Chapter 5

Case Studies of Learning Programmes of UK Museums

The preceding chapter presented case studies of educational programmes of fifteen Indian museums. It adopted a practical approach and studied various aspects related to planning of education programmes for children in museums. The study reveals various aspects of current educational programming and provides insights into the logistics and psyche of the museum educators. Drawing on the same lines, the present chapter too adopts a similar approach and methodology and presents case studies of educational programmes of different types of museums in UK. Before presenting the case studies, it would be prudent to discuss certain findings about these museums pertaining to their educational programming. Following these is the analysis and interpretation of the case studies. A comparison of the approaches of UK museums with those of Indian museums is drawn and presented in a comparative table under the conclusion of the thesis.

The case studies were a part of the project with UK museums and for that affiliation was received from the Derby Museums, Derby (Derbyshire, UK), where a major part of the visit was spent. The study at Derby Museums included observations of 21 learning sessions (for young children and families), 5 school sessions and 1 community festival. Besides, sometime was also spent in studying the learning programmes of 3 other museums—Victoria and Albert Museum, V&A Museum of Childhood and Horniman Museum and Gardens, London. At these museums, the study included: 2 school

sessions and 2 half-term events (for children and families) at the V&A Museum; 2 school sessions and 3 family programmes at the V&A Museum of Childhood; and 1 school session at the Horniman Museum and Gardens, London. However, considering the scope of the thesis, 9 activities from total 37 are included as case studies in the chapter (table 5.1).

Table 5.1: List of UK Museums and Case Studies

S. No.	Name of the Museum	Number of Case Studies
1	Victoria and Albert Museum (V&A), South Kensington, London	4
2	Horniman Museum and Gardens, London	1
3	Derby Museums, Derby, Derbyshire, UK	2
4	V&A Museum of Childhood, London	2
	Total	**9**

The tool employed for collecting data was the questionnaire that was used with Indian museums. As compared to Indian museums, data collection was easier in museums of Britain. The museum educators promptly satisfied queries, filled questionnaires and readily shared information and resources. The challenge was to choose from the diverse learning programmes happening simultaneously at different museums for children and their families. After doing a preliminary study of educational programmes and their constants, three museums, other than the host institute where the project was

affiliated, were chosen for study. Keeping in mind the relevance of the activities to the thesis, 9 activities from 4 museums were chosen for study. This was primarily done using the 'What's on'—an event guidebook that provides visitors with all the needed information of the day's, week's and month's activities, and is a regular feature of museums in UK. The education officers in these museums were contacted and the required data was collected through interviews and observations of learning sessions for children and families. The visits to these museums involved intense beforehand planning as prior confirmations for meetings with the staff and permissions for attending the learning sessions were mandatory. This actually proved to be beneficial as it allowed optimum use of available time and resources.

The information collected through the questionnaires and interviews was converted into data in tabular form. The analysis and interpretation of the various aspects is done under nine headings after a brief study of the key aspects of educational programming at Derby Museums.

DERBY MUSEUMS

Derby Museums is located in the city of Derby which is situated in the Midlands in the country of Derbyshire, England. The city has a longstanding and rich history of discoveries and manufacturing for around three hundred years. It has been a massive centre of industrial production since the 1700's. The city is known for its manufacturing of motor cars and aero plane engines by Rolls Royce; rail manufacturing by Midland Railways; artworks by the artist Joseph Wright; clocks by John Whitehurst; silk; textile and ceramic

industry. A few recent renowned additions to the list include Bombardier—manufacturers of train coaches, and Toyota—manufacturers of motor cars. The industrial nature of the city has led to the development of a number of museums on various sites.

The Derby Museums is one such museum. An independent trust since 2012, the museum is a consortium of three sites: the Museum and Art Gallery, the Pickford's House and the Silk Mill. All the three sites, completely diverse in their nature offer rich and valuable learning encounters through their wealth of resources. They bear unique characteristics and strive to realise the Derby Museums' cause to 'expand perspectives of what a museum is and can be' (Derby Museums, 2014: 6).

Vision

The museum looks after the collection on behalf of the Derby City Council. Its vision is 'to shape the way in which Derby is understood and appreciated and the way in which people from all places are inspired to see themselves as the next generation of innovators, makers and creators', (DM, 2014: 7). The first part of the vision statement emphasises on promoting the identity of Derby by generating historical and cultural understanding to create awareness, acceptance and appreciation in public for their heritage. The very existence of the museum as fore bearer of the heritage of the city is also reflected through various offerings at its three locations that help in promoting the industrial identity of Derby and shaping the way it is understood and appreciated by

people. Its three sites are unique in characteristic and each strives to contribute to realise the vision statement of the museum in its own distinct ways.

The Museum and Art Gallery **(**MAG) holds the largest collection in the world of works by 'Joseph Wright of Derby' that was credited as a collection of National significance by the Arts Council England. Joseph Wright, the artist of 'enlightenment' gained acclaim for his unusual depiction of light and shade that creates a dramatic effect in his works by arousing feelings of 'awe' and 'mystery'. Besides the technique and skill that signify the style of his work, Wright is also admired for his popular subjects depicting sciences. The MAG prides itself to be the second largest owner of his artworks in the world and credits these as the 'centrepiece' of all its programmes. Their collection includes around 300 drawings, about 30 oil paintings, some prints, and a few paraphernalia of the artist. These drawings and objects are placed in the 'Joseph Wright Study room' which was opened in 2015 with the aim to provide widest access to the public.

The museum is now preparing for a retrospective of the artist in 2020–21. It also conducts special learning programmes for children, families, adults and school groups regularly based on elements of his paintings. Besides, it also narrates the story of Roman invasion in Derby through its wealth of collection and numerous activities designed around them. MAG is renowned for two of its recent redevelopment projects—the 'Notice Nature feel Joy Gallery' that houses its expansive natural history collection; and its newly created 'Cafeteria' that holds a vast collection of eighteen century porcelain which were locally created. MAG, with its vast collection of works by local artists,

artistic displays and interpretation techniques, popularises Derby's local heritage—natural and cultural.

At Pickford's House, an 18th century townhouse, the visitors get a chance to travel back in time to the Georgian era and experience rich Georgian culture. The house belonged to Joseph Pickford, an architect from the Enlightenment period. The historic house has been there for over thirty five years now documenting, preserving and showcasing the domestic life of the Georgian times to the people of Derby. Its strength lies in its newly refurbished period rooms and employment of the technique of 'live interpretation'. The inclusion of the technique makes learning enjoyable, stimulating and interesting. It also presents history and subject matter in human context, promotes easy understanding of subject matter, and offers scope for multiple interpretations as visitors can explore various areas of history such as living conditions, traditions, transportation systems, clothing, language and food habits, guided by their interests and preferences.

Pickford's House also has a remarkable collection of 'Toy Theatres' by Frank Bradley which children along with adults can enjoy playing. The room even houses a story-telling corner where young visitors can dramatise their own stories using hand puppets (figures 5.1 and 5.2). A visit to the house with its fine ambience fills people with feelings of nostalgia and pride, and gives them a chance to travel back in history and experience Georgian lifestyle.

Figure 5.1: A child enacting a story using hand-puppets, 'Frank Bradley's Toy Theatre', Pickford's House

5.2: Visitors enjoying the performance, Pickford's House

The Derby Silk Mill is situated at the southern end of the Derwent Valley Mills World Heritage Site (DVMWHS) in the valley of River Derwent. It is the site of the world's first powered factory and has been declared as a heritage site by UNESCO. The DVMWHS encompasses various other mill complexes that stretch from the northern end and include mills at Cromford, Belpar, and Darley Abbey. The Silk Mill 'offers insights to understand the regional, national and international heritage of the DVMWHS … and is complimentary to the regeneration of the whole valley' (DM, 2014: 6).

The Silk Mill, also known as the Lombe's Mill, was a collaborative enterprise by the Lombe brothers—Sir Thomas Lombe and John Lombe. The mill is also referred to as 'Italian works' after the Italian machinery it contained and utilized for silk production. Presently it is known as the Derby Silk Mill or just The Silk Mill.

Figure 5.3: The Derby Silk Mill, Derby Museums

The mill has an intriguing history. It was erected on the present site on an island in the river Derwent after an unsuccessful silk manufacturing initiative in 1704 by Thomas Cotchett. Cotchett's mill, which was situated on an adjacent site influenced the birth of the Lombe's Mill. According to Anthony Calladine (1993), John Lombe worked here as an apprentice before he travelled to Italy in 1717 and pirated their technique of silk manufacturing.

In 1718 Sir Thomas Lombe secured patents for a new invention of three types of engine that used water-power to produce huge quantities of 'organzine'—the finest quality of silk, which was never done before in the country. He, along with his brother Thomas, went on to establish the enterprise which took four years for completion (1718-21). The technique of silk production used in the mill was originally invented in Italy and brought down to England by John Lombe. This process of producing 'organzine' using water source seemed an immediate wonder to the local silk manufacturers in Britain and the mill became a precursor of factory production.

The Silk Mill comprised two main buildings: the Italian Works and a Doubling shop. Italian Works, was a five storey building made of bricks (figure 5.4a). However, due to the two fire outbreaks in the mill, one in 1826 and then in 1910, alterations were made in the building. At present, only three storeys (figure 5.4b), the foundation arches, the gate and the original tower exist (figure 5.4c).

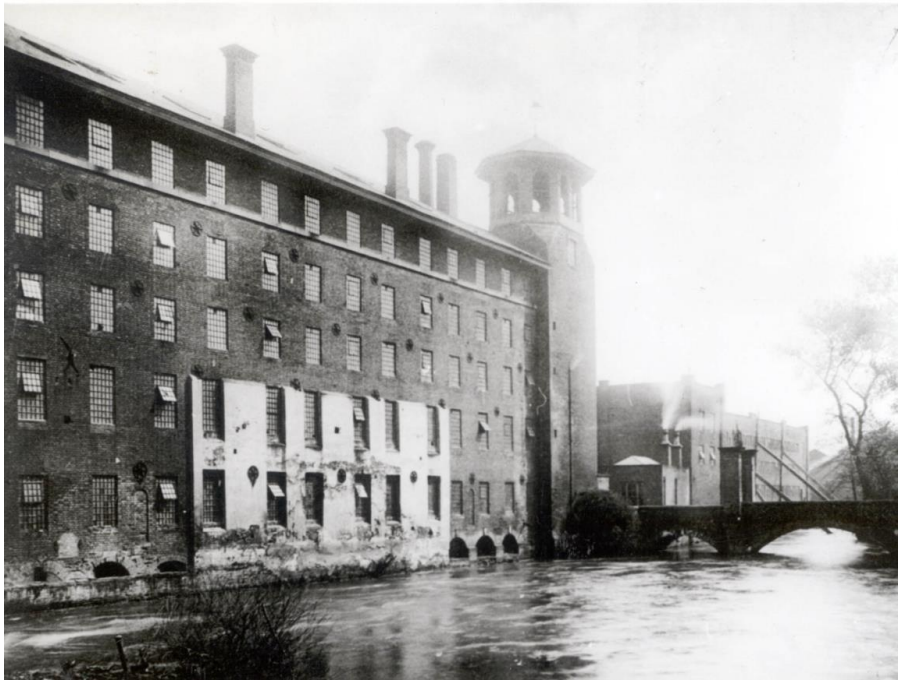


Figure 5.4a: Italian Works, original five storey building with Stair Tower; Bridge and Doubling Shop. Photograph by R Keene, 1884 (DBYMU collection L4304). (Courtesy: Derby Museums)

Figure 5.4b: Italian Works, altered three storey building with Stair Tower. Photograph by Frank Nixon, December 1963 (DBYMU collection P271/7) (Courtesy: Derby Museums)

Figure 5.4c: Silk Mill Gates, which still exist. n.d. (c1890?) (DBYMU collection L483), (Courtesy: Derby Museums)

Unlike the Italian Works, which was water-powered, the Doubling shop utilised hand-power and served as an auxiliary to the Italian works. This building was also built of bricks but contained three storeys. Together, the whole process of silk manufacturing from its raw form to the finished 'organzine', was carried out at both these buildings.

The ownership of The Silk Mill got transferred to several people after its first owners passed away in 1739. It seems that the silk production at the mill stopped towards the beginning of the 20th century and the mill was used by different owners for different purposes for about seven decades. In 1974 its

museumisation began with its partial conversion as the Derby Industrial Museum. In 1999, The Silk Mill was purchased by the Derby City Council (DCC). The Derby Industrial Museum could not survive due to several practical operational problems and was closed down in 2008. Then in 2011the mill gained the status of a Word Heritage Site by UNESCO and its ownership got transferred from DCC to the Derby Museums Trusts which was created in 2012 with the aim of 'Redevelopment of The Silk Mill'.

At present The Silk Mill is undergoing a five year refurbishment programme 'Re:Make' that commenced in 2013. Therefore, it opens partially and periodically on Thursdays between 3–9 pm and Saturdays 1–5 pm. Besides these days, it is also opened for special public events and festivals and is most likely to open fully by 2019–20.

The current practices of the mill under 'Re:make' include a range of participatory multisensory public programmes on its five learning areas that populate the ground floor of the mill. These programmes aim to engage the visitors by offering first-hand learning encounters with real objects; and thus contribute to realize the vision of Derby Museums. The learning areas are: Hub, Maker Bar, Making Our Stories, Art of Artefacts, and Institute of STEAM.

Hub

The need for creating this space has stemmed from the museum's desire to enhance their own knowledge about the collection through public support.

The Silk Mill owns a number of objects that do not have proper records. Therefore, the museum brings out its collection in this space, processes and documents them in public presence, and tries to generate information by interacting with the public. The public that comprises general museum visitors, many times also includes actual workers of the mill or visitors from the past, and occasionally workers from other factories in Derby or Derwent Valley. The people interact with the staff of the museum at this space and share their first-hand experiences or reminiscences about the mill and its collection. These real experiences or narratives are rare and exclusive in character and often surprise the present staff of the museum (figure 5.5).

Figure 5.5: 'Hub', where mill's collection is processed and documented openly in public presence

Maker Bar

This is a mobile, portable laboratory where visitors especially young children can freely experiment and give tangible shape to their ideas. The bar offers a menu of choices in the 'maker bar menu' which includes a range of activities for children. Children select one or more activities at a time and create a variety of objects with the materials provided. They can also seek help from the facilitators here who are professional artists themselves. Offering children a menu of choices of activities gives them a range of options to decide and choose an activity that suits their interests, motivations and abilities (figure 5.6).

Figure 5.6: 'The Maker Bar', a mobile portable laboratory that offers a menu of choices of activities to children

Making Our Stories

The idea here is to catch responses from visitors and find their stories. The space holds a comfortable seating arrangement with seats carrying cushions labelled ‘welcome, sit and relax, memory and share’. The adjoining wall carries ‘Maker Voices: Stories of makers and making’ in which eight makers narrate their own creative journeys through video clippings which run on a ‘design suite’ (a LCD screen) mounted on a wall alongside their photographs. In a nutshell, all these elements together create a beautiful ambience that inspires visitors to take a trip down their memory lane and share their creative journeys with the museum staff (figure 5.7).

Figure 5.7: ‘Making Our Stories’, a space where visitors can share their own stories inspired by the creative journeys of eight makers

Art of Artefacts

Art of Artefacts is a space that intends to democratise the curatorial process of displaying museum objects. Barring the conventional museum display techniques which present the thoughts of curators, the space encourages visitors to experiment with their ideas and come up with a personalised style of displaying museum collection. The visitors are given a group of objects which they categorise using a criteria of their choice and arrange them accordingly in the shelving unit. They can also investigate about these objects by checking information online or use the object cards which are available as references. The object cards provide: the year of making, name of the maker, place, material and possible use of the particular object. All these sources and the information acquired assists visitors to select their criteria for display (figure 5.8).

The objects for the activity are randomly selected by the Curators of 'Re-making' and the shelves were designed and co-produced by the public and the members of the museum staff. Many of these objects are replaced repeatedly every week in order to challenge the thinking skills of the repeat visitors and to hold their interests on future visits. The objects are mostly reproductions which run a low risk of being damaged or being worn out.

The space is a kind of 'design lab' and a 'three-dimensional mini museum' where visitors are welcome to handle museum collection, and experiment and share their ideas publicly. It also gives them a 'behind the scenes' understanding of museum functioning.

Figure 5.8: 'Art of Artefacts', a space that encourages visitors to come up with a personalised style of displaying museum collection

Institute of STEAM (IOS)

At the Institute of STEAM, the notion of STEM (Science Technology Engineering Mathematics) learning has been expanded to STEAM learning by including 'Arts'. The idea stems from the museum staff's conviction that art is an integral component of all types of learning and a vital component to excel in any technical discipline. The IOS is situated on the ground floor of the mill. It adopts a multidisciplinary approach to learning and offers countless opportunities to the public (especially young children) to create objects that give form to their ideas and help in honing technical skills. Visitors can simply drop-down to design objects, and learn laser cutting and woodwork.

The ‘workshop’, as it is popularly called, comprises two large rooms that are equipped with state-of-the-art design equipment. It also holds a small library which is a rich knowledge resource and contains books that explain basic technical skills such as carpentry, engineering, stitching and laser cutting. The workshops are manned by a team of experienced industrial designers who demonstrate the techniques and conduct the learning sessions here to inspire people especially children to think, build and contribute in their unique ways of ‘making’. Besides, the areas are also utilised by pupils for school projects that require technical assistance and guidance. One successful initiative is the ‘Pre-Neet’ workshop (not in employment, education or training), that aims to impart technical skills to adolescents between the ages 11-14 years who run a high risk of quitting formal education due to family or personal issues. A few other programmes include the Maker Faire, Maker Camp, Micro bit workshop and STEAM powered makers.

Figure 5.9: ‘Institute of STEAM (IOS)’, a technical learning space based on the concept of STEAM learning

Besides the learning opportunities conducted within the preceding five spaces, Derby Museums offers a vast spectrum of learning programmes that extend beyond these five spaces and even the four walls of the museum. Two such programmes at the Silk Mill, one for school children and the other for university students, are briefly described here:

Architecture Explorer

The Architecture Explorer, also known as the 'UK Cities Project', is a new inclusion to a gamut of learning opportunities at The Silk Mill. This programme is meant for schools and involves pupils to study and observe four buildings: The Silk Mill, Derby Cathedral, Quad, and Guildhall. All of these buildings are carefully chosen for their unique characteristics and functions. The Silk Millis an example of early industrial architecture; Derby Cathedral is a medieval late gothic style architecture; Quad is an example of a contemporary architecture; Guildhall is a Victorian style civic building.

The session is facilitated by two resource persons who are professional artists, and are assisted by the accompanying school teachers. The pupils visit these buildings; observe their unique architectural features and characteristics; get acquainted with the history, styles and terminology; and try to understand the nuances of how 'form follows functions'. They then discuss with the facilitators, take field notes in their sketchbooks and document their observations through on-the-spot sketching exercises (figure 5.10).

