

## RESEARCH IN MUSEUM EDUCATION A DESCRIPTION OF SOME INSTRUMENTS TO STUDY EXHIBITIONS AND PROGRAMS

Collette Dufresne-Tassé<sup>1</sup>

I am going to be as precise as possible about what museum education is, and what are the means to deal with it. I shall describe rather extensively this subject matter because of what I was asked by the organizer of this symposium, taking as clear-cut positions as possible in order to favour discussion.

Then I shall identify the researches corresponding to two of the means that the museum utilizes to exert its museum function: exhibitions and educational or cultural programs. My research team at the Université de Montréal has worked on both, but due to lack of time, I shall mainly deal with what we did around the exhibition.

\*

Following the position of the International Council of Museums (ICOM), I believe that the museum is an institution, and education, one of its functions. Here are the characteristics of the museum educational function:

1) A museum does take charge of only one aspect of the educational function of the society in which it is integrated: the development of the society's members. The other aspects - their control or their productivity - are entrusted to other actors like the family, the school or the university, and the public services like the health service. This museum specialization is due to the nature of its resources and to the resources of the other actors who, with him, do fulfil the whole of the society's educational function.

2) The resources that a museum devotes to its educational function are its collections, the knowledge it possess on these collections, its professionals, their knowledge and competences.

3) The museum utilizes these resources to carry out a series of activities that is much wider than the services usually offered by a department of education. It includes at least real and virtual exhibitions, catalogues, objects reproductions, as well as educational or cultural programs.

4) These activities address especially the persons who visit the museum, but also the ones that he catches up through its outreach activities.

5) Aiming to the development of those who participate, these museum activities offer a whole range of benefits, learning, that is acquisition of new knowledge or skills, being only one of them.

6) The major educational production of the museum is its exhibitions, which are based on its collections or on collections that it borrows.

7) The function of the programs called educational or cultural should be to enrich the content of the exhibitions presented or to adapt it to the needs of special publics like schoolchildren. It should not be to remedy to some problems of the exhibitions.

### **Research on museum education done at the université de montréal research on the exhibition**

I shall limit my presentation to what I learned through two types of research:

a) Some basic research realized by my team: four researchers (two from Montreal, one from Paris and one from Rome), about 20 graduate students, and some consultants. This research is state-aided by the Canadian Research Council of Canada since a little more than 20 years.

b) Some applied research that I am doing with the regular students of the Montreal Maîtrise en muséologie, and with 20 to 25 students that come to Montreal, sent to me every summer since 15 years by the École du Louvre.

### **Description of the two types of research**

#### **Basic research**

This type of studies deals with the four following themes:

1) The main characteristics of the psychological functioning of adults visiting permanent (non thematic) exhibitions (three), or temporary international size thematic exhibitions (seven), offered in Quebec City and Paris, and presenting fine arts, history, anthropological, archaeological or natural history objects;

2) The variations of the psychological functioning of the visitors according to the way the exhibitions were devised;

3) The optimal functioning of the visitors as the most capable of bringing psychological development to these adults;

The research on these three themes was done with stratified samples of 90 visitors each.

4) A systematic analysis of 200 exhibitions (permanent non thematic, and temporary thematic) presented mostly in Europe and North America.

Grosso modo, this set of investigations show that:

. A curator should device his exhibition in such a way that its visitors could experience an optimal psychological functioning;

. Very few of the 200 exhibitions analyzed seem to have been developed according to rules or principles and very few have a chance to encourage the optimal functioning of their visitors;

. Development of beacons (rules and principles) could greatly help curators to develop better exhibitions.

#### **Applied research**

This type of research consists essentially of about 15 projects proposed by Montreal museums since seven years. In addition to deliver to these museums the data that they were expecting, the authors of these projects were attentive to the methods utilized around them to

plan and develop an exhibition. They always intended to identify all the existing methods, to make the ones they were using more precise or more efficient. Eventually they even tried to elaborate new and better ones. The idea underlining these projects was that it is not sufficient to wish sincerely to develop a good exhibition, one should also give oneself the means to realize it.

The results of these applied research projects show, like the basic research already presented, that the curators act almost entirely intuitively in a great part of what they do, and that methods could greatly help them produce better quality exhibitions.

