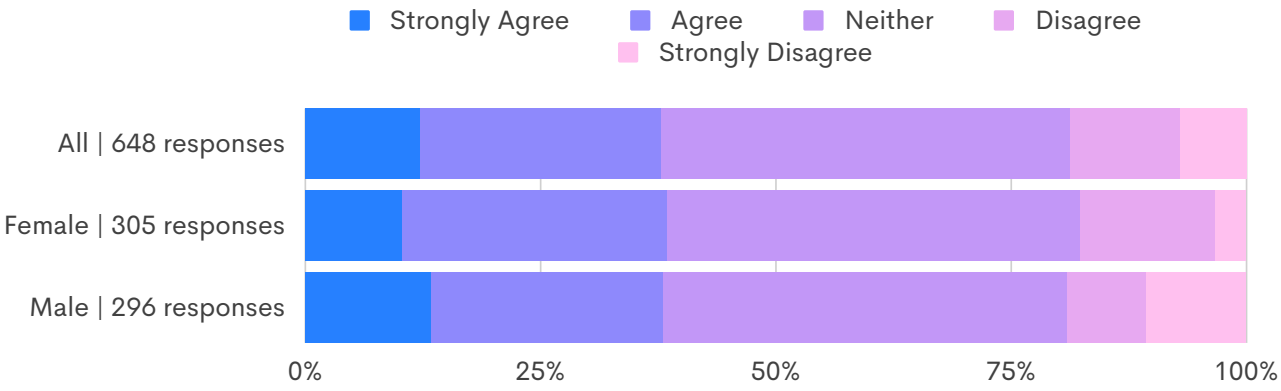
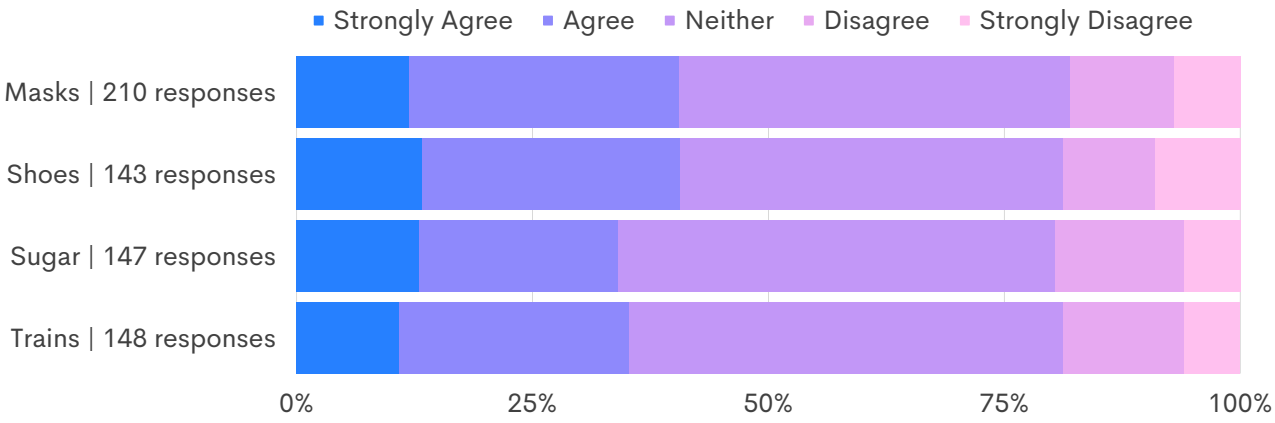


Figure 39: Responses to *'The workshop increased my interest in SHAPE subjects at school'* by Workshop



When learners were asked to elaborate on why they did or did not find the workshops interesting, some learners commented on how they now found the objects more interesting.

> *"Trains now seem more interesting because they were explained better."*

> *"Trains are an interesting thing to talk about especially as it involves the environment."*

> *"It was interesting learning about the history of sugar because there is a lot more to it than I thought there was."*

Others commented on how interesting it was to learn about the history of the objects and their depiction across cultures.

> *I found it very interesting because it allows people to learn about other traditions outside a person's own country, and broaden their minds.*

> *You learned about the origins of where things came from.*

> *I highly recommend doing the workshops if [you] find learning about different cultures religions etc.*

> *The workshops educated me different parts of the world and how they express themselves and the history behind it.*

Some learners commented that they did not find the workshops interesting or that certain aspects were more interesting than others.

> *I found different aspects of the topic interesting and others boring.*

> *I didn't find it interesting but I did like the drawing.*

> *Its just trains so I wasn't really that interested.*

> *The sugar one was very talking and slide show based so it wasn't as engaging.*

> *I enjoyed certain parts of it, but I don't feel I learned anything.*

Some learners commented that the workshops had increased their interest in and enjoyment of SHAPE subjects, while others felt that the workshops had made no difference.

