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Utilizing Comparative Method for Analyzing the Course of Basic Design on Vorlehre and Three-Dimensional Form

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Abstract. The comparative method is a research strategy oriented to case study comparisons, where the analysis of each case study becomes a combination of the characteristics of the phenomena to be defined. Its case study analysis is interpretive of historical evidence, with the aim of explaining comparable processes for generating generalizations about the causes of the phenomenon. This comparative method is applied in building a logical foundation to identify the similarities and differences of the Course of Basic Design which was carried out at the Vorlehre of the Staatliches Bauhaus and the Three-Dimensional Form of Institut Teknologi Bandung. The comparison is focused on the definition of the comparable objects based on the interpretation of the available literature data. This analysis can explain a comparison pattern, which will be used to compare Bauhaus design work and Indonesian design work. The results of this study are part of a study on the influence of Bauhaus on design in Indonesia.

Keyword: Comparative Method, Course of Basic Design, Staatliches Bauhaus, Three-Dimensional Form, Vorlehre

1. Introduction

A qualitative approach in a research can be worked through a comparison of several case studies, with the aim of understanding the relationship between the meaning of a case and its overall environment. Its study is in the form of a historically oriented interpretation to construe and explain comparable processes from several case studies. The comparison uses a comparative method that focuses on the definition of the objects of comparison, so that the results can explain a pattern. The comparative method in this paper is a research strategy chosen to find the combination of characteristics of the Course of Basic Design that art and design students learn in their first year.

The questions posed are defined empirically and historically concretely [1]. The analysis of each comparative object is interpreted as a combination as a whole following the convergent causal conditions, so that the suitable causes will combine in a certain way. Case studies are contrasted with each other to explore parallels and differences among these cases [2]. Thus, the comparative method can serve to examine the relevant cases of a phenomenon.

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The four case studies analyzed originate from the same phenomenon, namely Vorlehre from the Staatliches Bauhaus and the Three-Dimensional Form from Institut Teknologi Bandung. The main objective of this paper is to see how comparative research methods are used in a systematic and structured manner through a simple description of the characteristics of the Course of Basic Design. The study of observed change in cases over time will involve some form of comparison [3]. The complementary objective is to find similarities and differences in the Course of Basic Design given at the Staatliches Bauhaus and Institut Teknologi Bandung. The research results obtained through this comparative method are part of the research on the influence of Bauhaus on design in Indonesia.

2. Method

The comparative method in this study aims to gain an understanding of the processes involved in the Course of Basic Design through naturally occurring variations. The analysis of differences and similarities is determined based on the characteristics of the Vorlehre and the Three-Dimensional Form. The type of comparative analysis in this study refers to four different variations of the comparative method proposed by Pickvance [4], namely:

- Type A: differentiating comparative analysis assumes that differences should be explained as the principle of variation. The differences aim to understand the peculiarities of each case.
- Tipe B: universalizing comparative analysis with plural causation starts with differences and explains them in terms of the universality principle but uses multiple causation.
- Tipe C: differentiating comparative analysis with plural causation begins with simmilarities and explains them in terms of the variation principle but uses multiple causation.
- Tipe D: universalizing comparative analysis assumes that the simmilarities must be described in the same process. The simmilarity aims to find a universal relationship that applies to all cases.

3. Findings and Discussion

3.1. The Course of Basic Design

The course of basic design is a subject that design students must learn in their first academic year. This course is a form of pedagogical principles developed by Staatliches Bauhaus, where theoretical and practical lessons are taught side by side in order to reveal the creative and positive abilities of students. The course of basic design is not only seen as a course but must also be considered as a way of life that is created by a chain of theories that each individual must have [5]. The learning objectives to be achieved from this course are not to produce a design work, but to prioritize the design process as a playing and experiment by means of discovery through chance or calculation [6]. The course of basic design trains the intuition and original thinking of each design student, so that an understanding of the physical properties of the material and the basic laws of design can be explored through emotional and rational ways.

The learning form of the course of basic design is in the form of activities in the workshop that prioritize the creative abilities of each student in composing a visual composition. The task given is limited to observing and representing the form and meaning of an object without referring to any force. The design elements must be discovered by each student which is then gradually brought into the synthesis of design principles [7]. The assignment given in this course frees the individuality of each student in order to gain personal experience and self-taught knowledge [8], therefore group work is not required for exercises in the course. Students choose objects that are important to themselves, so that through repeated experiments it can be understood and defined the natural relationships that occur between humans and forms. The lessons learned from this course are the result of the intelligence, intuition, experience and knowledge of each student.

