

# **MAKING A SCHOOL EXCURSION A LEARNING EXPERIENCE 2: THE AUSTRALIAN MUSEUM**

*Paper presented at the “Musing on Learning” Seminar, Australian Museum, 20 April 1999, Cheryl Hook, Acting Education Services Manager, Australian Museum*

I would like to begin this session by briefly reiterating a few of the issues raised by Helen regarding excursion choices made by teachers. Then, I'd like to move on to explore some of the challenges faced by Museum educators when catering for school groups. Finally, I would like to quickly describe the approach we use at the Australian Museum to design and write effective educational materials that help to mediate our institution for school audiences.

## **Choice of excursion venue**

As Helen mentioned, Museums are part of a very competitive excursion market. In Sydney alone there are a myriad of exciting excursion venues to choose from. Students may want to visit some, all or none of these venues. However, in reality, it's usually their teachers who decide where the class goes. So, what factors influence teachers' choice of excursion venue?

## **Factors influencing teachers choice of excursion venue**

There are many factors that influence teachers' when they choose to take students on an excursion. Some of the most important factors are listed on the slide and I would like to briefly comment on each one.

Teachers are often concerned for the safety of their students. This applies particularly to Primary teachers who are usually in charge of groups of very enthusiastic and inquisitive students.

They often want their students to derive some meaning from their excursions. To do this teachers seek to link their excursions to relevant syllabuses and teaching programs. This not only enhances their students' learning opportunities, but also helps to justify the relevance of the excursion to principals and parents.

Most teachers also take into account the interests of their students when planning an excursion. In the final analysis it is usually the teacher who decides which venue to take their class to and for what purpose. But it is in the teachers' best interests to visit venues that hold at least some appeal for their students.

Running an excursion can be very stressful. Thorough preparation and good organisation are the keys to stress free excursions. Teachers want to minimise their stress levels by choosing venues which are 'user friendly' and provide support for them and their students.



Some teachers are keen to enhance the learning opportunities of their students by using educational materials prepared by the venue. Studies published this year by 'engage', the National Association for Gallery Education in the UK, indicate that 75% of teachers who use Teachers' Resource Packs considered materials produced in-house to be easier to use, better researched and more relevant to specific themes than commercially produced educational materials.

## **Our challenge: helping teachers to make a choice**

So, the challenge for Museum educators is to try to help teachers make a choice by satisfying, at least some of their educational wants and need. We can try to do this by providing the best possible excursion venues and packages that we can. While it is true to say that we can't satisfy everyone's needs, we can certainly try to satisfy at least some of them and I would like to take this opportunity to exemplify a few ways in which we can do just that.

Many venues already address the issue of safety by planning, designing and constructing exhibitions and activities which strictly adhere to national and state safety regulations. At the Australian Museum a new exhibition, called Kid's Island, is due to open shortly. It's target audience are children under 5, which includes pre-school and kinder kids. The space itself and all the activities contained within it have been designed and constructed to strict health and safety guidelines. Another way to address the issue of safety is to have friendly and helpful front of house staff who are trained in first aid and are adept at re - orientating and guiding bewildered visitors

Including members of the education staff on the Public Programs development ensures that the educational wants and needs of school groups are factored in and planned for early on. For example, education staff can tease out links between exhibition content and educational programs and syllabuses or they can advocate for designated spaces to be provided within certain exhibitions so that school groups can conduct organisational or debriefing activities.

Excursion venues can meet the next challenge by creating provide a wide range of learning opportunities for students' with diverse age levels and learning styles. We can provide a smorgasbord of interpretations, services and programs tailored to suit school audiences. Activities which encourage hands - on participation appeal to many students while programs which include interactions with staff are also very popular .

Useful data can be acquired through the evaluation of school groups using Public Programs. This may give some indication as to the interest levels of teachers and students in particular topic areas. Industry educators can help to work out which topics appeal most to students and teachers and can give valuable input as to how that interest can be maintained, if not heightened. Educators can make practical suggestions as to what interpretive strategies to use and how to pitch content in exhibitions in a way that allows students to construct or make their own meaning.

Venues can help to create stress-free experiences for teachers in a variety of practical ways . They can ensure that they:

- provide readily available information about their programs and services
- have an efficient booking service, provided by informed and helpful staff
- provide a range of appropriate programs, services and educational materials to suit school audiences.

## **Developing Educational Materials**

I would now like to shift my focus from exploring the broad challenges Museum educators face when catering for school groups, to hone in on one particular challenge. That is the challenge of producing effective educational materials. I would like to quickly outline the approach used by the Australian Museum's Education Services team when we are designing and writing our educational materials.

Our aim is to produce interesting, educationally sound materials that can :

- provide comprehensive and detailed organisational support for teachers leading excursions
- be integrated as a complete unit of work within a teaching program
- provide a range of fun and stimulating activities for students to do both before, during and after their visit to the Museum
- provide measurable student outcomes

With these point in mind I would like to explain in a little more detail the framework which we as a team have evolved to achieve such aims. However, before I do so I would like to publicly acknowledge the hard work and educational expertise of Maree Stenglin, Beth Blaxland and Peter Ampt who have been integral in the development of our approach.