### **Main results of the basic research on the exhibition**

As we have seen, a permanent non-thematic exhibition or a temporary thematic one should entail the optimal functioning of the adult visitor. The research done by my team enables to answer the following questions:

- What is the psychological functioning of a visitor, and what can be called an optimal functioning?
- How can one access the psychological functioning?
  - Are there principles that could help a curator to devise an exhibition that sustains an optimal functioning of adults who visit an exhibition? And if there are, what are they?

### **What is the psychological functioning of a visitor, and what can be called an optimal functioning?**

For the psychologists, the psychological functioning is the mental activity of a person. This activity appears under three forms that are conventionally called *cognitive*, *imaginative* and *affective* functioning.

The optimal functioning is the richest activity that a visitor could produce when he is visiting an exhibition. More precisely, the *cognitive*, *imaginative* and *affective* functioning are as abundant as possible, and they work in the following way. With his *cognitive* functioning the visitor not only absorbs information that comes from what he observes or reads; he organizes it, he understands it, he reflects. This *cognitive* functioning develops a kind of lattice to which the *imaginative* functioning clings to.

In an exhibition room, the *imaginative* functioning takes the three following forms already identified by Immanuel Kant:

- A representational form: the visitor develops images as he is reading or hearing something;
- A reproductive form: the visitor evokes memories or image-like knowledge;
- A constructive form: the visitor develops inferences, hypotheses, or play games like entering into the skin of a portrayed person, and transforming a painting in a three dimensional landscape, and spending some time examining it and dreaming.

So the *imaginative* functioning adds up in a variety of ways to the production of the *cognitive* one. It enriches the latter, but often it also stimulates it because the visitor could, for

example, try to verify his hypothesis, or reflect on what he dreamed of in his imagined landscape.

Lastly, when the *cognitive* and *imaginative* functioning are abundant, emotions as well as pleasures are numerous and diversified. And on his turn, the *affective* functioning stimulates the two other types of functioning.

So when one observes some optimal functioning, one also observes what follows:

- 1) A rich mental activity;
- 2) This activity is produced by a constant go back and forth between what the visitor observes on an object, a detail of the exhibition design, or what he reads on one side, and what he himself produces on the other side;
- 3) This activity is self-stimulating;
- 4) It ends up in an important quantity of meaning making;
- 5) The production of meaning is greatly personal, so it entails a real appropriation of the exhibition content. The result is that the museum exhibition becomes the visitor's exhibition. It becomes an exhibition as he understands it, with all the significance that it takes for him;
- 6) Because of this appropriation, the exhibition contributes greatly to the psychological development of the visitor.

### **How can one access the psychological functioning?**

The traditional means used to realize visitor studies are the following: tracking the visitor, and questionnaires or interviews used when the visitor is leaving the museum. These means offer poorly reliable data when one wants to study the psychological functioning. As a matter of fact, it is evident that some simple observation of a visitor could not reveal exactly his psychological functioning. As far as questionnaires or interviews are concerned, they offer very biased information because many factors prevent the visitor to recall exactly everything he has thought, imagined or felt.

In fact if one wants to obtain information of a good level of validity, one should catch the psychological functioning as it happens. I did it by developing a new mean. I adapted the "Thinking Aloud" method to be used in a museum setting and I validated it for this setting. This mean consists in asking a visitor who is entering the museum to accept to do his visit as he wishes, while being accompanied by a researcher - a graduate student - and to say aloud what he thinks, imagine or feels without bothering remembering, explaining or justifying it. Any way, he will not be questioned on it. We called what the visitor says a "discourse". We tape-recorded, computerized it and analyzed it in its written form.

### **Examples of discourses**

Minimal discourse: " *I like this, It sounds interesting. But I do not understand how it works and there is no way I could.*"<sup>1</sup>

---

<sup>1</sup> This discourse and the following one were recorded in French. Many colloquial sentences are difficult to translate. So what the visitors says may sometimes sound artificial in English.