> *Doing these workshops made me want to go to the lessons more and it made them more fun and interesting.*

> *I found them really interesting with the many different types and it increased my enjoyment and interest in the SHAPE subjects at school.*

> *It increased my interest in subjects like music and humanities that I don't normally like but it helped me realise that all subjects are fun if you try!*

> *The workshop made me want to learn more about all the SHAPE subjects.*

> *These workshops were interesting but I was already that interested.*

> *I was in the middle for both because they both didn't change my enjoyment in school.*

Connecting Subjects

Learners were asked to indicate if the workshops had helped them understand how SHAPE subjects are connected to each other. SHAPE purposefully takes an interdisciplinary approach to raise awareness of a whole range of skills that are developed by the wide variety of SHAPE subjects that are available. This connectivity was flagged to learners throughout the resources through the use of small icons that showed the different subjects that were in use at different points throughout the workshops.

Image 1: Example of Subject Icons Used Throughout Learning Resources

The explicit reference to the subject areas was intended to help learners identify the cross-over in subject areas. The importance of this is reflected in teacher comments, where they emphasised the importance of reminding learners of the subject links. One teacher commented on the need for this explicit approach.

> *Pupils needed to be told about the links at times and this is important to note.*

Many teachers organically commented on how SHAPE had raised learner awareness of SHAPE subjects. This was a core aim of the project.

> *Pupils were not really aware of SHAPE subjects before the workshops.*

> *I think students are far more aware of what SHAPE is now.*

> *I have noticed that there is more awareness about the social subjects and more learners are beginning to explore the art based subjects as well as science.*

When learners were asked to indicate if the workshops had helped them understand how SHAPE subjects are connected to each other, 44% of all respondents strongly agreed or agreed. On this occasion, male learners (47%) were slightly more in agreement than female learners (43%), although they are also shown to be more strongly in disagreement – a trend that is evident throughout. Female learners, as throughout this analysis, are slightly more inclined than male learners to neither agree nor disagree with the statement.

Responses suggest that *Shoes* was the most successful workshop in developing learners' understanding of the connections between SHAPE subjects. This is interesting as *Shoes* was neither the most enjoyed workshop nor the workshop considered most interesting.

Figure 40: Responses to *'The workshop helped me understand how SHAPE subjects are connected to each other'* by Gender

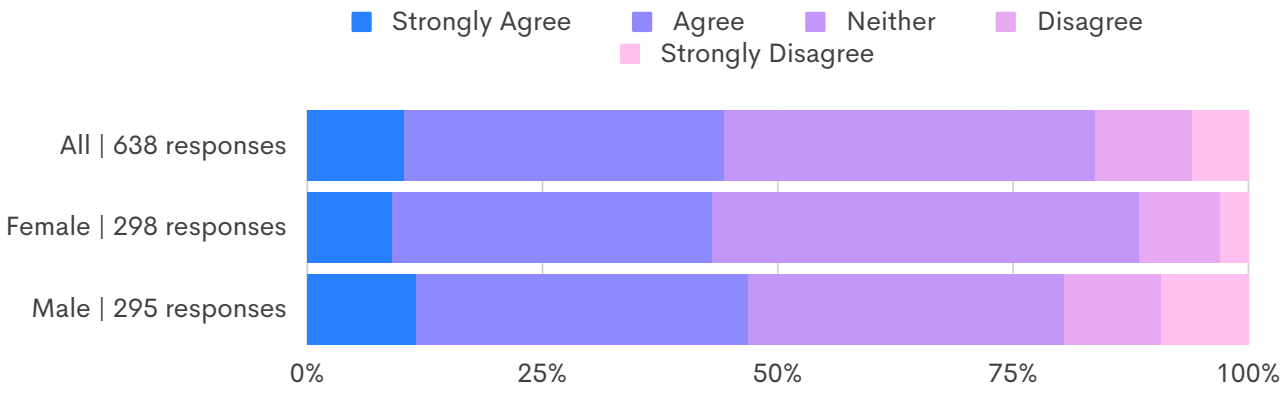
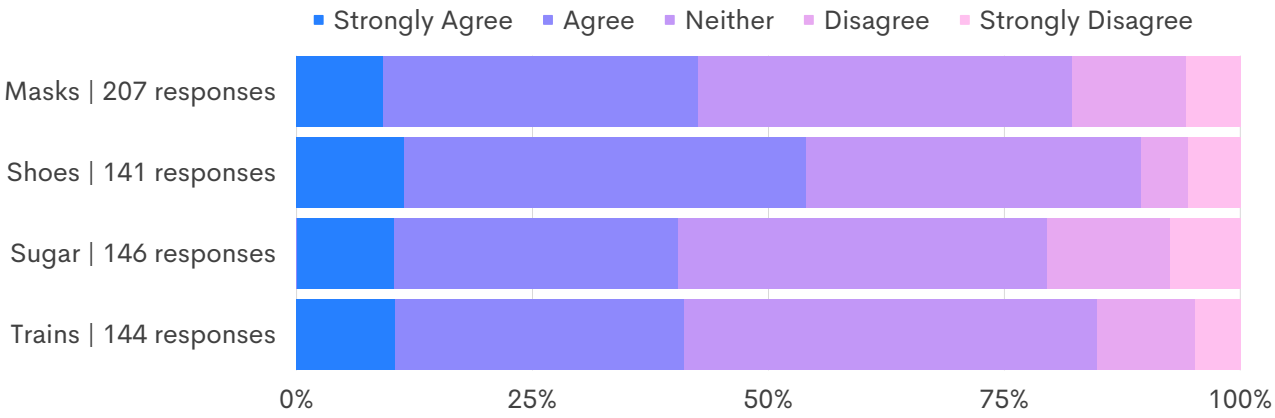