3.2. Vorlehre

Vorlehre or Preparatory Instruction or Preliminary Course developed by Staatliches Bauhaus is an important pedagogical achievement in art and design education. The course given to Bauhaus students

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in the first semester, then into two semesters, is basic training in design and experimentation with various types of material. Studying the material aims to explain things that are both fundamental and contradictory to each material, so that it can provide and develop sensitivity to the material. The learning process in Vorlehre is naturally influenced by the Bauhaus Master, but what is prioritized is an appreciation of the expression skills of each student. Elementary self-expression that is developed systematically will shape creativity, which is the foundation needed by all art fields [9]. Chronologically, Vorlehre was formed by three Bauhaus Masters, namely Johannes Itten in 1919 - 1923, László Moholy-Nagy in 1923 - 1928, and Josef Albers in 1923 - 1933.

3.2.1. Johannes Itten. Vorkurs are one of the elements that define the shape of the Staatliches Bauhaus designed by Johannes Itten. Exercises on the law of design are given to support Bauhaus student assignments that prioritize intuitive expression and sensitivity. Itten stipulates, that design rules can be objectified and with subjective intuition, because there is a relationship between what is taught and what is learned [10]. Abstract compositions are developed in flat form and then into spatial forms. Itten provides textural examples of various materials to understand the unique properties of all materials by touch. Contrast is not only visible but also can be felt, such as smooth-rough, hard-soft, or light-heavy [11]. Vorlehre carried out by Itten puts thought as dominant and intuition accompanies it, while action provides the texture in which tought and intuition are played [12]. Figure 1 shows the Preliminary Course with Itten.

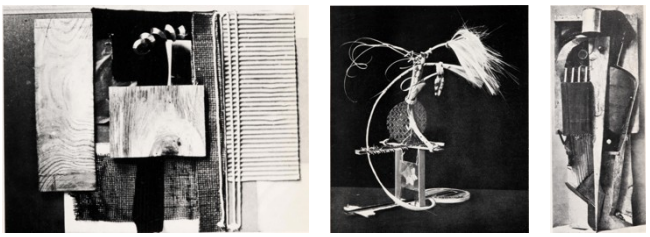

Figure 1. Study of Materials from the Preliminary Course with Johannes Itten (Gestaltungs- und Formenlehre, pp. 35, 38-39).

3.2.2. László Moholy-Nagy. Vorlehre taught by László Moholy-Nagy provides training in visual and sensory skills through touch. Students can experiment freely with various tools and materials, combine materials with different textures, and can use conventional and unconventional methods. Moholy-Nagy developed systematically in Vorlehre, namely: Structure is a type of material structure that cannot be changed, texture is an organically formed surface of any structure on the outside, and invoice is the type and appearance that can be seen due to the influence of the work process [13] . Invoicing is the most important system in Vorlehre which was taught by Moholy-Nagy through the guidelines he wrote in Von Material zu Arch Architecture [14]. Moholy-Nagy's Vorlehre puts intuition as dominant and action accompanies it, while thinking provides context to the play of both [15]. Figure 2 shows the Preliminary Course with Moholy-Nagy.

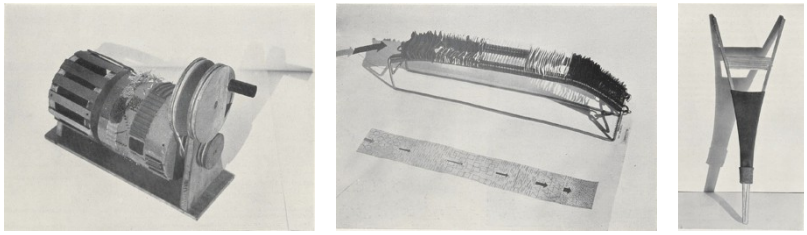

Figure 2. Study of Materials from the Preliminary Course with László Moholy-Nagy (Von Material zu Architektur, pp. 25, 30, 32).

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3.2.3. Josef Albers. Vorlehre is taught as a way of organizing sensory experience through sensitivity, which forms the basis for dealing with materials economically and creatively. Contrast effects are studied from a variety of materials, from classic materials to materials from modern industries. Albers does not view the criteria of economic efficiency as contrasting artistic contrast to Vorlehre [16]. The sequential systematic order of materials, namely the keyboard steps from hard to soft, smooth to rough, warm to cold or solid edge to amorphous, smooth polished to adhesive absorbent. Conductors of optical materials, for example, are linked near and far, transparent - translucent - opaque, clear - cloudy - solid [17]. Albers' Vorlehre puts intuition first and actions accompany it minor, while thinking always provides the context in which both play [18]. Figure 2 shows the Preliminary Course with Albers.