Discourse corresponding to an optimal functioning: "[Visitor reads: Le pont de glace. Clarence Gagnon, 1881-1932.] *I do not see any bridge. This does not make sense. There is a ferry between Quebec and Levis. I took it this morning. Unless in the olden times, there was no ferry, and... Ah yes, during wintertime, one did not break the ice as we do now. It should have been thick, very thick. And it should float over water. (S.5)<sup>2</sup> It looks like it, and (S.3) ah yes, the small spruce trees, they should have been planted to signal where the bridge is supposed to run. Yes, because ice should not have been thick all over the place, and it could have been dangerous. (S.8). I do not understand why I did not see that right from the beginning! Damn!*

*Still today, there are things like that. Ice is strong enough to bear cars that travel over it. Like when they go fishing through ice. (S.5). But these are not real ice bridges. They are like, but not exact bridges.*

*My grandfather used to live in Quebec. Him, he certainly was using the ice bridge. (S.2) I would have liked to be with him while he was travelling across the ice bridge, smoking his pipe. They had big fur coats in the olden times. They did not feel cold. The snow should have looked beautiful, pink and blue like that. With beautiful pink and blue shapes like that... One is obliged to look at for a long time, because horse is not fast. There is nothing else to be seen. But this is not boring. It changes all the time. There are no two lumps of snow that look alike!*

*I should unharness. (visitor laughs) I want to see others. But long time... is good! As slow food! In the olden times they had slow time. They could not do otherwise. But us, we have to do a great effort to get it. Things have greatly changed!"*

**Are there principles that could help a curator to device a temporary thematic exhibition<sup>3</sup> that sustains an optimal functioning of the adult who visits it? If there are, what are they?**

The main reasons that led me to orient my research on the temporary thematic exhibition is its actual popularity, its great complexity, and the fact that curators have very little beacons to help them in the elaboration of exhibitions that promote an optimal functioning.

Until now, I have identified a series of recommendations that appear in many publications and that I have been able to synthesize in one principle. I elaborated eight more. I shall introduce a list of these principles, present and comment each of them shortly. Then, I shall describe the research strategy that enabled the development of these principles.

### **A list of nine principles that could lead a curator's work**

1. To secure the psychological and physical comfort of the visitors.
2. To deal with a subject matter that represents a high level of unknown for the visitors.
3. To locate the subject matter in time and space.
4. To provide a context for the subject matter.
5. To underline the importance of the subject matter.
6. To write texts in a concrete rather than abstract language.
7. To write texts in an explanatory rather than simply affirmative form.
8. To give objects maximum importance.

<sup>2</sup> (S.5) means a five seconds silence.

<sup>3</sup> It is not the temporary aspect of the exhibition that is important but its thematic one.

9. To build a coherent exhibition.

## **Presentation and comments**

### ***Principle 1: To secure the psychological and physical comfort of the visitor.***

Recommendations published since 1975 underline the importance of the visitors' psychological comfort. It could be obtained by the scientific rigour of the exhibition content and by texts that are easy to decipher and understand. As far as the physical aspect is concerned, it depends mainly on well kept premises, a fluid circulation of the visitors, some furniture that facilitate their observation of the objects presented, and an exhibition design that help getting access to them.

The content of comment books (livres d'or) show that visitors' comfort is primordial. If it is neglected, all the other efforts to promote an optimal functioning will have very little impact.

### ***Principle 2: To deal with a subject matter that represents a high level of unknown for the visitors.***

Some investigations realized by members of my team show that adult visitors are fascinated by what is foreign to their personal universe. Discovering the unknown and giving it meaning brings them much pleasure, provided that they are helped to use their cognitive functioning and then their imaginative functioning to enrich what they are finding.

Remark: All three next principles (3, 4 and 5) focus on various aspects of the introductory panel or text of an exhibition. To illustrate these principles and some of the following ones, I shall use the same example drawn from an exhibition on China that I elaborated, starting with a lacquer cup described by Neil MacGregor in his book: "A History of the World in 100 Objects".

### ***Principle 3: To locate the subject matter in time and space.***

Example: We are in year 4 A.C. The Han are the dynasty in power. China is a huge empire. It stretches to the south until actual Vietnam, to the west and north until Central Asia steppes, and to the north-east until Korea.

This location in time and space helps visitors to situate the exhibition content in comparison with their personal universe and to activate the knowledge and memories that they possess around these landmarks. This establishes a first familiarity with the subject matter of the exhibition, facilitates its treatment and, of course, an abundant production of meaning.