Figure 41: Responses to *'The workshop helped me understand how SHAPE subjects are connected to each other'* by Workshop



Learners were asked to indicate if the workshops had helped them understand how SHAPE subjects are connected to everyday life with 40% agreeing or strongly agreeing. This is slightly lower than for connectivity between subjects. Learner responses were very comparable between female and male learners for positive statements, with 39% and 41% selecting strongly agree and agree respectively. As previously, male respondents showed a greater inclination to disagree with 12% of males strongly disagreeing and only 1.5% of females strongly disagreeing.

As with connecting SHAPE subjects in school, *Shoes* had the greatest impact on drawing connections to daily life with almost half of respondents agreeing or strongly agreeing. This was followed by *Sugar* with *Trains* and *Masks* having the lowest impact, though still above a third of responses.

Figure 42: Responses to *'The workshop helped me understand how SHAPE subjects are connected to my daily life'* by Gender

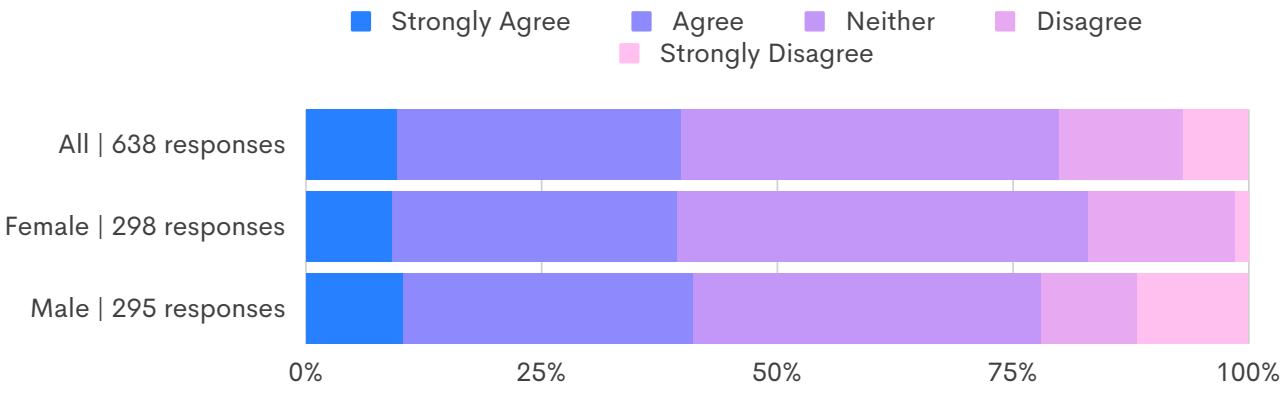
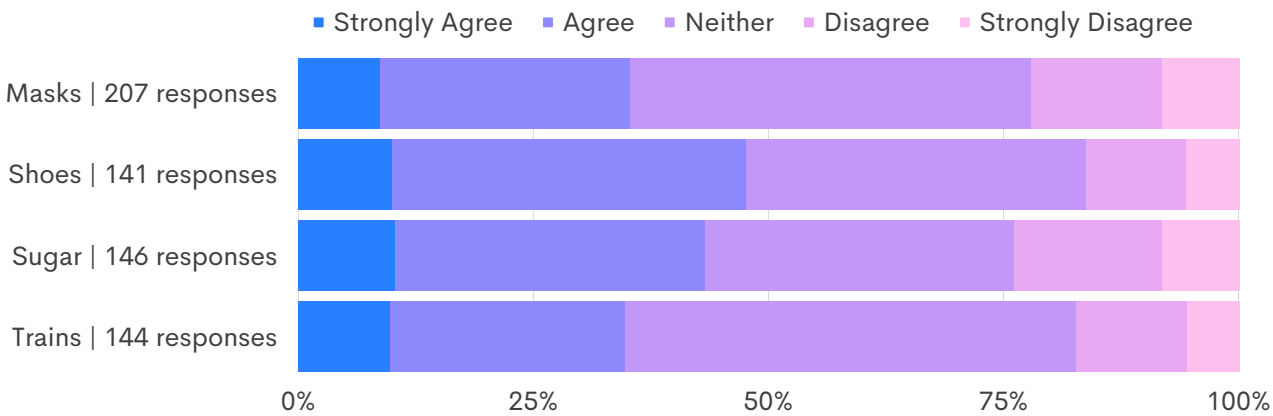


