Capturing the audience experience: A handbook for the theatre
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In 2005 ITC, SOLT & TMA held a joint conference where Stewart Wallis, CEO of nef (the new economics foundation), joined a panel discussion on ‘Relevance’ and spoke to the Theatre Industry about the concept of well-being. He posed nef’s question ‘What would politics look like if promoting people’s well-being was government’s main aim?’ and then began to explore what the role and value of the performing arts might be if that were the scenario.

The industry pricked up its collective ears; accustomed to an often stifling culture of top-down measurement through instrumental outcomes, it was intrigued by the idea of ‘measuring what matters’.

We joined forces to commission nef to conduct this piece of research and create a tool usable across the whole industry to measure the impact of theatre on people’s well-being. The capacity of theatre to deliver meaning, entertainment and a shared experience gives it the potential to deliver a deeper impact on society that goes far beyond the economic or the instrumental.

Policy-makers have already expressed an interest in this work. What excites them is that the impetus and enthusiasm for this research came from the industry and the tool has been developed with practitioners.

We want to find out more about the impact of theatre through our members’ use of this tool. We are confident that it has been well researched by nef and we are particularly grateful to our member organisations that helped to test it. Now we hope the industry will use it and share what it discovers.

Charlotte Jones
Chief Executive (ITC)

Richard Pulford
Chief Executive (SOLT/TMA)
Chapter 1: Introduction

In this chapter:

- What is this handbook for?
- Who developed it and how?
- What does it contain?

What is this handbook for?

The aim of this handbook is to help theatre organisations understand how audiences experience their work. It presents a new model for describing the audience experience, along with standard survey templates and guidance on how to use them in the context of a project evaluation. As such, it provides a new basis for evaluation that is directly relevant to the artistic goals that underlie theatrical performance.

Throughout the handbook the term *theatre* is used as a shorthand for the full range of theatre-based dramatic, lyric and dance performance.

Who developed it?

This handbook and its associated materials were developed by the Centre for Well-being at nef (the new economics foundation). The research and development were jointly commissioned by the Independent Theatre Council (ITC), the Society of London Theatre (SOLT) and the Theatrical Management Association (TMA). Contact details for these organisations can be found in the section Finding out more.

The handbook has been developed through an extensive programme of research involving several stages.

Early research

An initial think-piece, *Understanding the well-being benefits of theatre*, argued that the kinds of appraisal and evaluation currently prevalent within the theatre sector, whilst generally well-intentioned, can be problematic if theatre professionals feel that their own motivations for making art conflict with the requirement to justify their work in non-artistic terms (e.g., as contributing to a wider social agenda). Additionally, the narrow focus by key funding bodies on easily countable but fairly crude outputs – audience numbers and demographic breakdown, box-office revenue, and so on – could lead to the problem of perverse incentives and contribute to the misalignment of objectives between theatre professional and funders. Chapter 2 of this handbook outlines this argument in more detail.
Consultation and initial development

The next stage of research involved two concurrent approaches. First, 2500 regular theatregoers completed an online survey that asked them to reflect on their most recent theatre experience. Secondly, a series of one-to-one interviews were held with prominent theatre professionals, including theatre managers, performers and producers.

The aim of both pieces of research was to understand the main elements of a theatre audience’s experience and develop this into a conceptual framework.

Piloting and refining the measurement tool

After this initial research, a number of questions were developed that could be used in surveys to capture the various elements of the conceptual framework.

Versions of the survey were piloted by four different theatre companies, at highly contrasting productions. Data were collected and analysed, leading to refinement of the overall framework and of the survey questions themselves.

The Audience Experience Framework is described in Chapter 3, whilst the associate survey questions are collected together in Chapter 4.

What does it contain?

Chapter 2 explains more about the background to the handbook.

Chapter 3 describes the Audience Experience Framework, which underpins the approach to measurement and evaluation described in the handbook.

Chapter 4 provides a set of tried and tested survey questions that operationalise the Audience Experience Framework, along with some guidance about how to use them and four sample survey templates.

Chapter 5 uses data gathered during the piloting phase of research to illustrate some of the issues that can be explored using audience experience data.

Chapter 6 gives some practical guidance on how to conduct a good survey.

Chapter 7 describes how data collected as part of an audience experience survey can be used in the context of a whole evaluation process. It also provides a number of fictional case studies.

Finding out more gives references for further reading and contact information for the organisations involved in developing this work.

Appendix 1 explores in more detail the ideas behind subjective data collection. It compares three alternative ways to collect subjective information from audiences: surveys, interviews and focus groups.

Appendix 2 provides an introduction to analysing and presenting numerical survey data. It is intended as a brief ‘refresher’ for readers who may not use this kind of data in their day-to-day work.

Appendix 3 summarises guidance from a child psychologist regarding the use of the audience experience survey with children of different ages.
Chapter 2: Some background

In this chapter:

- Evaluation in the theatre sector
- Thoughts on the current state of play
- A new approach

Evaluation in the theatre sector

The history of all art forms is littered with examples of fruitful and sometimes not-so-fruitful relationships between patrons and artists. But mutual recognition of the intrinsic value of the arts has been a common underlying theme. In recent times, however, there has been an increasing focus on 'non-cultural' impacts of the arts, coupled with a growing interest in measurement and evaluation that has been evident since the 1980s. This began with economic impact assessments which sought to gauge how arts contributed to local and regional economies, as well as the wider economic impacts on generating consumer spend.

By the late 1990s, the focus of this line of research had widened to the ‘creative industries’ (which were given explicit recognition in many of the Regional Development Agencies’ Regional Economic Strategies) and in particular to the contribution of the sector to employment and stimulating enterprise development. More recently, research has emphasised theatre’s role in promoting a social inclusion agenda – broadening access and prioritising the question of who is involved above how they are involved.

Alongside this general interest in how the arts contribute to socio-economic objectives, for some time now there has been an increasing expectation that arts organisations should be able to provide explicit justification of their work. To some extent, this is a function of general moves towards accreditation and measurement across all spheres of life. At the same time, though, specific pressure has been exerted as the result of funding limitations that have arisen, in part, through a widespread questioning of the old assumption of ‘art for arts’ sake’.

As demands on public money have grown, so the arts have increasingly felt the need to justify their existence in non-artistic terms. Needless to say, this has not gone unnoticed by arts professionals – as the Artistic Director of one independent theatre company told us:
Every time [The Arts Council of England] give money to us, at the back of their minds they are rehearsing arguments about why it hasn't gone to a hospital.

Another theatre professional noted:

...you can make new, exciting work, but you have to dress it up as focusing on some social objective or other.

This may be a caricature, and funding bodies themselves would doubtless point out they are only trying to ensure that their money is put to the best possible use. However, the general point is clear enough: the theatre sector has witnessed a rising demand for evaluation and assessment of its work, and sometimes in terms of outcomes and impacts that are not directly artistic.

Economic impacts of theatre

Several studies have attempted to estimate the economic impact of the arts. In 1988, a report by John Myerscough identified the arts as a growing, value-adding sector in its own right with an estimated turnover of £10 billion. Several years later in 1996, a report by the Policy Studies Institute estimated consumer expenditure in the arts sector to be £5 billion.

A comprehensive study of the UK theatre sector by Dominic Shellard (using a methodology adapted from the 1998 Wyndham Report) valued the economic benefit to the national economy as £2.6 billion, noting in particular that:
- The economic impact of West End Theatre is £1.5 billion
- The economic impact of theatre activity outside London is £1.1 billion

Thoughts on the current state of play

To find out the kinds of measurement and evaluation with which theatre organisations currently need to comply, members of the ITC, SOLT and TMA were asked about the information that is typically requested from the funders with whom they work. Responses to this question were extremely consistent and highlighted several common requirements. By far the most prevalent were:

- Number and location of performances.
- Audience numbers and box-office revenue.
- Audience demographic. Specifically, many respondents noted that they were required to provide a breakdown of their audiences by age and by ethnic group.

Having access to this kind of information is undoubtedly useful. Without a paying audience no theatre would be economically viable and being able to estimate likely audience numbers is an essential aspect of planning new performances. Moreover, many performing arts companies aspire to bring their work to as broad and diverse a cross-section of people as possible. For some – touring groups, for instance, or those with a very explicit social agenda – this kind of approach is part of their very modus operandi.

In general, few respondents felt that it was unreasonable to report on this kind of information, even if it was sometimes found to be a logistical headache – as the Artistic Director of one independent theatre company noted, there are
…always far too many questions, far too much paperwork, and often in language that we don’t use in the arts.

At the same time, though, as another Artistic Director explained:

The problem with only assessing numbers is that you get funding bodies wanting to put on more theatre, rather than necessarily better theatre.

In other words, focusing measurement on the number, gender, ethnicity, socio-economic groups or age of the audience can sometimes lead — unintentionally — to a misalignment of motivations between theatre professionals and funders.

This is the nub of the problem. The kinds of measurement that are currently prevalent in the theatre sector do not seem to encourage work that is concordant with the actual artistic motivations of theatre professionals. For instance, in terms of both the number and the diversity of people who attend performances, one theatre company noted that its audience development targets:

…will be lower for new work … and far fewer people will see it. But it is this work that most often touches and resonates with individuals, affecting their lives and sometimes their futures, in a profound way.

It is a matter of opinion whether new work per se is more likely to have a powerful affect on people than older pieces. However, highlighting the detrimental effects of ill-thought-out measurement on artistic decisions is an important insight. By emphasising the measurement of factors that are (at least relatively) easy to quantify, this kind of evaluation puts pressure on theatre companies to produce work that scores well on these factors — that ‘ticks the right boxes’. If exerted directly by a funding body, this pressure can be extremely unwelcome, not to say stifling. After all, whilst

…numbers attending and breakdown is useful for general analysis … the creative process should not be driven by numbers.

