

# Development of Museology Textbook based on Case Method and Project in Historical Education Department of Medan State University

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**Abstract.** The development of a museology book based on the case and project method in the Department of History Education, Medan State University was motivated by the problem of a lack of textbooks for museology courses in the Department of History Education, Medan State University. This study uses research and development (research and development) with reference to the model developed by Borg & Gall. The textbooks compiled by the researcher were previously validated by material experts and media experts and then tested on students. The results of the validation of material and media experts stated that case and project method-based museology textbooks were "very feasible" to be used as learning books in the Department of History Education, Unimed. In fact, responses from students also stated that the textbook method of cases and projects based on museology was very suitable to be used as a learning book.

**Keywords:** Museology, Case Method, Project.

## 1 Introduction

The Museology course is a compulsory subject in the Department of History Education, Medan State University. Since it was first developed in the curriculum of the Department of History Education, this museology course is a special subject, a characteristic or differentiator of the education department of the Medan State University Department from other tertiary institutions. In line with this, the learning outcomes of the museology course are also an important part of supporting the profile of graduates of the Department of History Education, namely becoming history educators and guides. Through learning museology, it is certain that graduates of the Department of History Education have special skills to become educators and tour guides at museums in Indonesia, especially in North Sumatra.

As a science, museology has a very noble function in the world of education, namely the continuation of the nation's cultural values to the younger generation so that they can become good citizens and uphold national values and culture [1]. In other words, museology is a source of knowledge that aims at a transformation of the values of the nation's cultural heritage from the previous generation to the present generation. By studying in the museology course, graduates will have special skills to become a teacher/educator driving the development of

museums in their area and utilize museums as a source of learning history because "museums are knowledge-rich resources [2] and are important tools that connect students/students with world of social knowledge [3].

However, it is unfortunate that the museology course does not yet have textbooks in the learning process. Even though textbooks are needed by students and lecturers in class. If the textbooks used are lacking, the course topics cannot be developed. Textbooks are very important in the classroom because they contain learning messages so that the stages of learning go well [4] & [5]. Therefore, in order for the learning process of museology courses to run well, it is necessary to prepare adequate teaching materials or literature as learning resources so that the objectives of the learning process can be achieved.

Since the existence of the ministry of education and culture program with the concept of Freedom to Learn Campus Merdeka (MBKM), to be precise in the odd semester of 2021/2022 the museology course has become the pre-eminent subject in the Free Learn Campus Merdeka student exchange program (2021) at the Unimed History Education Department. It is proven that in the odd semester of 2021/2022 there are 15 students from universities (Malang State University, Indonesian Education University, Semarang State University, West Sumatra PGRI STKIP and Jember University) who are interested in this program [6].

In addition, museology courses use the case method and project learning methods which are more popular with national programs in higher education today. The case method and project model are also in accordance with the 8 main indicators as outlined in the Unimed chancellor's contract agreement with the Minister of Education and Culture of the Republic of Indonesia in 2020.

According to Saputra (2019) case method learning is rooted in social constructivism, in which students can compile knowledge by building reasoning from all the knowledge they already have and from all that they acquire as a result of interacting with fellow individuals [7]. Meanwhile, Brown and Campione in Warsono state that projects have two characteristics, namely the existence of a problem that encourages students to organize and carry out a project-based activity that is meaningful and must be resolved alone as a team. Second, the final work in the form of a product or completion of a sustainable task that is meaningful for the development of their knowledge and skills [7]. Where the learning outcomes from case method and project learning are that students have investigative skills, case handling skills, the ability to learn adult roles, become independent and independent learners, and have independence in completing the tasks they face [7]. If museology teaching materials are applied using the case method and project method, of course it will produce quality students and graduates who are innovative, professional and humane.

Equivalent of three money between museology courses which are superior, special and differentiating subjects in the Unimed History Education Department and the case method and project methods are excellent programs that have been intensified by Unimed, so an innovative case method and project based museology textbook is needed in the Education Department. History of Unimed so that students who study in museology courses can think innovatively, professionally and humanely.