Figure 43: Responses to *'The workshop helped me understand how SHAPE subjects are connected to my daily life'* by Workshop



These findings were reflected in the teacher responses with five of the six respondents agreeing or strongly agreeing that the workshops had positively impacted on learners' understanding of the importance of SHAPE for their personal lives. Some teachers commented that impact could have been greater with more time and emphasised the need to repeatedly flag connections in order to help learners perceive these.

> *If we had had more time […] I think there would have been a greater understanding of the impact of SHAPE and the relevance to their lives. The workshops were just a starting point and more work would need to be done to help reinforce the ideas for the learners.*

When learners were offered the opportunity to expand their answers to explain their opinion, they often selected specific subjects to draw out where they saw specific connections between subject areas. This highlighted the personal experience of the workshops, where learners tended to orientate towards aspects that interested them most.

> *We discussed in class and came to an agreement of how shape subjects relate to each other.*

> *It showed that one thing is used and has different connections around the world.*

> *It connected history and geography which was cool.*

> *It helped me realise how different subjects can connect/relate to each other.*

> *I understand how the SHAPE subjects are connected because art is always involved in history and history can influence art.*

> *The sugar workshop showed the connection between art, languages and history.*

> *By easily merging two subjects together it made me understand how subjects are linked and being able to understand one subject will also help you in another one.*

Some learners naturally drew on the emphasis placed on STEM and alluded to an increased understanding of the importance of SHAPE in relation to STEM, although such comments were limited.

> *They made me realise that we don't just use core subjects like maths in day to day life but we also used SHAPE subjects.*

Some learners also commented on an increased connection between SHAPE and their daily lives.

> *I understand how they are connected to my daily life because it is something you could just learn and it is also a nice thing to know.*

> *I think SHAPE subjects are a part of my daily life a lot more than before.*

Other learners commented that the workshops hadn't changed anything for them, or that they didn't understand the question relating to links between SHAPE subjects.

> *I didn't really understand.*

> *I'm not sure how the SHAPE subjects are linked.*

> *We didn't get told or taught how they link to our daily life and how they're all connected with each other.*

> *Because I didn't really think about it during the day.*

Some wanted to emphasise that they felt that SHAPE subjects didn't link to their daily lives whilst others offered reflections about not really considering the connections as part of the workshops.

> *I can understand how some of the SHAPE subjects are linked because they release inner creativity but I don't really understand how they link to my daily life.*

> *I could see how SHAPE subjects were connected and it doesn't really connect to my daily life.*

Some learners struggled to see the connections to SHAPE because they perceived their aspirations not to include SHAPE, particularly when they had a set career in mind.

> *I don't really get why trains are going to help me become a zoologist.*

> *I don't think this could be part of my daily life because it is not connected to anything I would want to do in the future.*

The difficulty of connecting subjects was reflected in one comment from a teacher.

> *Students still had difficulty understanding the SHAPE subjects and links.*

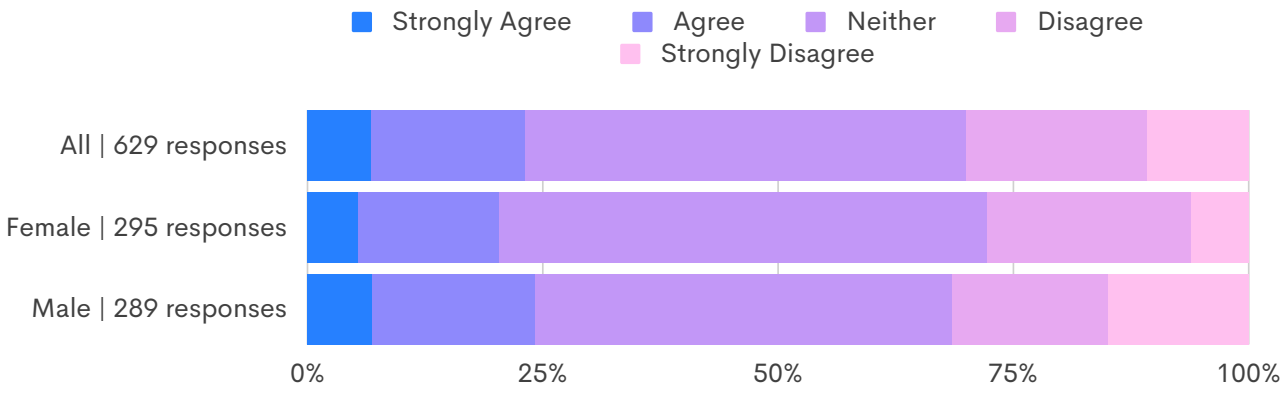
Skills and Careers

Likelihood of Careers in SHAPE

Although not a direct aim of the project, the survey elected to ask learners if the workshops had made them more likely to choose a career involving SHAPE subjects. The final part of each workshop involved learners undertaking a creative task that meant they had to assume the role of a particular profession. These professions included a script writer, journalist, fashion designer and data analyst, amongst many others. The aim was to show the diversity of careers that SHAPE subjects could lead to or the variety of careers where SHAPE skills were important.