### ***Principle 4: To provide a context for the subject matter of the exhibition.***

Example: To create an empire is a gigantic undertaking. To maintain it is another one, because the governors of the regions distant from the central



power are tempted to free themselves. Many sovereigns have used a powerful army to prevent it. Others have used peaceful means.

This exhibition explores two of these nonmilitary means used by a Han sovereign: firstly distributing princely gifts, and secondly sending portraits of the emperor all over the territory.

The aim of inserting a context is to create a background to the exhibition subject matter, so visitors develop some first representations of it. Then, these representations will play a double role. They will allow visitors to identify the universe presented by the exhibition and then, the recall of relevant knowledge or memories, that is the use of the imaginative functioning.

To fulfil this role, the offered context should strictly correspond to the universe dealt with by the exhibition. In other words, it should not be larger or narrower. All the more so, it should not be aside from it!

***Principle 5: To underline the importance of the subject matter.***

Example: Utilized in a complementary way, one will see that these two means will be of a surprising efficacy, and that a policy of peaceful rather than warlike practices used in an astute manner will have a greater impact than constraint and military demonstrations.

The importance of the subject matter should be expressed in a simple way, and in a manner that has some significance for visitors. The reason is that it should reinforce the interest that has pushed them to come and see the exhibition, because this interest could be reduced by disappointing situations. For instance, the exhibition does not show any really beautiful or remarkable object, or it takes a direction completely different from what the visitors were expecting. The fact that visitors know that they are treating an important topic helps them to overcome their disappointment and keeps them attentive to the content of the exhibition.

***Principle 6: To write texts in a concrete rather than abstract language.***

One should prefer the first to the second text.

*First text* (already seen): To create an empire is a gigantic undertaking. To maintain it is another one, because the governors of the regions distant from the central power are tempted to free themselves. Many sovereigns have used a powerful army to prevent this. Others have used peaceful means.

*Second text*: Maintaining an empire is as demanding as creating it, as its margins intent to get free. This trend has been mastered either by a powerful army or by astute peaceful means.

Although the second text is shorter than the first one - I observed it as well as Louise Ravelli - its reading is more demanding than the reading of the first one. Moreover, the first is more promoting the use of the visitors' imagination.

**Principle 7: To write texts in an explanatory rather than simply affirmative form.**

This means that the text is written to introduce the "how" and "why" of the phenomena presented.

One should prefer the first to the second text.

*First text:* To create an empire is a gigantic undertaking. To maintain it is another one, because the governors of the regions distant from the central power are tempted to free themselves.

*Second text:* To create an empire is a gigantic undertaking. To maintain it is another one.

There are two advantages in using the first way of writing:

- 1) An explanation enables visitors to understand and to deepen the meaning of what they are reading, rather than simply register it;
- 2) Dealing with an explanatory text is at the same time much more interesting and much less demanding to the memory than dealing with a series of juxtaposed affirmations. So it is less tiring for visitors.

**Principle 8: To give objects the maximum of importance.**

This principle could be written this way: each time that it is possible the discourse of the exhibition (its content) is created by the objects, their relation in space, and their succession. Another way to say it could be: the discourse of the exhibition is lead by the objects and their placement; texts and design only support this discourse. The role of design is to underline or even to amplify the significance given to the objects by the curator, while the texts will detail and deepen this significance.

There are three reasons for giving this central role to the objects.

- 1) Observing them leads to a variety of pleasures: an aesthetic pleasure when they are beautiful, an intellectual one when they are interesting, and a functional one when visitors succeed to develop easily an abundant quantity of meaning about them;
- 2) When visitors get information directly from observing an object, they have the impression of discovering it. Then they feel intelligent, competent, and proud of themselves;
- 3) When visitors observe a great deal, they little need reading for informing themselves because they already have apprehended to a certain extend what the curator wants to say. So they read to check what they have understood, and this reading is much less demanding than reading to obtain information, unless they read to complement what they have already thought. In this case, reading is gratifying because it is a kind of surplus to what they have been able to do by themselves.

In short, articulating an exhibition around a series of objects is really advantageous.