## **2 Literature Review**

The state of the arts (SOTA) in this study starts from literature on museology studies, namely the 2012 Indonesian Museum Directory Culture Album published by the Secretariat of the Directorate General of Culture Jakarta [8]. This study discusses the brief history of Indonesian museums and a list of museums in Indonesia. This research is very useful to add to the repertoire of the history and development of Indonesian museums. Furthermore, his research is the catalog of the Indonesian museum volume I of 2018 by the Directorate of Preservation of Cultural Heritage and Museums, Directorate General of Culture, Ministry of Education and Culture [9]. This research discusses museums that have developed throughout Indonesia, from Aceh to the island of Java. Even though it is in the form of a catalog, this research is very useful when looking at the face of museums in Indonesia.

The next researcher is Wibowo, et al in 2020 concerning Guidelines for the Implementation of Museology Practicum (Special Edition for the Covid-19 Pandemic) [10]. This study discusses the procedures for doing practice in museums starting from preparation, implementation and reporting of practices in museums. This research is very useful for adding information on proper practice in museums, even though it is in the form of a guidebook. Finally, there are various magazines about museums, namely Museography from 2019 [11]. This magazine really gives an overview of the development of museums and their benefits in learning.

Then the results of Bahri, et al's research in 2021 with the theme The Effect of Applying Outdoor Learning Methods on Student Learning Motivation in the Museology Course in the History Education Study Program, IKIP PGRI Pontianak, published in the Social Sciences Education Journal of the Indonesian University of Education [12]. This study discusses how the outdoor learning method influences the learning motivation of students in the Museology Course, History Education Study Program, IKIP PGRI Pontianak. The results of his research provide examples of methods that can be developed in the process of learning history later.

To provide an overview of the development of case study and project-based textbooks, we look at research conducted by Saripudin in 2015 with the theme of the problem of Developing a 21st Century Learning Model Using Web 2.0 Technology [13]. This research uses Project-based Learning and Problem-Based Learning methods by combining web technology knowledge. 2.0. With these two methods it can be concluded that basically it can be applied to all levels of education as long as infrastructure and human resources are available and willing to adapt to technological developments, especially information and communication technology.

The previous studies (SATO) above were very helpful in building a framework of thinking in compiling case method and project based museology teaching materials, but some of the studies above still cannot explain in general about the preparation of case method and project based museology teaching materials.

## **3 Methodology**

The development procedure used was adapted from Borg & Gall's (1983) development research [14]. This procedure was chosen because it has detailed and simple steps. This

procedure consisted of ten steps, but this study used only nine out of ten steps due to adjustments to the research objectives, namely the development of Case Method and Project Based Museology Course materials in the Department of History Education, FIS Unimed. The steps that were not taken were dissemination and implementation. The research steps can be seen below.

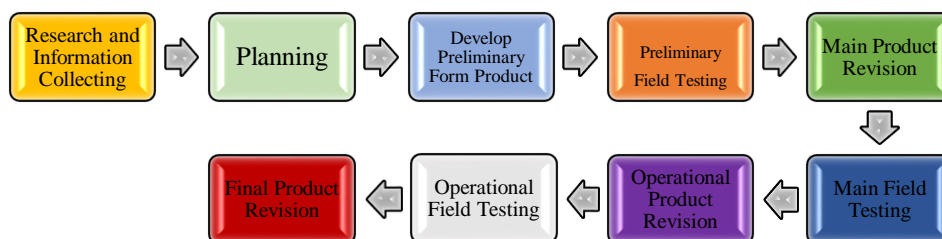


Figure 1. Development Design Diagram

The research location is in the Department of History Education, Medan State University. The subjects of this research were class A students of class of 2020 who took museology courses in odd semester 2022/2023 with a total of 36 people.

### Data Collection Technique

The data used are quantitative and qualitative data. Qualitative data was collected through literature study, while quantitative data was obtained through a questionnaire from media experts, material experts and students. According to Sugiyono a questionnaire is a data collection technique by giving several written questions to respondents [15]. Questionnaire given directly with answer scale (rating scale). The guidelines can be seen in the table below.