The activity is meant for school children and has the following aims:

- Learn the characteristics by observing buildings of different periods and styles
- Become familiar with architectural names and terminology
- Understand the relation between functions and forms
- Encourage pupils to think and discuss personal responses to the exteriors and interiors of these buildings
- Understand how sketchbooks can be used as a media to feed work done at school

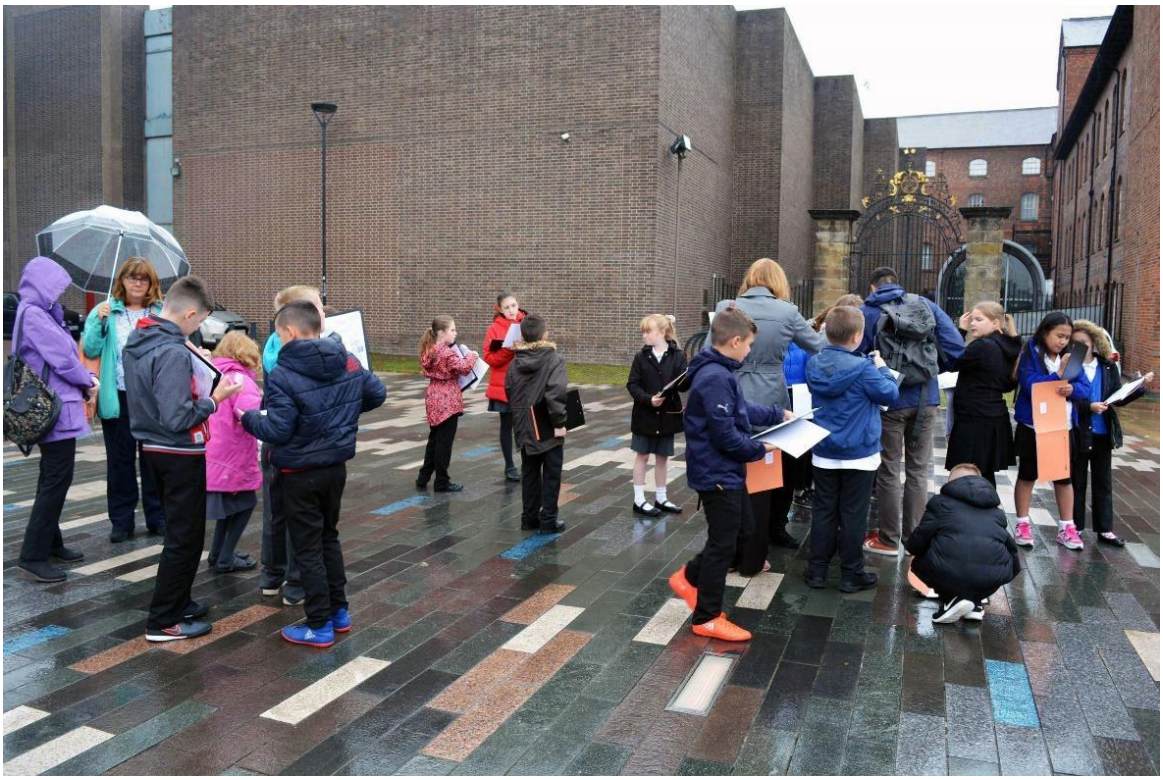


Figure 5.10: 'Architecture Explorer', a learning programme for school children at The Silk Mill, Derby Museums

University Students—Early Years

Under this daylong session, students pursuing 'Early Childhood Training Programme' from the University visit the Silk Mill to understand the scope of museums as a learning resource for young children. At the outset, the participants receive a 'Silk Mill Tour' through a brief power point presentation in the premises of the mill which gives them an overview of its programming strategies and current practices. This is followed by visits to the five learning areas where the staff members explain the peculiar nature of learning at each of them. After this brief introduction, the participants try their hands at a learning activity—Steam Tots, which is a special programme of the Silk Mill for the early years. Steam Tots is based on the theory of 'Loose Parts' in which toddlers and preschool children receive loose materials such as pieces of fabrics, colourful geometrical blocks, pipes, rolls of corrugated sheets, rings, and rope, which they explore, arrange, and manipulate to find their alternate uses. Assuming the role of young learners, the university students play and enjoy the activity as children enjoy exploring it.

After this playful hands-on learning session with loose materials, the workshop participants proceed to the exterior of the Silk Mill and become a part of another dramatic presentation (figure 5.11). The members of the museum staff enact the story of the Lombe brothers and narrate the major historical events that took place during the establishment of the Silk Mill. The participants then perform another exercise in which each of them receives an old image of the mill and are asked to compare and identify the significant structural alterations that the building has undergone till the present. The days

programme ends with a reflection and feedback session where everyone interacts and share their experience with the staff members. They also give feedbacks and suggestions which can be implemented in future to improve the quality of the programme.

Figure 5.11: 'University Students—Early Years', a learning programme for University Students at The Silk Mill

Strategies for Learning Programmes

Referring to the vision statement of the Derby Museums, its second part 'the way in which people from all places are inspired to see themselves as the next generation of innovators, makers and creators', takes a global perspective and focuses on inspiring people, besides the local populace, to develop their creative skills. By exposing people to objects of great significance from the makers of the past such as—Joseph Wright, Erasmus Darwin, John

Whitehurst, and Lombe brothers, the museum aspires to sensitise them to art and ignite their creative urges. It offers numerous opportunities for participation that inspire and encourage people either to create something new or utilize existing knowledge and ideas and become future innovators, makers and creators. The programmes help people explore their heritage and shape their lives. The most prominent theoretical approaches and methods are discussed here. Each method is supported by relevant examples of learning activities from the three sites which were observed during the study. Appropriate examples from other museums are also included.

AUDIENCE ADVOCACY

'Audience advocacy' means speaking for or on behalf of audiences. It includes representing the interests and safeguarding their rights. Its unique aspect **is** customer perspective and its role is to create value for customers by understanding consumer dynamics and adapting customer-driven strategies to become relevant and meaningful. It is a valuable concept and has been recognised by museums and professional organisations. The Standing Professional Committee on Education, American Association of Museums (AAM 2005: 10), has included the concept of advocacy in the *Professional Standards for Museum Educators* and emphasises that 'Museum educators facilitate a spirit of teamwork and collaboration within the museum to promote the best interest of audiences'.

Eilean Hooper-Greenhill (1991: 190–192) has elaborately expressed the role of ‘audience advocate’:

> The ‘audience advocate’ helps to improve the general experience of the museum including facilities for physical comfort; special and intellectual orientation; varieties of pace, style and communicative approaches of successive displays within the building; and the interaction between the museum staff and the public. The ‘audience advocate’ identifies those sections of the potential audience that are not involved because the experience the institution offers does not relate to their specific needs.

Thus, ‘audience advocacy’ is an integrated conceptualised approach that embraces all aspects of museum community interface. It involves developing and structuring of museum’s resources, policies and practices to make museum offerings relevant and meaningful to visitors and non-visitors by understanding and responding to their needs and expectations. It requires teamwork, coordinated effort and strong communication within the museum and with the audiences.

We can see parallels of ‘audience advocacy’, for example, in the ‘Multicultural Audience Development Initiative’ (MADI) by The Metropolitan Museum of Art (MET), New York, and the ‘Audience Development Strategy’ of the Derby Museums, Derby.

MADI was launched in 1998 with the purpose of engaging and educating communities with diverse background and ancestries. To accomplish this goal, the museum reaches out to diverse communities living in New York and works towards increasing awareness of its collections and programmes and cultivating relationships with communities. This is being done with the help of a Multicultural Advisory Committee that has representation of leaders of various communities and organizations. The committee serves as a link between the museum and communities and provides fresh and refined perspectives and defines strategies for synergetic relationships. The initiative has helped the museum in energising participation of the communities and promoting and diversifying its visitorship by addressing specific needs of diverse audiences.

The Derby Museums (2016a) has taken a long-term strategic view supported by a defining framework that has five related key components. One, Increasing Access: Attracting wider audiences by providing widest possible access to the museums' resources and services by removing all kinds of barriers such as physical, intellectual, psychological, temporal and financial.

Two, Engaging Communities: Building relationships with actual and potential audiences by involving them in developing and delivering museum offerings. Three, Representation: Reflecting the diversity of Derby's communities by representing diverse cultures and audiences, and by creating personal relevance for communities. Four, Social Impact: Contributing to the quality of people's life in Derby by promoting sustainable communities, social inclusion, community cohesion and regeneration. Derby Museums believes

that contributing to social change will build their prominence and value in the community and make the museum more central to people's lives. This finds support in the evaluation studies done by them reveal that 'museums help people to acquire new skills and knowledge, increase confidence and self-esteem, and challenge attitudes, promote a positive reinforcement of identity and cross-cultural understanding' (DM, 2016a: 7).

Five, Organisational Development: Building capacity to be a pioneer in audience development by doing high quality and sustainable work. They have recognised the need for leadership, teamwork, communication and committed and trained staff.

The examples of MET and Derby Museums reveal that the concept of 'audience advocacy' is not only theoretically valid but also practically successful in giving voice to communities. Here it is worth mentioning the example of Nottingham Castle Museum. In their textile gallery thoughts of visitors are included along with the curator's in the exhibition text (figure 5.12). Thus, 'audience advocacy' has changed the way museums used to develop and offer public programmes by doing audience research and creating long term commitment, concentrated focus and strong communication between museum and community.

Figure 5.12: Exhibit labels containing visitor's thoughts in small point size, Nottingham Castle Museum, UK

Co-production

The concept of 'audience advocacy' leads to the next point: co-production which is the hallmark of consumer centricity. It aligns the producers and recipients of the offerings and brings them together to jointly explore, shape and create customer-centric solutions. Co-production is an interactive process and recognises the power of consumer inputs and participation. Interaction with consumers can lead to innovations by identifying their unmet needs which they may not be aware of or are not able to express.

Museums often seen as reluctant to engage with their audiences, are now forthcoming in inviting them to chime in. They, in spite of being the final authority in decision making, are willing to elicit opinion of their audiences

and try to get their thoughts. They have started involving them in the planning process and are asking them to review their product ideas and make suggestions.

The Derby Museums is an exemplary museum that has successfully executed the co-production strategy which remains the most significant of all their approaches. The underpinning motive behind the approach is to encourage public participation and involvement in conceiving and delivering programmes instead of applying a traditional approach where members of the museum staff decide and impose their thoughts and ideas on the public. Their approach works at two levels: (1) internal - at this level, the members of the museum staff from all the three sites collaborate to create programmes that are relevant and meaningful to users; (2) external - at this level, members from the community, the potential users, are invited to collaborate with the members of the museum staff to generate and test ideas, and develop programmes by participating in decision making.

The approach of 'co-production' at Derby Museums is based on the 'Human-Centred Design' methodology which encompasses adoption of human perspective to overall programming. The methodology involves a series of six steps: (1) define; (2) understand; (3) think and imagine; (4) model and prototype; (5) test and evaluate; (6) produce and share (Derby Museums 2016b). This concept is elaborated in 'Human-Centred Design and Co-production Handbook' (2016b) which is available on the website of the museum.

Their approach of ‘co-production’ involves two major tools:

1. Project lab: All the projects in the museum begin with a project lab. Project lab is not a designated physical space; it is an experimental process which can happen in museum galleries, activity areas; or through social media such as twitter, facebook, tumbler, project blogs or forums. It can take a variety of forms such as comments or suggestions through comment boards (both in staff and public spaces), group meetings and discussions (ideation sessions), blog posts, on-site and off-site surveys, hashtags, interviews, and tweets. The purpose of a project lab is to provide a platform to people to collaborate and share their ideas, gain insights and knowledge about different features of the project, give suggestions, participate actively, get connected and inspired. It is a flexible process that can be applied at any stage of the project in three phases:

    - Internal project lab: This is the first project lab in which members of the museum staff, volunteers and project partners share their ideas and insights to define the parameters and give shape to the project.

    - Public project lab: At the second phase, the ideas generated at the previous phase are re-visited, tested and evaluated with the public.

    - Project lab: After the parameters of the project have been defined at the internal and external level, the process of project development is

shared with the public through different means with subsequent regular updates.

2. Ideation Sessions: All the planning and designing at Derby Museums usually happens in group meetings called ‘Ideation Sessions’. During these sessions, members from the staff, from various levels of the hierarchy and from different departments, participate to generate the content of a forthcoming project at the museum collaboratively (figure 5.13).

Figure 5.13: Inputs generated during an ‘Ideation Session’, Derby Museums

Ideation sessions are often driven by a tool called ‘empathy maps’ that invites members of the staff to participate as visitors and have empathetic experiences of what they are likely to think, feel, do, say, hear and see in a particular future museum situation (figure 5.14). This

allows the members to anticipate other people's responses and take appropriate decisions.

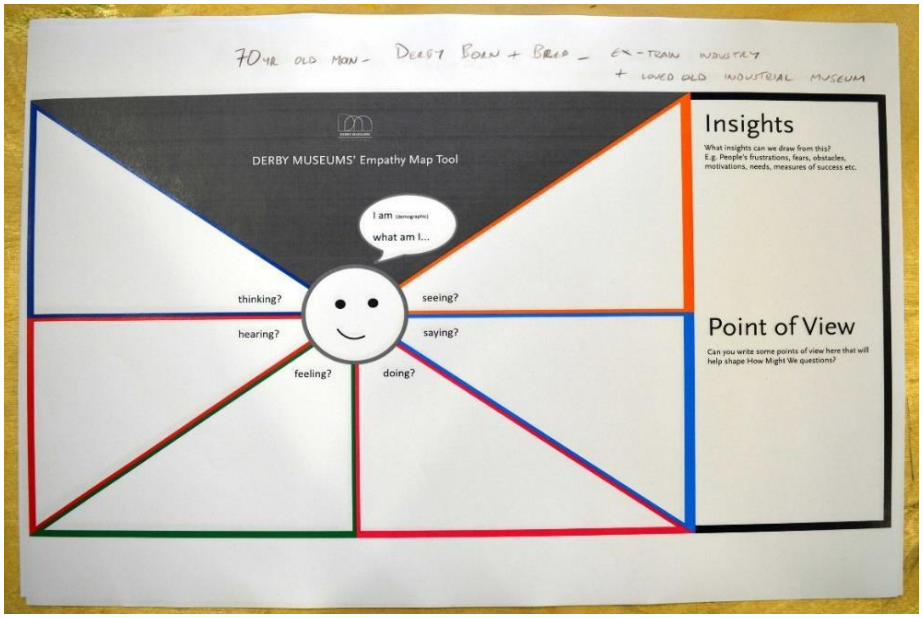


Figure 5.14: An empathy map, a tool employed during 'Co-production', Derby Museums

A noteworthy example of Derby Museums' co-production strategy is the natural history gallery reorganized as 'Notice Nature Feel Joy Gallery'. It was a collaborative endeavour between the museum and its public. The project involved volunteers, visitors, artists, university students, entomologists and taxidermists who contributed their ideas, expertise and skills in numerous ways to re-create the display. The project also comprised five major creative commissions led by experts who in sync with the museum's strategy of co-production, involved public at every stage of their work. Some of the major co-produced components of this project are briefly described in Table 5.2:

TABLE 5.2: CO-PRODUCTION AT DERBY MUSEUMS

Co-Produced Components: Community's Contribution
Soundscape Visitors contributed natural sounds to compose an evocative digitalised soundscape. One visitor donated a historic recording of a nightingale recorded in 1949.
Case of Beetles Contains a drawing of a beetle made by a six year old in Project Lab (figure 5.15a and b).
Shell Vitrines Visitors prepared designs for these cases based on museum's shell collection.
Forest of Birds Museum staff, commissioned taxidermist and visitors co-created this unique installation of birds. Visitors' responses and feedbacks were taken and incorporated all through the process of its creation (figure 5.16).
Step Stools Eight product designing students co-designed two step stools for use by visitors of different heights (figure 5.17 a, b and c).
Labels for Specimens Preserved in Spirit Forty two graphic designing students collaborated with the museum staff and put forward their ideas for interactive labels; the best one was implemented.
Photography of Birds' Eggs A recent photography graduate worked on a placement with the museum to photograph birds' eggs which were used to develop interpretive guides and a set of retail postcards.
Jigsaw and Riddles Two volunteers, an illustrator and a poet were commissioned to create these fun games for children (figure 5.18).

Selection of Specimens and Monitoring of the Project Twenty eight experts and specialist from other museums and public organisations were involved in selection of specimens and monitoring the project's progress at different stages of re-development.
Short Stories Booklet 'Hello Hubmarine', a creative writing group, co-produced with the staff a book of short stories based on six specimens from the museum's natural history collection (figure. 2.1).
Bird Stickers, Cards, T-Shirts and Bags 'Super Nature Volunteers' designed four illustrations for 'public vote for a nature mascot' campaign. These are now being made into cards, T-shirts and bags for retail purpose (figure 5.19 a and b).
Cleaning of Birds Two conservation students from Lincoln University, cleaned many birds and coached other volunteers in basic conservation processes.
@DMNature Twitter Account Visitors' responses and ideas gathered during the project lab led to the creation of @DMNature Twitter account and other tools being employed to gather visitor feedback.
Gallery Guides Visitors and the museum's staff co-produced fourteen self-exploratory gallery guides, one for each category of museum's natural history collection.