Responses to the pre-workshop survey highlighted the strong connectivity between attitudes towards SHAPE subjects and their relation to learners' understanding of how they fit with their future aspirations. The workshops brought out this connection with 23% of responses indicating that they strongly agreed or agreed that the workshop had made them more likely to choose a career involving SHAPE subjects. Male learners (24%) were more likely to strongly agree or agree than female learners (20%); however, as is the case throughout the analysis, male learners are also more likely to strongly disagree than their female counterparts.

Figure 44: Responses to *'The workshop made me more likely to choose a career involving SHAPE subjects'* by Gender

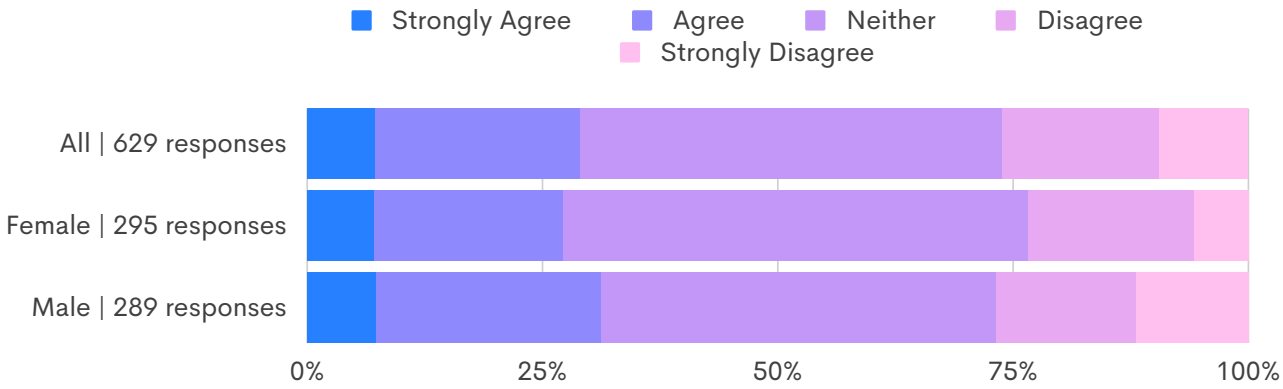


Likelihood of Nationals/GCSEs in SHAPE

Although not a direct aim of the project, the survey also elected to ask learners if the workshops had made them more likely to take SHAPE subjects for their Nationals or GCSE examinations. 29% of responses indicated that they strongly agreed or agreed that the workshop had made them more likely to take SHAPE subjects for Nationals/GCSE. There is a marginal difference between the outcomes for female (27%) and male (31%) learners, although male learners were again more likely to show strong disagreement with the statement than female learners.

This is a particularly pleasing outcome from the workshops as it suggests that even short term interventions can have substantial impact on qualifications decision making. It makes a strong case for the importance of the timing of a SHAPE intervention, perhaps just before subject choices are made, and also suggests that there is scope for even greater impact to be achieved through a more sustained intervention. 29% of respondents were in year groups who will likely have made their option choices during or just before the time of the workshops. This is supported by answers to open questions that many respondents selected 'disagree' or 'neither' precisely because they had already made their option choices and were not able or willing to change them. If increasing uptake for SHAPE subjects is the main aim, then timing of such an intervention is essential.

Figure 45: Responses to *'The workshop made me more likely to take SHAPE subjects for Nationals/GCSEs'* by Gender



Overall, findings suggest that the workshops increased learner interest in SHAPE subjects, which in turn had a positive impact on their consideration of choosing SHAPE subjects for their examination subjects or for careers. For some, this included reinforcing existing subject choices, or reinforcing their already positive attitudes towards SHAPE subjects.

> *I was already wanting to take a career with shape subjects but this has made me 100% sure of the career path I want to take.*

> *The SHAPE subjects are the subjects I need to take to get the position I want when I'm older. The workshop helped me realise that these subjects are fun and fascinating.*

> *SHAPE subjects help me narrow down subjects that I enjoy and the ones I'm not so interested in.*

> *I am now more interested in certain subjects so may be likely to take them for GCSE.*

Others had already made their choices and did not feel the workshops had influenced their decisions.