Table 1. Scoring Guidelines

Category	Score
Very good	5
Well	4
Enough	3
Not enough	2
Very less	1

Quantitative data analysis technique used is descriptive quantitative. The data analyzed included the results of assessments given by material experts, media experts and students on product quality and feasibility. Data analysis is as follows: a) calculating the average score for each instrument item, b) calculating the average score for each component using the formula:

$$X = \frac{\sum_{i=1}^n b_i}{n}$$

Description:

X = average score of each component

bi = average score of each instrument item

n = number of instrument items in each component

The next step is to convert the mean score into qualitative data on a scale of five with the following formula:

Table 2. Qualitative Data Conversion

Classification	Average	Score Formula
$X > \underline{X}_i + 1,8 \times sb_i$	$> 4,2$	Very good
$\underline{X}_i + 0,6 \times sb_i < X \leq + 1,8 \times sb_i$	$> 3,4 - 4,2$	Well
$\underline{X}_i - 0,6 \times sb_i < X \leq + 1,8 \times sb_i$	$> 2,6 - 3,4$	Enough
$\underline{X}_i - 1,8 \times sb_i < X \leq + 0,6 \times sb_i$	$> 1,8 - 2,6$	Not enough
$X \leq \underline{X}_i - 1,8 \times sb_i$	$\leq 1,8$	Very less

Information:

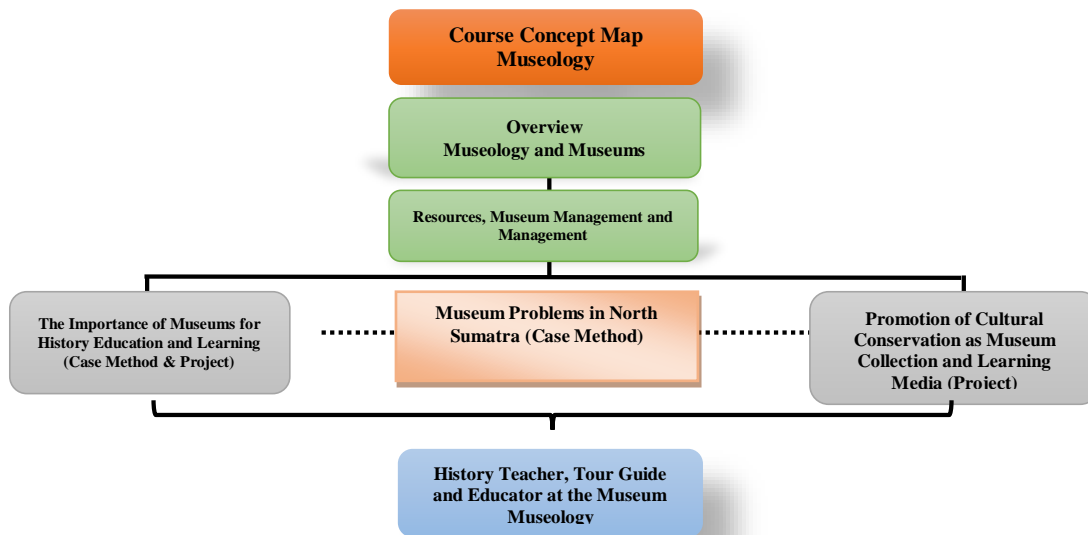
- The ideal average ( $X_i$ ) can be calculated by the formula:  $X_i = (\text{maximum ideal score of instrument items} + \text{minimum item score})$ .
- The ideal standard deviation ( $sb_i$ ) can be calculated by the formula:  $sb_i = 1/6 (\text{ideal maximum score of instrument items} - 0)$ .
- $X$  = empirical score.

Textbooks compiled as learning materials can be categorized as appropriate if they get a minimum average score of "good" for each assessment component. The assessment components referred to are media expert due diligence questionnaires, material expert due diligence questionnaires and user due diligence questionnaires.

## 4 Result Research

The development of case method and project-based museology books in the Unimed History Education Department is based on the problem of limited references in museology courses. Not only that, this book is designed to incorporate case method and project learning elements so that students have investigative skills, case handling skills, the ability to learn adult roles, become independent and independent learners, and have independence in completing the tasks they face so as to produce quality students and innovative, professional and humanist graduates in the Unimed History Education Department.