Another problem noted by several respondents was the lack of flexibility in existing approaches to evaluation:

…big foundations and agencies like [Arts Council of England] are more difficult to comply with than smaller trusts, as they … have standard forms for measuring ‘success’ that are often not really adequate or applicable to our projects or don’t give enough scope to explain the figures and their real impact (often quite a skewed view can be gained from just looking at quantitative data).

Moreover, several companies noted that when taking their own initiative to evaluate projects in more meaningful and relevant terms, the response from funders can be less than overwhelming. One company manager noted ruefully:

I evaluate each project thoroughly but find that little notice is taken of my evaluation forms.

Another had reached the dispiriting conclusion:

Funders want numbers. That’s it really.

Even those companies whose work does have a very explicit social agenda can suffer from the problem of perverse targets:

…working with young people with behavioural issues requires high levels of staffing and low numbers of participants — but it would look on paper as if the company were doing better if we ignored best practice and crammed more kids in.
In summary, there is little doubt that information about who goes to the theatre, how often, and how much they spend on tickets can be useful and interesting. But the basic difficulty with this ‘head-count’ approach is that it makes no attempt to assess the human impact of the performing arts on people’s lives. If support for such evaluation is relatively lukewarm from within the theatre community, this may be one of the reasons why.

A new approach

This raises the question of whether measurement and evaluation in theatre could be approached in a way that focused directly on the experiences of those who engage with it.

The starting point for the approach to evaluation described in this handbook is to ask: why do people go to the theatre?

Intuitively, the answer is enjoyment. After all, for most people, theatre’s primary function is as a source of entertainment. Whilst there are a minority of theatregoers (for instance, newspaper critics) who attend the theatre in a professional capacity, for the large majority theatre-going is an avocation – one in which they actively choose to participate, presumably in preference to other entertainment that may be available.

If ‘enjoyment’ sounds like too flimsy a word to hold the potential range and power of many theatre experiences, then it can be thought of another way, in terms of what economists call opportunity cost. If a person chooses to spend his/her evening at the theatre, that means not spending it doing something else – watching TV, going for a meal, going to the gym and so on. The opportunity cost of a trip to the theatre is the next best thing he or she could have done instead. Buying a ticket and setting an evening aside implies an active decision to see a performance rather than do something else, and therefore an anticipation of having a good time.

Thus, people value the experiences they have when attending the theatre. They will find their visit ‘enjoyable’, in this broad sense, if it provides an experience that is preferable – relatively speaking – to that which may have been provided by anything else they might have chosen to do instead. In other words, as the manager of one theatre company puts it, the audience

...should feel the whole experience was worth coming out for.

This handbook focuses on helping theatre companies explore what it is about a good theatre experience that makes it ‘worth coming out for’. This is a good deal more difficult than simply counting box-office receipts, but also more rewarding and useful. The next section considers some of the practical issues with which an approach to evaluation based on audience experience must contend.
Chapter 3: The Audience Experience Framework

In this chapter:

- Some background on subjective responses
- Developing the model
- The Audience Experience Framework
- Moving beyond ‘good’ and ‘bad’ theatre

Some background on subjective responses

To achieve the kind of evaluation described in the previous section – based on actual experiences of audience members rather than crude statistics – a clear and consistent way of talking about the different aspects of a theatre experience is required.

This poses a problem: everyone who attends a theatre performance will have a unique experience. That people respond differently to different things is not only inevitable – because individuals have different tastes, memories, and knowledge and so on – but is one of the great joys of the arts. Life would be tiresome indeed if everyone always liked and disliked exactly the same things. However, research in psychology suggests that (across virtually all fields of endeavour), there are also some important commonalities in the ways in which people experience similar kinds of events. This too is unsurprising; just as people are all different in many ways, they are also alike in many ways.

People tend to enjoy and value similar kinds of experiences. One good example of this would be so-called ‘flow’ states which have interested many psychologists in recent years. Another example would be certain kinds of aesthetic experience – who is repulsed by a beautiful sunset?

Whilst one person’s experience of a given theatrical performance may be quite different from another’s, it may also be possible to identify underlying ‘dimensions’ of experience that are common to both. For example, a person might find one performance deeply moving whilst another leaves him/her completely cold – but it would be possible to describe both experiences on the same underlying dimension of experience that runs:

Deeply moving ——— Not at all moving
In principle then, it should be possible to identify a set of dimensions on which different people’s experience of theatre can be described and compared. That is the aim of the Audience Experience Framework.

**Flow in the theatre**

In 1990, American psychologist Mihaly Csikszentmihalyi published a seminal book on the psychological phenomenon of flow. Csikszentmihalyi noticed that people who are engaged in challenging activities often experience a distinctive feeling of deep, effortless concentration, total immersion in the task and a distorted sense of time. Across fields as diverse as acting, drawing, skiing, reading and rock-climbing, the basic characteristics of the experience seem to be the same. People report that these experiences are enjoyable and fulfilling in themselves — they are *intrinsically* rewarding. Csikszentmihalyi called them ‘flow’ experiences because of the overwhelming sense of being ‘swept along’ in the moment.

The concept of flow is usually associated with interactive, ‘doing’ tasks (like playing a game or working on a puzzle). However, the similarity between the character of flow states and the experience of watching really good theatre are striking. Even though an audience member is not actively participating in the action on stage, it may be that flow-like states can arise when they are completely absorbed by the performance.

**Developing the model**

As noted in Chapter 1, two pieces of research were undertaken to develop the Framework:

1. An online survey of around 2500 regular theatregoers. This asked them to recall the last piece of theatre which they attended and describe the experience, both in their own words and using some ratings scales.

2. A series of interviews with leading theatre professionals including actors, directors and producers. The interviews focused on how they took account of the audience experience in the course of their work.

From this research, five dimensions of audience experience were identified, as outlined below.

1. **Engagement and concentration**

The extent to which the performance captures and maintains the audience’s attention was consistently found to be the strongest single theme to emerge from the interviews, and the most important factor in the statistical analysis of the online survey.

One interviewee, for instance, described a successful performance as one

> ...where an audience of every age group, from 5 through to 95, is absolutely enraptured and focused on what is going on the stage.

Respondents to the survey described feeling a sense of timelessness, of being ‘lost in the moment’, and of feeling totally immersed in the performance almost as if they were actually part of it.
Why it matters: A sense of total engagement and concentration is a defining characteristic of so-called ‘flow states’ that have been associated with positive feelings such as happiness and fulfilment.

2. Learning and challenge

Psychologists have identified ‘challenge’ as a key component both in learning and in the extent to which activities are felt to be intrinsically rewarding. ‘Too easy’ and little is learnt and the activity can seem boring; ‘too hard’ and people may be put-off and find it difficult to reap any enjoyment.

A theatre production can be challenging to an audience member’s prior knowledge, expectations, or attitudes. As such, the same performance may be experienced as more or less challenging by different people.

Challenge need not be unpleasant or uncomfortable (although it may be both). However, to be beneficial to well-being it should be felt as a broadening experience:

…open people’s imaginations to see possibilities […] suddenly a door has opened in your mind and you’ve realised something that you haven’t realised before.

Why it matters: Recent research highlights the critical role of lifelong learning in maintaining good mental health into later life. Theatre may be able to play a role in helping people to keep mentally active and open to new experiences.

3. Energy and tension

Energy, in the context of an audience experience, refers to physiological reactions to the performance. Some performances convey a palpable sense of energy and excitement. For instance, a West End musical might aim to provide a fun and lively experience that literally causes toes to tap and hands to wave. A tense thriller, by contrast, might cause heightened physiological arousal of a different kind – raised heart beat, increased muscle tension, perspiration.

Why it matters: Physiological reactions are usually associated with emotional states – feeling nervous, anxious, joyous, and so on. Experiencing a physiological response to theatre is a good indicator that people are emotionally engaged with the work.

4. Shared experience and atmosphere

The fourth dimension identified in the research was the sense of collective experience afforded by a good theatre performance. This element of the audience experience was strongly endorsed by a number of interviewees. One, for instance, claimed that theatre is primarily

…about having a shared experience, bringing the community together.

Another, the director of a touring opera company, said:

I should think that 70% of my audience come not because they’re coming to see a play but they’re coming to a shared experience in their community.

There is ample evidence from the psychological literature to support the contribution of such shared, community experiences to a wider sense of well-being. A cliché it may be, but humans are ‘social animals’ who enjoy group interaction, and sharing an experience with other people often serves to heighten its power, leading to a palpable sense of atmosphere.
The Audience Experience Framework

- Engagement and concentration
- Learning and challenge
- Energy and tension
- Shared experience and atmosphere
- Personal resonance and emotional connection

Overall evaluation
**Why it matters:** In a modern world in which the focus often seems to be on the individual first and the community second, theatre can provide a rare opportunity to come together with other people and experience a sense of collective belonging.

5. **Personal resonance and emotional connection**

Psychologists have long understood the importance of narrative in helping people to make sense of their lives. Perhaps unsurprisingly, the experience of a personal connection with the narrative unfolding on stage – as it were, seeing something of yourself in the performance – was identified strongly both in the interviews and in the survey as a powerful means through which theatre can impact on people’s lives.

Another aspect of the personal resonance dimension is the extent to which theatre can function as a way of broadening people’s understanding. As one interviewee put it:

> ...in a sense I would be disappointed if I felt that my work wasn’t having a kind of impact in terms of other people’s understanding of the world. That’s why we tell stories ... to try and understand ourselves.

It is difficult for makers of theatre to plan for personal resonance, since (on the whole) they do not have a homogenous audience with similar experiences; nevertheless, it is something they often aspire to achieve.

**Why it matters:** The ability to have empathy with, and understanding of, others is a central human trait. Through experiencing feelings of empathy with characters that are portrayed in theatre, people may come to know themselves better.

**Moving beyond ‘good’ and ‘bad’ theatre**

The aim of the Audience Experience Framework is to provide a set of dimensions along which a wide variety of different theatre experiences can be described. In turn, this allows the experiences of different people, or of the same people at different times, to be compared. The framework also provides a common language for talking about theatre experiences.