> *I was always going to choose SHAPE subjects and these workshops did not influence me.*

> *I knew what I wanted to be before we did the SHAPE project.*

Some felt that their uncertainty about which career they would pursue meant they didn't know what role SHAPE would take in their professional lives. Others felt unable to see the link between any SHAPE subject and the career they already had in mind.

> *Well I don't see how both will tie into my job as I don't think [they are] needed.*

> *I'm not sure what career I'll have in the future.*

> *I want to be an actress I don't need this stuff.*

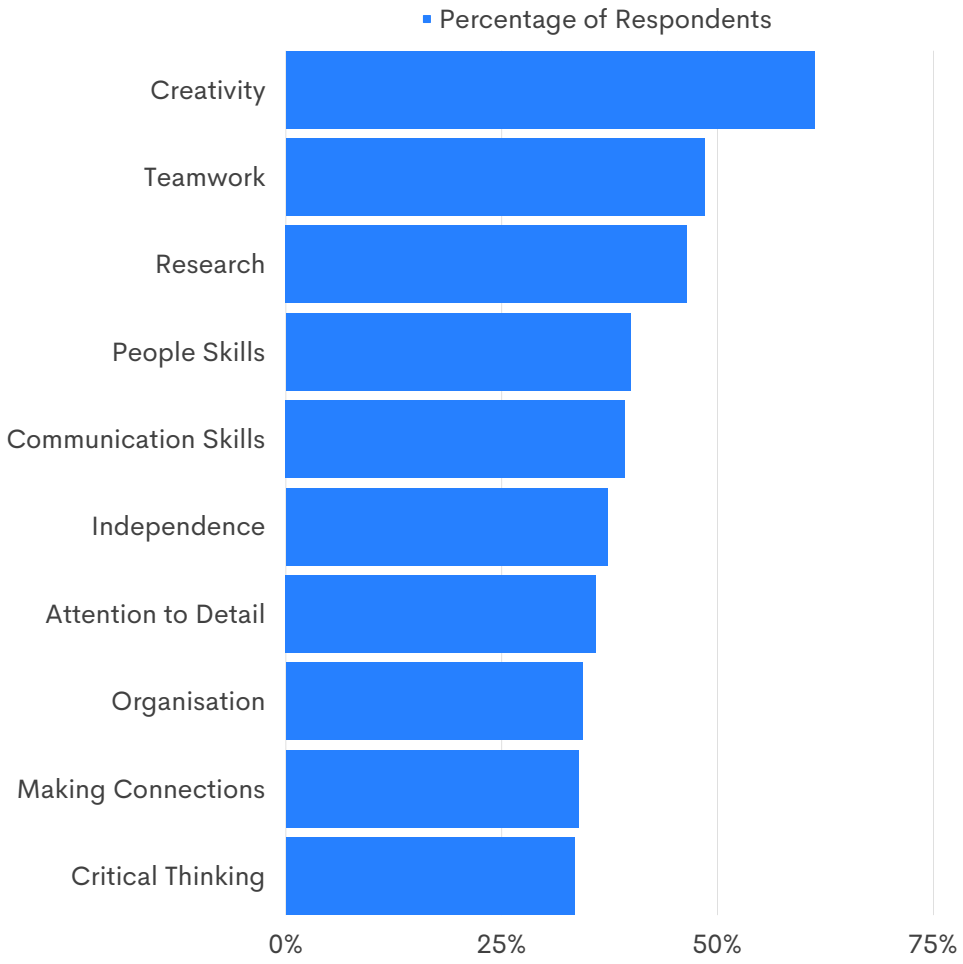
> *I don't really know because I already have a job in mind so I'm not quite sure but I'll think about it I just want to look into SHAPE more and see what its about and have a better understanding of it.*

Skills in the Workshops

Following the corresponding question in the pre-workshop survey, learners were asked to identify, from a list of 24 skills, skills that they used as part of the workshop/s. The top ten skills are comparable to those identified by learners as SHAPE skills during the pre-workshop survey (compare Figures 31 and 46).

It is particularly pleasing to see that learners were able to identify creativity (61%) and teamwork (48%) as key skills that they used. This corresponds to many of the open comments relating to what learners enjoyed most about the workshops being creativity, use of imagination and a sense of freedom.

Figure 46: Top Ten Skills Selected in Response to '*Which skills do you think you used as part of the workshop?*' by Percentage | 446 responses



The emphasis on creativity also corresponds with comments from teachers who highlighted how the workshops had encouraged them to use a more creative delivery style than they were perhaps accustomed to.