Figure 5.15a: A six year old's drawing included in the Beetle case, NNFJ (Courtesy: Derby Museums)

Figure 5.15b: Preparation of the Beetle case, NNFJ, Derby Museums, UK (Courtesy: Derby Museums)

Figure 5.16: Forest of Birds, NNFJ, Derby Museums (Courtesy: Derby Museums)

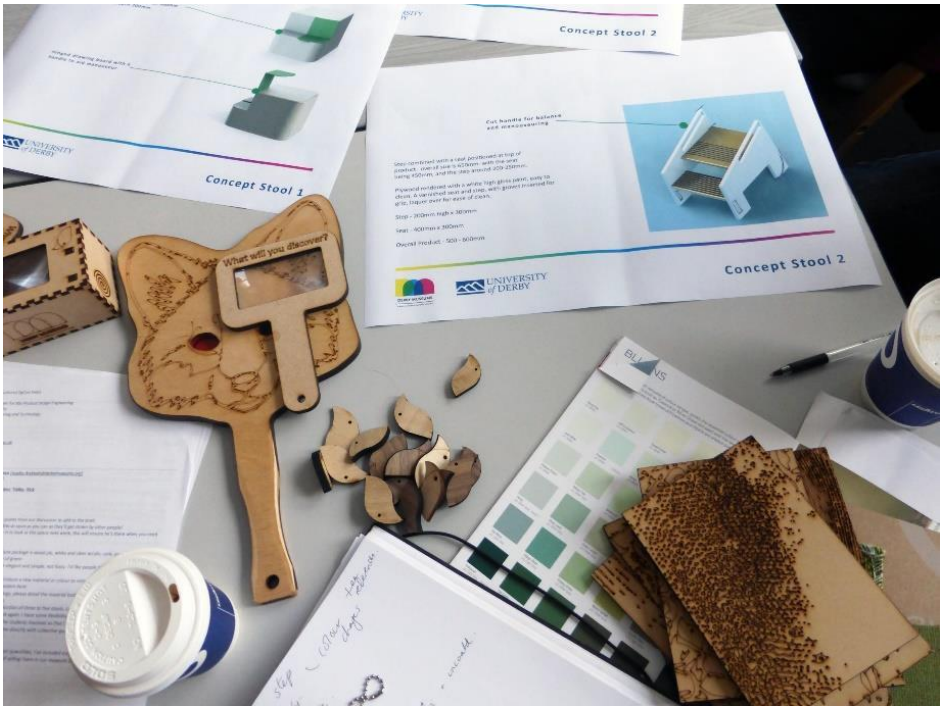


Figure 5.17 a: Concept of step stools, NNFJ, Derby Museums

Figure 5.17 b: Step stools, NNFJ

Figure 5.17 c: A child on a step stool, NNFJ, Derby Museums

Figure 5.18: Riddle Wings, NNFJ Gallery, Derby Museums

Figure 5.19 a: 'Buy a Bird' – Public vote for a nature mascot, NNFJ Gallery, Derby Museums

Figure 5.19 b: Staircase wall of MAG that supports 'Buy a Bird' campaign

The success of the project is well described in a review by Dave Freak (2015: 47), a writer, editor, arts consultant and programmer. He comments: 'Derby Museum's faith in the process of collaboration has resulted in a playful, imaginative, engaging and distinctive exhibition, with an influence that reaches far beyond the gallery walls'. He appreciates the execution of the central theme 'noticing nature' by engaging visitors emotionally and intellectually; resulting in a shift in behavior patterns from passive to active.

The approach of 'co-production' at Derby Museums is unique, experimental, open-ended, dynamic and creative. It has helped the museum evolve in incredible and multifarious ways. In the words of Andrea-Hadley Johnson, Co-production and Engagement Manager, Derby Museums (2014–15: 9):

> Watching small ideas develop in unexpected ways has been one of the most rewarding aspects of leading a co-produced project and I'm keenly aware that the co-production process has produced something far richer than anything we could have delivered alone.

Menu of Choices

Another determinant of personalised services is the 'menu of choices'. In comparison to 'co-production' which allows personal touch by involving consumers in decisions what is to be produced and how it is to be produced, 'menu of choices' opens an avenue for consumers to decide what is to be consumed and how it is to be consumed. It empowers them to make decisions

to choose an activity that matches with their interests, motivations and abilities.

Offering a ‘menu of choices’ means museums will have to face the diversity that their audiences bring in. The key to handle diversity successfully is: accept and respect differences without compromising equal opportunity. It is a thought-provoking approach which treats visitors differently but with equity. Since all visitors are different in terms of motivation, learning needs and abilities, likings and preferences, etc., museums need to personalise their approach to address their heterogeneity. Yet, when it comes to human or civil rights, the approach is same for all. It means museums need to stick to the policy of non-discrimination which is non-negotiable and inviolable.

There is no dearth of ways to create ‘menu of choices’. The concept aligns with the theory of Multiple Intelligences by Howard Gardner which posits offering multiple opportunities to learners depending on their unique mental abilities. The theory has been elaborately discussed in ‘Chapter 2: Learning: Basic Concepts and Principles in Museum Context’ of the thesis. In museums, a logical way is to look at the scope of the museum and its offerings and uncover possibilities of:

1. Diversification in product portfolio: widening the range of offerings by adding new and variety of products (figure 5.20)
2. Adding features: including activities such as demonstrations, seminars, workshops and story-telling; or things such as take away labels, text in

Braille, catalogues and audio-guides in an exhibition to enhance its ability to gratify diverse needs

3. Using multiple senses: using all the five human senses—sight, hearing, smell, taste and touch—to cater to different likings and preferences
4. Multiple interpretations: explaining exhibits from different perspectives such as aesthetic, political, social and economic
5. Multilevel interpretations: explaining exhibits at different levels of comprehension from simple to complex
6. Presenting multiple views: presenting multiple views on an issue or a theme, instead of presenting curator's viewpoint, so that people can construct their own meanings.

Figure 5.20: 'Maker Bar'—one of the five interactive zones at Silk Mill, offering a range of craft activities in the 'Maker Bar Menu' for children to choose from, Derby Museums

Heuristic and Guided Discovery

'Heuristic' techniques of play-based learning encourage children to learn on their own by exploring, discovering, and experimenting. The technique also draws on the principles of 'Guided Discovery' where the activity, its contents, and the environment are carefully planned and pre-structured. Children driven by their own curiosity, motivated and guided by the adults, are made to learn and discover things step-by-step.

Derby Museums conduct special activities for children between 0–8 years based on 'Heuristic and Guided Discovery'. One such activity at Museum and Art Gallery is 'Tots Make and Do'. This is a weekly theme based activity that encourages children between 2–5 years to 'make and do something'. They make things such as Egyptian masks, mobile and straw hangings, and lanterns; and engage in art and craft activities, games, stories, museum trails and other hands-on activities related to the theme of the session and the museum's collection. A few themes included in the past are —'Paint and Play, Digging, Roald Dahl's 'Charlie and the Chocolate Factory', Ancient Mummies, Birds in the sky, and Colours and shapes'. At times these themes are also aligned with topical events like the British Science Week, New Year, and Diwali. Below is a brief description of one of these sessions.

The weekly session 'Birds in the sky' is designed around the museum's bird collection in the Notice Nature Feel Joy Gallery (NNFJ). It includes three sub activities which are carried out sequentially: (1) a colouring activity; (2) making a 'take-away' 3-D bird; (3) a museum trail. The session begins with a

briefing of the concept to the children in the activity room. After this brief introduction, children are given an activity sheet to colour an image of a bird choosing colours of their choice from the available range. After this they make a 3-D bird with colourful papers through cutting, pasting and paper folding as a 'take-away' (figure 5.21). On the completion of the two activities, children accompanied by adults, head to the NNFJ gallery for the third activity which aims to reinforce the concepts learnt at the previous two stages.

The third activity 'museum trail' contains another activity sheet in which the participants identify the specific species of birds in the gallery on the basis of clues provided in the sheet, and with assistance from accompanying adults. For reference, they receive a 'bird reference sheet' that contains pictures of some of the species. As children perform this activity, they discover facts about different species of birds displayed in the museum's NNFJ gallery.

The above programme aims at:

- Familiarising children with the birds and other collections in the museum
- Promoting social learning through adult-child interaction
- Boosting artistic skills
- Developing life skills such as observation and communication
- Encouraging independent and group learning

Besides promoting 'heuristic and guided discovery', activities such as 'Tots Make and Do' also incorporate techniques of scaffolding as young learners

progress to higher levels of knowledge and discovery through adult assistance which is gradually withdrawn as the goals are accomplished and the learners are empowered to take charge of their own learning.

Figure 5.21: Children coloring the bird activity sheet and making a 'take-away' 3-D bird, 'Birds in the sky', 'Tots Make and Do', MAG, Derby Museums

Loose Parts

The theory of 'Loose Parts' was first proposed by architect Simon Nicholson. This approach is more common in preschools and encourages free-play and open-ended learning. In this, children receive loose materials like pieces of fabrics, rolls of corrugated sheets, colourful blocks of different geometrical shapes, rings, empty crates, pipes, rope etc. which they can easily move, carry, join, manipulate and redesign in multiple ways.

Drawn from the theory of ‘Loose Parts’, Derby Museums offers ‘STEAM Tots’ on every Saturday at the Silk Mill (figure 5.22). It is a special activity for toddlers and pre-school children that gives them a chance to freely explore loose material in the museum premises with their parents and carers. Self-exploratory by nature, the activity enables young children to manipulate their surroundings and find alternate uses of mundane materials. It also fosters multisensory stimulation and learning as children can freely explore and feel the differences in the physical characteristics of various materials.

Figure 5.22: ‘STEAM Tots’, based on ‘Loose Parts, at the Silk Mill

Intergenerational Interactions

Intergenerational interactions refer to the interactions between parents, carers and children who visit museums as family groups. Such groups visit museums

to find a comfortable space that allows them to spend time together, learn and enjoy at the same time.

Derby Museums runs a vast range of special programmes for families that foster intergenerational interactions. Moreover, realizing the potential of parents as best facilitators for learning of their children, the museum quite apparently tries to tap this resource and offers enormous scope to integrate them in the learning sessions. Keeping their interests and purposes in mind, the sessions also include several activities that engage all the members.

One such popular programme at the Derby Museums is ‘Family Fridays’ that runs on every Friday at the Museum and Art Gallery where children along with their accompanying adults create art works together. Inspired from the paintings by the artist Joseph Wright, one of the session is based on the elements of his paintings such as old tree barks, a pair of horns, lantern, pines, and old pots, in which participants make studies from these representative real life objects (figure 5.23). All the required art materials like papers, a range of drawing pencils, a picture frame, crayons, dry pastels, markers, glue sticks, scissors and charcoal sticks are provided by the museum. As the activity nears an end, the participants particularly children enthusiastically cut and display their art on the walls against a suitable background colour of their choice. The activity aims to promote:

- Skills of observation and naturalistic drawing
- Acquisition of basic skills of drawing and rendering according to light and shade

- Composition skills by learning to arrange elements within a given picture frame beyond symbolic representations
- 'Co-learning' between family members that inspires children to draw and learn from their adults in a contextual environment

Figure 5.23: 'Family Fridays', inspired by the elements of the paintings by Joseph Wright, MAG

Derby Museums repeats a few of their intergenerational programmes periodically owing to their high popularity. Two such programmes which are always in demand are: 'Bug Hunt'—an annual favourite at Pickford's House, and 'Meet the Beasts' at Museum and Art Gallery. The former includes trapping live insects from the garden at the Pickford's House and then discovering scientific facts about them with assistance from experts; the latter gives children a rare opportunity to experience handling a real cobra in a museum. Both these programmes are very popular; particularly 'Meet the

Beasts' that draws huge audiences to the museum owing to the fact that it is something really incredible, unique, and loaded with fun and excitement.

Figure 5.24: 'Bug Hunt', an annual favourite, Pickford's House

Figure 5.25: 'Meet the Beast', another favourite, MAG

Multi-session Programmes

Multi-session programmes are primarily arranged to build learning over a period of time. However, a greater flexibility is maintained in these sessions as people can dip in to pick up learning at any point. Such programmes expand the scope of learning, help in extending the learnt concepts, lead to reinforcement of ideas and concepts, and gradually aid in developing strong bonds between museum and people.

Multi-session programmes are a unique feature of Derby Museums. One popular initiative is the 'Enchanted Garden' at the Pickford's House. In this session, children as young as two year olds, assisted by their parents and carers, create a giant ensemble of the Pickford's garden (figures 5.26 and b). They study samples from the garden to make nature studies of flowers, butterflies, moths, and insects. Based on the study or of any other garden they have seen in the past, children make a giant collage of the garden. Finally, after four to six sessions, the garden evolves, blooming with flowers and butterflies and eventually adorns the wall of the activity room. The overwhelmed young budding artists return to see their creations and are inspired to participate in more creative endeavours like these at the Derby Museums.

Figure 5.26 a: ‘Enchanted Garden’, a multi-session programme, Pickford’s House

Figure 5.26 b: A final ensemble of the ‘Enchanted Garden’, Pickford’s House

STEM-to-STEAM

Another significant and characteristic approach of the Derby Museums is STEM-to-STEAM learning initiatives. Recognising the immediate need to fill the gap that is left by schools and colleges, nowadays several colleges in Britain are collaborating with Business Groups to offer apprenticeship programmes that aim to equip students with technical skills required in jobs. Consequently, a lot of colleges and universities are now working with the local companies in Derby such as Rolls Royce, Bombardier, Toyota, who recruit people globally, and are trying to bridge the skills gap; thus emphasising on STEM education (Science Technology Engineering Mathematics).

As part of the Silk Mill redevelopment project, the idea of STEM learning has been expanded to STEAM learning to include 'Arts', stemming from the staff's belief that 'to excel in any technical discipline like medicine or engineering, creativity is an integral component'. The thought has led to the development of the pilot IOS (Institute of Steam) on the ground floor of the mill which has been discussed previously in the chapter. IOS offers innumerable opportunities, like laser cutting and woodwork workshops, to the public (especially young children) by offering them a platform to create objects that give form to their ideas and help in honing technical skills. The 'workshop', as it is popularly called, comprises two large rooms that are equipped with state-of-the-art design equipment. It also holds a small library which is a rich knowledge resource and contains books that explain basic technical skills such as carpentry, engineering, stitching and laser cutting. The

workshops are manned by a team of experienced industrial designers who demonstrate the techniques and conduct the learning sessions here to inspire people especially children to think, build and contribute in their unique ways of ‘making’. Besides, the areas are also utilized by pupils for school projects that require technical assistance and guidance.

Audience research carried out by Derby Museums in recent years has revealed that adolescents above the age of 11 years refrain from museum visits owing to other competing interests such as playing online games and spending time with friends. Considering this, Derby Museums has designed a range of activities based on their preferences. One such successful initiative of the Silk Mill is the ‘Pre-Neets’ workshop (not in employment, education or training), that aims to impart technical skills to them. The ‘Pre-Neets’ group usually comprises adolescents between the ages 11-14 years who run a high risk of quitting formal education due to family or personal issues. British Government has identified an urgent need to counsel them and is developing partnerships with private companies and professional organizations that have the capacity to impart technical education.

Derby Museums is taking active part in the British Government initiative by conducting ‘Pre-Neets’ workshop. These workshops include a series of daylong activities that begin with visits to private companies and interactions with their staff members who inspire and motivate these youngsters to pursue technical education. After this, the participants return to the Silk Mill where they design and create one utilitarian object of their choice such as a ‘screwdriver’ under the guidance and supervision of the makers here (figure

5.27). Trying to understand how ‘form follows function’, the participants learn the nuances of object designing, its process of making and explore its multiple uses. As a positive outcome of this initiative, Derby Museums has been successful in motivating a large number of its workshop participants to return to formal education out of which many have been inspired to choose engineering as a future career option.

Figure 5.27: ‘Pre-Neets’ workshop where the participants are learning to make a ‘screwdriver’, IOS (workshop), Silk Mill

Multicultural Learning Programmes

Multicultural programmes aim to recognise and acknowledge the cultural diversity, and promote cultural understanding and tolerance among the communities. The term multicultural learning includes learning activities with various hard-to-reach community groups.

Derby Museums has been making commendable efforts to expand and re-define its civic purpose by offering significant culturally rich participatory learning programmes to acknowledge the minority community groups living in Derby, including BAME communities (Black, Asian and Minority Ethnic). The term refers to the non-white communities living in UK and constitutes approximately 20% of the total population of Derby. As pointed out in an interview with Mr Tony Butler, Executive Director, Derby Museums:

> "Our next project shall be to re-develop some of the MAG galleries around the 'colonial or world collection' of the museum that accounts for 2% of the total collection, in order to connect to the diverse communities living in Derby. The project shall cover three strands: redevelopment of the galleries, appointment of a collection officer to work with the collection and the respective community, and appointment of a community person to establish direct connections with the local community people to interpret and gather their stories".

The most recent initiative in this direction is the 'Music of Courtly India', an exhibition at the Museum and Art Gallery (May-June 2017). It is a travelling exhibition developed by the British Museum to commemorate the 70th Anniversary of India's independence. The exhibition comprises an album of *Ragmala* miniature paintings and an ivory *Sarinda*, a musical instrument from the 17th century. At MAG the exhibition intended to celebrate the heritage and history of the Indians living in Derby. Such community initiatives make

museums more accessible to various cultural groups and encourage them to use its resources.

Derby Museums is an exemplary museum that has been successful in employing diverse means to connect with public. Their spirit to celebrate the history and heritage of Derby resonates in all their approaches and practices. Their most unique aspect is the strategy of ‘co-production’ which has brought immense popularity to them. The approach democratises traditional museum practices and makes visitors feel welcomed and comfortable in the museum. It also fosters communication with the stakeholders and aids in bridging the gap between museum and public. Besides ‘co-production’, other programming strategies of the Derby Museums that are based on theoretical concepts such as ‘Heuristic and Guided Discovery’, ‘Loose Parts’ and ‘STEM Learning’, along with a vast range of intergenerational and multicultural programmes, further the concept of ‘inclusiveness’ that syncs with the ideals of learning in museums of Great Britain. Derby Museums is also a partner in a number of other national projects such as the Happy Museum Project and Major Partner Museum (MPM) which bring considerable prestige and leadership opportunities to the museum within the UK museum sector.

CASE STUDIES OF LEARNING PROGRAMMES

TABLE 5.3: LEARNING GOALS AND OTHER GOALS

S. No	Name of the Museum, No of activities	Title of the Educational Activity	
		Learning Goals	**Other Goals**
1	Victoria and Albert Museum, London	**'Make – it: Fashion'**	
		General Aims and Objectives of Make-it workshops: - To work with and meet a practising artist or designer; understand what an artist does and in particular [theme of the workshop] - To enable families to create their own artwork or design through first-hand experience with the V&A collection - To develop creativity and imagination through experimentation with materials and ideas with expert guidance - To foster enjoyment and appreciation of design and the design process (inspiration, ideas, making etc.)	Participants will understand the importance of fashion to communicate a message that they feel strongly about and create a statement through something that can be worn.
		Digital Kids	
		-Information about what exhibition we have on currently -Make the kids have fun and learn	-Learn to use apps or technology used by the museum -Engage with museum exhibitions -Work as a family and create together
		Perfect Patterns (School session)	
		Learning goals: Work with designer Bethan Durie in this hands on studio workshop. Students will be encouraged to experiment with mark making when creating first hand drawings from museum exhibits in our incredible Islamic Middle East gallery. Bethan will model incorporating collage into the drawings by cutting and sticking shapes on to existing sketches and working on top with further layers. Armed with drawings and collage, students will return to the studio to work in a digital software called Repper Pro to create their own digital pattern designs. **National Curriculum links:** To use drawing, painting and sculpture to develop and share their ideas, experiences and imagination • To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space • The work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work. • To create sketch books to record their observations and use them to review and revisit ideas	----

S. No	Name of the Museum, No of activities	Title of the Educational Activity	
		Learning Goals	**Other Goals**
		V&A Voyage (School session)	
		Learning goals: This talk takes students on a cultural journey through India, South Asia and the Islamic Middle East. It looks at traditional Indian objects and tells the story of Tipu's Tiger. Learn about the Emperor of China and the symbolism of the Chinese dragon, lion and other animals through traditional craftsmanship. Explore objects found in the Islamic Middle East including the world famous Ardabil carpet and the Picnic tile. **National Curriculum Links:** This talk will contribute to learning about: • The work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work. • About great artists, architects and designers in history. • A non-European society that provides contrasts with British history – (one study chosen from: early Islamic civilization)	----
2	Horniman Museum and Gardens	**'Ancient Egypt' School Session**	
		Learning Objectives -Pupils will be able to explain why the Ancient Egyptians mummified people and animals. -Pupils will be able to suggest a sensible idea as to what an Ancient Egyptian "mystery object" is (after handling), and explain their rationale. -Pupils will be able to handle and study artefacts carefully and understand why this is necessary. **Curriculum Links** Key Stage 2 -The achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China	----
3	Derby Museums	**Secrets of the Mummies (Schools session)**	
		To learn about Ancient Egypt: mummification techniques, farming and pyramid building, myths and gods. To learn about the Mummies in Derby Museum. To make their own ushabti figure using what they've learnt.	----
		Remarkable Rocks and Fantastic Fossils (Schools session)	
		-To learn about the rock cycle, understand the difference between the types of rocks, handle rock specimens, and be able to identify fossils, rocks and minerals in the Nature gallery. To work scientifically to investigate rock hardness. To learn about how fossils are formed, dig for their own fossil and take the imprint back to school, learn about how old these are, make their own imprint fossil for another group.	----

S. No	Name of the Museum, No of activities	Title of the Educational Activity	
		Learning Goals	**Other Goals**
4	V&A Museum of Childhood	**Draw & Design Games Workshop (Making Board Game)**	
		- To create their own board game inspired by whatever theme they like.	- Drawing, cutting, stickering, playing the game, collaborating with family members.
		Collage Board Games Workshop	
		- To encourage and support family learning - To introduce the board games exhibition to families who have not yet visited - To facilitate creative responses to making a game and/ or game pieces - To support open ended exploration of ideas and materials.	----
TOTAL- 9			

TABLE 5.3: LEARNING GOALS AND OTHER GOALS

Analysis and Interpretation

Like Indian museums, the goals of educational programmes of UK museums were studied under the category of learning goals and other goals. Out of the total 69 goals, 64 goals fall under the category of learning goals and 5 under the category of other goals.