Of these five dimensions, it seems safe to assume that all (or at least the great majority of) theatre performances are intended to be engaging; surely no writer or director sets out to bore the audience or encourage their attention to wander.

As for the remaining four dimensions, however, it is not obvious that all productions will share the same intent. In some cases this might be a matter of subtly different emphasis. For instance, a piece of community-based touring theatre might set out to emphasise a sense of shared experience over and above the narrative content of the production per se. A play that is chiefly concerned with intra-family dynamics might hope to capitalise on audience members’ common experience of family life to make points that many will find personally resonant.

In other cases, the intent might be very different indeed. For instance, a piece of relatively avant-garde theatre dealing with violent psychological themes may deliberately set out to challenge the audience and foster a sense of alienation. By contrast, a West End musical might aim to provide a high-octane but essentially comfortable and non-threatening experience, deliberately avoiding confrontational or difficult subject matter.

The Audience Experience Framework is not intended to define what ‘good’ or ‘high-quality’ theatre looks like. Whether or not a piece of theatre is successful depends on how well it achieves its aims. However, the Framework is intended to encourage new ways of thinking about just what...
these aims are, and about how to demonstrate that a performance, a series of shows or even a whole season’s work was ‘successful’ in its own terms.

Using the Framework, it is possible for makers of theatre to identify in advance the kinds of experiences they hope to elicit in the audience, in much the same way that they might identify in advance the targets for box-office revenue or audience demographics. This is a critical stage of designing and conducting a whole project evaluation, and is discussed in more detail in Chapter 7 of this handbook.
Chapter 4: Questions for an audience experience survey

In this chapter:

- Introduction
- A note on question framing and rating scales
- Core audience experience questions
- Additional items: light/comedic pieces and overall evaluation
- Mood questions
- Grouping questions
- Using the survey questions with children
- Sample templates

Introduction

This chapter presents a number of survey questions that have been developed alongside the Audience Experience Framework. They have all been piloted in the context of real theatre performances and been shown to provide useful and interesting information.

Also provided at the end of the chapter are four sample survey templates. These can be used ‘off the shelf’ without additional modifications, as part of existing wider audience research projects.

A note on question framing and rating scales

There are a number of different ways to pose questions on surveys (Box 1). The audience experience items in the Question Bank have been framed as differentials. Rather than ask respondents to rate the extent to which they agree or disagree with a single statement, they ask people to indicate which of two opposing statements is closer to their own experience. They do this using a rating scale, which can be 4, 5, 6 or even 7 points. This is an example using a 5-point scale:

It felt like time was passing slowly 〇 〇 〇 〇 〇 I hardly noticed the time passing
An alternative approach is to use just one statement and ask people to rate the extent to which they agree or disagree. This example uses a 5-point rating scale:

<table>
<thead>
<tr>
<th></th>
<th>Disagree strongly</th>
<th>Disagree somewhat</th>
<th>Neither agree nor disagree</th>
<th>Agree somewhat</th>
<th>Agree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>It felt like time was</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>passing slowly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The sample survey templates at the end of the chapter have been provided at both formats.

**Choosing a rating scale for survey items**

There are no hard-and-fast rules about how to pose survey questions. If designing a survey from scratch, the following issues must be considered:

- **Agree/disagree or differential?**
  
  Agree/disagree scales are easy to report and interpret. For instance, it is easy to make statements like ‘36 per cent of respondents strongly agreed that they were completely absorbed in the performance’.

  On the other hand, differential scales provide more information to the respondents about the dimension on which they are being asked to give a rating. In principle, this will increase the chance that different respondents interpret each question in the same way.

- **How many points?**

  More points does not necessarily mean better or more accurate data. A balance must be struck between having enough points to distinguish between different people’s experiences, yet not so many as to introduce meaningless ‘noise’ into the data.

  Three-point scales are sometimes used, but may be too few to give real differentiation, especially if items are posed as differentials. On the other hand, most people struggle to make meaningful distinctions between more than 8 or 9 categories. The most common range is 4–7.

- **Odd or even?**

  With an odd-numbered scale (e.g., 3, 5, 7) there is always a middle point meaning ‘neither agree nor disagree’ or, on a differential scale, ‘not one statement more than the other’.

  Often, giving the middle answer is quite reasonable – people may not have a strong opinion, or might be genuinely undecided. On the other hand, you might want to force people to take a view one way or the other by using an even-numbered scale.

**Core audience experience questions**

The core audience experience questions correspond to the Audience Experience Framework described in Chapter 3.
Using all three items for each dimension will provide a more robust measurement than just using one. For the purpose of analysis and presentation, these can be combined into a single score by calculating the arithmetic mean of the three, for each respondent.

For a shortened survey, using only using a single item for each dimension, the items in bold type are recommended.

The arrow represents the rating scale, which may vary depending on how the survey is being used.

Agree/disagree scales can easily be constructed by choosing one or other statement from a pair and asking people to rate their agreement with it. Bear in mind that if multiple agree/disagree items for one dimension are used but with statements from opposite sides – e.g., ‘It felt like time was passing slowly’ and ‘I was often on the edge of my seat’ – the resulting scores must be reversed before being combined together.
My concentration was wandering

It felt like time was passing slowly

The performance didn’t really hold my attention

I didn’t feel like I was learning anything

I was mostly in my ‘comfort zone’

There was nothing much new for me

It didn’t really get me going

I felt tired and uninterested

I felt flat

There wasn’t much sense of atmosphere

I didn’t feel much connection with other audience members

I don’t feel much urge to discuss the performance

I didn’t feel much connection with the characters/story

There wasn’t really much that touched me

It didn’t say much about my life or experiences

I was completely absorbed by what was happening

I hardly noticed the time passing

I was often on the edge of my seat

My eyes were opened to some new ideas

I felt challenged and provoked

It got me thinking about things differently

I was gripped by the sights and sounds of the performance

I felt lively and enthusiastic

I felt tense and excited

I noticed a real buzz in the audience

It felt good to be sharing the experience with other people

I will be talking about the experience for some time to come

I felt I could really identify with the characters/story

I found aspects of the performance very moving

Some aspects of the performance seemed relevant to my own life

Engagement and concentration

Learning and challenge

Energy and tension

Shared experience and atmosphere

Personal resonance and emotional connection
Additional items: Light/comedic pieces and overall evaluation

The following items may be useful for productions that have a strong comedy element and/or are intended to be ‘light’ and enjoyable. They may be used in addition to the core dimensions, or in place of questions on Personal resonance and emotional connection.

There wasn’t much that really made me laugh. I found the performance very amusing.

I didn’t really enjoy myself. It was a lot of fun.

These two items can be used to provide an overall evaluation of the experience.

Overall, I wish I had done something else instead. I feel really glad I came.

On the whole, I found the experience disappointing. I found the whole experience really worthwhile.

Mood questions

In addition to finding out about the kind of experience audience members had during the performance, it might be interesting to consider how this affected their mood in general.

Psychologists have developed a number of different questionnaires for assessing mood. This is a shortened version of one such questionnaire, the Brief Mood Introspection Survey. Each item can be analysed separately, or two separate scores can be constructed by combining the positive items (‘Lively’, ‘Happy’, ‘Content’) and negative items (‘Tense’, ‘Fed-up’, ‘Gloomy’).

Note that these questions ask people at their mood at the time they are completing the form. As such, these are not suitable for use in a survey that is completed a long time after the performance has finished (e.g., in a survey that is taken away for completion at home and return by post).
Please tick the response on the scale that indicates how well each adjective describes how you are feeling right now.

<table>
<thead>
<tr>
<th>Adjective</th>
<th>Not at all</th>
<th>Not much</th>
<th>Some-what</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lively</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Happy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fed-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gloomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Grouping questions**

Provided that the overall sample – the number of people who complete the survey – is large enough, it can be helpful to divide the responses into similar groups and make comparisons between them. For instance, it might be interesting to see whether older and younger people react differently to a production, or whether people who are new to the theatre react differently from people who are regular theatregoers.

Many of the standard demographic questions that are often asked as part of audience research surveys will provide useful ways to identify groups within the sample:

- Gender
- Age
- Social and ethnic groups
- How often they attend theatre performances (e.g., how many times in the past year)
- Number of people they came to the theatre (and who they are)

Although demographic socio-economic characteristics are the most obvious ways of grouping audience responses, in fact there is room for creative thinking here about other distinctions that might be interesting and relevant. For instance, in the development work for this handbook, the following question was also found to be a useful way of grouping respondents:

If you were reviewing this production for tomorrow’s papers, how many stars would you give it?
Using the survey questions with children

Some pieces of theatre are devised for audiences of children or young people, whereas others may attract a wide age range. One question that arises is whether the survey questions above are suitable for use with children. To explore this, the questions were reviewed by a psychologist with expertise in child literacy.

In their present form, the core experience questions should be readable by children of ages of 11–12 and upwards. However, the abstract nature of some of the questions means that full comprehension may be more challenging. Hence, the recommended minimum age for the questions is 14.

Developing specific children’s versions of the questions was not within the scope of the current project, so a sample survey template for children is not given here. However, a summary of the psychologist’s guidance is given in Appendix 3. Using this guidance, it is possible to construct versions of the survey that may be suitable for younger age groups.

Sample templates

The following pages provide some sample survey templates that are ready-formatted for printing and immediate use. Each is accompanied by a ready made spreadsheet template into which the data can be entered.

Template 1
Items included: All 15 audience experience items from the question bank
Rating scale: Five-point differential scale.
Additional notes: This is the full version of the audience experience survey. Each item can be analysed separately. Alternatively, five separate scores can be calculated by taking the mean score for the three items that relate to each dimension of the Audience Experience Framework.