> *I don't normally do creative tasks so it was definitely different from how I teach normally. However with the content delivery I made it a bit similar to my own lessons with the students creating a mind-map. The students enjoyed the creative tasks and delivery and it has made me rethink how I teach some topics.*

> *It was different to my usual style of teaching as the pupils were able to be more creative within the lesson. By designing a shoe and presenting it, showing the class how their shoe is more unique than the others. I enjoyed teaching this workshop, when the pupils were left to come up with their shoe and proposal, it was clear how much they were enjoying. I learnt a lot, I have learnt how pupils learn from their peers. I have learnt how including more subjects within in my own can produce a lesson of such fun and creativity.*

Conclusions

The project was successfully delivered to six schools across the four UK nations. Training was delivered to teachers in January 2022 and workshops were delivered to learners between February and May 2022. The learning resources were successfully adapted from Phase 1 with three key changes made:

- adaptation to the PowerPoint format;
- a reconfiguring of the creative tasks; and,
- a lowering of the literary levels to make the language more accessible.

Comments offered about the resources were very positive. Training also yielded positive responses from teachers with all recognising its utility and many commenting that it was an enjoyable experience. Feedback on training was less readily available in Phase 2 firstly due to the less intensive approach taken (as per recommendations in Phase 1) and secondly due to the significantly reduced number of teachers who participated in it. The following points explore some of the key conclusions from this phase:

1. **COVID-19 continued to affect learners and in particular teachers**. The main challenges experienced by the project team and teachers were linked to the continuing effects of the COVID-19 pandemic, namely time pressures related to the reintroduction of formal examinations for the first time in two years and high workloads caused by a continual rotation of staff being off unwell with COVID-19. This caused four schools to withdraw from the project throughout the delivery cycle leading to a reduced number of schools and learners participating in Phase 2.

2. **Recruitment of schools was affected by a lack of long-term vision for SHAPE.** Given the requirements placed on teachers throughout the cycle, a promise of continuity from the project is vital to secure ongoing buy-in. Many schools from Phase 1 were already frustrated by the lack of long-term vision and this certainly disincentivised some schools from participating again. This also proved an obstacle to recruiting new schools.

3. **Learners were interested in the workshops and enjoyed the experience of engaging with them.** The data shows that the workshops were successful in providing a fun and interesting experience for learners, although there was a slightly lesser impact in Phase 2 than in Phase 1 which is likely due to 75% of learners completing only one workshop in Phase 2 compared to three workshops in Phase 1. This indicates that a more sustained engagement can yield a greater impact.

4. **Learners are sometimes confused about what subjects constitute STEM subjects which is reflected in confusion around SHAPE.** Data from learners and teachers demonstrates that there is particular confusion around which subjects are considered social sciences and STEM. This confusion was not remedied by the workshops, likely due to the interdisciplinary and cross-curricular approach that has been central to the development of the resources. More research is required to understand if students know what STEM stands for and how that might impact on understanding of SHAPE.

5. **SHAPE subjects draw more polarised attitudes from learners whereas attitudes towards STEM subjects are more consistent.** Attitudes towards SHAPE subjects were varied and caused problems for learners who struggled to bring all SHAPE subjects together because there are such clear preferences for some subjects above others. The SHAPE subjects drew polarised opinions with art and design, physical education and English ranked highest for enjoyment whilst modern languages and religious studies ranked lowest. By contrast STEM subjects were consistently placed in the middle rankings, suggesting a less polarised attitude.

6. **The workshops had powerful secondary impacts relating to subject choice and careers which could be further developed.** The workshops had strong secondary impacts, such as learners' choices regarding examination subjects and careers which mirrors outcomes from Phase 1. Impacts were more strongly evidenced in Phase 1 possibly owing to the fact that learners completed a sequence of workshops as opposed to one.

7. **Learners were able to identify skills more easily than subjects. Learners were able to identify a wide variety of skills that they utilised in the workshops.** This suggests that the workshops were successful in highlighting the use of multiple skills even if the distinctiveness of different subjects was less obvious to learners. This was always going to be a challenge for SHAPE and has been raised on many occasions across the different strands of SHAPE. The question remains as to how to preserve the distinctiveness of individual disciplines within the SHAPE brand.

8. **The approach of object-based learning remains a key success factor in Phase 2.** The object-based learning approach was widely liked by both learners and teachers and remains a key success factor of the SHAPE approach, widely appreciated and identified as important by teachers and learners. It encouraged creativity, team work, discussion and the use of imagination in the classroom which allowed teachers to get to know their learners more deeply and created enthusiastic responses from learners themselves.

Recommendations

The following set of recommendations are based on the evaluation findings and are made with a view to further funding being made available to support the work of SHAPE in Schools.

1. **SHAPE needs to review its relationship to STEM, as well as investigate learner understanding of both.** SHAPE was developed on the basis that STEM was a well-understood acronym amongst learners. Evidence from this evaluation suggests that there is confusion amongst the student body about what subjects STEM includes. English was often mistaken as STEM while physics, chemistry and biology were frequently considered social sciences. Better understanding learners' interpretations of SHAPE and STEM will support efforts to profile SHAPE's relationship with and to STEM. The drawing together of the two will continue to be important.