From this background, moving from the problems above, a case method and project-based museology textbook is needed for Unimed History Education students. In order to produce this textbook, main references are needed regarding museum concept material, museology, museum management, virtual museums, museum objects which are cultural heritage and how museums function as historical resources for history teachers. The material adjusts learning outcomes and graduate profiles so that they have soft skills to become history teachers and museum educators. This book is also based on instructional analysis and concept maps and reconstruction of courses and semester study plans (RPS). Each chapter of this textbook will describe the subject matter, competency standards, indicators of success, materials, case methods and projects. The concept maps and competencies for the museology course:



**Figure 2.** Museology Course Concept Map

There are six competency standards in museology courses, namely:

1. Students can describe theoretical concepts about museums, scope, history of museums, types of tasks and functions of museums
2. Differentiate and analyze museum resources and management
3. Designing lessons about the importance of museums for history education and learning.
4. Able to categorize the field of assessment and collection of cultural heritage objects in museums (identification, classification, search & collection and cataloging of cultural heritage objects)
5. Document the collection of cultural heritage objects (recording, and inventory) at the Museum.
6. Designing promotions, namely the implementation of educational services, and the implementation of promotions in museums.

There are six basic competencies in museology courses, namely:

- a. Students are able to make theoretical concepts about museums, scope, history of museums, types of tasks and functions of museums in the form of flyers
- b. Students are able to produce videos and learning guides about the importance of museums for history education and learning
- c. Students distinguish and analyze museum resources and management by working on a scientific article about museum problems in their area
- d. Students are able to categorize and work on e-catalogs of cultural heritage objects in museums (identification, classification, search & collection and cataloging of cultural heritage objects)
- e. Students are able to document collections of cultural heritage objects (recording, and inventory) at the Museum

- f. Students are able to make video streaming or video coverage of museum profiles in their area.

The textbooks have been tested by students in semester 5 of classes A and B in the 2020 academic year 2022/2023 and validated by media experts, namely lecturers with learning media expertise. The five are assessed by media experts with an average score of 4.33 or 'Very Good'. The textbooks have also been validated by material experts who are historians of North Sumatra. The average score assessed is 4.69 or "Very Good. The results of the validation of material and media experts provide a statement that textbooks are appropriate to be used as textbooks in the learning process.

Then the textbook was tried out three times for class A and B class 2020 students at the Unimed History Education Department. Three times in product trials the students seemed enthusiastic and focused on learning because they used case method and project based museology textbooks. Then the students stated that in this trial they were very good at textbooks. The value given is the average score for each trial, namely 4.43 or very good in the first trial, 4.35 or very good in the second trial and 4.45 or very good in the third trial. The results of three trials on students stated that textbooks were appropriate for use as books in learning.

## 5 Conclusion

Museology textbooks are designed to incorporate case method and project learning elements so that students have investigative skills, case-solving skills, the ability to learn adult roles, become independent and independent learners, and have independence in completing the tasks they face so as to produce quality students and graduates who are innovative, professional and humanist in the Unimed History Education Department. Materials from textbooks use main and supporting references taken online and offline. The material consists of material on museum concepts, museology, museum management, virtual museums, museum objects which are cultural heritage and how museums function as historical resources for history teachers. The material adjusts learning outcomes and graduate profiles so that they have soft skills to become history teachers and museum educators. This book is also based on instructional analysis and concept maps and reconstruction of courses and semester study plans (RPS). Each chapter of this textbook will describe the subject matter, competency standards, indicators of success, materials, case methods and projects. The textbooks have been tested by students in semester 5 classes A and B in the 2020 academic year 2022/2023 and validated by media experts, namely lecturers with learning media expertise. The five are assessed by media experts with an average score of 4.33 or 'Very Good'. The textbooks have also been validated by material experts who are historians of North Sumatra. The average score assessed is 4.69 or "Very Good. The results of the validation of material and media experts provide a statement that textbooks are appropriate to be used as textbooks in the learning process.

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