Template 2
Items included: All 15 audience experience items from the question bank
Rating scale: Five-point agree/disagree scale constructed using the right-hand side of the differential scale version.
Additional notes: This is the full version of the audience experience survey. Each item can be analysed separately. Alternatively, five separate scores can be calculated by taking the mean score for the three items that relate to each dimension of the Audience Experience Framework.

Template 3
Items included: Five audience experience items from the question bank
Rating scale: Five-point differential scale.
Additional notes: This is a short version of the audience experience survey, constructed using a single item for each dimension of the framework.
Template 4

**Items included:** Five audience experience items from the question bank

**Rating scale:** Five-point agree/disagree scale constructed using the right-hand side of the differential scale version.

**Additional notes:** This is a short version of the audience experience survey, constructed using a single item for each dimension of the framework.

---

Standard grouping questions

**Items included:** Gender, age, frequency of theatre attendance, star rating

**Additional notes:** This is a set of standard grouping questions that is useful for helping to understand the audience experience data. It can be used with any of the templates above.

---

Overall evaluation

**Items included:** Overall evaluation items

**Rating scale:** Five-point differential scale.

**Additional notes:** The attached spreadsheet templates include columns for either two (Sheets 1 and 2) or one (Sheets 3 and 4) of the overall evaluation items.
Here are some phrases that people might use to describe the experience of watching a piece of theatre.

For each pair, please mark a point on the scale towards whichever is closest to your experience of watching the performance today.

<table>
<thead>
<tr>
<th>My concentration was wandering</th>
<th>I was completely absorbed by what was happening</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t feel like I was learning anything</td>
<td>My eyes were opened to some new ideas</td>
</tr>
<tr>
<td>It didn’t really get me going</td>
<td>I was gripped by the sights and sounds of the performance</td>
</tr>
<tr>
<td>There wasn’t much sense of atmosphere</td>
<td>I noticed a real buzz in the audience</td>
</tr>
<tr>
<td>I didn’t feel much connection with the characters/story</td>
<td>I felt I could really identify with the characters/story</td>
</tr>
<tr>
<td>It felt like time was passing slowly</td>
<td>I hardly noticed the time passing</td>
</tr>
<tr>
<td>I was mostly in my ‘comfort zone’</td>
<td>I felt challenged and provoked</td>
</tr>
<tr>
<td>I felt tired and uninterested</td>
<td>I felt lively and enthusiastic</td>
</tr>
<tr>
<td>I didn’t feel much connection with other audience members</td>
<td>It felt good to be sharing the experience with other people</td>
</tr>
<tr>
<td>There wasn’t really much that touched me</td>
<td>I found aspects of the performance very moving</td>
</tr>
<tr>
<td>The performance didn’t really hold my attention</td>
<td>I was often on the edge of my seat</td>
</tr>
<tr>
<td>There was nothing much new for me</td>
<td>It got me thinking about things differently</td>
</tr>
<tr>
<td>I felt flat</td>
<td>I felt tense and excited</td>
</tr>
<tr>
<td>I don’t feel much urge to discuss the performance</td>
<td>I will be talking about the experience for some time to come</td>
</tr>
<tr>
<td>It didn’t say much about my life or experiences</td>
<td>Some aspects of the performance seemed relevant to my own life</td>
</tr>
</tbody>
</table>
Here are some phrases that people might use to describe the experience of watching a piece of theatre. 

For each one, please rate how well it describes **your experience of watching the performance today**.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree strongly</th>
<th>Disagree somewhat</th>
<th>Neither agree nor disagree</th>
<th>Agree somewhat</th>
<th>Agree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was completely absorbed by what was happening</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My eyes were opened to some new ideas</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I was gripped by the sights and sounds of the performance</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I noticed a real buzz in the audience</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I felt I could really identify with the characters/story</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I hardly noticed the time passing</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I felt challenged and provoked</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I felt lively and enthusiastic</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>It felt good to be sharing the experience with other people</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I found aspects of the performance very moving</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I was often on the edge of my seat</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I will be talking about the experience for some time to come</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Some aspects of the performance seemed relevant to my own life</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Here are some phrases that people might use to describe the experience of watching a piece of theatre.

For each pair, please mark a point on the scale towards whichever is closest to your experience of watching the performance today.

<table>
<thead>
<tr>
<th>Statement</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t feel much connection with other audience members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It felt like time was passing slowly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was mostly in my ‘comfort zone’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt tired and uninterested</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>There wasn’t really much that touched me</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It felt good to be sharing the experience with other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I hardly noticed the time passing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt challenged and provoked</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I felt lively and enthusiastic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I found aspects of the performance very moving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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For each one, please rate how well it describes **your experience of watching the performance today**.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree strongly</th>
<th>Disagree somewhat</th>
<th>Neither agree nor disagree</th>
<th>Agree somewhat</th>
<th>Agree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>It felt good to be sharing the experience with other people</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>I hardly noticed the time passing</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>I felt challenged and provoked</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>I felt lively and enthusiastic</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>I found aspects of the performance very moving</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>
Standard grouping questions

Your gender

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Your age

<table>
<thead>
<tr>
<th>Age Range</th>
<th>0</th>
<th>1–3</th>
<th>4–10</th>
<th>11+</th>
</tr>
</thead>
<tbody>
<tr>
<td>15–20</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>21–30</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>31–40</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>41–50</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>51–60</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61–70</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Over the last 12 months, roughly how many times have you been to see a theatre performance (including opera, musical, play, dance)?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>0</th>
<th>1–3</th>
<th>4–10</th>
<th>11+</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>1–3</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4–10</td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you were reviewing this production for tomorrow’s papers, how many stars would you give it?

<table>
<thead>
<tr>
<th>Star Rating</th>
<th>★</th>
<th>★★</th>
<th>★★★</th>
<th>★★★★</th>
<th>★★★★★</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○</td>
<td>○</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overall evaluation questions

Overall, I wish I had done something else instead

|       | ○    | ○    | ○    | ○    | ○    | I feel really glad I came

On the whole, I found the experience disappointing

|       | ○    | ○    | ○    | ○    | ○    | I found the whole experience really worthwhile
Chapter 5: Sample analyses of audience experience survey data

In this chapter:

- Analysing audience survey data: some examples
- Example 1: Overall rating frequency
- Example 2: Comparing four different plays
- Example 3: Comparing by ‘star rating’
- Example 4: Comparing by regularity of theatre attendance
- Example 5: Comparing venues

Analysing audience survey data: some examples

As noted in Chapter 1, a number of pilot surveys were conducted at theatres around the country as part of the process of developing this handbook.

In this chapter, several graphs and charts have been drawn using data gathered during the piloting phase. They are included here to give a flavour of the kinds of issues that can be explored using audience experience data.

It is important to note that these graphs are illustrative only. Whether or not these kinds of comparisons are relevant or interesting would depend entirely on the purpose for which the data were collected. Chapter 7 discusses this issue in more detail.

The pilot productions

These graphs show data from theatrical productions:

Play 1 A new work produced by an independent regional theatre, based on tragic, real-life events and containing significant verbatim material.

Play 2 A comic production at a prominent West End theatre, based on a popular novel.

Play 3 A new work of historical fiction, based on events in the life of a well-known author.

Play 4 A touring production of a modern North American play dealing with aspects of life in a rural community.

Note that, for illustration purpose, examples 2–5 present data in the form of standardised scores (‘z-scores’). This is a convenient way of comparing different kinds of data – it is explained in more detail in Appendix 2.
**Example 1: Overall rating frequency**

The simplest way to analyse audience survey data is to look at the proportion of people who ticked each response. Although straightforward, this kind of analysis can often be enlightening about the overall ‘tone’ of the audience’s reaction.

This example shows data that were collected at Play 3. At a glance, it is clear that most people found the performance both engaging and emotionally moving. However, they were much more equivocal in terms of shared experience and finding the work challenging.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree strongly</th>
<th>Disagree somewhat</th>
<th>Neither agree nor disagree</th>
<th>Agree somewhat</th>
<th>Agree strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>I hardly noticed the time passing</td>
<td>8</td>
<td>10</td>
<td>14</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td>I felt challenged and provoked</td>
<td>13</td>
<td>20</td>
<td>36</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>I felt lively and enthusiastic</td>
<td>15</td>
<td>8</td>
<td>28</td>
<td>30</td>
<td>19</td>
</tr>
<tr>
<td>It felt good to be sharing the experience with other people</td>
<td>12</td>
<td>14</td>
<td>33</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>I found aspects of the performance very moving</td>
<td>9</td>
<td>7</td>
<td>15</td>
<td>36</td>
<td>33</td>
</tr>
</tbody>
</table>
Example 2: Comparing four different plays

This radar plot compares overall ratings from all four plays to one another. From these data, it is clear that Play 1, a gritty and realistic work based on true-life events, was found to be the most challenging and personally resonant. By contrast, Play 2, a lively comedy, conveyed the greatest sense of energy but was the least challenging and resonant.

This kind of analysis might be useful for theatre companies that produce a number of contrasting plays throughout the year and wish to compare audience experiences across the whole season.
Example 3: Comparing by ‘star rating’

Many theatregoers will be familiar with the ‘star ratings’ used by newspaper theatre critics to indicate their appraisal of theatre and music events. In the pilot surveys, respondents were asked to give the performance a star rating, which was then used as a grouping variable.

Unsurprisingly, there was a clear difference on all five experience dimensions between those who gave 3 and 5 stars, with the most pronounced differences in engagement and concentration and personal resonance and emotional connection.

Given large enough samples, this kind of analysis could help a theatre company to understand which factors are most important for giving rise to a good overall evaluation. It might be, for instance, that learning and challenge is a good predictor of overall enjoyment for some kinds of productions (e.g., historical plays) than others (e.g., contemporary musicals).
Example 4: Comparing by regularity of theatre attendance

It would be plausible to hypothesise that people who attend the theatre regularly might have different responses to those who attend only infrequently.