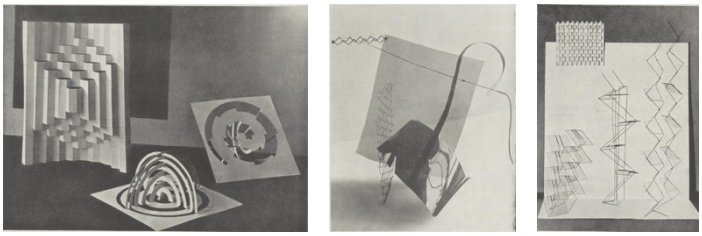

Figure 3. Study of Materials from the Preliminary Course with Josef Albers (Bauhaus Zeitschrift für Gestaltung 2/3 2. Jahrgang, pp. 5-7).

3.3. Three-Dimensional Form

Learning the Course of Basic Design at the Faculty of Art and Design at Institut Teknologi Bandung has been given since the mid-1950s under the name Decorative Art and Handwork or Forming. The name of the course in the early 1960s was Nirmana through several changes, namely Nirmana Ruang, Nirmana Trimatra, Nirmana Tiga Dimensional, until now it is Three-Dimensional Visual Basic Form [19]. The Nirmana course is given by teachers with educational backgrounds influenced by the Bauhaus: Rita Widagdo is a graduate of Staatliche Akademie der Bildende Kunste Stuttgart, who was educated by Prof. Hanes Neuner and Prof. Herbert Hirsche who is an alumnus of the Staatliches Bauhaus, while But Muchtar and Achmad Sadali are graduates of the Aspen Institute, a place where Prof. Herbert Bayer continued his Bauhaus education in the United States [20].

The Three-Dimensional Form is one of the basic methods in learning the design of works of art and design, so that the resulting form is not burdened with aspects of meaning and function, but is focused on the meaning of its structural form. Objects that are three-dimensional construct objects that have six side viewpoints of space. The Three-Dimensional Form provides an understanding of form fundamentally, namely through points, lines, planes, features, texture, and space as elements of a form, as well as through rhythm, balance, contrast, movement, emphasis, size, scale, and proportion as the principles which govern a form.

The Three-Dimensional Form is a learning process that is carried out through continuous practice. The learning method is applied through material exploration or exploration of initial forms, which are structurally constructed, accompanied by material problems, material properties, and technical matters in processing these materials [21]. Materials in the Three-Dimensional Form learning are chosen to build spatial shapes. In the first semester, material exploration was carried out using paper, plastic sheets, zinc sheets, straw rods, wire rods, and so on. In the second semester, vegetables, fruits, tubers, tree branches, household utensils, workshop equipment, and so on were used.

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Figure 4. Study of Materials from Three-Dimensional Visual Basic Form (Intersubjectivity in Learning Process of Three-Dimensional Visual Basic Form and Its Effect on Form, p. 114-115).

3.4. Comparative Analysis

To get an understanding of the variations formed in the Course of Basic Design, the comparative method begins by analyzing the differences seen from Vorlehre by Itten, Moholy-Nagy, and Albers as well as the Three-Dimensional Form. These differences will further explain the similarities in the Course of Basic Design based on several causes and effects. After that, the cause and effect that makes the similarities in the four case studies of the Course of Basic Design will produce several variations of the difference. The universal relationship that applies in Vorlehre by Itten, Moholy-Nagy, and Albers and the Three-Dimensional Form is an explanation of the similarities in the Course of Basic Design process.

3.4.1. Differentiating comparative analysis. This type of comparative analysis assumes the variations in the Course of Basic Design as differences to recognize the peculiarities of the four case studies. The theoretical understanding of contrast is presented in different variations: Vorlehre by Itten and the Three-Dimensional Form through visualization of pigments, shapes and textures; Vorlehre by Moholy-Nagy through visualization of light; and Vorlehre by Albers through the arrangement of two opposing objects.

3.4.2. Universalizing comparative analysis with plural causation. This type of comparative analysis explains the universality principle of the Course of Basic Design based on the causes and effects contained in the differences between three models of Vorlehre and the Three-Dimensional Form. The variations carried out in the study of materials from Vorlehre by Itten, Vorlehre by Moholy-Nagy, Vorlehre by Albers and the Three-Dimensional Form, explain the universal meaning of students' creative expression skills to be achieved in the Course of Basic Design.