Learning goals, as defined by these museums, are analysed and interpreted under the three categories of learning domains: cognitive, affective and psychomotor. The initial study of the cognitive goals reveals UK museums' emphasis on defining their learning outcomes based on all the levels of cognitive thinking. Hence, Benjamin Bloom's taxonomy was considered to be the most appropriate for analysis. The taxonomy provides a convenient

frame work to define the learning outcomes in advance and helps to determine the suitable level of expertise that is needed to achieve these goals. Broadly, it divides cognitive thinking into two broad categories of lower and higher order thinking and at six hierarchical levels. The lower order thinking includes—knowledge, comprehension, and application, and higher order thinking includes—analysis, synthesis and evaluation.

Learning Goals

COGNITIVE GOALS: The cognitive goals from the present study which account for 63% of the total learning goals, are analysed against the description of the six levels of the Bloom's taxonomy of Cognitive objectives.

1. *Knowledge:* This is the lowest level in the hierarchy and includes recalling and recognizing information, facts, concepts, principles, dates, events etc. At this level, though understanding of acquired information is not prioritised, but its knowledge serves as the basis of performance at higher levels. It includes activities like: defining, telling, identifying, labelling, examining, naming etc. In the current study, knowledge based goals account for 45% of the total cognitive goals and 28% of the total learning goals. The category mainly includes: finding information, learning about, and exploring objects or their underlying phenomenon. These aspects ranged from—finding specific information related to the museum, its collection, or activities; learning about specific world cultures, civilizations, and other non-European societies—their significant features and contributions, concept of fashion, symbolism in art, range of artists,

craft makers and designers, and about the natural world and the laws that govern it; or carried in-depth study of any one of the aspects. For example, the school session 'Secret of the Mummies' at Derby Museums, both aimed to expose pupils to facts about Egyptian civilization and included detailed study of: their mummification techniques, farming and pyramid building, myths and gods; and provided information about the two mummies present in the museum. Similarly, another school session 'Remarkable Rocks and Fantastic Fossils' at Derby Museums, taught children about the natural world that included study of different types of rocks, rock cycle, and about fossils—their process of formation, age etc.

2. *Comprehension:* The second level in the hierarchy involves understanding of knowledge and explaining of ideas or concepts to demonstrate their understanding. It involves translating information from one form to another. It includes activities such as comparing, classifying, interpreting, describing, explaining, discussing etc.

   In the present study, these goals account for 20% of the total cognitive goals and 13% of the total learning goals. They include aspects such as: understanding of concepts or artworks with reference to the theme of the activity or workshop, importance of fashion, peculiarities and/or differences and causes of things, the significance of studying artefacts; describing the differences between different art practices and disciplines; explaining specific processes and the rationale behind things.

For example, the school session ‘Ancient Egypt’ at the Horniman Museum and Gardens explained pupils about the rationale behind a ‘mystery object’; allowed each pupil to handle one such original artefact, explained its significance and the concept of safe handling.

3. *Application:* The third level in the hierarchy involves applying knowledge in a different context. It includes implementing, using, applying, demonstrating, showing etc. Such goals account for 8 % of the total cognitive goals and 5% of the total learning goals. They include aspects such as: applying digital apps or technology to own designs. For example, the school activity ‘Perfect Patterns’ by the V&A Museum, encouraged pupils to experiment with ‘mark making’ and digitalise their designs using apps on their iPad.

4. *Analysis:* This level involves breaking down the information into parts to understand the pattern, organizing it, and exploring the underlying meanings and relationships. It includes analysing, deriving, correlating, discriminating, comparing, identifying etc. In the present study, these goals account for 8% of the total cognitive goals and 5% of the total learning goals. The category includes aspects like: analysing links between different practices, disciplines and with learner’s own work; working scientifically to investigate scientific principles like rock hardness. For example, in another school activity ‘V&A Voyage’ by the V&A Museum, pupils learn about different traditional objects representing various cultures and then described the differences and

similarities between different practices and disciplines by comparing and analysing with their own works.

5. *Synthesis:* Synthesis or creation involves using knowledge to generate new ideas or devising new products and ways of viewing things. It includes creating, integrating, compiling, structuring etc. These goals account for 18% of the total cognitive goals and 11% of the total learning goals. In the present study, they include aspects like: creating first-hand drawings, artworks, game pieces, designs or a trendy costumes inspired by museum's exhibition and collection. For example, in the school session 'Secret of the Mummies' at Derby Museums, pupils created their own *ushabati* figure after learning about Egyptian mummies in the museum. Likewise, in 'Draw & Design Games Workshop' and 'Collage Board Games Workshops' at the V&A Museum of Childhood, children created their own board game or game pieces inspired from the museum's exhibition.

6. *Evaluation:* The highest level in the hierarchy, evaluation involves using an external or self-selected criteria to make judgments or giving justifications about value of ideas, concepts or methods. It includes assessing, judging, recommending, summarizing, concluding etc. In the study, these goals account for 3% of the total cognitive goals and 2% of the total learning goals and was clearly stated in the 'Ancient Mummy' activity at the Horniman Museum where pupils, on the completion of the activity, are able to suggest a sensible idea as to what an Ancient Egyptian 'mystery object' is and explain their rationale.

An analysis of the cognitive goals included under all the six different categories reveals that like Indian Museums, museums in UK too give the highest priority to cognitive learning goals. It also brings to light that:

1. Storytelling, didactic, and expository learning remain the most common methods of instruction.
2. A strong thread that runs through all the programmes is contextual links to the museum collections.
3. These museums lay lot of emphasis on creation of participatory, multisensory and hands-on learning experiences where children can feel and explore the collection. They consolidate children's learning experience through repetition and reinforcement.
4. Museums in UK cover a wide range of topics; among these the 'Egyptian Mummies' remains the most popular. Out of the 5 school programmes included in the study, 2 programmes (40%) were themed on Ancient Egypt and Mummies.
5. The learning programmes are research intensive and emphasise on in-depth study of various aspects.
6. Several programmes focus on multicultural and cross cultural studies in accordance with UK Government's Education Policy on Multicultural learning.
7. Both—School sessions and Family programmes enjoy high popularity. The school sessions maintain strong links to the National and the School curriculum while the family programmes center of promotion

of ‘co-learning’. These aspects are discussed more in detail under the analysis and interpretation of tables 5.6.

AFFECTIVE: The present study includes 19% of affective goals out of the total category of learning goals. These comprise: creating feelings of fun, enjoyment, appreciation, and inspiration; communicating a message that carries strong feelings; engagement with museum exhibitions; encouraging experimentation; enabling family learning to create together. In the study this category covers aspects such as: fostering enjoyment and appreciation of design or design process; getting inspired by museum theme; encouraging and supporting family learning; supporting open ended exploration of ideas and materials.

The analysis reveals that the UK museums lay profound emphasis on family learning and creation of positive and enriching experiences for learners. Also, SEN (Special Education Needs) programmes are conducted by most of the museums to empathetically accommodate the uniquely-abled learners in museums.

PSYCHOMOTOR: These goals account for 19% out of the total category of learning goals. They include: developing skills of creativity, imagination and experimentation with different materials, ideas and mark making; promoting observation of traditional artworks; working with a practicing artist or designer; learning to use apps and technology used by the museum; creating artworks and designs; communicating through art; collage making; drawing,

stickering, cutting and sticking shapes; handling artefacts in the museum; playing different games.

It includes aspects such as: experimenting with ‘mark making’, creating first-hand drawings from museum exhibits; incorporating collage into drawings by cutting and sticking shapes on to existing sketches on top with further layers; digging to find own fossils and take an imprint back; make an imprint for another group.

Other goals

The category of other goals which includes business goals comprises: public relations, attracting wider audiences, and fund generation. A detailed discussion of all these categories has already been done in the previous chapter. Here, the goal of image building (0% of the total goals), as included there, is not analysed as it was observed that none of these museums give any importance to it.

PUBLIC RELATIONS: Public relations, as mentioned before, broadly focuses on communication for influencing public perception, developing and maintaining relationships and partnerships with public to promote trust and understanding. In the present study, public relation goals account for 40% of the other goals. They include aspects such as: working with professional artist and designer; collaborating with family members.

ATTRACTING WIDER AUDIENCES: The goal includes museum initiatives undertaken to attract and serve new audiences (potential audiences). In the study this category also accounts for 40% of the other goals and aspects: ‘make own imprint fossil for another group; to introduce the board games exhibition to families who have not yet visited’.

FUND GENERATION: Fund generation is the process of providing financial resources by raising money through programmes and activities to meet the financial needs of the museum. These goals are paramount as lack of funds can bring museum’s routine operations such as salaries to employees, upkeep of collection, infrastructural maintenance, to a halt. Museums like any other organisation require finances for smooth functioning. In the present study, only Derby Museums mentioned fund generation for future programmes as an important goal of school programmes besides meeting the cost of the session. Fund generation accounts for 20% of the goals in the category of other goals.

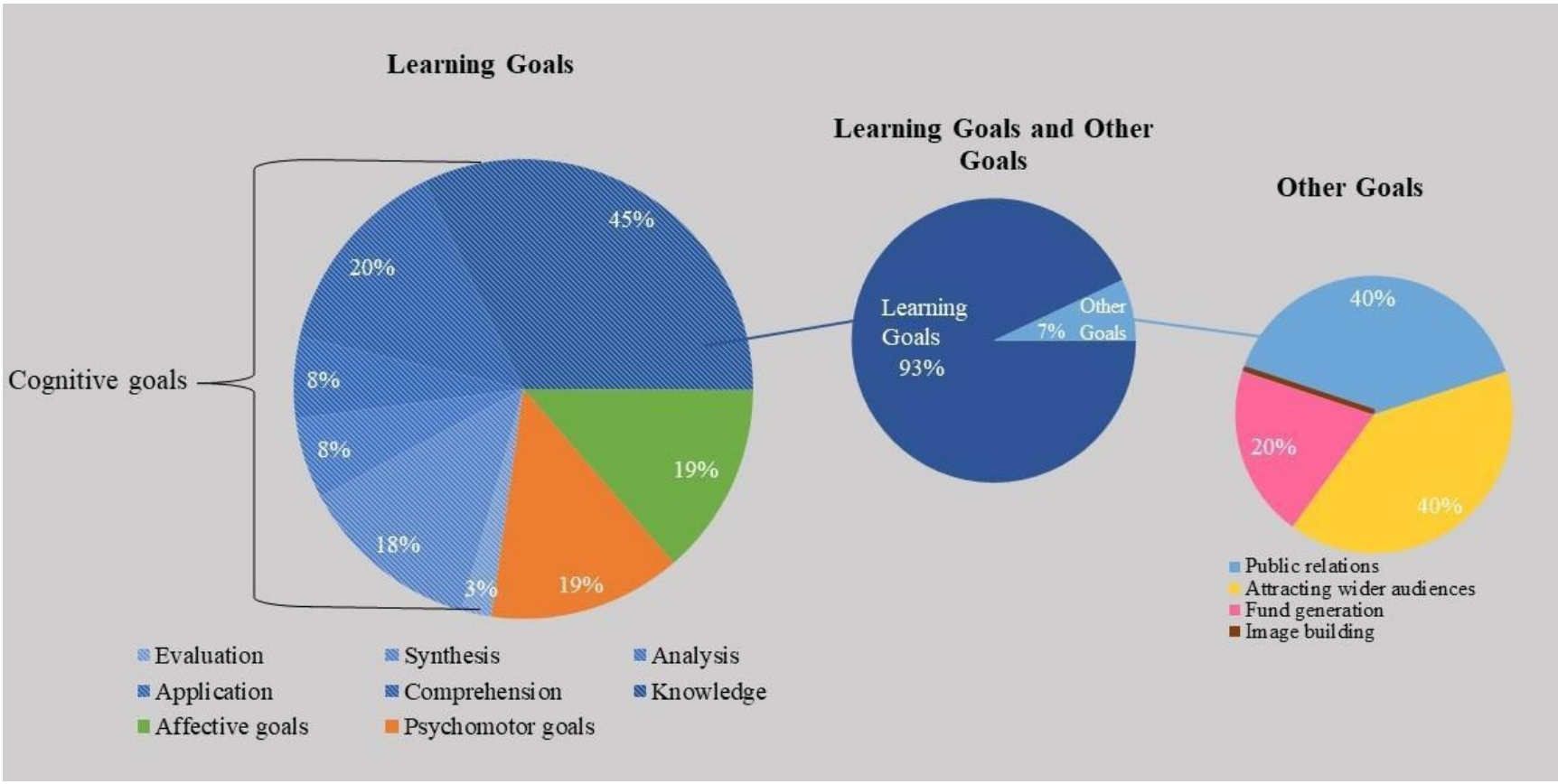


Chart 5.1: Learning Goals and Other Goals

TABLE 5.4: RESOURCES INVOLVED												
	Title of the Educational Activity											
	Resources Involved											
	Financial		**Human**				**Physical**					
Name of the Museum	**Budget provision**	**Other sources (Donations, sponsorships etc..)**	**Museum's staff**	**Volunteers**	**Part-timers/ Guest educators**	**Accompanying adults**	**Location**			**Handling collections**	**Art material**	**Other equipment**
							Exhibition gallery	***Activity room***	***Open area***			
Victoria and Albert Museum, London	'Make – it: Fashion'											
	✓	×	✓	✓	✓	--	×	✓	×	×	✓	✓
	Digital Kids											
	✓	--	✓	×	×	✓	×	✓	×	×	×	✓
	Perfect Patterns (School session)											
	✓	--	✓	--	✓	✓	✓	✓	--	×	✓	✓
	V&A Voyage (School session)											
	✓	--	--	--	✓	×	✓	×	×	×	×	✓
Horniman Museum and Gardens	'Ancient Egypt' School Session											
	✓	--	✓	×	×	×	×	✓	×	✓	×	×
Derby Museums	Secrets of the Mummies (Schools session)											
	✓	✓	✓	×	--	×	✓	✓	×	✓	✓	✓
	Remarkable Rocks and Fantastic Fossils (Schools session)											
	✓	✓	✓	×	✓	×	✓	✓	×	✓	✓	✓
V&A Museum of Childhood	Draw and Design Games Workshop (Making Board Game)											
	✓	×	✓	✓	✓	✓	×	✓	×	--	✓	--
	Collage Board Games Workshop											
	✓	×	✓	--	--	--	×	✓	×	--	✓	--

TABLE 5.4: RESOURCES INVOLVED

Interpretation and Analysis

As presented in the previous chapter, this table too aims to find out about the various resources utilized by the museums for conducting their learning programmes. It includes three broad categories: financial, human and physical. Each category further contains sub-categories and their analysis and interpretation is presented below:

Financial Resources

The category includes two sub categories: budgetary provision and other sources of fund generation which comprise donations, sponsorships, fees etc. The study reveals that all the 4 museums (100%) have budgetary provision from the museum's core budget to meet the expenditure for their learning programmes. In terms of the number of activities, all the 9 activities (100%) utilised funds from this budget. Besides the museum's core budget that supports educational programming, museums in UK receive funding from other government and private agencies such as the 'Arts Council England, Heritage Lottery Fund, Derby City Council', and *'happy museum project*'. As these organisations partially share the financial cost of activities of the museums, the museums have to abide by their guidelines and standards. This induces an element of accountability for the museums and they have to utilise funds in the proper manner, submit reports and details of utilisation of funds to these agencies. Here it would be prudent to quote excerpts from two

personal interviews with Mr Tony Butler, the Executive Director, and Ms Hannah Fox, Director, of the Derby Museums, conducted during August-October 2016, which brought to light the following:

Tony said: “Derby Museum has 1.6 million turn over every year of which:

- 59% comes from the Derby City Council
- 21% comes from Arts Council
- Remaining 20% is the earned income”.

Hannah said: “The total funding structure of Derby Museums comprises: 9.4 m HLF, 2.6 m Arts Council, and 4 m Derby City Council”.