The graph shows audience experiences across all of the performances included in the pilot surveys. Respondents have been grouped by frequency of theatre attendance, with the numbers in brackets being the number of visits to the theatre made in the previous year. It seems that the more frequent theatregoers were relatively less likely to find the performance engaging and personally resonant. Note, however, that the scale of this graph is different to the previous two; this suggests that the relative differences between groups are considerably smaller.
Example 5: Comparing venues

As noted above, Play 4 was a touring production that played to a number of small theatres and community venues around the UK.

This graph shows ratings for engagement and concentration for 11 of the venues (those where the sample size was sufficiently large). With more information about the makeup of the sample, it might be possible to draw inferences about why this particular pattern of results occurred. For instance, according to the tour manager, the audience in Taunton contained a much higher-than-average number of school-age students. Perhaps this helps to account for why they seemed to find the play so much less engaging than many other audiences.
Chapter 6: Guidance on conducting a good survey

In this chapter:

- Introduction
- Populations and samples
- Audience survey practicalities: Frequently Asked Questions

Introduction

Conducting an audience survey need not be difficult. However, the quality of the data – and hence, the quality of the information that can be gleaned from it – are strongly affected by a number of factors. This chapter discusses some of the most important considerations and provides answers to some questions about the practicalities of conducting a survey.

Populations and samples

In most cases, it will not be possible to gather information from everyone in the audience. Rather, the survey will be completed by just a selection of people or, in research parlance, a sample of the total population. In the case of a theatre production, the ‘population’ might be everyone who sees the production and the ‘sample’ is the group of people who complete a survey.

The same logic applies even if the focus of interest is on particular groups within the audience. For instance, in a play about intergenerational conflict it might be interesting to compare the experiences of over 60s and under 30s. Again, it is unlikely that everyone from these two groups could be surveyed – rather, there will be a sample from each of the two ‘populations’.

Often, researchers hope to use data from a sample to make general statements about the population. For instance, if 60 per cent of people in a given sample gave the performance a 4-star rating, it could be inferred that 60 per cent of the total population would have given 4 stars, had they all completed surveys.

Making this kind of generalisation assumes that the views and experiences of the sample are a decent approximation of the views and experiences of the whole audience. For this assumption to be reasonable and valid, it is important to think carefully about the sample, in particular its size and representativeness.
Sample size

Broadly speaking, the more people in the sample, the more confident one can be that the ‘average’ of their experience is close to that of the total population under consideration.

This is fairly intuitive. If one person was picked at random from an audience of 500, the chances of his/her particular experience being very typical of everyone else’s would be small. He or she might have particularly disliked the play, or have been feeling ill and found it hard to concentrate, or be an obsessive fan of the lead actor.

If, on the other hand, 100 people were surveyed, the sample would contain a range of different experiences. Whilst no single person could be considered typical of the audience as a whole, it would be much more reasonable to assert that the average experience of all 100 people was a good approximation for the whole audience.

This raises the question of how many people are needed in a sample in order to be confident that generalisations about the population are reasonable. Unfortunately, there is no straightforward answer. Statisticians have developed sophisticated ways of calculating how large a sample is required in a given situation, but they require a number of assumptions to be made and some slightly tricky mathematics. As a general rule of thumb, 15–20 people should probably be regarded as a practical minimum sample size. To compare two groups within the audience (say, women and men) would require a sample of 15–20 from each group.

Representativeness

As well as the size of the sample, another consideration is how representative it is of the audience at large, or of the particular groups within the audience that are of interest.

Many theatres attract an audience who are similar in some way. A theatre known for its avant-garde productions will tend to attract a different kind of crowd than one that specialises in family musicals, and so on. If the sample is very representative of the population – that is, if it contains people who are highly typical of the overall audience – generalisations about the population can be made with reasonable confidence. However, if the sample is particularly unrepresentative for some reason, more caution is required. Case study 1 gives an example of how an unrepresentative sample could occur.

To an extent, sample size and representativeness compensate for one another. In other words, a smaller sample might be satisfactory if they are all highly representative; conversely, representativeness may be less of a worry if the size of the sample is very large relative to the overall population. In general, though, it is worth trying to bear both factors in mind when collecting and analysing data.
Case study 1: An unrepresentative sample

A repertory theatre in a small town is conducting an audience survey for its new production of *Twelfth Night*.

Its usual audience consists mainly of older people who live in the town and are fairly regular theatregoers. However, on the night of the survey there happen to be two coach parties of 15/16-year-olds who are studying the play for their English GCSE. There are 287 people in the audience, of whom 126 – nearly 44 per cent – are students, most of whom have never been to the theatre before.

After distributing the surveys as people leave the auditorium, the theatre management finds that of 67 people in its sample, 38 are students. At 57 per cent, that is a little higher than the total proportion in the audience (it seems that the students enjoyed filling in the surveys).

Because the sample seems to be unrepresentative of the usual audience, theatre management is extremely cautious when interpreting the data and does not to make generalisations about how the audience experienced *Twelfth Night* across its whole run.

Audience survey practicalities: Frequently Asked Questions

**Q. When is the best time to distribute an audience experience survey?**

A. The aim of the survey is to describe the experience audience members had as they watched the performance. It would be impractical to have people actually fill-out surveys during the show (not to mention distracting for other people). The next best thing is therefore to try and collect data as soon as possible after the performance has finished. That way, the experience will still be very fresh in people’s minds and they will not have had too much time to discuss it with others (which will influence what they remember).

In the development work for this handbook, it was usually found to be quite possible to hand out survey forms as people leave the auditorium, so that they could complete them there and then and hand them straight back. An alternative is to give out the surveys as people enter the auditorium, or even leave them on seats, although in this case it is hard to stop people from reading the survey before the performance, which might in itself have an impact on their experience and expectations.

**Q. Will additional staff be required for the survey?**

A. Not necessarily, although having a few extra people to help out might make things run more smoothly. One idea would be to have one or two staff whose job is to distribute surveys, whilst another one or two are tasked with collecting them.

**Q. What is the best way to print surveys?**

A. People will find it easier to complete the survey quickly if it is printed on a single, relatively small piece of paper or card. During piloting, printing surveys on A5 size paper was found to work effectively. However, it is also a good idea to have some larger-sized surveys on hand too, for any audience members requiring larger print.

If the audience experience questions are being embedded within a larger survey, it is a good idea to pay attention to making the formatting and design consistent throughout – it can be confusing to have a mixture of different styles within the same questionnaire.
Q. Is any training required?
A. Not for distributing and collecting surveys, although it is a good idea to ensure that staff are briefed with answers to a few of the more obvious questions: what the survey is for, who designed it, whether it is anonymous, and so on.

Q. Conducting a survey on the night just isn’t practical. Are there other ways of collecting data?

In some theatres, for instance those in which it is difficult for the audience to remain in the foyer, an option is to give people survey forms to complete at home and ask them to return them by post. However, there are a number of reasons why this is not ideal. Firstly, it means that the time between the performance experience itself and actually completing the form is likely to be much longer overall. Secondly, it will be more variable between people — some may complete the survey on the way home, whereas some might complete it several days later. Thirdly, there is always the risk that people will simply forget to send the surveys, with the result that the sample is very small. Sending the survey via e-mail is another alternative, although is subject to some of the same problems and also tends to encourage a selection bias whereby only those people who happen to use e-mail regularly end up participating in the survey.

If a survey is not practical, it may be that other modes of enquiry are more appropriate. Appendix 1 discusses how interviews and focus groups might be used as an alternative to surveys, but still based on the Audience Experience Framework.
Chapter 7: Designing and running an evaluation

In this chapter:

- Introduction
- Three stages of evaluation
- Planning
- Measurement
- Reflection

Introduction

Part of the intention of this handbook is to contribute to a new approach to evaluation for the theatre sector – on that identifies the central goal of successful theatre as providing valuable experiences.

In this section, some general principles and guidelines for conducting such an evaluation are outlined. The project being evaluated could be a particular performance, or a production that runs for several performances, a tour, or even a whole season’s work incorporating a number of different productions. The basic principles of designing and conducting a good evaluation are the same, irrespective of what the project consists of.

Interspersed in the text are a number of case studies. These are fictional, but are based on conversations with theatre professionals about the kinds of purpose for which audience experience research might be conducted.

Three stages of evaluation

A successful evaluation – of any kind of project, in any sector – is like a story with a beginning, middle and end. It describes why the project was developed, what it was intended to achieve and who it hoped to benefit. It provides meaningful and reliable evidence that sheds light on what actually happened. It reflects on what went well and what could have been done differently, and draws lessons for the future.
A good evaluation consists of three phases:

1. The planning phase, in which parameters for the evaluation are established: What is the aim of the evaluation? Who will the project benefit, and how? At this point, it is important to identify the kinds of information that will be required to see whether or not the project was successful.

2. The measurement phase, where data are collected that will enable evaluation of the project.

3. The reflection phase, where the data that have been collected are analysed in light of the original objectives and considered in terms of lessons for the future.

Planning

One way to think about the planning stage is to identify answers to three questions:

1. What do we want to know and who is the evaluation for?
2. Who will benefit from the production?
3. What is the ‘hypothesis’? i.e., how will the production give rise to the experiences we hope/intend?

Measurement

How do we capture the information we need? e.g., surveys based on the Question Bank, interviews, focus groups

Reflection

Does the evidence support the hypothesis? What have we learnt? How can we express our findings clearly?

Case study 2: A challenging work for new audiences

A dance company has developed a new work on a difficult social theme. It will play to audiences of adolescents who are not regular theatre-goers. The company is interested in finding out the extent to which audience members made connections between the themes of the performance and their own lives.

After each performance, a short survey is administered to all audience members asking them to rate different elements of their experience according to the Audience Experience Framework. On three occasions during the run, members of the company also facilitate a focus group with a small selection of adolescents from the audience, who are encouraged to reflect on their feelings during the performance and relate the themes to their own experiences.