## **Principle 9: To build a coherent exhibition.**

### ***A principle of coherence***

I borrowed my definition of coherence from textual linguistic. This definition leads to a principle which, applied to a thematic exhibition, says: "The discourse of the exhibition is strong and rigorous. It possesses a structure that is evident and progressive for the visitor. This is also a perfectly continuous discourse, that is a discourse without any gap or element in excess."

### ***Three types of coherence***

The three main coherences to be respected in a thematic exhibition are the following:

- 1) Its horizontal coherence, or the link between its sub-themes;
- 2) Its vertical coherence, or the link between its main levels of information (object, label and sub-theme panel);
- 3) Its textual coherence, or the link between the sentences of a text.

### ***Horizontal coherence***

Horizontal coherence is complex and leads to three rules. The first one concerns the conceptual aspect of the exhibition, more precisely the relation between its sub-themes, while the two others detail the relation of the material aspects of the exhibition (design and objects) with the conceptual aspect.

**Rule 1** (focuses on the relation between the sub-themes of the exhibition): " The relation between the sub-themes is articulated according to a rigorous (logical) progression; it is rapidly, clearly expressed in order to facilitate the anticipation of the sub-themes with the unfolding of the exhibition and the strolling of the visitor" (logical type of coherence).

This rule applies each time that the content of the exhibition is complex enough to be broken into sub-themes.

In the example which has been used until now, the exhibition contains two sub-themes corresponding to the two means used by the Han sovereign. They are presented in the following order: firstly the princely gifts, and secondly the sending of the emperor portrait all over the territory. These sub-themes intending to show that peaceful means are as powerful as a military intervention, they obey to a demonstrative structure.

### ***Justification***

Without a strong link between its sub-themes, an exhibition does not propose a real discourse. At best, it offers a series of juxtaposed ideas.

**Rule 2** (focuses on the relation between the design of the exhibition and its sub-themes): "Each sub-theme physical space, that is each conceptual part of the exhibition, is clearly marked by some design details" (correspondence-reinforcement type of coherence).

*Justification*

An exhibition being a visual as well as an intellectual production, its physical parts are as important as its sub-themes, and both should agree.

**Rule 3** (focuses on the relation between the objects presented and the sub-themes):

" The progression of the objects - their visual characteristics at least - is parallel to the progression of the sub-themes" (correspondence type of coherence).

*Justification*

The aim of this rule is once again to match the physical and the intellectual aspects of the exhibition.

**Vertical coherence**

The vertical coherence aims to create a perfect link between the three levels of information represented by the objects, their labels and the section panel of the exhibition.

**Rule 4** (focuses on the continuity object-label): "The information contained in the label should enable the visitor to identify the object. If an elongated label is used, it should focus the attention of the visitor on observable aspects of the object, then enlarges the significance of these aspects in agreement with the discourse of the exhibition" (continuity type of coherence).

Example of a label written for a wine cup integrated in the part of the exhibition devoted to princely gifts.

Wine cup  
Lacquered red wood, gilded bronze, gold and silver  
China, First century A.C.  
British Museum collection

On the base of the cup, one sees a series of Chinese characters. These are the names of the six craftsmen who contributed to its production, and the seven supervisors who checked this production. This detail suggests that the production of such objects kept busy a great number of craftsmen narrowly supervised, and that the objects that they were producing were of an exceptional quality.

*Justification*

Without this tight link between what the visitor observes and what he reads, the object becomes a "free electron", an element independent of the discourse of the exhibition, and the elongated part of the label, a mini-exposé without any real function. So a gap is created between the object and the label. The visitor could not fill up this gap because he misses the

knowledge necessary to do it. The information offered on the label should really take over what the visitor is observing.

**Rule 5** (focuses on the continuity between the content of the labels and the content of the sub-theme panel): "The information contained in the sub-theme panel recalls the general signification of the sub-theme and details it. Moreover, it frames and integrates the content of the entirety of the labels contained in the exhibition part corresponding to the sub-theme" (continuity type of coherence).

Example of the content of a panel obeying the 5<sup>th</sup> rule

A peaceful mean: gifts worthy of an empress

For 30 years, successive Han emperors will not be in a position to exert power. The Grand Empress dowager Wang will do it in their place. One of the principal means that she will use to maintain the integrity of the empire will be to distribute each year princely gifts to the governors of her immense territory. Lacquers, bronzes or jades objects of an exceptional craftsmanship and value will honour the ones who receive these objects and attach them to the Han dynasty.