Under the second category of other sources, all the 4 museums charged fees (100%) for their educational activities. However, in terms of the number of activities, out of the total 9 activities, 7 activities (78%) were charged, while the remaining 2 activities (22%) were offered for free (Chart 5.2). None of the activities were funded through donations or sponsorships. The table 5.5 presents details about the per session cost of these 7 activities:

TABLE 5.5: COST OF LEARNING SESSIONS

S. No	Name of the activity	Charges per child (per session)	Name of the Museum
1	'Make – it: Fashion'	8 £ per child	Victoria and Albert Museum, London
2	Perfect Patterns (School session)	3 £ per child	
3	'Ancient Egypt' (School Session)	67.50 £ (excluding VAT) (group size approx. 30) Approx. cost per child 2.25 £ (excluding VAT)	Horniman Museum and Gardens
4	Secrets of the Mummies (Schools session)	3.75 £ per child 4.75 £ per child (for a make and take activity)	Derby Museums
5	Remarkable Rocks and Fantastic Fossils (Schools session)	3.50 £ per child (10% concession for early booking)	
6	Draw and Design Games Workshop (Making Board Game)	5 £ per child (age 5+)	V&A Museum of Childhood
7	Collage Board Games Workshop	5 £ per child (age 5+) 7 £ per child (age 7+)	

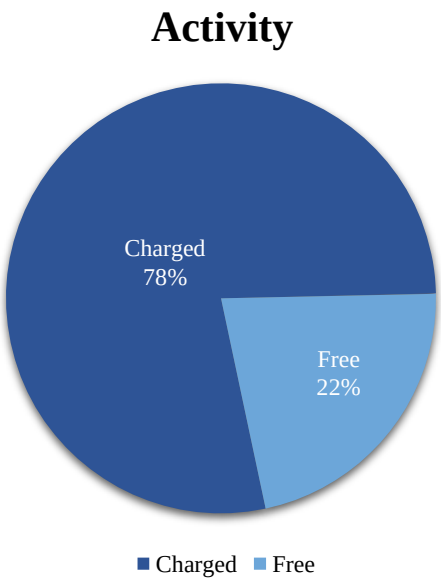


Chart 5.2: Charged and free activities

The overall analysis of the data from table 5.4 under the category of financial resources and table 5.5 which provides details regarding the charges of the learning activities, reveals a number of significant aspects about learning programming strategy of UK museums.

First, location, demographic profile and economic status of the visitors are important determinants for the price of the learning programmes. For example, the learning activity by the V&A ('Make-it Fashion') is highest in price in comparison to those offered by the other 3 museums. This is followed by the V&A Museum of Childhood (MoC) where the learning activities are slightly lower (priced nominally) in comparison owing to the mixed middle class gentry in East London borough. Though both the museums operate under the same administration, the activities and exhibitions at the V&A are comparatively higher because of its central location and the elite population

that inhabits this area. The MoC, on the other hand, is located in Bethnal Green which serves a low economic population of London and has people from diverse communities comprising: 33% of Bangladeshi; 55% black and ethnic minority; 43% are born outside UK. Besides, 46% of children in this area, the Tower Hamlets of East London live in poverty, and it has the highest child poverty rate in UK (based on a personal interview with Ms Andrea Cunnigham, Head, Learning Department). With regards to the other 2 museums, the cost of the school session at the Horniman Museum (as it excludes VAT) is almost similar to those offered by the Derby Museums (including VAT) which is located in the East Midlands of UK.

Second, the activities which involve 'make and do' sessions—'Secrets of the Mummies' (figure 5.28a-e), is high in comparison to a simple hands-on session—'Remarkable Rocks and Fantastic Fossils' (figure 5.29 a-f). Though both the activities are conducted by the same museum, in the former activity children make a clay figurine called '*Shabti'* (a statue placed with the mummies in the Egyptian tomb) as a 'take-away', while in the latter they learn about the rocks, handle various types, examine their physical characteristics, learn about the mineral collection in the Natural History Gallery, and make their own fossil imprints. This is also supported by the fact that the remaining two activities: 'V&A' Voyage (school session) which was a guided tour, and the 'Digital Kids', an activity that used only I-pads, were offered for 'free' as they did not consume much of physical resources from the museum.

Third, museums offer both kinds of programmes, some are free while others are charged. In this way they are trying to strike a balance in their offerings as

visitors can choose a programme that suits their pockets. For example, in the current study, out of the 4 activities by the V&A, 2 activities are free while the other 2 activities are charged (50%). Moreover, the temporary exhibitions by the MoC are also free of charge as compared to a majority of other museums in London including the V&A.

Sub activities— 'Secret of the Mummies', School session, MAG, Derby Museums

Figure 5.28 a: First introductory session—in one of the exhibition galleries, a live interpreter tells pupils about Egypt and its culture

Figure 5.28 b: Second part of the session—children visit the museum's mummy section to see real mummies and learn about mummification

Figure 5.28 c. Third part of the session—children dress-up in traditional costumes to attend the funeral and perform mummification

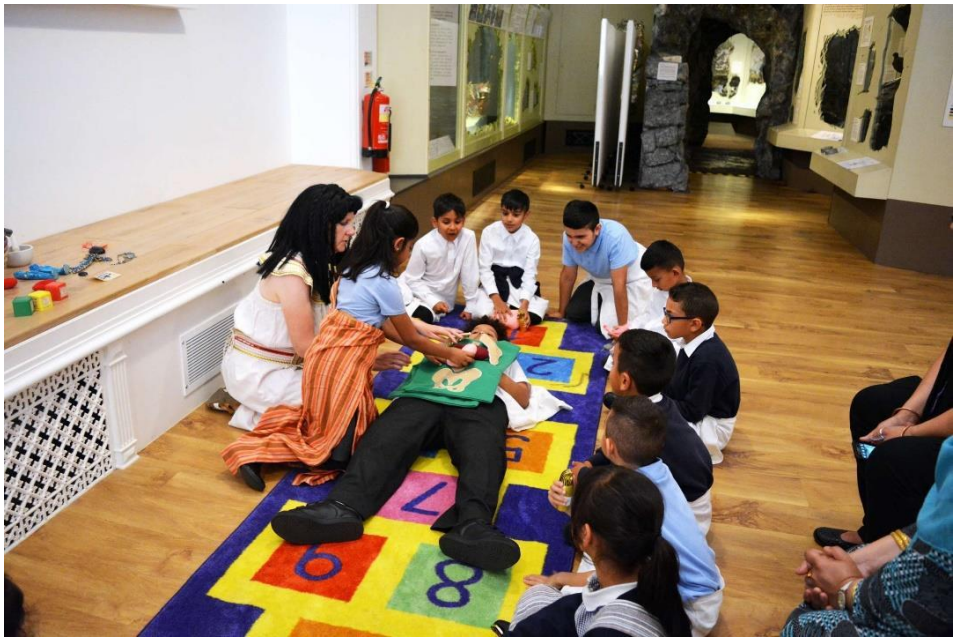


Figure 5. 28 d: Children performing mummification

Figure 5.28 e: Last part of the session when pupils make their own *Shabti* clay models as a take-away of their museum visit

Sub activities—'Remarkable Rocks and Fantastic Fossils', School session, MAG, Derby Museums

Figure 5.29 a: First introductory session where pupils get introduced to the meaning, formation and types of rocks and fossils

Figure 5.29 b: After an introduction, children handle, examine and record the various physical characteristics of rock specimens

(Figure 5.29 c)

Figures 5.29c and d: Children visit the NNFJ gallery to see a variety of geological specimens on display

(Figure 5.29 e)

Figures 5.29 e and f: The last part of the session in the activity room where children dig out fossil samples and take their imprints

Human Resources

Under the second category of human resources, data was collected under four sub categories: museum staff, volunteers, part-timers or guest educators, and accompanying adults. Contents of each of the sub-category are individually discussed.

The study reveals the staff members of all the 4 museums (100%) were actively involved in 8 activities (88%) out of the total 9. In the 1 remaining activity, the 'V&A Voyage (school session), though the members from the museum staff of the learning department were involved in planning, the actual session was executed by a part-time 'OPA' (Outside Professional Assistant). Due to the high assistance received in execution of educational programmes through the OPAs, the members of the learning department at the museum are able to devote more time in planning and thus bring out a huge range and variety of programmes which are high in quality. Besides, the nature of their organisational structure is very diverse. A team of learning department comprises school educators, people from marketing, advertising and management background, and trained museum professionals. This strategic pooling of diverse talents creates great amount of flexibility for operation, offers wider opportunities to explore and expand, and design innovative programmes for reaching out to various museum publics. Museums armed with such a talented team of people also try to tap new sources of fund generation and help museum meet its remaining requirement of funds. They go in for additional sources of fund generation through means such as—cafeterias', museum shops, corporate gatherings and venue hires (for

events such as Christmas balls, new-year parties, and weddings). These professionals, besides optimising and capitalising the resources, also work out means to beautify the museum's various visitor spaces, value visitor comfort, and plan to utilise the available resources for learning as well as for enjoyment purposes. For example, all the 4 museums, disregard of their size, mostly hold two cafeterias or at least one; one housed in the interiors of the building while the other in the exterior. While the internal cafeteria creates an ambience and serves as a context for the visitors to strike a conversation or simply be with the museum and its collection, the external cafeteria gives visitors a lucrative opportunity to treat their senses and enjoy meals in natural surroundings. Both these variants ultimately help to extend the museum visiting experience for the visitors. Additionally, all the 4 museums also hold museum shops which sell attractive and specially designed merchandises related to the museum's collection. The resultant swell/ rise in sales and income generation makes the museum dynamically very strong.

Volunteers were involved by 2 museums out of total 4 (50%) museums and in 2 activities out of the total 9 (22%) activities by: the V&A Museum, London, and the V&A Museum of Childhood for their activities 'Make – it: Fashion' and 'Draw and Design Games Workshop (Making Board Game)', respectively. Although the percentage of volunteers involved in activities under the current study appears to be low, the study reveals that museums in UK welcome and support volunteering immensely. The Derby Museum gained 8000+ volunteer hours during its 'Re:Make Programme' at the Silk Mill in 2014-15, (Derby Museums, 2014–15: 29). This number increased to 8214 in 2015-16 (Derby Museums, 2015–16: 27). Gemma Hopkins (quoted

in DM, 2015–16: 24), Co-production Volunteer and Programme Coordinator, Derby Museums, describes their value for the service and enlists a range of volunteering options that are open to the public. In her words:

> Volunteering in Derby Museums is based on a mutual relationship. … We have opportunities that offer flexibility, including long-term, regular commitments, short-term project based opportunities, remote volunteering opportunities (where volunteers can give their time from home) and even 'micro volunteering' opportunities for those that have just hours or even minutes to spare.

Figure 5.30: The group of volunteers being briefed at the Silk Mill before the FIGMENT, a community festival

In lieu of the service received, the Derby Museums trains its volunteers to perform specific tasks within their communities and in compensation, offers them a host of other benefits and opportunities (figure 5.30). In this way the museum strives to expand its scope by offering more possibilities of community engagement programmes. Similarly, the V&A Museum of Childhood, offers special 'Volunteering opportunities' that entitle the volunteers to a number of privileges. For example, the volunteers receive a V&A Volunteer pass that allows free admission to the exhibitions at V&A South Kensington, discounts at the cafes´ and museum shops and many other benefits (www.vam.ac.uk).

Part-timers or guest educators were involved in the learning programmes of 3 out of total 4 museums (75%), and in 6 out of 9 activities (67%). Different museums use different designations for these professionals. At the V&A, they are called 'OPA' and at the Derby Museums, 'VSA' (Visitors Service Assistants). However, both perform the same roles. They are professionals working out of the organization who are out-sourced by the museum to deliver onsite and offsite learning programmes. The OPA's and the VSA's are highly preferred for their fresh ideas and breadth of experience that flows out of their experience of working with several organizations and other museums. They are subject specialists, professional artists, actors, theatre artists, sculptors, and many a time educators with other museums, universities and local schools. Their vast knowledge and diverse experience is their strength which in turn helps in enhancing the value of the museum's programmes.

Accompanying adults were involved by 3 out of 4 museums (75%) and in 5 out of 9 (56%) activities. Among the museums, the Horniman Museum and the V&A did not involve adults for their 2 school sessions: 'Ancient Egypt' at the Horniman and the 'V&A Voyage' at the V&A. Both these sessions were facilitated by educators from their learning teams. Teachers who accompanied the school groups monitored their children and assisted in smooth running of the session. There was no response received under this field for the activity 'Make-it Fashion' at the V&A. However, the activity was a part of the 'October Half Term Family Art Fun' and it was mandatory for an adult to accompany a child. Moreover, the activity involved a series of tasks for which adult supervision and assistance became necessary such as cutting, pasting, fishing out rags and old materials from discarded stuff, assembling them and finally draping their children in 'fashionable and trendy outfits' which they create during the session. This was also so as the activity was open to young children between 5–12 years. Similarly, the other two activities by the V&A: the 'Digital Kids', also a part of the 'Family Art Fun' required parental assistance; 'Perfect Patterns' another school session, required the accompanying school teachers to facilitate the sessions. Here, much beyond the physical assistance, the adults played a vital role as they scaffolded children's learning by encouraging them to think, imagine creatively and come up with out-of-the-box ideas, synthesise them, and create their own unique artworks.

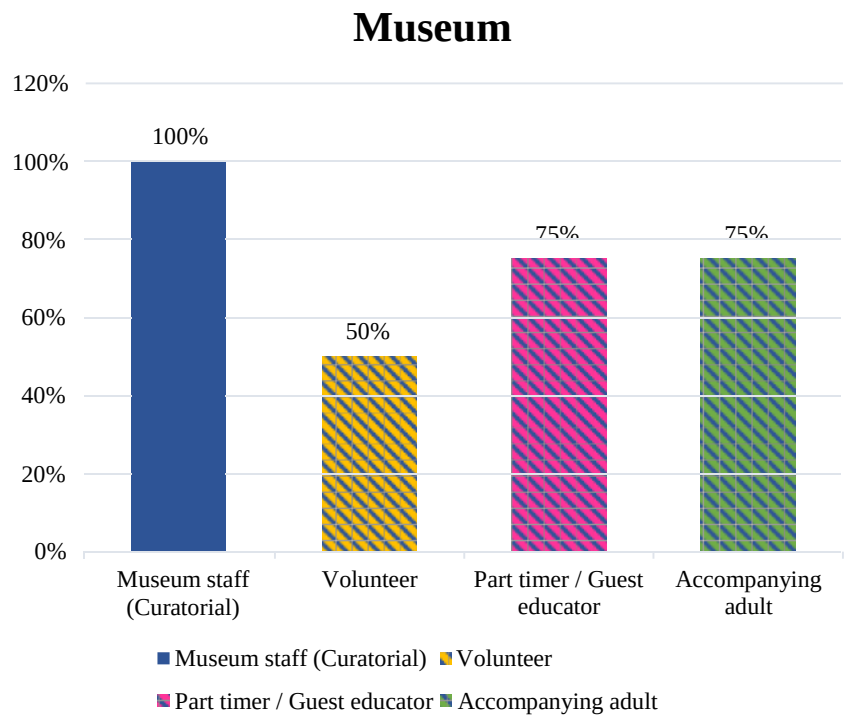


Chart 5.3: Human resources (museums)

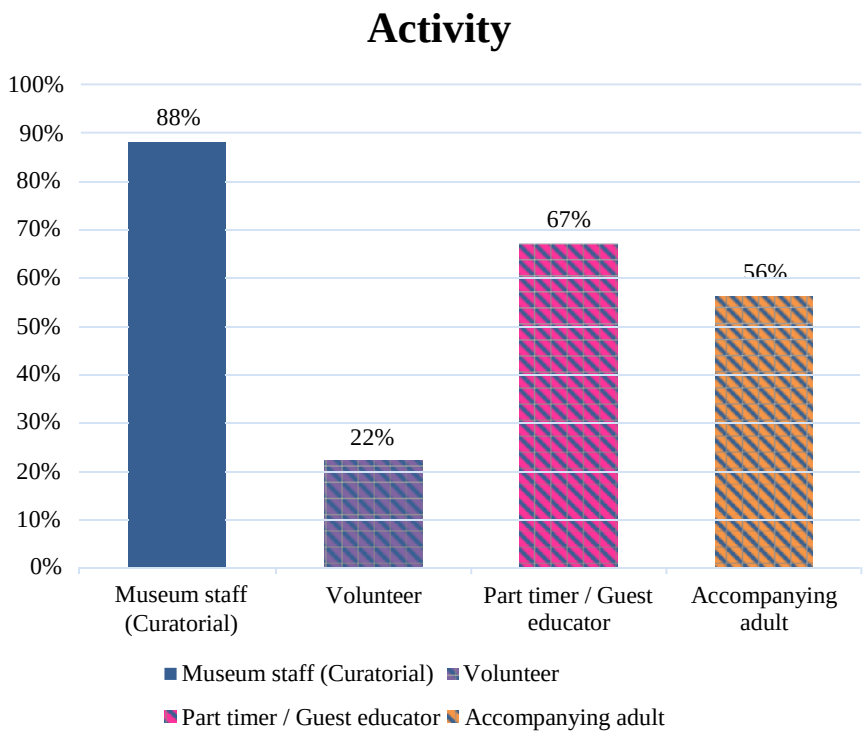


Chart 5.4: Human resources (activities)

Physical Resources

The category of physical resources aims to investigate about the real materials or means that facilitate in execution of an educational activity. The category includes four aspects: location (accommodation), handlings collections, art material or other equipment.

The physical resources required in terms of accommodation can be exhibition gallery, activity room or open area. These are the actual physical spaces where the activity is conducted.

The study reveals that 2 museums out of 4 (50%) and 4 activities out of 9 (44%) activities were conducted in the exhibition gallery. These include 2 activities by the V&A and 2 by the Derby Museums. At the V&A, it includes the 2 school sessions: 'Perfect Patterns and V&A Voyage', which were conducted in the Jameel Gallery and the South-East Asian Galleries. Both these sessions were based on the collections on display. In 'Perfect Patterns', a hands-on studio workshop, pupils study the geometrical patterns in the Islamic tiles on display, which includes the famous 'Picnic Tile', to learn the elements of art and design. They study the different shapes in these tiles, create first hand drawings, incorporate collage and digitalise their creations using computer applications (figure 5.31 a–e). The other school session 'V&A Voyage' the facilitator takes pupils on a cultural journey through the South-East Asia to the Middle East and China. It begins with the narrative of the 'Tipu's Tiger', in which children, through role-play, enact the story and its events using props like turbans, and learn how it reached Britain. They then

proceed to the Chinese Gallery, to see the robes of an emperor and an empress, observe the differences between the two through the variations in colours and symbols. They also understand the significance of using symbols in Chinese art such as a dragon, deer, an eagle, tiger's teeth and other animals. Finally, through their whole journey in these galleries children learn how the cultural exchange of ideas influenced the development of civilisations globally. Learning sessions of similar nature are conducted by the Derby Museums too at all its three sites.

Sub activities: 'Perfect Patterns', School session, V&A

Figure 5.31 a: First introductory session in the activity room

(Figure 5.31 b)

Figure 5.31 b and c: Second session, in front of the ‘Picnic tile’, Islamic Middle East Galleries; pupils learn to create designs using motifs from the tile and other objects on display

Figure 5.31 d: The third part of the session in the activity room; children making collage to incorporate into their designs

Figure 5.31 e: Children digitalise their designs using a computer app on iPad

Such object-based learning sessions conducted in the exhibition galleries, as discussed in Chapter 1, are indeed a distinguishing characteristic of museums. They facilitate contextual understanding of ideas and present knowledge in concrete terms which is especially beneficial in reaching out to the minds of children in their early years.

All the 4 museums (100%) conducted their learning activities either entirely or in part in the activity rooms. In terms of activities, it comprised 8 activities out of 9 (89%); excluding the 'V&A Voyage that began and ended in the museum's galleries. An important aspect revealed during the study is that all the 4 museums have dedicated spaces to conduct learning programmes which reflects their committed approach towards learning. The V&A has a learning department on its third floor which has a number of rooms where several sessions are conducted simultaneously.