At the end of the project, the company presents a combined qualitative/quantitative report to its funders, providing evidence of how the audience’s perceptions were challenged.

One way to think about the planning stage is to identify answers to three questions:

1. What is the evaluation intended to find out?
2. Who will benefit from the production?
3. What is the ‘hypothesis’? In other words, how will they benefit?

What is the evaluation hoping to find out?

This seems the most obvious of the three questions – after all, there is no point spending time and effort collecting data without a clear idea of how it will be used or what it is expected to reveal. Nonetheless, it is perhaps the easiest one to overlook.

An evaluation is likely to be shaped by the needs of the people who will use it. For instance, a project evaluation for a funder may need different kinds of information, or a different mode of presentation, to an internal report for theatre management or trustees.
Some questions to think about here are:

- Why is the evaluation being conducted at all?
- How much information, and of what kind, will the readers of the evaluation need?
- What resources are available for collecting information?
- What kind of knowledge and expertise will be needed to get the most out of the data?

**Case study 3: Summary information for annual report**

A large regional theatre wants to include summary information of the whole season’s work, across all performance genres, in its annual report to a major funding body. After each performance, attendants ask a small, randomly selected sample of the audience to complete a short survey based on the audience experience model. Over the season, these data are collated into one spreadsheet. At the end of the season, they are used to produce a range of graphical outputs which illustrate the typical audience experience, comparing the different productions to one another. Because the accumulated sample is relatively large, this can be broken down by audience demographics, enabling information to be gleaned about how different groups respond to different productions.

**Who will benefit from the production?**

In many cases this question will have a simple answer: the audience. However, it is worth thinking carefully about this. Perhaps it is useful to distinguish between groups within the audience who might experience the production differently and so reap different kinds of benefit from it?

Some productions, for instance, are targeted specifically at certain people – perhaps from disadvantaged communities, from a particular ethnic group, and so on. Others, whilst not pitched directly at any particular group, may nevertheless be expected to give rise to different kinds of experience for some people in the audience than for others. For instance, it might be that the subject matter of a particular work means that it is likely to resonate particularly with older people, or those with children.

If it is important to identify and compare groups within the audience, this must be carefully planned for so as to ensure that the right information is collected from the right people (and to avoid collecting unnecessary information that will not be used).

Of course, just because it is possible to identify particular groups who might respond differently to the work does not mean that it is important or interesting for the evaluation. That depends on the *hypothesis*.

**What is the hypothesis?**

The hypothesis describes how the activities being planned are expected to lead to the outcomes intended for the people identified. In the case of most theatre productions, the ‘activities’ are decisions made about the choice of play, the staging, casting and direction, marketing and advertising and so on. The ‘outcomes’ are the audience members’ experiences of the performance.
The idea of forming a hypothesis about a piece of theatre might seem unnecessarily scientific and formal but it is really just a matter of bringing out into the open considerations that are made in the process of producing any new production. What is it about the choice of play, the way it has been staged and so on that will give rise to valuable experiences for the audience? These kinds of decisions are an integral part of the process of making work.

Once the hypothesis has been made explicit, it is then important to consider what kinds of information are required to test it. This, again, is a matter of thinking carefully about the proposed data collection method and being certain from the outset that it will be able to provide the necessary information.

Case study 4: Developing a hypothesis

A small independent theatre is commissioning a new play on the subject of a real life crime that affected the local community 20 years ago. The play itself is being developed collaboratively, through improvisatory workshops involving the writer, director and a number of actors.

Part way through the development period, the team hold a meeting in which they try to make explicit their hypothesis about how the emerging work will impact on the audience. From a discussion of their own previous experiences, they identify the kinds of feelings they want to evoke in the audience – a sense of deep personal resonance and empathy with those portrayed in the play.

They hypothesise that making the dialogue as realistic and lifelike as possible will help the audience to feel a personal connection with the play’s protagonists. As a result, they decide to incorporate verbatim material into the dialogue, taken from original witness statements and other historical records.

Drawing it all together

By the end of the planning phase, the following will have been established:

- Why the evaluation is being conducted.
- Who the production itself is expected to benefit.
- How and why the decisions made in developing the production will give rise to the desired outcomes.
- The kinds of information that will be required to show whether or not the outcomes occurred.

It can be useful to try to write these things down in the form of a few clear and unambiguous ‘statements of intent’, which can be referred back to later in the evaluation process.
Measurement

After the hypothesis has been established and the process of the evaluation planned, the next step is to collect the data. In many cases, the information required concerns the subjective experiences of audience members. Hence, the data collection will involve asking people about what they felt and thought as they watched the production. Earlier chapters of this handbook have discussed in detail how this can be achieved using audience surveys. Some alternative approaches are considered in Appendix 1.

Reflection

Reflection should involve both ‘looking back’ and ‘moving forward’. Looking back is a matter of considering how well the data that have been collected support the original hypothesis. Moving forward involves using what has been found to draw lessons for future work.

First, it is a good idea to spend some time reviewing the conclusions that were reached in the planning phase regarding the aims and objectives of the project, and thinking afresh about the kind of evidence required to establish whether or not they have been achieved. All being well, this evidence should now be to hand and so the next step is to think about what it means by considering questions such as the following:

- What aspects of the evidence support the hypothesis?
- What aspects of the evidence fail to support the hypothesis?
- Does the evidence reveal anything unexpected?
What worked well, and what could have gone better?

This could be done informally or as part of an end-of-project debriefing session.

### Case study 6: Reflection

A large metropolitan theatre has completed a run of a new operatic production. As it was developing the production, a particular aim was to attract people who had never seen an opera before. The company wanted to provide an accessible and enjoyable evening, but also challenge the audience’s preconceptions about what opera is all about. To that end, it chose a very contemporary setting and incorporated multi-media elements, as well as self-consciously referencing cinematic styles and conventions in the staging.

At each performance, four or five audience members were selected at random during the interval and asked to take part in a short interview after the show. They were asked about their previous familiarity with opera and then about their experience of this production. In total, 37 people were interviewed.

Now the season has finished, the company reviews its original plans for the production. It also analyses the interviews, identifying a number of common themes which it considers in light of its original intentions.

The company is pleased to find that almost all of the respondents enjoyed the show, although many were uncertain about whether they would come back to see another opera. Several people agreed that their preconceptions about opera might have been wrong and about half said that the use of multi-media and cinematic elements made the experience feel more comfortable and familiar than they had expected. However, a sizeable minority felt disappointed that the opera was not more ‘traditional’, and said that their attention wandered during the multi-media sequences.

The theatre company, a charity, quotes from the interviews in its end-of-year report to trustees. It also uses the feedback to re-model parts of the production prior to a tour planned for the following year.
Finding out more

Analysing data

If you want to find out more about the kinds of things that can be done with quantitative data, there are a large number of textbooks available. Here are two very readable introductions. They both use SPSS, a popular piece of statistical analysis software, for demonstration purposes, but you do not need to have SPSS to find them useful.


For approaches to conducting and analysing interview data, again there are a large number of books to choose from. A readable introduction is:


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nef (the new economics foundation)
3 Jonathan Street
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www.neweconomics.org

Independent Theatre Council
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Weston Street
London SE1 3ER
www.itc-arts.org

Society of London Theatre
32 Rose Street
London WC2E 9ET
www.solt.co.uk

Theatrical Management Association
32 Rose Street
London WC2E 9ET
http://www.tmauk.org/
Many, many people helped us with the research and development of this handbook.

We are especially grateful to Charlotte Jones at the ITC and Richard Pulford at the SOLT and TMA.

Further thanks (in no particular order) go to:

Gavin Stride and Janice Brittain at Farnham Maltings; Rebecca Morland and Dave Scarr at Hampstead Theatre; Jonny Bunyan and John Manning at Fiery Angel; Jim Beirne and Nicole Huddart at Live Theatre; Fiona Evans, Libby Davison, Deka Walmsley, Neil McKinven, Chloe Lang, Rob Atkinson, Simon Russell Beale, and Nick Starr at the National Theatre; Shôn Dale-Jones at Hoipolloi; Kerry Michael at the Theatre Royal Stratford; Paul Elliott at Paul Elliott Ltd; Robert Fox at Robert Fox Ltd; Deborah Bull at the Royal Opera House; Sean Aita at Forestforge; Tim Brinkman at Hall for Cornwall; Julian Chenery at Shakespeare 4 Kidz; Tina Ellen Lee at Opera Circus; Vanessa Fagan at Company of Angels; Paul Fitzpatrick at Catherine Wheels; Adam Gent at Hoodwink Theatre; Liz Hill at Arts Intelligence Ltd; Chris Moxon at Unicorn Theatre; David Pibworth and Geinor Styles at Theatr na n’Og; Pat Weller at Royal Exchange Theatre; Ben Walmsley at National Theatre of Scotland; Jenny-May While at Y Touring Theatre Company; Kate Wickens at ITC; Tina Williams at Pied Piper Theatre Company; Catherine Willmore at The Cholmondeleys and The Featherstonehaughs; Ian Woods at Norwich Puppet Theatre; Richard Murray at nef, several contributors who prefer to remain anonymous, the participants in our workshop at the 2007 ITC Annual Conference, the c. 2500 people who responded to our online survey and the audience members around the country who helped with our piloting by filling in a little form.
Appendix 1: Collecting subjective data

Introduction

When people talk about measurement, they are usually referring to physical properties of the world – dimensions such as length, pressure, luminosity and so on. Measuring these kinds of dimensions accurately can pose a technical challenge (ensuring that your measuring instruments are calibrated reliably, for instance) but there is no basic problem of identifying the thing that is to be measured.

Capturing feelings and experiences is not the same as measuring physical properties of the world. Experiences happen inside people’s heads and cannot be observed directly. Someone who is experiencing feelings of, say, anxiety may show certain characteristic behaviours (e.g., wringing his/her hands, pacing up and down) but these are just ‘symptoms’ of his/her anxious feelings. Measuring these behaviours would not be much help in understanding the actual thoughts that someone has when her or she is anxious, what is causing these thoughts or what impact they have on his/her life more widely.