2. **SHAPE needs to clearly define its messages to determine whether it wishes to profile clearly the individual subjects it encompasses or whether it is comfortable with an emphasis on skills and interdisciplinarity.** These two phases have shown that despite the efforts made by SHAPE, there is lack of clarity about which subjects come under its umbrella. This is affected by wider contextual factors such as the fact that schools don't use social science as a category for subjects. SHAPE needs to have a clear initiative to continually profile individual subjects or to continue with its interdisciplinary approach.

3. **SHAPE needs to consider the role of the teacher in order to ensure consistent support and minimise pressures.** Throughout the two phases of SHAPE in Schools the pressures on teachers have been clear. SHAPE needs to review how it works with teachers in the longer-term in order to minimise the additional pressures it puts on teachers, regardless of any improvement in the wider public health context. Whilst teachers welcome additional support for their subjects, it is increasingly evident that their capacity to deliver workshops that fall outside core curriculum content is minimal at secondary school level.

4. **SHAPE ought to review its aims for any continued work.** Current aims are aspiration and attitude focused with a lesser focus on the longitudinal impact on learners. It is worth reviewing current aims to ensure they meet the ongoing needs of SHAPE and consider again the value of longitudinal evaluation of learners that engage. This does have significant resource and cost implications but would further develop understanding of the impact of the approach. Current evidence is focused on short term impacts. Mid- and long-term impacts could offer further important insights.

5. **SHAPE needs to consider the wider marketing and communications relating to the SHAPE in Schools work and to develop a model that promises longer-term commitment from the project.** Schools would benefit from being able to leverage wider campaigns relating to SHAPE in order to maximise buy-in from the wider school community. This would also support recruitment of schools which has proved particularly challenging and resource intensive in this phase. Schools need to feel that SHAPE is committed to them, which in turn means providing a vision for the project that extends beyond one year. With a more wraparound approach to communications and a secure future for the project, schools are more likely to participate.

6. **The SHAPE training has continued to be effective and beneficial and could be redeveloped for other audiences/purposes.** The SHAPE training continues to be well-liked and purposefully implemented. SHAPE could consider other areas where the SHAPE training might be mobilised to further develop the aims of the SHAPE initiative. Creative practice and discussion-based practices stimulated by the workshops and training were most identified by teachers as key features that they had enjoyed and implemented.

7. **SHAPE ought to consider the sustained nature of any intervention it delivers going forward given that Phase 1 generated stronger impacts.** SHAPE will need to strike a balance between flexibility in approach and maximising impact. Phase 1 insisted learners undertake three workshops, and impact was stronger. Phase 2 was more flexible and 75% of learners only engaged with one workshop and whilst impact was positive, it was less marked than in Phase 1. Balancing impact against flexible approaches will require careful consideration for any further phase.

Authors

Lucy Jenkins

Email:
L.Jenkins1@lse.ac.uk
JenkinsL27@cardiff.ac.uk

Twitter: @2210Lucy

LinkedIn: Lucy Jenkins

Lucy Jenkins is the Programme Manager for MFL Mentoring, a project funded by Welsh Government to increase the number of young people opting to study international languages across schools in Wales. Lucy has led the development of the project since 2017, expanding the project to support the introduction of the Curriculum for Wales and most recently designing a communications strategy for international languages in Wales. Lucy has contributed to the body of research associated with the project investigating language learning, learner motivations, multilingualism, digital practices and mentoring. Lucy also designed and developed a sister project called Language Horizons, a Department for Education funded digital mentoring project which ran between 2018-2020, to support languages uptake in schools across England. Lucy acted as Project Director for the duration of this project. Most recently, Lucy has been employed as an independent Education Consultant to develop a schools programme to support the British Academy SHAPE initiative, which aims to increase the visibility of social sciences, humanities and arts subjects across society.

Tallulah Machin

Email:
T.Machin@lse.ac.uk
ciao@tallulahmachin.com

Twitter: @TallulahMachin

www.tallulahmachin.com

Tallulah Machin is a freelance educator and researcher based in South Wales. She has been part of the design, implementation and evaluation of the SHAPE in Schools programme since its inception in November 2020, leading on interdisciplinary resource design and conducting research into the SHAPE landscape for schools across the UK. Her previous roles include working as Operations Manager for Language Horizons and MFL Mentoring, two projects aimed at improving learner attitudes in order to increase uptake of international languages at GCSE and A-level. Tallulah's expertise includes the creation of learning resources, the design of learning experiences based on mentoring methodologies and research into attitudinal and uptake challenges within education. Two recent pieces include a joint publication on preparations for the Curriculum for Wales and a report based on findings from learner surveys conducted by schools who participated in MFL Mentoring in 2021-22.

SHAPE

SOCIAL SCIENCES
HUMANITIES &
THE ARTS
FOR PEOPLE
& THE ECONOMY

For more information about SHAPE, contact
SHAPE@thebritishacademy.ac.uk