3.4.3. Differentiating comparative analysis with plural causation. This type of comparative analysis explains the principle of variation in the Course of Basic Design based on the causes and effects contained in the equations of the three Vorlehre models and the Three-Dimensional Form. Design elements and design principles compile design theory as a universal principle in the Course of Basic Design that design students must master, but the learning methods provided by Itten's Vorlehre, Moholy-Nagy's Vorlehre, Albers's Vorlehre and the Three-Dimensional Form explain the principle of variation.

3.4.4. Universalizing comparative analysis. This type of comparative analysis assumes the same processes in the Course of Basic Design to confirm the universal relationships that apply to the four case studies. The most explicit similarity of Vorlehre by Itten, Vorlehre by Moholy-Nagy, Vorlehre by Albers and the Three-Dimensional Form is that the implementation of learning is given in the first year of lecture, so training in intuition and original thinking in the introduction of material properties and design law must start from scratch. Material exploration is the next equation in the Course of Basic Design, where the four case studies have learning objectives so that students gain creative experience in creating a form later.

4. Conclusion

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Material exploration in the Course of Basic Design aims to gain creative experience in creating a form, because form becomes a tool to convey ideas in the design of an object. Through the comparative method, this paper aims to describe several patterns that have developed historically in the Course of Basic Design based on the differences and similarities in the characteristics of the identified case studies. Four variations that examine the characteristics of the Course of Basic Design provide a general understanding and explanation of strategies for exploring comparative research methods in a systematic and structured manner. Although the choice of the comparative method in this paper has not been guided by the determination of substantive variables about the Course of Basic Design, the initial analysis resulting from the four case studies can be assumed to be representative, namely that the differences and similarities in characteristics in the comparative method can provide insight into the relationship's cause and effect of the observed course of basic design pattern.

References

[1] Ragin C C 2014 *The Comparative Method. Moving Beyond Qualitative and Quantitative Strategies* (California: University of California Press)
[2] Azarian R 2011 Potentials and Limitations of Comparative Method in Social Science *International Journal of Humanities and Social Science* **1**(4) 113-125
[3] Piovani J I and Krawczyk N 2017 Comparative Studies: Historical, Epistemological and Methodological Notes *Educação & Realidade Porto Alegre* **42**(3) 821-839
[4] Pickvance C 2005 The Four Varieties of Comparative Analysis: The Case of Environmental Regulation *Conference on Small and Large-N Comparative Solutions* (University of Sussex)
[5] Arslan A A 2012 An Analysis of Teaching Methods Used at the Course of Basic Design *Procedia Social and Behavioral Sciences* **51** 172-176
[6] Stasny P 1999 Bauhaus Pedagogy in Exile: Ludwig Hirschfeld-Mack and Art Education *The 30th Annual World Congress of the International Society for Education through Art* (Brisbane)
[7] Arslan A A
[8] Gropius W 1965 *The New Architecture and the Bauhaus* (Massachusetts: The Massachusetts Institute of Technology Press)
[9] Gropius W
[10] Fiedler J and Feierabend P 2013 *Bauhaus* (Postdam: h.f.ullmann Publishing GmbH)
[11] Itten J 1963 *Gestaltungs- und Formenlehre* (Ravensburg: Otto Maier Verlag)
[12] Guerri C F and Huff W S 2004 Analyses of the Bauhaus's Preliminary Course under Its Three Masters *VIII Congress of the International Association for Semiotic Studies* (Lyon)
[13] Fiedler J and Feierabend P
[14] Gropius W and Moholy-Nagy L 1929 *Von Material zu Architektur* (München: Albert Langen Verlag)
[15] Guerri C F and Huff W S
[16] Fiedler J and Feierabend P
[17] Albers J 1928 Werklicher Formunterricht *Bauhaus Zeitschrift für Gestaltung* **2/3** 2. Jahrgang
[18] Guerri C F and Huff W S
[19] Sari N 2014 Intersubjectivity in Learning Process of Three-Dimensional Visual Basic Form and Its Effect on Form *Dissertation* (Bandung: Bandung Institute of Technology)
[20] Sari N and Santosa I 2014 The Influence of Bauhaus School on the Education of Three-Dimensional Form (Nirmana Space) at Bandung Institute of Technology *Journal Arts and Design Studies* 1**6** 38-46
[21] Sari N

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