In the same way, it might be possible to find some behavioural ‘symptoms’ that indicate whether or not people have had a good theatre experience. The length of time the applause lasts after the curtain comes down could be measured, for instance, or the decibel level as people leave the auditorium. The numbers of repeat bookings people make, or the amount of money they spend on theatre visits in an average year might be used as positive indicators. But none of this would really help understand what theatre experiences feel like.

To find out what people are thinking and feeling – to know about their subjective experiences – there is no real alternative to asking them. Researchers have developed a large number of methodologies for collecting subjective data about people’s thoughts and feelings. This is a complex area – the following is a brief and general overview of three popular approaches:

1. Audience surveys
2. Interviews
3. Focus groups
Measuring the audience experience: some previous attempts

In the visual arts there is a large body of research dealing with the psychology of aesthetic appreciation. In music, a lot of attention has been paid to understanding why people experience strong emotional reactions to certain pieces. However, there have been relatively few attempts to measure and describe the theatre audience experience, and those which exist have not been altogether successful.

One researcher tried putting pressure sensors into a number of seats in the auditorium. The idea was that the amount people moved around in their seats might correspond to how much they were enjoying the performance. The difficulty, perhaps predictable, was that it was almost impossible to distinguish between ‘good’ and ‘bad’ fidgeting.

Another asked people to move a joystick forwards or backwards to indicate the extent to which they were experiencing certain emotions as they watched a play. Unfortunately, this worked little better than the pressure sensors – at the very moments when people were most gripped and engaged by what was happening on stage, they forgot to move the joystick.

Audience surveys

How can subjective states be measured? One solution is to ask people to complete a survey in which they judge their own feelings or experiences relative to a number of statements, typically called ‘items’. This is the approach outlined in the main body of this handbook.

For instance, the Brief Mood Introspection Scale, a well-known measure of mood, consists of items such as ‘Happy’ or ‘Gloomy’. Respondents indicate how well this describes their own mood by giving a rating of agreement on a 4-point scale:

<table>
<thead>
<tr>
<th>Disagree strongly</th>
<th>Disagree somewhat</th>
<th>Agree somewhat</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Survey data are typically subjected to statistical analyses that provide information about the average responses of the audience as a whole, or of groups within the audience. Appendix 2 gives more information about statistical analysis.
Audience surveys: summary of pros and cons

Pros
- Surveys are a relatively cheap and convenient way of collecting data from a large number of people.
- Surveys are relatively quick and easy to administer.
- Surveys provide quantitative data that can be analysed statistically. Given enough respondents, this enables observations to be made about the audience as a whole.

Cons
- Because people can only answer the questions that are posed, survey questions have to be worded carefully so as not to ‘lead’ respondents and bias the results.
- For the same reason, surveys can also miss important or useful information.
- Analysing surveys requires a degree of familiarity with statistical methods to get maximum information from the data. Care must be taken to present data in a way that is easily understood by non-specialists.

Interviews

Interviews are frequently used in research. Typically, they are conducted one-on-one, with a single interviewer asking questions of a single respondent. Interviews can take many forms, but a helpful way of thinking about the different kinds is to consider the degree of ‘structure’.

At one end of the spectrum, highly structured interviews typically require interviewees to give short and precise responses to tightly worded questions that leave little room for elaboration. This approach is often used for ‘fact-finding’ interviews, where the focus is on gathering information rather than soliciting opinion.

At the other extreme are very loosely structured interviews. These may be much more akin to a normal conversation, with the interviewer responding fluidly to the answers he or she receives and not attempting to steer the conversation in any particular direction. This approach is often used when the manner in which people express themselves (e.g., the language and phrasing they use) is of interest, since it encourages them to speak naturally.

For the purposes of finding out about theatre experiences, perhaps the most useful approach is somewhere in the middle; what are often called semi-structured interviews. The idea is to conduct the interview based on a set of core questions that are the same for everyone who is interviewed. However, the interviewer has flexibility to ask follow-up questions that explore more deeply the interviewee’s opinions.

Semi-structured interviews are often recorded and later transcribed. Alternatively, the interviewer may make a written note of the key points of the discussion as it goes along.

There are a number of ways to analyse and report this kind of information. A typical approach would be to identify the main themes of the conversation and then select quotations which illustrate and support the themes that have been identified and use them as part of the narrative of a report. Some examples of this can be found in Chapter 2, where quotations from
interviews are used to illustrate the problems some theatre professionals have experienced with current evaluation requirements.

Compared with audience surveys, interviews are often rather time-intensive. After all, it might take 30 seconds to complete a survey but even a very short interview is likely to take at least 5 minutes and probably longer. A really in-depth interview could take an hour or more.

Interviews are also resource-intensive. With just a few staff members on hand to distribute and collect the survey forms it is easy to survey hundreds of audience members. To interview a comparable number of people, however, would be a massive task and probably quite impractical for most theatre companies.

**One-on-one interviews: summary of pros and cons**

**Pros**

- Interviews are good for gathering in-depth information about what people think, feel and experience. They provide a richness of data that surveys cannot match.
- Unlike surveys, interviews give space for people to talk about issues other than just those that they are asked about. This can help avoid the problem of ‘leading’ questions.
- People sometimes find surveys impersonal, whereas a good interview feels more like a conversation with a friend.

**Cons**

- One-on-one interviews are relatively time- and resource-intensive, both to conduct and analyse.
- Interview data can be difficult to report in a way that does not simply end up as a list of quotations.
- Because it is usually only practical to interview a very small subset of the audience, care must be taken when trying to generalise from interview data. It is difficult to get an overall snapshot of opinion using interviews.
**Focus groups**

Focus groups involve a facilitated discussion with a group of people. Often, the facilitator will invite participants to consider an issue by asking a question or posing a statement. However, the aim is generally not to have a question-and-answer session, but rather to see what commonalities and differences emerge from the group discussion. The aim is to understand which parts of the experience were shared between people and what gave rise to them.

Like interviews, focus groups may be recorded and transcribed although this can be an extremely difficult and time-consuming job, especially if the conversation is lively. It is often better to capture the outcomes of a focus group in another way: perhaps as comments on sticky notes, or bullet points on a flipchart.

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**Semi-structured interview: Sample questions**

*Opening questions*

Thinking about the experience as a whole, how would you describe the thoughts and feelings you had as you watched the performance?

When you think back to watching the performance, what are the thoughts and feelings most prominent in your mind?

*Engagement and concentration*

What aspects of the performance did you find most engaging?

– Were you aware of the time passing quickly (or slowly)?

Did you find it easy to concentrate during the performance?

– Were there any times when you were aware of your attention wandering?

*Learning and challenge*

Were there any aspects of the performance that you found difficult or challenging?

– What was it in particular that made them feel this way?

Are there things that you learnt from the performance?

– Has it made you think differently about any issues?

*Energy and tension*

Were you aware of any physical sensations as you watched the performance?

– For instance, your heart beating faster, sweaty palms and so on?

How would you describe the performance in terms of the sense of energy/tension it conveyed?

– How was your mood after the performance? For instance, did you feel lively or tired?

*Shared experience and atmosphere*

How would you describe the atmosphere in the audience?

– What factors gave rise to that kind of atmosphere?

How would you describe the connection you felt with other audience members?
Focus groups: summary of pros and cons

Pros

• Because they include several people at once, focus groups may allow more people to be involved than interviews.

• Focus groups can help to give a sense of the range and diversity of experiences, and are often the best way of understanding how people can experience the same thing in different ways.

• Like interviews, good focus groups feel more ‘natural’ than surveys. They can also encourage people to think or consider things they would not have though of on their own.

Cons

• Because focus groups involve conversations between people, there is the possibility that some people will dominate whilst others will not speak up and have their views heard.

• For the same reason, the conversation can be more fluid and harder to ‘direct’ than in a one-to-one interview. Skilled facilitation is often required.

• Transcriptions of focus groups can be hard to make and use, so it may be necessary to think creatively about how to record and present data.
Appendix 2: An introduction to analysing quantitative data

Introduction to data analysis

Analysing quantitative data can be a complicated and involved business. This Appendix is intended to give readers an introduction to the kinds of questions that can be explored using quantitative survey data.

Doing some basic data exploration does not require expert knowledge of statistical methods and is a good way to get a sense of whether or not the results of the survey are likely to reveal anything interesting. However, working out whether results are ‘statistically significant’ – that is, whether it is possible to be confident that they did not simply arise by chance – is more complex. A statistician will be able to help determine precisely what can and cannot reasonable be inferred from the data.

Entering data into a spreadsheet

Most people will want to put the data they have collected into a spreadsheet program such as MS Excel. The best way to do this is to have a separate row for every person who was included in the survey and a separate column for every item. Then it is simply a matter of typing in the numbers that correspond to people’s responses. For instance:

<table>
<thead>
<tr>
<th>Participant code</th>
<th>Engagement and concentration</th>
<th>Learning and Challenge</th>
<th>Shared experience and atmosphere</th>
<th>etc</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>etc...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Getting a feel for the data

Once the data have been entered into a spreadsheet, it is useful to calculate some basic statistics (note that the supplied spreadsheet templates do this automatically). These are often referred to as descriptive statistics, since they summarise and describe the characteristics of a set of data.

**Frequency**

The most simple and straightforward descriptive statistic is simply the number of people who ticked each response on each item – this is called...
the frequency. Frequency can be expressed in terms of raw numbers, or in terms of percentages.