#### *Justification*

Without this link between the content of the labels and the content of the sub-theme panel, the visitor is again facing a gap that he could not fill up because he does not possess the knowledge to do it.

**Rule 6** (focuses on the link between the exhibition design and the objects): "The elements of the exhibition design that surround the objects of a part of the exhibition should be used firstly to set them off and to sustain the ideas that the curator wants to express through them. Eventually the design elements will give prominence to the objects that present the major ideas of the exhibition" (correspondence-reinforcement type of coherence).

#### *Justification*

The more the exhibition design reinforces the ideas expressed by the objects and their importance in the whole discourse of the exhibition, the more easily the visitor catches them up.

#### ***Textual coherence***

The textual coherence is expressed through a unique rule.

**Rule 7** (focuses on the coherence of the sentences of a text): "The succession of a text sentences is logical. It does not suffer from any lack or excess of information that would jumble the chain of ideas" (logical type of coherence).

### *Justification*

An incoherent text is difficult to understand and raises confusion. A visitor who does not easily understand starts reading partially or sporadically.

### **Research strategy that led to the elaboration of the nine principles**

The various steps that led to the development of the nine principles are the following:

- 1) Study - with the help of the technique called "Thinking Aloud" - of the psychological functioning of the 90 visitors samples in a series of permanent non-thematic and temporary thematic exhibitions;
- 2) Making a photographic document for each exhibition. This document offers a general view as well as a detailed one of each unit of the exhibition;
- 3) Localization of exhibition units where visitors deal with few objects or read few texts, and/or produce very short discourses;
- 4) Identification of any problem that could explain the poor functioning of the visitors, and verification that it could be caused by a lack of coherence;
- 5) Verification that the problem appears in many of the exhibitions studied;
- 6) Elaboration of a principle aiming to solve the problem;
- 7) Verification that when a part of the exhibition obeys the principle, the psychological functioning of the visitors is much better;
- 8) Investigation to find out other exhibitions than the seven studied in order to check how these exhibitions comply with the principle;
- 9) Investigation to find out exhibitions that comply with all the nine principles to check what they look like.

### **Main results of the applied research on the exhibition how to prepare an exhibition that promotes the optimal functioning of visitors?**

What I am going to say is based on the applied research described at the beginning of my presentation. This research has produced much less information than the basic investigations described previously. Generally speaking it lead us to the two following observations:

- 1) The curator who is working only according to his feeling has few chances to prepare a high quality exhibition;
- 2) It does not suffice that the curator possess a fair number of relevant beautiful and interesting objects and a large quantity of knowledge on the subject matter of the exhibition that he is planning.

For the moment, I could not deal with all that a curator should do. The information that I have enables me to deal only with the documentation of the exhibition subject matter, its characteristics, and its preparation to write exhibition scenarios.

### **Documentation of the subject matter, its characteristics**

The projects that I led indicate that the information utilized to create scenarios usually comes from two sources: the documentation of the objects that will be included in the exhibition and the scientific publications on the exhibition subject matter (theme). This

documentation should provide information that not only covers the theme treated, but that also possesses the following characteristics:

- a) It exceeds the information necessary to deal with the theme, so it could offer it a context;
- b) It is sufficiently detailed, so one could write an elongated label for each object entering in the exhibition;
- c) These three levels of information corresponding to the theme, its context and the extended labels should present a strong continuity.

### **Preparation of the information used to elaborate exhibition scenarios**

As information on the theme of the exhibition cumulates, sub-themes appear. From this point on, the following steps are completed:

- 1) As soon as all the information on a sub-theme is collected, a synthesis is prepared. This synthesis could be as short as two pages or as long as ten;
- 2) On the first page of the synthesis, in a special space, one identifies all the links that the sub-theme has with the other sub-themes of the exhibition;
- 3) On the same page, but in a different space, one identifies all the links between the aspects of the sub-theme and the aspects of all the other sub-themes;
- 4) One creates a data bank with all the objects that could enter in the exhibition (the ones that come from the museum collection as well as the ones that could be borrowed). For every object, one identifies all the aspects of all the sub-themes that it could accompany;
- 5) With a Mind Map (or Freemind) program, one draw a schema where are located:
  - the theme of the exhibition,
  - the sub-themes and all their aspects,
  - the set of relations between the sub-themes as well as the set of relations between the aspects of the sub-themes,
  - the objects and the aspects of the sub-themes to which they could be associated.
- 6) Using the Mind Map schema, one elaborates five or six possible scenarios.
- 7) One examines each one, criticizes them with a series of criteria including the nine principles that promote the optimal functioning of an adult visitor. The most satisfactory is retained.

Remark: The synthesis prepared, the schema drawn with the Mind Map program and the scenario chosen could be used not only to prepare the design of the exhibition or its real or virtual scale model, but also the content of the educational and cultural programs and the training of the docents (guides). So the same content could be used by the exhibition as well as by the education department. This is very advantageous because the department of education can start working as soon as a scenario has been chosen.

### **Research on museum education realized jointly by professors of the université de montréal and the école du louvre research on educational and cultural programs**

What was done on programs is applied research. It consists in developing a grid to analyze educational as well as cultural programs, then to have this grid validated internationally by experts and professionals, members the International Committee for Education and Cultural Action of the International Council of Museums (CECA ICOM). The main aims of the grid are threefold:

- 1) To induce the professionals to work in a more systematic way when they are elaborating a program in order to improve its quality;

2) To ameliorate the methods that the professionals already utilize to render them more efficacious;

3) To identify the types of research that should accompany the planning, the implementation and the evaluation steps of a program.

I shall briefly present the content of the grid of analysis, then the general types of research that goes with it.

### **A grid of analysis to accompany the development of a program**

The grid focuses on three main moments of the program: its planning, its implementation and its evaluation. Each one contains a certain number of items presented hereafter.

#### **Planning**

Origin of the project

Rational and relevance (scientific rational, social relevance, institutional relevance)

Collaboration with partners

Beneficiaries

Goals and objectives

Resources

Content of the program

Mediation tools

Expected participation

Tool-content-participation coordination

Management (time, people, staff)

Communication

Studies on the program (on its communication and management for instance)

#### **Implementation**

Preparation of the implementation

Implementation as such

Modifications

#### **Evaluation**

Results

Reports

Remediation

### **Types of research related to the various items of the grid**

We identified the three following types of research:

1) Simple collection of already existing information, like when one inquires about the requests of services sent to the museum by groups or institutions;

2) Collection and synthesis of already existing information, for example on the characteristics of the population of the region contained in statistics and in data collected by sociologists, anthropologists or social sociologists;

3) Collection and synthesis of new information; this type of studies includes evaluative research, but also all sorts of other investigations like the identification of the visitors expectations regarding the mediation tools that one plans to utilize to deliver a program.



## Perspectives

Although much could be said about what I presented, I shall limit myself to five simple remarks.

1. There are very specialized publications on lighting or on museum showcases, but very little theory or empirical research on the influence of exhibition design on the visitor. It is one of the aspects of museology where information is really missing, although it is fundamental to improve the quality of the exhibitions offered to the public.

2. We should develop instruments of analysis like the one I presented on educational and cultural programs. The reason is that, without them it is difficult to study the exhibition or the educational program except in a very general way. As long as we keep a general approach, we will not go forward rapidly. On the contrary, with a grid of analysis, one sees immediately thousands of precise investigations that could be done and that would deepen our understanding of the dynamic of an exhibition or program.

3. The scattered research that we are practicing actually in museum education and more generally in museology is probably the less productive way to investigate. I think that a more efficient way would be to create international research groups that would address a phenomenon or a question. Two such groups of CECA ICOM members have started functioning recently, one on visitors with special needs, the other on the history of museum education.

4. An international use of an instrument like the grid of analysis of a program would, among other benefits, greatly increase the prestige of the educators in the museum milieu, because it would show that they are working with a recognized method.

5. In certain countries, professionals from the department of education have started to participate to the exhibition design team. I think that one should teach them what I presented about the exhibition, so they could increase their input, gain prestige and better help their team to prepare exhibitions that adults visit with pleasure and great benefit.