The Horniman Museum, has three learning spaces in all—the 'hands-on base', one room at the end of the music gallery and one pavilion uphill the animal's gallery. Most of the learning sessions are conducted in the 'hands on base' where children can get hands on with the vast handling collection. Besides, many outdoor sessions for under-fives and their families happen in the Horniman garden which aim to engage young children to explore their natural surroundings accompanied by their parents and carers. The museum also has a 'Nature Base' which is located at one of the rear ends of the Natural History Gallery. Here children can identify, observe, describe and explore the elements of the natural world through self-led learning devices such as puzzles and computer kiosks.

Learning Centre: Horniman Museum

(Figure 5.32 a)

Figure 5.32 a and b: The ‘Hands-on Base’, Horniman Museums and Gardens

Figure 5.32 c: Some of the handling collections on display in the ‘Hands-on Base’

Figure 5.33: ‘Nature base’, Horniman Museums and Gardens

The Museum of Childhood has the ‘Clore Learning Centre’ which includes:

- ‘Summerly Room’ (lunch room): The space is used for conferences and film screening families and adults.
- ‘Mulberry and Hickory Rooms’: These are the two teaching rooms which are used for families during holidays and in term time for school sessions.
- Community workshop which is used for community programmes.
- An ‘Art Smart Area’: This space is used for family programmes on routine days, and also for ‘story telling sessions’ for very young children and ‘spot-light’ talks during term time and week days. ‘Spot-light’ talks highlight the collections in the museum galleries.

Physical Spaces: V&A Museum of Childhood

Figure 5.34: ‘Summerly Room’ (lunch room)

Figure 5.35: Mulberry and Hickory rooms

Figure 5.36 a: A storytelling session in the ‘Art Smart Area’

Figure 5.36 b: A family activity in the ‘Art Smart Area’

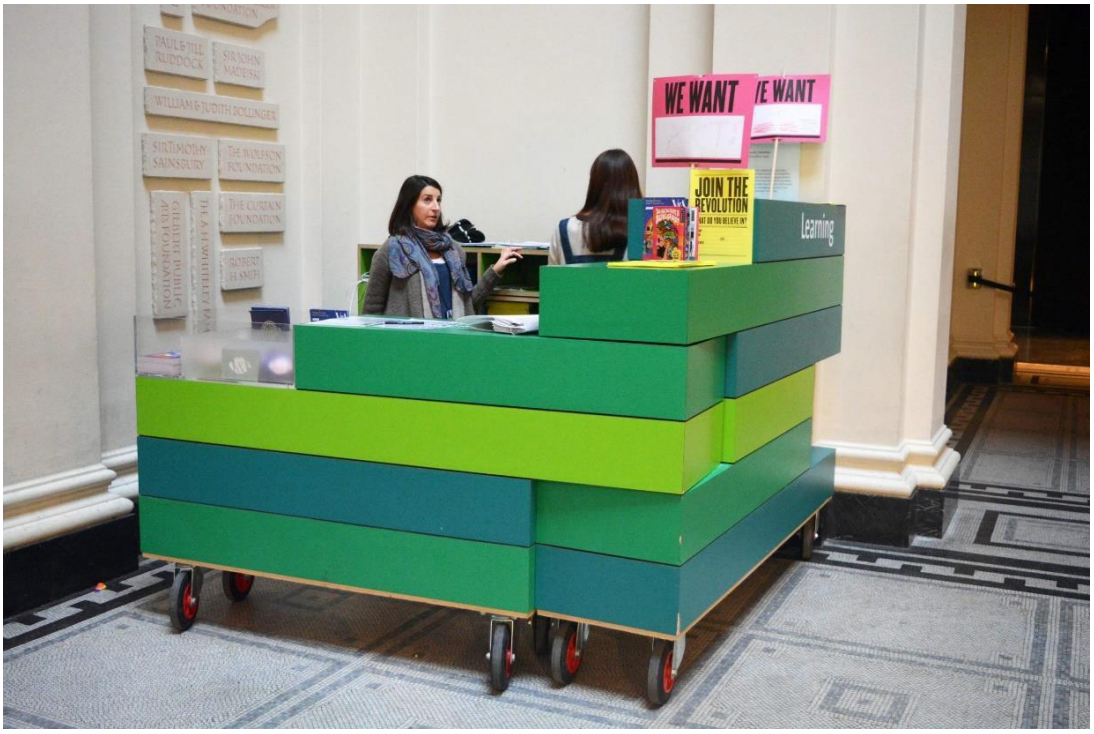
Figure 5.37 a: Foyer area near the entrance

Figure 5.37 b: Life-size games for families at the foyer area (5.37 a) and in the opposite lawns (5.37 b), inspired by the temporary exhibition— 'Board Games'

The Derby Museum, on all its three locations, also has dedicated learning spaces. The entire ground floor of the Silk Mill contains activity zones which were described previously in the chapter. The Museum and the Art Gallery has two activity rooms and the Pickford's House has a learning centre on the first floor where children can dress up wearing costumes of Georgian times, play board games and do art and craft activities in the activity room at the second floor. Besides these dedicated spaces, the exhibition and display areas are also utilised for learning programmes as per the need and requirement of the activity.

None of the museums or the activities included in the current study utilised the open spaces of the museums. However all the four museums do utilise the surrounding open areas such as lawns or reception areas for learning sessions depending on the weather conditions and demands of the activities.

(Figure 5.38 a)



Figures 5.38 a and b: Extended learning sessions in the reception area, during the October Half-term holidays (2016) V&A

The V&A has ‘The John Madejiski Garden’ right at the centre and which links two of its buildings. The space possesses a nice garden cafe´, comfortable seating arrangements and a lot of family activities are conducted here. The Horniman Museum conducts many activities in its outdoor gardens such as the ‘Muddy Bees’ for the under-fives and their families which aims to make children explore their natural surroundings accompanied by their parents and carers. The MoC too utilises the front foyer area just before the main entrance for family activities. For their temporary exhibition on ‘Game Plan: Board Games Rediscovered’ (8th October 2016-23rd April 2017), this space included a live size board game in which children and their parents assumed the roles of live game pieces and hopped and played the game together in the museum’s premises. The Derby Museums also has the ‘Cathedral greens’ a lush green

amphitheatre which faces the Silk Mill on one end and the Derby Cathedral on the other. The museum often utilises the space for programmes that aim to cater huge crowds such as the 'Maker Faire'—an event which happens once in two years and has almost 2000 visitors in a day; 'FIGMENT' a US based community festival conducted by the Derby Museums on the 20th August at the Silk Mill. This was one of its kind that happened for the first time in Europe and gave the local people a chance to make and create art in a public space, both indoors, in the interior spaces of the Silk Mill and outdoor areas in the lush green lawns on the Cathedral Greens that surround the mill. Where some art activities were a delight by themselves to simply see and enjoy, many attracted audiences to participate, explore and to try their creativity or fortune; brimming the day with loads of fun filled activities to explore.

Figure 5.39 a: 'The John Madejiski Garden',used for family activities during summers and half-term holidays. The space holds an art installation—'Elytra'

Figure 5.39 b: ‘The John Madejiski Garden Cafe’

Utilising such open areas for learning programmes induces an element of ‘change’ for the visitors in routine museum visits and learning programmes. This is also an effective means to counter ‘fatigue’ which museum visitors often grapple with as they walk through the museum spaces.

Handling collections were used by 2 museums out of 4 (50%) and in 3 activities out of total 9 (33%). The museums include the Horniman Museum for their ‘Ancient Egypt’ session and for both the school sessions of the Derby Museums.

In the ‘Ancient Egypt’ session at the Horniman, pupils assume the role of ‘history detectives’ and embark on an Egyptian voyage with the facilitator. The facilitator narrates the story of Egypt using a group of handling objects,

what he calls— 'Mystery objects'. These 'Mystery objects' comprise the vast range of museum's handling collection and includes a variety of objects: the servant doll—*shabti*; a 'Death Mask' of papier-mâché, a silver 'make-up' pot; a 'neck rest' which used to be a pillow; a wooden tablet carrying the 'Heiroglyphics'. The session was conducted in the museum's 'Hands on base', one of the 3 learning spaces at the museum; the name describing its purpose. The Horniman Museum owns around 3500 handling objects (including originals and replicas). It is quite popular for its school sessions which utilise the handling collection and are primarily designed to encourage inculcation of 'enquiry based learning skills' in children through them.

Figure 5.40: Handling objects, 'Ancient Egypt', school session, Horniman Museum

At the 'Secret of the Mummies', a session on a similar theme at the Derby Museums, pupils learn about the mummies on display and participate in a

'role-play' activity to learn the process of mummification. They do this with the museum facilitator on one of the child who volunteers to become a dead and is ready to be mummified. Children listen to the Egyptian tales, get dressed in Egyptian costumes and perform the rituals at the funeral. The child pretending to be dead, is made to wear a velcro suit which has various artificial organs displayed and stitched on the suit. Children pick up the organs one-by-one and place it in its respective canopy jar. They then bandage the body of the dead child and finally place a *shabati* on its chest to accompany it on its journey to the afterlife (figures 5.28 a–e).

Figure 5.41: Canopy jars used as handling objects for 'Secret of the Mummies', Derby Museums

Art materials of various kinds including papers, drawings boards, pencils, scissors, fevicol etc. were utilised by 3 museums out of 4 (75%) and in 6 out of 9 activities (67%). Only Horniman Museum did not use any art material for

their school session; the other 2 activities being: ‘Digital Kids, V&A Voyage by the V&A. However, the learning areas and activity rooms of all the four museums are well-equipped with art and craft materials to support smooth running of learning programmes on a daily basis.

Other equipment was used by 3 museums out of 4 (75%) and in 7 activities out of 9 (78%). The V&A Museum of Childhood gave ‘no reply’ for this field for both their activities under the study. Among the 7 activities, almost all utilised a combination of various resources which included equipment such as: I pads for ‘Digital Kids’; activity props, costumes, maps, furniture, canopy jars and clay (for ‘Secret of the Mummies’ at Derby Museums) and rags and old discarded materials such as belts, ornaments, clothes etc. for the remaining 6 activities.

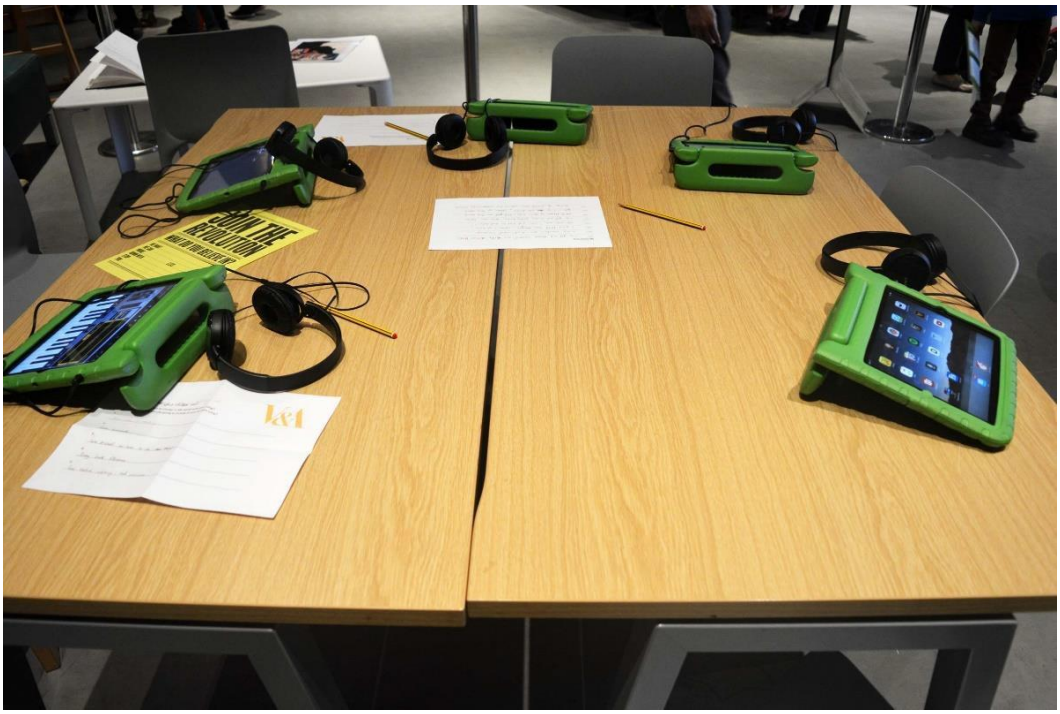


Figure 5.42: I pads for the ‘Digital Kids’, V&A

Figure 5.43: Children wear props and become game pieces during a learning session, ‘Board Game Exhibition’, V&A Museum of Childhood

Figure 5.44: Discarded old material for ‘Make-it Fashion’, V&A

Besides, thinking of visitor comfort and convenience, all the museums provide internet access through a strong Wi-Fi to visitors. They also have computers installed at various strategic points inside the galleries and learning spaces which visitor can use freely to update themselves and clarify doubts in situations when the staff is unavailable, which usually never happens.

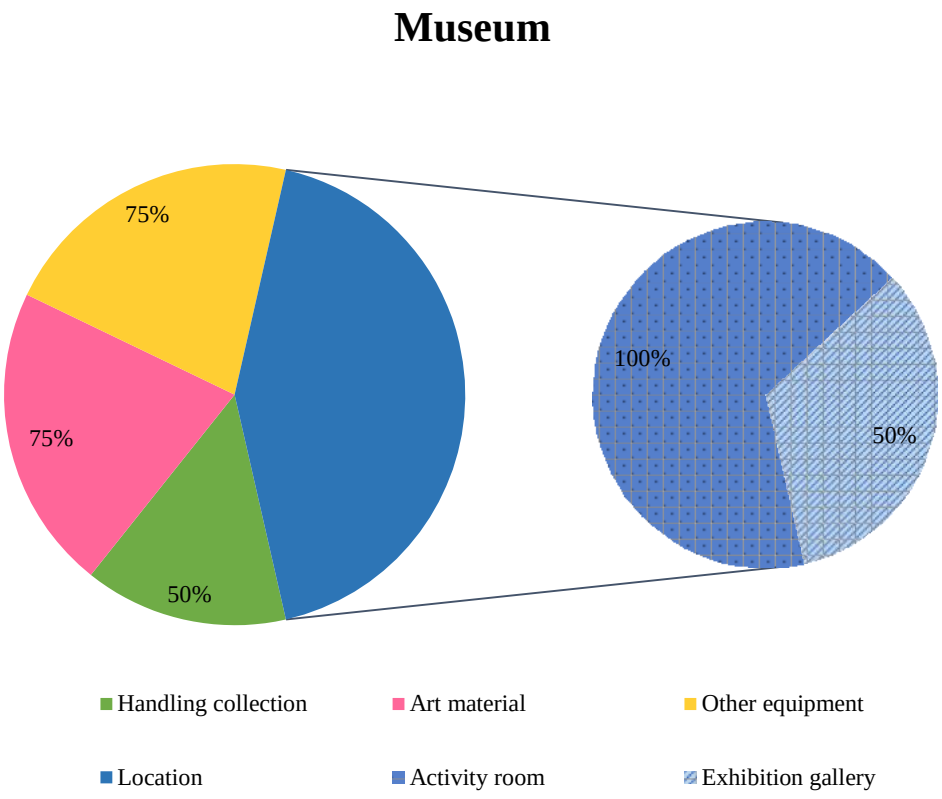


Chart 5.5: Physical resources (museum)

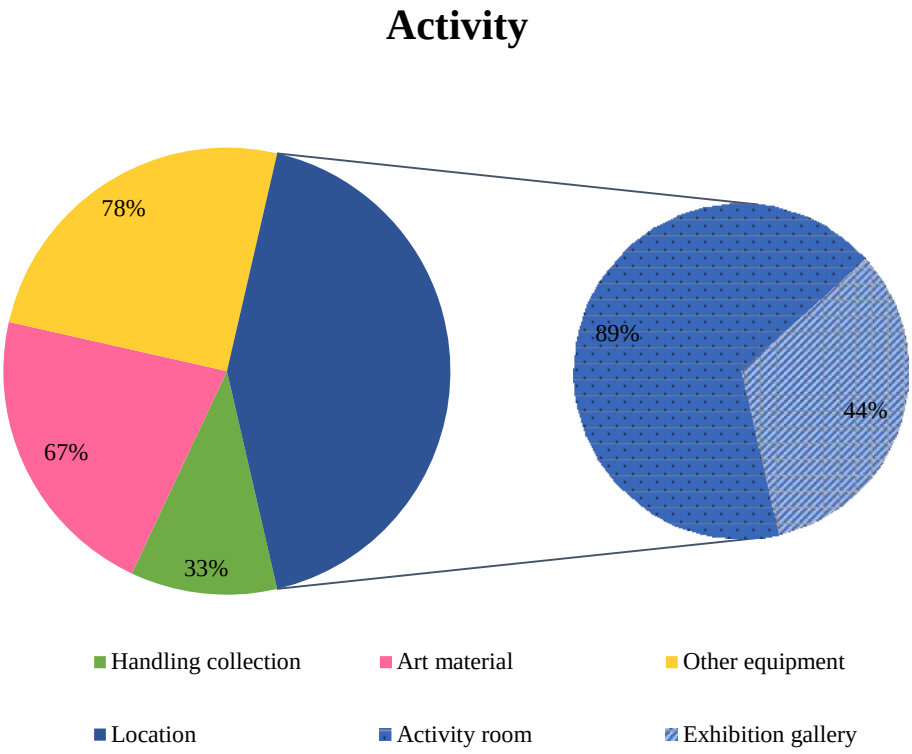


Chart 5.6: Physical resources (activities)

TABLE: 5.6: NATURE OF EDUCATIONAL ACTIVITY: SCHOOL PROGRAMMES AND FAMILY PROGRAMMES

S. No	Name of the Museum	Name of the activity	School sessions	Family programmes
1	Victoria and Albert Museum, London	**'Make – it: Fashion'**		✓
		Digital Kids		✓
		Perfect Patterns	✓	
		V&A Voyage	✓	
2	Horniman Museum and Gardens	**'Ancient Egypt'**	✓	
3	Derby Museums	**Secrets of the Mummies**	✓	
		Remarkable Rocks and Fantastic Fossils	✓	
4	V&A Museum of Childhood	**Draw and Design Games Workshop (Making Board Game)**		✓
		Collage Board Games Workshop		✓

TABLE 5.7: AGE GROUP AND GROUP SIZE			
S. No.	**Name of the Museum**	**Title of the Educational Activity**	
		Age group (years)	**Group size**
1	Victoria and Albert Museum, London	**'Make – it: Fashion'**	
		5-12 years	Up to 15; one adult per child
		Digital Kids	
		6-12 years	1 child to 12 children accompanied by an adult; drop-in activity
		Perfect Patterns (School session)	
		KS2	Up to 30
		V&A Voyage (School session)	
		KS1 & KS2	Up to 30
2	Horniman Museum and Gardens	**'Ancient Egypt' School Session**	
		7-11 years	30 approx
3	Derby Museums	**Secrets of the Mummies (Schools session)**	
		year 4	27 (30max)
		Remarkable Rocks and Fantastic Fossils (Schools session)	
		KS2 (age 7-11 year 3)	30
4	V&A Museum of Childhood	**Draw and Design Games Workshop (Making Board Game)**	
		5-10 years	10 to 15
		Collage Board Games Workshop	
		Morning session: 5 +, afternoon session 7+ ages	20 children max

TABLE 5.6: NATURE OF LEARNING PROGRAMME (SCHOOL SESSIONS AND FAMILY PROGRAMMES)

TABLE 5.7: AGE GROUP AND GROUP SIZE

Analysis and Interpretation

In the current chapter, tables 5.6 and 5.7 are analysed together. This is done due to the observable relationship between the variables of the two tables. Table 5.6 aims to study the nature of the activities under two broad categories: school sessions and family programmes.