For instance, the following table shows the frequency of different ratings expressed as a percentage of the total sample for a given performance:

<table>
<thead>
<tr>
<th>Perception</th>
<th>Percentage</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>It felt like time was passing slowly</td>
<td>3%</td>
<td>50%</td>
</tr>
<tr>
<td>I felt energised</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td>There wasn’t much sense of atmosphere</td>
<td>4%</td>
<td>20%</td>
</tr>
<tr>
<td>I found the performance very funny</td>
<td>49%</td>
<td>27%</td>
</tr>
<tr>
<td>I was mostly in my ‘comfort zone’</td>
<td>18%</td>
<td>16%</td>
</tr>
</tbody>
</table>

At a glance, it is easy to see that whilst the large majority of people in this sample found the performance funny and engaging, there was much less agreement about the extent to which it felt challenging as opposed to comfortable.

**Mean**

The mean is the mathematical average rating. For instance, imagine that a survey was conducted in which the first item was:

My concentration was wandering

It was completed by 9 people, using a 5-point rating scale (note that this would be considered a very small sample). They gave ratings of: 5, 2, 4, 3, 1, 5, 5, 4, 3. To calculate the mean score you would add these together (i.e. $5 + 2 + 4 + 3 + 1 + 5 + 5 + 4 + 3 = 32$) and divide by the total number of people (i.e., $32/9 = 3.56$).

If two or three items have been included in the survey for each of the audience experience dimensions (Chapter 5), the easiest way to combine them together into a single score is to calculate the mean.

**Median**

If all the scores are placed in ascending order, the median score would be the one in the middle. In this case, it would be 4 (i.e.: 1, 2, 3, 3, 4, 4, 5, 5).

Comparing the mean and the median is a good way of checking a data set. The median score will often be similar to the mean, but sometimes it is quite different – if this is the case, it may be that one or two people in the sample gave scores that are very different from the majority.
For instance, imagine that the scores for some item were given on a 7-point scale: 1, 7, 7, 5, 1, 7, 7, 7, 6. In this case, the mean rating is 5.3 but the median is 7, close to two points higher. The two people who gave ratings of 1 clearly reported a very different experience to the rest of the sample. Maybe it would be worth looking at these individuals in detail. Perhaps they are different from the others in some important respect?

**Standard deviation**

This statistic indicates how much, on average, each score differs from the mean of the whole sample. Standard deviation is a useful way of measuring dispersion – so, if people in the sample gave widely different ratings the standard deviation would be high, whereas if they all tended to give similar ratings the standard deviation would be low. Standard deviation is more complicated to calculate ‘by hand’, but is easily obtained automatically using a software package like MS Excel.

**More sophisticated analyses**

Quantitative survey data also allow more sophisticated analyses to be conducted. In most cases, it is likely that these will focus on one of two general classes of question: differences and relationships.

**Differences**

When groups within the audience are being compared, the key question is usually whether they are different from one another in some way.

For instance, it might be interesting to know whether men and women experienced a different degree of *personal resonance and emotional connection* in response to a particular performance. To make the comparison, the total sample could be divided according to gender and then average scores for *personal resonance*... calculated for each group. To make it easier to interpret the results, it would be helpful to express the means for each group on *bar chart*.

![Personal resonance and emotional connection](image)

In this example, it seems that women in the audience found the play to be more personally and emotionally resonant than men. However, to establish whether or not this difference is statistically significant – that is, whether or not is likely to have arisen by chance – a formal statistical test would need to be calculated (such as an independent sample t-test or the Mann-Whitney test).
**Relationships**

The second kind of question concerns the relationship between different dimensions of experience. Do certain kinds of experience tend to go together?

For instance, imagine that a survey was conducted at a West End musical based around the songs of a well-known pop band. It might be imagined that people who experienced the performance as energetic and lively would also be more likely to find that it held their concentration. To explore this hypothesis, a scatterplot could be drawn. Each respondent is represented on the graph by a dot, with the position determined according to their rating for each dimension:

In this example, it appears that there is a relationship between *Energy and tension* and *Engagement and concentration* – in other words, people who give high ratings for one were more likely to give high ratings for the other, and vice versa.

As with the previous example, a statistical test (a correlation coefficient such as Pearson’s *r*) would need to be calculated in order to establish whether or this relationship is statistically significant.

**A note on standardised scores**

Imagine that a theatre company compared men and women’s ratings of *learning and challenge* for a given production. It found that men gave an average rating of 2.4 whereas women gave an average of 4.3. Everyone saw the same performance and answered the same questions, so – assuming the sample of both women and men was reasonably large and representative – it seems valid to say that women found the production more eye-opening than men, on the whole.

However, if the survey also found that women rated *engagement and concentration* at 3.1, would it be reasonable to say that they found the play more challenging than engaging? Not really, because there is no way to know if ‘unit’ of challenge is the same as a ‘unit’ of engagement – they are not the same kind of thing. A similar problem – of not comparing ‘like with like’ – arises when comparing between different productions.
One way around this is to standardise the scores by converting them into common units, called ‘z-scores’. Rather than look at the absolute rating, z-scores are a way of looking at different groups in terms of the extent to which they differ from the average. They are calculated as follows:

\[ z - \text{score} = \frac{x - \bar{x}}{\sigma} \]

- \( x \) is an individual’s rating
- \( \bar{x} \) is the mean of all responses
- \( \sigma \) is the standard deviation for all responses

If a person has a z-score of 0 on a particular item, this means that his/her response was exactly the same as the average response to that item for the whole sample. A z-score of 1 would mean that his/her score was exactly 1 standard deviation higher than the average, and -1 would mean 1 standard deviation lower than the average.

z-scores provide a useful way to compare different dimensions, different groups and different performances with one another. The graphs presented in Chapter 5 were drawn using z-scores.
Appendix 3: Surveying children

Introduction
Some pieces of theatre are devised for audiences of children or young people, whereas others may attract a wide age range. In these cases, it may be important or interesting to capture the ways that children experienced the theatre.

However, children of different ages have differing ability to read and comprehend survey questions. To explore the suitability of the questions presented in Chapter 4 for younger age groups, a short report was commissioned from a psychologist with expertise in child literacy. A summary of the advice is given below.

It is important to note that the suggested changes to survey questions have not been tested in practice, since this was outside the scope of the project.

Using the survey as it stands
The questions in bold should be readable by an audience of typical 9-10 year olds. However, adding in the other questions, the readability level falls slightly. Therefore, the full survey should be readable by an audience of 11-12 year olds.

Generally, while the questions are readable by 11-12 year olds, some of the questions are phrased in the passive voice and others are quite abstract. This means that comprehension (as opposed to readability) may be more difficult.

The overall survey is thus recommended for 14 year olds and above.

Adapting the survey for 8-10 year olds
To improve ease of readability and comprehension, and to make the survey suitable for 8-10 year olds and above, two recommendations are made.
Firstly, some questions need to be changed from passive to active voice.
Secondly, some of the more abstract questions need to be made more concrete.

Some specific suggestions for are given below, with the original version in normal type and the suggested new version in italics.
Engagement and concentration

- I was completely absorbed by what was happening → *It held my attention completely*
- My concentration was wandering → *I was a bit bored at times*
- The performance didn’t really hold my attention → *I didn’t pay attention all the time*
- I was often on the edge of my seat → *I was often really excited*

Learning and challenge

- My eyes were opened to some new ideas → *It gave me lots of ideas*
- I was mostly in my ‘comfort zone’ → *It didn’t really make me think*
- I felt challenged and provoked → *It made me think hard about things*

Energy and Tension

- It didn’t really get me going → *It felt a bit dull*
- I was gripped by the sights and sounds of the performance → *The sights and sounds gripped me*
- I felt tired and uninterested → *I felt tired and a bit bored*
- I felt flat → *I yawned sometimes*

Shared experience and atmosphere

- There wasn’t much sense of atmosphere → *It wasn’t very exciting to be here*
- I noticed a real buzz in the audience → *Everyone seemed excited*
- I didn’t feel much connection with other audience members → *I felt a bit alone at times*
- It felt good to be sharing the experience with other people → *Everyone round me felt as if they were enjoying themselves*
- I don’t feel much urge to discuss the performance → *I don’t want to talk about it*
- I will be talking about the experience for some time to come → *I want to tell everyone about it*

Personal resonance and connection

- I didn’t feel much connection with the characters/story → *I didn’t feel the story/people on stage had much to do with me*
- I felt I could really identify with the characters/story → *It felt real and I could relate to the characters*
- There wasn’t really much that touched me → *I didn’t feel very emotional at all*
- I found aspects of the performance very moving → *I felt very emotional at times*
- Some aspects of the performance seemed relevant to my own life → *I could see links to my own life in the performance*

Changes such as these should make the survey suitable for 8-10 year olds. It is advisable to limit the number of questions asked in the survey to ten.
Adapting the survey for 5-6 year olds

Revising the survey so that it is appropriate for a 5-6 year old audience requires further simplifying the language and perhaps using picture prompts. Some suggestions are given below. Bear in mind that, as noted above, these have not been tested with children. As such they should be regarded as illustrative only.

Engagement and concentration

**Time Passed…**

<table>
<thead>
<tr>
<th>Really slowly</th>
<th></th>
<th></th>
<th>Really quickly</th>
</tr>
</thead>
</table>

Learning and challenge

**New ideas**

<table>
<thead>
<tr>
<th>Really slowly</th>
<th></th>
<th></th>
<th>Really quickly</th>
</tr>
</thead>
</table>

Energy and Tension

**Excitement**

<table>
<thead>
<tr>
<th>I nearly fell asleep</th>
<th></th>
<th></th>
<th>I was really excited</th>
</tr>
</thead>
</table>

Shared experience and atmosphere

**Loved being here**

<table>
<thead>
<tr>
<th>I felt lonely</th>
<th></th>
<th></th>
<th>I loved being here with everyone</th>
</tr>
</thead>
</table>

Personal resonance and connection

**Feelings**

<table>
<thead>
<tr>
<th>I didn’t feel anything</th>
<th></th>
<th></th>
<th>I felt really emotional</th>
</tr>
</thead>
</table>