## **Bruner's spiral curriculum**

Bruner's spiral curriculum was developed by Jerome S. Bruner in the 1960's and has been widely adopted by educators around the world. The underlying tenet of the spiral curriculum is that, basic scientific concepts can be introduced to children in a form that is readily comprehensible in the early stages of their education. The same concepts should then be revisited and further expanded and developed in successive school years, thereby enhancing and deepening students understandings associated with the concepts.

For example, a teacher of stage 1 students may wish to introduce the topic of 'rocks' to their class. In the course of their studies the students may learn what a rock is, what qualities make it special and what different types of rocks there are.

In stage 2, students may revisit the topic of rocks and learn about them in more depth.

This introduces the sub-topic of minerals. The students could explore what minerals are and the different types of minerals which make up a variety of rocks.

By stage 3, students will not only be familiar with rocks and minerals but are also ready to learn more about the constituents of minerals - elements

The spiral curriculum is a very powerful educational tool. It enables educators to carefully stage their teaching of often quite complex concepts in a way that makes it intelligible and interesting to their students.

## **Literacy through science**

Not only do the educational materials produced at the Australian Museum engender scientific literacy, in other words promote scientific knowledge and understandings, they also focus on literacy through science. Literacy through science aims to teach students how to read, identify, understand and write a variety of factual text types often used in scientific contexts.

For the purposes of teaching, these text types are somewhat idealised. In real life we often find 'mixed texts', for example, a text describing a particular investigation may include a procedure outlining the method and conclude with an explanation of the scientific principal involved. Learning about different text types and their structures should not be viewed as prescriptive but as a starting point apprenticing students into the technicalities involved in writing effective texts. When students understand that there are different types of text, that each text type serves a different purposes, that texts are generally structured in particular ways and that texts have typical grammatical features, they are better positioned to create and manipulate their own texts and are able to combine different elements of texts in a purposeful way.

Our educational materials are designed to incorporate methodologies and strategies that help teachers, who may or may not be familiar with factual text types, to teach their students the basic concepts involved in writing a variety of scientific texts.

## **Science materials model**

Over the last four years the Education Services team have developed a model for science mediation that focuses on developing materials for school groups to use when they visit our exhibitions. While giving students' clear direction and guidance the model also tries to give them a sense of purpose and ownership of their learning experiences. The model is specifically focused on developing scientific Activity Sheets for junior Secondary and Primary school students to use within the framework of Pre, During and Post-visit activities.

I would like to take the next couple of minutes to run through the stages and features of the model

## Setting the context

It is our belief that all student materials should begin by setting the context for students' learning in a number of important ways.

- by giving students some brief background information on the topic of the Activity Sheet
- by posing focus questions to introduce the area students will be investigating
- by previewing the activity - this includes explaining the purpose of the activity, so students know exactly what they are doing and why, and directing students to the relevant displays within the exhibition.

Ideally this context setting will occur as a pre-visit activity before the students actually visit.

## Orienting

Having set the context for their learning experience, students are now directed into the actual exhibition and their exploration begins at the global level. The aim of this phase is to orient students to the exhibition through guided observations and to encourage them to describe and record information about some of the objects or specimens on display.

## Finding links

Having completed their orientation to the exhibition, students are then asked to re-examine the information they have recorded to establish links between their observations.

At this point the model then presents two choices for guiding students as they further engage with and explore the exhibition

### Choice 1

The first choice leads to the development of hypothesis based materials. This approach aims to teach students about the processes of scientific enquiry using the context of a museum exhibition. The choice of scientific enquiry mirrors an essential part of the work scientists do - generating and testing hypotheses.

### Choice 2

The second choice apprentices students into firstly, understanding and secondly applying some technical information to their initial observations. By extracting and applying information to their initial observations students are guided step by step into

systematically developing a deeper understanding of both the objects or specimens and the scientific content of the exhibition

Finally students are involved in synthesising their results. To do this they are guided by their teacher in examining their results and drawing conclusions. Students are also assisted to abstract from what they have learnt and generalise from it. The model also takes into account that 'doing' science cannot be separated from reading and writing science. Students are guided in recording what they have learnt from the Museum visit using the appropriate factual text type such as information report, explanation, procedural recount, exposition or discussion.

In conclusion therefore, it is clear that teachers are more likely to choose to visit an excursion venue if their educational wants and needs are met. It is our responsibility as Industry professionals to rise to the challenge and ensure that we provide the best venues, programs and service that we can, in order to satisfy at least some of the educational requirements of our schools audience. I hope that by sharing with you, the approach we take towards developing high quality educational materials here, I have been able to convince you that we have tackled that particular educational challenge with a degree of success.

Thank you.