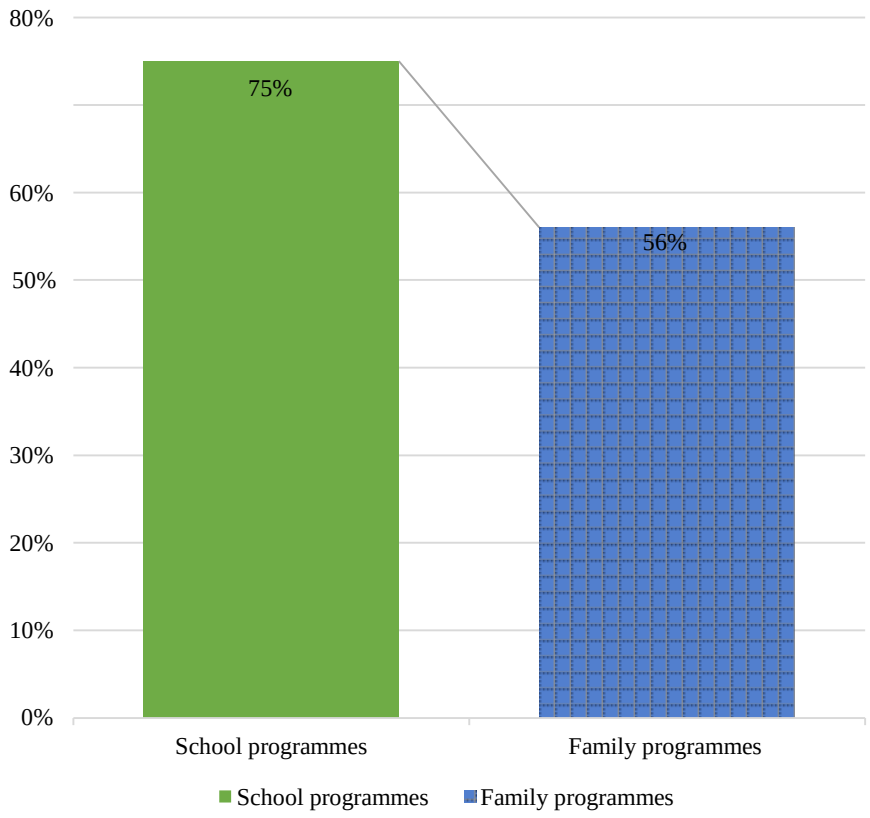


Chart 5.7: Nature of activities: School programmes and Family programmes

Table 5.7 aims to find out about: the age group and the group size of the educational activities.

The variables of both the tables are related as the data for age group category under school sessions was categorised in terms of key stages and for the family programmes in terms of age bracket. A similar variation in group size was also observed. Hence, for convenience of interpretation, the variables of table 5.7, precisely age group and the group size, are discussed twice: first, under the category of school programmes, and second, under the category of family programmes.

School Sessions

The analysis reveals that 3 museums out of 4 (75%) and 5 activities of 9 (56%) were school sessions. These sessions were held during term time when the schools in Britain are running and children visit museums more often as school groups.

AGE GROUP: Museums in UK categorise the age groups of the school sessions in terms of key stages. Prior to a detail discussion about the data received under this category, it is imperative to have a brief idea of the education system in UK.

The UK Government has designed the National Curriculum which is followed by schools in England and Wales; Scotland and Northern Ireland follow their own educational system. An understanding of the key stages as per the

National curriculum is vital as museums in UK abide by the set standards and design programmes according to the key stages. As per the curriculum, teaching in schools is organised into five key stages (Fox 2005: 4; www.gov.uk.national-curriculum):

- Foundation stage (3-5 years) which includes: pre-school and reception (R)
- Key stage 1 (KS 1) comprises children from 5-7 years. It is further divided into two:

    - Y1 (ages 5-6)
    - Y2 (ages 6-7)

- Key stage 2 (KS 2): comprises children from 7-11 years. This comprises four subcategories:

    - Y3 (ages 7-8)
    - Y4 (ages 8-9)
    - Y5 (ages 9-10)
    - Y6 (ages 10-11)

The curriculum also contains two more key stages: KS3 (Y7, Y8, Y9) that includes children and adolescents aged 11-14 years; KS4 (Y10 and Y11) that includes adolescents between ages 14-16 years). However, considering the scope of the study, the data was collected for KS1 and KS2.

The school sessions were studied under two groups: school session for KS2, and sessions common for KS1 and KS2. The data reveals that 3 museums (75%) and 5 (56%) activities catered to children at KS2 category which included: The 'Perfect Patterns' by the V&A Museum's; 'Ancient Mummies' by the Horniman Museum and 'Secret of the Mummies' and 'Remarkable Rocks and Fantastic Fossils' by the Derby Museums. Among these, 'Secret of the Mummies' specifically included children of Y4 (children aged 8-9) and the 'Remarkable Rocks and Fantastic Fossils' which included children of Y3 (children aged 7–8). The one and only museum and its school session that catered to children at both KS1 and KS2 was the 'V&A Voyage' by the V&A Museum which comprised children from the age bracket of 5–11 years (Y1–Y6). Both these stages contain core subjects: English, mathematics and science and foundation subjects: art, design and technology, history, geography, language, music and physical education (Clarke et al., 2002: 18; Fox, 2005). The table 5.8 presents a detailed description of the school sessions and their subject links:

TABLE 5.8: SCHOOL SESSIONS AND SUBJECT LINKS

S. No	Name of the Museum	Name of the School session	Subject links
1	Victoria and Albert Museum, London	Perfect Patterns	Art and design, mathematics, religious education and computing
		V&A Voyage	World cultures and links to British history; Art & Design, History and Religious Education (RE)
2	Horniman Museum and Gardens	'Ancient Egypt'	History and Geography
3	Derby Museums	'Secrets of the Mummies'	English, Science, Art and Design, Languages, Geography, History, Music
		'Remarkable Rocks and Fantastic Fossils'	English, Maths and Science, Geography and History

The implication of designing programmes for school groups in museums according to the National Curriculum standards and for particular key stages helps in defining the learning goals of the activity in clear and specific terms. Teachers know what they are looking for from their museum visit and the museum educators can cater to the schools in a customised way by helping them accomplish specific curriculum objectives. At the end of the activity this helps in evaluating performance in terms of realisation of specific goals.

Davies (1971: 209) enumerates the benefits of evaluation. The points relevant and suitable for learning in museums are enlisted.

1. Measure the capability of students in terms of whether or not they have realized their agreed objectives.
2. Determine which particular objectives have *not* been realized, so that appropriate remedial actions can be taken.
3. Analyse the appropriateness of the programme, so that its strengths and weaknesses can be determined.
4. Devise procedures so as to improve course design, and determine whether or not additional learning resources are available.

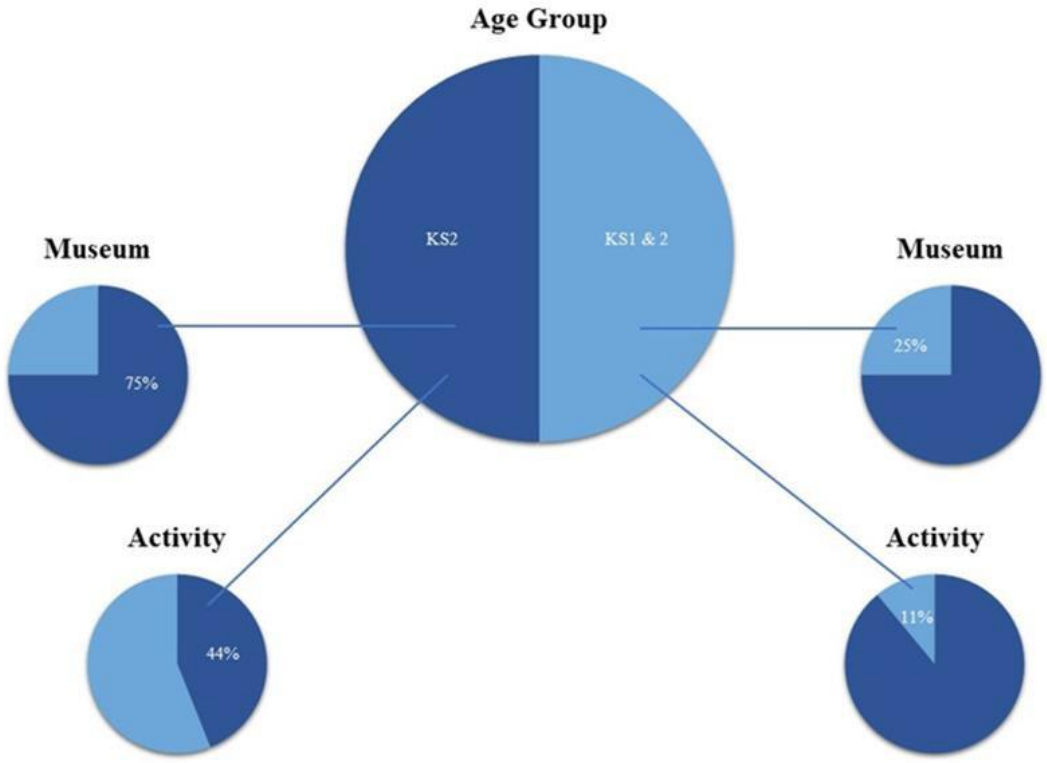


Chart 5.8: School sessions (Age Group)

Sub activities: ‘V&A Voyage’, V&A

Figure 5.45 a: Beginning in the South Asian galleries, pupils learn about the story behind the Tipu’s tiger, how it reached the Britain and then the V&A, and about Indian culture and traditions, through role-play activities

Figure 5.45 b: Children travel to the Islamic galleries, study the ‘Picnic Tile and Ardabil Carpet’; the motifs and the stories behind them, and the Chinese influence in their design

Figure 5.45 c: Again through a role-play activity, children learn about Chinese robes worn by the Emperors and Empresses; about the dragons and animal motifs the decorated the robes and their meanings and significance

Figure 5.45 d: A brief interactive follow-up session at the end between the children and the facilitator

Another significant aspect about school programming, common to museums in UK, is the intense planning and preparations that go behind each session to make it a successful learning experience. The museum and the school educators work in collaboration to plan the session well in advance the actual visit. This includes several correspondences and information exchange from both the ends at the pre-visit stage ranging from administrative procedures to micro aspects that can enrich the quality of learning. A number of these aspects have already been discussed under chapter 1 of the thesis and are also analysed under the analysis and interpretation of tables 5.9 a and 5.9 b later in the chapter.

A notable common feature of the school programmes of most of the museums in UK is the range and variety of teacher resource packs offered. These learning resources help school teachers decide and pre-plan their visits in accordance with their school curriculum. For example, the V&A offers five resource packs for different key stages on various themes related to their collection. Out of these, three resource packs are designed for KS1 and KS2.

1. 'India Teachers' Resource: Explore art and design from the Indian subcontinent at the home of creativity'. (Subject links: Art & Design, Literacy and Religious Education).
2. 'China Teachers' Resource: Explore one of the world's finest collections of Chinese art and design at the home of creativity'. (Subject links: Art & Design, Religious Education and Literacy).

3. ‘Britain 1500–1900 Teachers’ Resource: Change through Time’. Explore British art and design at the home of creativity’ (Subject links: History, Art & Design.

These teacher resources are designed around museum’s specific galleries, describe the corresponding themes and give an overview of collection that is housed in the galleries. Besides giving an idea to the teachers of how to plan their museum visit around the specific galleries, these resources also include some suggestive pre-visit and post-visit activities that can be taken up by them. In a personal interview conducted in 2016, Sarah Campbell, Head of Learning, V&A, explained the relevance of these packs and said “90,000 school children drop in every year. About 20,000 through structured programmes that are offered. Rest 68,000 are self-guided. That is why teachers’ resources are important. So want to support a large number and encourage the use of resources.” V&A’s school programmes run under the slogan ‘Inspiring Creativity’ that aims to inspire young children to adopt creativity as a part of their lives and thus contribute to the V&A’s three guiding principles of ‘art, design and performance.’ In addition to the vast range of these and other learning resources offered by the museum available on its website, the V&A also conducts ‘Twilight sessions’ for the school teachers. These are evening events, offered free of charge, where teachers can attend a curator’s talk and enjoy a glass of vine, attend the ongoing exhibition and explore a plethora of learning resources. The motto behind these sessions, as Sarah comments is “to think about the museum as a resource”.

Group size: The group size of all the 5 school sessions by all the 3 museums maintained a maximum limit of 30 irrespective of the key stages they served. The implications of maintaining a small group size have already been discussed in the previous chapter in the context of Indian Museums. In general, all the school sessions had 1–2 facilitators from the museum who conducted the session and 4–5 school educators who monitored and controlled the children, and provided assistance whenever required.

Figure 5.46: A school session at the V&A Museum of Childhood displaying a maximum standard group size of 30 children

Family Programmes

The analysis reveals that 2 museums out of 4 (50%) and 4 activities of 9 (44%) were family programmes. These programmes were conducted during October half term holidays when the schools remain close for 9 days and children mostly visit museums with their families. The museums include the V&A Museum and the V&A Museum of Childhood, and the activities were 'Make-it Fashion', 'Digital Kids' at the V&A and 'Draw and Design Games Workshop (Making Board Game) and Collage Board Games Workshop' at the V&A Museum of Childhood.

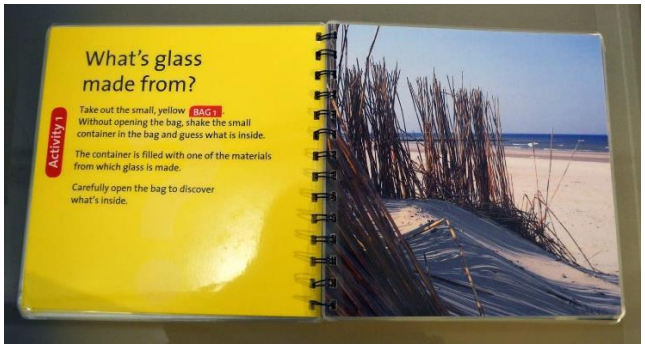
The benefits of family learning in the context of museums have been discussed in varied contexts throughout the previous four chapters of the thesis. Family programmes is an avenue for learning which is deeply explored by almost all the museums in UK. In particular the V&A Museum of Childhood has a high percentage of family visitors. They offer 'daily activities, holiday activities, galley activities (art, storytelling, tours and object handling), special events, workshops, performances, and learning resources (trails and back packs)' to these visitors and reports '80-90,000 instances of family participation and an income of £10,000'. The V&A too offers 'Trails and back packs' which encourage families on a self-guided museum visit to explore the museum's collections in the various galleries. There are nine back-packs which are designed on a range of themes such as: 'Amazing Spaces, An Adventure in China, Curious Ceramics – Sensory Back-Pack, Discovering Architecture, Emperor's Party and Agent Animal for Under 5s'. Most of these back-packs cater to children between 5–12 years; one back-pack—'Curious Ceramics –

Sensory Back-Pack', is designed for visually impaired children but can be enjoyed by any family.

Figure 5.47:'Animal Agent', family back-pack, V&A

Figure 5.48: 'Curious Ceramics'—specially designed for the visually challenged children, family back-pack, V&A

Figure 5.49 a



Figures 5.49 b and c

Figures: 5.49 c, and d

Figures 5.49 f

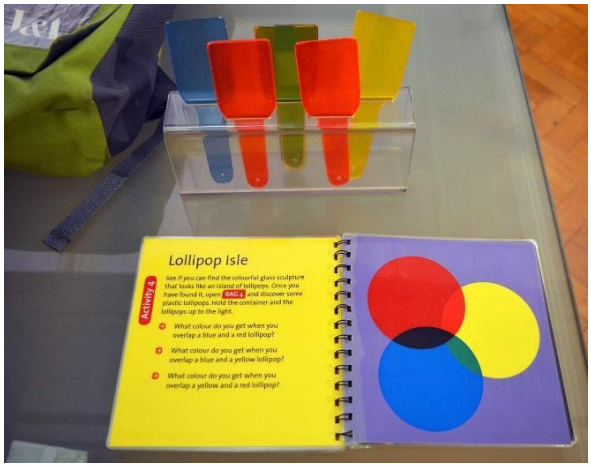
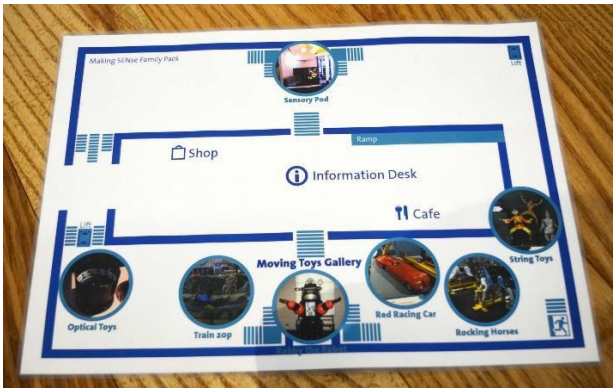


Figure 5.49 a–f: Some contents of the ‘Magic Glasses’, family back-pack, V&A

Figure 5.50: ‘Lollipop Isle’, the actual sculpture in the V&A’s glass gallery and the inspiration behind the back–pack —‘Magic Glasses’

Figure 5.51 a



Figures 5.51 b and c

Figure 5.51 d

Figures 5.51 a–d : 'Moving Toys'—some contents of the learning kit, V&A Museum of Childhood

Age Group

The age group of all the 4 family programmes by the 2 museums fall between the range of 5 or 6–12 years where the minimum age limit is 5 years and maximum is 12 years. In all the sessions it was mandatory for an adult to accompany the child. As outlined under the interpretation and analysis of one of the subcategories of table 5.2 on resources, adult assistance and supervision became necessary due to reason that these sessions involved multiple tasks and the children being too young need adult assistance, especially in 'Make-it fashion' activity. However, parental support also depended on the need and requirement of the child as children usually by the age of 8 or 9 and upwards gradually become independent and usually enjoy this newly attained independence and autonomy. It is noteworthy to point out again that the parents in these activities not just extended a physical help. They also guided their children by scaffolding the concepts and helping each child discover its own hidden potential, or helped them develop their own abilities, skills and knowledge.

The range of tasks involved in the activities are:

- 'Make-it fashion' (V&A)—cutting, pasting, fishing out rags and old materials from discarded stuff, assembling them, and wearing newly re-created 'fashionable and trendy outfits'.

- 'Digital Kids'—creating revolutionary songs on the I-pads inspired by the theme of the temporary exhibition

- ‘Draw and Design Games Workshop (Making Board Game)’—drawing and re-designing a colourful board game using skills of drawing, cutting and pasting, and collage; inspired by the temporary board games exhibition.

- ‘Collage Board Game Workshop’—creating own game pieces in the morning session using clay, ping boll, golf tees etc. in addition to the game pieces, children also create their own game boards in the afternoon session.

Figure 5.52 a

Figure 5.52 a and b: Children assisted by the OPA's and accompanying adults, create their songs of revolution inspired by the V&A theme — 'You say you want a revolution?'

Figure 5.53 a: Parents and facilitator assisting children to perform the tasks involved in the 'Make it Fashion' workshop, V&A

Figure 5.53 b: Children flaunting their designer creations —'Make it Fashion', V&A

Group Size

The group size the family programmes ranged between 10 and 20. The minimum range of 12 was maintained for the 'Draw and Design Games Workshop (Making Board Game) at MoC. The in-between range of group sizes 12 and 15 were maintained for: 'Make-it Fashion and Digital Kids' (V&A); each permitted 1 adult per child (raising the group size to 30 again). For 'Digital Kids' the limit also depended on the availability of I-pads and facilitator for guidance and assistance. The maximum limit of 20 was maintained for 'Collage Board Game Workshop' at MoC. The implications of maintaining as small group size to increase the impact of learning and to

enhance adult child interaction has been repeated discussed under various headings in the preceding chapters. Maintaining a small group size also creates an ease for the management to make arrangements and conduct the session, and to cater to individual as well as group needs in a better manner.

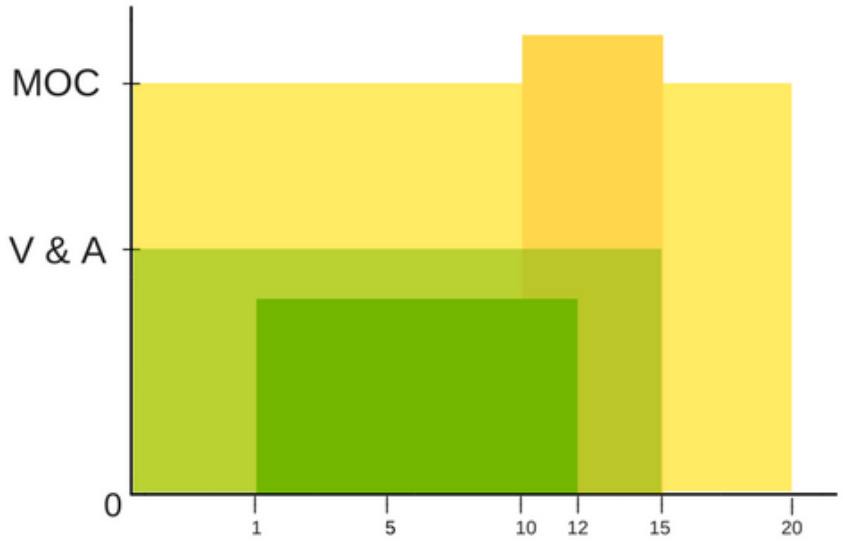


Chart 5.9: Age group and group size of family programmes by the V&A and V&A Museum of Childhood (MOC)

TABLE: 5. 9A: PRE-ACTIVITY PLANNING

S. No	Name of the Museum	Pre-activity activities	Duration	Days spent in planning
1.	Victoria and Albert Museum, London	**Make – it: Fashion'**		
		- Email contact, contact, phone conversation, meeting, - confirm budget, write contracts, set-up workshop leaders and payment system, - Setup workshop internally e.g. Bookings/ marketing - Order materials, book equipment, receive delivery - Set up room - download registers/ participant details - brief additional staff. Post event- feedback, invoice processing Activities by the facilitator: - collecting material (warehouse) - sorting materials + preparing materials - delivery of the session - pre workshop meeting with v & A family learning team to plan the outcomes, exhibition (visit resources) - preparing room - creating presentation create examples	5 days; 2 batches a day, 2 hours duration each	5 days (approx.)
		Digital Kids		
		NO	9 days, 6.5 hours, all day running	9 days
		Perfect Patterns (School session)		
		- Bookings Office will send the teacher a confirmation letter, map, risk assessments and some guidelines for School groups.	On set dates, 2 hour session	----

S. No.	Name of the Museum	Pre-activity activities	Duration	Days spent in planning
		V&A Voyage (School session)		
		Bookings Office will send the teacher a confirmation letter, map, risk assessments and some guidelines for School groups.	Daily during the school term, 2 hour session	---
2.	Horniman Museum and Gardens	**'Ancient Egypt' School Session**		
		----	On set dates, 45 minutes	None! We deliver this session very regularly so require no extra preparation.
3.	Derby Museums	**Secrets of the Mummies (Schools session)**		
		- Preparing the activity room for the clay activity, laying out the equipment in the gallery, dressing in costume (lead facilitator).	2 hour session	Don't know as box prepared many years ago and adapted over time. Maybe 2 hours or so for me as a buddy facilitator to learn the session notes and attend training before delivery of the session for the first time.
		Remarkable Rocks and Fantastic Fossils (Schools session)		
		School may have done some, as it was evident the children knew some of the content already (igneous/metamorphic/sedimentary vocabulary)	2 hour session	- Probably a week altogether - Was done over many days/hours including 2 pilot sessions

S. No.	Name Of the Museum	Pre-activity activities	Duration	Days Spent in planning
	V&A Museum of Childhood	**Draw and Design Games Workshop (Making Board Game)**		
		- Contract of service with the artist - Decide the learning outcomes - Booking form with which outlines room set up	4 day workshop with four time slots a day 2 sessions 1 hour duration, 2 sessions of one and half hour duration October Half term holidays	Several days over the last three months
		Collage Board Games Workshop		
		- Contract of service with the artist - Decide the learning outcomes - Booking form with which outlines room set up	5 day workshop, 3 sessions in 1 day, 2 of 1 hour duration, 1 afternoon session of 11/2 (one and half) hour October Half term holidays	- 11/2 (one and half)

TABLE 5.9 B: PRE-ACTIVITY ACTIVITIES

Title of Learning Programme									
S. No.	**Name of the Museum**	**Fundraising**	**Procurement of material**	**Appointment of resource persons**	**Briefing of the resource person**	**Promotional activities done**	**Bookings**	**Days spent in planning**	**Pre-activity activities**
1	Victoria and Albert Museum, London	**'Make – it: Fashion'**							
		×	✓	✓	✓	✓	✓	✓	✓
		Digital Kids							
		×	✓	✓	✓	✓	×	✓	×
		Perfect Patterns (School session)							
		×	✓	✓	✓	--	✓	✓	✓
		V&A Voyage							
		×	✓	✓	✓	--	✓	✓	✓
2	Horniman Museum and Gardens	**Ancient Mummies (School session)**							
		×	✓	✓	✓	✓	✓	×	✓
3	Derby Museums	**Secrets of the Mummies (Schools session)**							
		×	✓	✓	✓	✓	✓	✓	✓
		Remarkable Rocks and Fantastic Fossils (Schools session)							
		×	✓	✓	✓	✓	✓	✓	✓
4	V&A Museum of Childhood	**Draw and Design Games Workshop (Making Board Game)**							
		×	✓	✓	✓	✓	✓	✓	✓
		Collage Board Games Workshop							
		×	✓	✓	✓	✓	✓	✓	✓

TABLE 5.9A AND B: PRE-ACTIVITY PLANNING

The tables 5.9a and 5.9b, as outlined under similar headings in the previous chapter, aim to find out various aspects related to planning for conducting an educational activity.

Table 5.9a: 'Pre-activity planning', that aims to find out the logistics behind educational programming, studies data under three variables: Pre-activity activities, duration of the activity, and the number of days spent in planning, respectively.

Table 5.9b: 'Pre-activity activities' on the other hand takes a broader perspective and aims to study the range of tasks that underlie planning of an educational activity. It includes aspects such as fundraising, procurement of material, appointment of resource persons, briefing of resource persons, promotional activities done, bookings, duration of the activity and pre-activity activities. As mentioned before, these fields in the questionnaire contain open ended questions but in the table data is presented in dichotomous form for convenience.

Just like the similar table in Chapter 4, here too the contents of both the tables are analysed and interpreted together owing to the interdependency of the variables and their relationship to the planning aspect. Here, the variable—fundraising has already been discussed previously under the analysis and interpretation of Table 5.3 under the sub-heading of financial resources and is hence not discussed here. An analysis and interpretation of the remaining variables is presented below:

Pre-activity activities: The purpose and range of pre-activity activities has already been discussed before under the similar table heading in Chapter 4 as well as in Chapter 1 under the subheading of 'Museums and Schools'. Broadly, the field intended to find out the various activities museum undertakes to prepare children intellectually or psychologically for the visit. Such pre-visit orientations are vital as they prepare children for the visit as well as familiarise the school and museum educators with the learning needs and motives of each other.

The data reveals that like Indian Museums, the majority of responses received from the museums of UK under the current study also enumerated the administrative and preparatory planning tasks and procedures under this field. It included activities such as correspondences between the school authorities and the museum via emails or telephone; confirming budget; preparing the workshop area; arranging activity materials and props (costumes) to be utilised for session delivery; and preparing invoices. When the activities were carried out by professionals outsourced by the museum, the activities additionally included signing in contract with the artists, and planning the learning outcomes.

For school sessions the activities included: following various booking procedures such as confirmation letter, map, risk assessment, and some specific guidelines for schools; registering participant details; briefing of staff; and post-event feedback.

The V&A museum for 'Make-it Fashion' also mention a few additional pre-activity activities which were carried out by the facilitators who were outsourced for the event. These include: collecting and sorting material

from the warehouse; preparing for the session delivery including the room set up; visiting resources; preparing presentation and creating examples. Under this field, the V&A museum for the activity 'Digital Kids' gave no reply and the Horniman Museum for its 'Ancient Egypt' (School session) marked the field blank.

The aforementioned pre-activity activities are definitely important but only one museum, the Derby Museum, for 'Remarkable Rocks and Fantastic Fossils' made an indirect reference to some kind of actual pre-visit orientation as they mentioned that some effort in this direction was made by the school as it was evident that the children knew some of the content already in relation to the theme of the session. While in the case of the remaining 3 museums too, clear links to the national curriculum and the high demand/ popularity of the sessions apparently prove that some pre-visit orientation was already carried out by the museums in the past when the activities were first implemented. A brief description of such pre-visit resources has already been included under the analysis and interpretation of the previous two tables.

Duration: This refers to the time duration of the activity. Among the 4 family programmes by 2 museums (V&A and V&A Museum of Childhood), the minimum duration of the activity is 4 days and maximum is 9 days. Two family sessions are for 4 days duration. All these 4 family activities are offered repeatedly at different time slots during the same day. The family sessions at the V&A are usually of 2 hours duration while both the sessions by the Museum of Childhood, range from 1.5–2 hours duration where the latter includes a hands-on activity while the former does not.

Among the total 5 school sessions offered by 3 museums, 4 sessions are for 2 hours duration each while 1 session 'Ancient Egypt' by the Horniman Museum lasted for 45 minutes. Besides, out of the total 5 school sessions, 2 sessions (the 'V&A Voyage' by the V&A, and 'Ancient Egypt' by the Horniman Museum) did not include any hands-on activity for the pupils. In the 'V&A Voyage' pupils go on a walk-thru tour through the galleries of the museum to learn about some of the prime objects in the museum's collection. Pupils also study how travel and trade influenced the artistic and cultural developments of various civilizations globally. In the 'Ancient Egypt' by the Horniman Museum, pupils handle few of the museum's renowned and much acclaimed handling collections of the Ancient Egypt such as an Egyptian stylus, a clay tablet, a mask etc.

While in the remaining 3 school sessions, pupils participated in some kind of hands-on activity and created artworks as 'take-a-ways'. For example, in the 'Perfect Patterns' (V&A) pupils study the Islamic tile collection and created their own designs using computer apps. In the 'Secret of the Mummies' (Derby Museums), they create a *Shabti*; while in 'Remarkable Rocks and Fantastic Fossils' pupils handle different kinds of rock specimens, work scientifically to investigate rock hardness and record their observations in object sheets, participate in an excavation in a dummy pit, dig out a fossil, and make their own imprints to carry back to school. Harrison (1970, p. 20) aptly discusses the importance of such hands-on learning when accompanied with gallery talks and 'walk-throughs' in museums and proceeds to discuss their relevance especially for children. She states:

> For many people talk flourishes best when hands are occupied. The importance and value of creativity for the child are not only, or even mainly, because doing and making are enjoyable in themselves, but because when children are active they are purposeful, alert and questioning. The barriers are down, they will talk, they will ask questions, they will want to give and to hear answers.

Besides the fun and enjoyment which are by-products of hands-on learning, these 'take-a-ways' can serve as momentoes/ reminiscences of museum visit and urge them to visit again.

Days spent in planning: The study reveals that the minimum time devoted to plan the learning activity is 1 and 1/2 (one and half day) by the Museum of Childhood and the maximum time taken is several days in three months span by the same museum for the other activity. The V&A took 5 and 9 days respectively for their 2 family programmes; while for both the school sessions, 'no reply' was received. The Horniman Museum specified that no additional days were spent in planning as the session is offered regularly which requires no extra preparation. A similar reply was received from the Derby Museums too for both their activities. They also pointed out three more significant aspects about their programming: one, for 'Secret of the Mummies', the box was prepared years ago and was adapted; the facilitator received training to offer the session; and for their other activity they mention piloting two sessions before their actual delivery.

Broadly, an analysis of the above two variables of duration and days spent in planning brings to light the following significant aspects about learning programming of museum in UK under the current study:

- A systematised approach to educational programming (both family and school programmes)
- Clearly established learning goals that link to the school curriculum
- Clearly defined roles and responsibilities of educators and session facilitators
- Special training given to the workshop facilitators prior to the actual session
- Piloting sessions before delivering to the targeted audience
- Repeating the same activity at different time slots which gives audience greater flexibility/ autonomy to choose as per convenience
- Offering them a choice of both 'hands-on' and without 'hands-on' sessions
- Some activities run the entire day and all through the nine days of October half term holidays ('Digital Kids' by the V&A) which offers greater choice to the visitors to participate, get inspired, re-try and experiment with new ideas over a couple of days
- Profound emphasis on family and 'co-learning' engagement programmes

Procurement of material: All the 4 museums procured different kinds of art materials for all the 9 activities; the choice of materials stemming from the nature of the educational activity. Some of these art materials and equipment were specially arranged for the purpose while most are readily available in ample amounts in the activity rooms. For example, the 'Make-it Fashion' workshop needed special arrangements for rags, old discarded clothes, belts, hair accessories etc. for the activity. Special planning for the sessions was also done for the 2 board game family activities offered by

the Museum of Childhood. Though the activities utilised most of the art and craft materials such as papers, glue, scissors, measuring tape, clay, aprons, hand gloves, water bowls etc. which is stocked in the activity rooms. Such material is readily available and restocked in the museum's activity rooms due to their frequent usage and high consumption for learning sessions.

Besides, all the other school sessions utilised props and other handling collections which were once prepared are re-used each time the activity is scheduled. For example, 'V&A Voyage' used costumes and Maharaja's headdresses; 'Ancient Egypt' at Horniman used maps, masks, etc.; 'Secret of the Mummies' used Egyptian costumes for facilitators, canopy jars, other activity materials; 'Remarkable Rocks and Fantastic Fossils' used natural history specimens and other handling equipment. Besides, 'Perfect Patterns' and 'Digital Kids' mainly utilised computer apps and i-pads which are permanently available in the Learning Department.

The analysis reveals that though some specific activity related material had to be procured when the activity was a designed for the ongoing temporary exhibitions (family programmes at the V&A and at the V&A Museum of Childhood), most of the available materials were most often put to use. Museums make such investments regularly owing to their regular consumption and continuous consumption in frequency of learning programmes.

Appointment of resource persons: All the 4 museums appointed resource persons for all the 9 activities. This included VSA's as well as members from the learning departments. The VSA's mostly delivered the sessions while the members of the learning team conceptualise and plan the session.

They prepare the session, prepare the delivery notes, carry out correspondences with the school educators in case of school programmes, and train the VSA's and other facilitators for session delivery. Thus a learning session is planned and delivered with a combined effort of the all the members of the learning team of the museums.

Briefing of resource persons: This is another important aspect underpinning the success of a learning programme. In the current study, just like the aspects outlined above, all the 4 museums briefed their resource persons for all the 9 activities. Briefing is an important aspect as it orients the session facilitators with the available resources as well as the learning goals of the activity.

Promotional activities: All the 4 museums mention undertaking promotional activities for 7 activities out of total 9. The V&A gave no reply for this field for their two school sessions. Burgeoning with the current trend of digitalisation and technological advances, all the 4 museums are very active on various Social Medias sites such as Face book, Twitter, Instagram, LinkedIn, You Tube, apart from the heavy publicity and regular updates on the museum's own websites and blog posts by the members of the museum staff. Besides, the Derby Museum is also active on another social media site 'tumblr'. Social media is an active medium of reaching out to the youngsters who often possess other clashing interests and preferences such as gaming, socialising with peers etc. it is also a popular means of staying connected with current users and networking with potential museum users globally.

Bookings: Bookings were made by all the 4 museums and for 8 out of total 9 activities. Only 1 activity: 'Digital Kids' was a free drop-in activity where children aged 5+ could pen down a revolutionary song, soundtrack it, and record it using computer apps on the given I-pads. Prior bookings makes the task of administering the session easy.

In sync with the contents elaborated in the previous chapter, this chapter too discussed the planning and implementation aspects of learning programmes but in museums of UK. The same methods and tools for data collection—case studies, interviews, observations, and questionnaire, were applied. However, the questionnaire that was used with Indian museums was used with some modifications to fulfil the specific needs and the requirements of the learning programmes of these museums. The data collected was again converted into tables but with slightly different table headings. Further, each aspect was analysed, interpreted and supported with relevant theoretical viewpoints and justified using valid practical and theoretical base. The discussions brought to light a diverse range of characteristic features about the learning programmes and public oriented strategies applied by these museums which signify their sophistication and high standards of performance. These defining characteristics are compared with those of Indian museums and discussed more precisely in the concluding part of the thesis.