



Study of Behavioral Architecture Application at Bin Baz Putra Islamic Boarding School Bantul

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Abstract—The moral decline of the nation's children is the most important issue today, and one of the solutions to solve it is through character education according to Islamic teachings in Islamic boarding schools. The Bin Baz Putra Islamic Boarding School is one of the Islamic boarding schools located in Piyungan, Bantul, Yogyakarta Special Region. As an educational institution, Islamic boarding school should apply a behavioral architectural approach as the basis for designing Islamic boarding school. So the purpose of this study is to examine the application of behavioral architecture in Bin Baz Putra Islamic Boarding School which is carried out using descriptive qualitative research methods from literature sources related to Islamic religious education in Islamic boarding schools and behavioral architecture, as well as a source of observations to collect informative data from boarding school object. The focus of the research is focused on the qualitative assessment of the area and facilities of the Bin Baz Putra Islamic Boarding School against several principles of behavioral architecture according to Carol Simon Weisten and Thomas G. David who then concluded that the Bin Baz Putra Islamic Boarding School in Bantul is still lacking in the application of behavioral architecture aspects, especially in physical comfort. students where bedrooms and student classrooms are not large enough to accommodate the number of students total 40 people.

Keywords: architecture; behavior; education; Islamic boarding school.

I. Introduction

Character education has become an important issue lately, this is related to the phenomenon of a decline in moral quality that occurs in the midst of society as evidence that there has been a crisis of identity and characteristics in the Indonesian (Ainiyah, 2013). Character education is the answer to these problems, and schools as education providers are expected to be places that are able to realize the mission of character education.

One alternative that can be done in carrying out character education in schools is optimizing the learning of Islamic religious education (PAI)

materials (Gumilang, 2018). Religious education is a means of transforming knowledge in religious aspects (cognitive aspects), as a means of transforming norms and moral values to form attitudes (affective aspects), which play a role in controlling behavior (psychomotor aspects) that are able to produce humans who always strive to perfect faith, piety, ethics, character, and noble morals as the embodiment of education (Depag RI, 2003), for example the Bin Baz Putra Islamic Boarding School, Bantul.

However, it should be noted that educational places such as Islamic boarding schools should refer to an architectural approach that is able to understand the behavior and daily lives of people within the scope of the Bin Baz Putra Islamic Boarding School, Bantul.

To examine the role of Islamic boarding schools in overcoming the problem of the current moral decline of the nation's children

To examine the application of behaviorally oriented architecture at the Bin Baz Putra Islamic boarding school, Bantul

II. Method

The method used is descriptive qualitative method, and data collection is carried out from two sources, namely observational data on various matters related to the design of the object of the Bin Baz Putra Islamic boarding school, Bantul, then literacy related to Islamic religious education and behavioral architectural concepts, as well as data from Islamic boarding schools as secondary data.

Aimed at the qualitative assessment of the area and facilities of the Bin Baz Putra Islamic Boarding School against several behavioral architectural principles according to Carol Simon Weisten and Thomas G. David as follows (Azhima, 2019):

1. The building can be understood by the user through sensing or imagining the building user. What is meant is:

a. Reflecting the function of the building as a place of Islamic education through the symbols contained in the related cottage architectural style

b. The scale and proportion of Islamic boarding school buildings to users and the environment around the boarding school

c. Structures and materials used in the construction of Islamic boarding schools

2. Accommodate the activities of its residents in a comfortable and pleasant physical, psychological, and cultural manner, which includes:

a. Thermal comfort, ventilation, lighting, and the proportion of indoor space on the behavior of students

b. Provision of green open spaces, fields, and socializing facilities for students

c. The suitability of the architectural style of the Islamic boarding school with the architectural style of the local area

3. Fulfilling aesthetic values, composition and form aesthetics, taking into account several elements such as: unity, balance, proportion, scale, and rhythm in the building.

4. Pay attention to the condition and behavior of the user with several factors such as gender, age group, physical condition, and others.

Result and Discussion

After doing research using the object observation method, a discussion of the analysis of

the application of architectural aspects with behavioral insight was produced to the object of the Bin Baz Putra Islamic Boarding School in Bantul. The results of the study were based on a qualitative assessment of the area and facilities of the Bin Baz Putra Islamic Boarding School on the four principles of behavioral architecture according to Carol Simon Weisten and Thomas G. David:

Buildings can be understood by users through sensing or imagining building users

Overall, no symbols, carvings, or special forms were found on the Islamic boarding school building, it is just that the architectural style of the Islamic boarding school applies local architectural styles that have been integrated into the settlements around the cottage so that both the cottage and the residents' houses almost look the same (Putriana, 2020). However, the Bin Baz Putra Islamic Boarding School has reflected the function of educational buildings only on the signboard or signage displayed at the entrance of the lodge. Reflecting the function of the building, the Bin Baz Putra Islamic Boarding School has not implemented behavioral architecture because it has not been able to communicate the function of the building to the outside community about the unique architectural style or style of the Islamic Boarding School.



Figure 1. Building of Bin Baz Putra Islamic Boarding School, Source: binbaz.or.id

In terms of scale and proportion, the Bin Baz Putra Islamic Boarding School looks proportional to the residential buildings and other schools around it, and the surrounding residents can interpret the harmony of the form of the Islamic boarding school building which is not too grand, and does not interfere with the harmony of the rhythm.



Figure 2. Scale and Proportion of Bin Baz Putra Islamic Boarding School toward the Surroundings
Source: google.co.id

The structure and materials in the construction of the Bin Baz Putra Islamic Boarding School use a rigid frame structure system with floor plates and reinforced concrete columns, just like the building construction system around the cottage, which other people can imagine about the construction of the cottage.



Figure 3. Building Construction System of Bin Baz Putra Islamic Boarding School
Source: google.co.id

Accommodating the activities of its residents comfortably and pleasantly physically, psychologically, and culturally

For thermal comfort, it has fulfilled the comfort of students, both in natural thermal comfort in the form of wind ventilation and also artificial thermal comfort in the form of air conditioner (AC), as well as in the comfort of lighting which makes students' learning activities physically comfortable. However, it is unfortunate that there is one thing lacking in the proportion of rooms that have not been able to accommodate the activities, behavior, and circulation of students. Moreover, this multipurpose room has not been able to provide proportional comfort for 200 students in one class. Therefore, Islamic boarding schools still cannot provide overall physical comfort to carry out student learning activities.



Figure 4. Indoor Area of Aula
Source: google.co.id

The provision of green open space at the Bin Baz Putra Islamic Boarding School is still less than the standard regulation of the Ministry of Religion of the Republic of Indonesia in 2003 which stipulates that green open space should be provided at least 30% of the total land area. The Bin Baz Putra Islamic Boarding School has an area of 20,987 m², so the Islamic boarding school must provide a minimum of 6,296 m² of green open space (RTH), but in fact only 5,247 m² of green open space is available, this shows that the Islamic boarding

school does not provide psychological comfort for students and teaching staff.



Figure 5. Green Area of Bin Baz Putra Islamic Boarding School
Source: google.co.id



Figure 6. Top View of Bin Baz Putra Islamic Boarding School
Source: google.co.id

The Bin Baz Putra Islamic Boarding School has a local architectural style, the same as the style used in buildings in the surrounding environment (resident settlements and the SMAN 1 Piyungan school). Because of this, the Bin Baz Putra Islamic Boarding School has provided cultural comfort to the local area because it has been integrated into cultural harmony in Piyungan, Bantul, where this Islamic boarding school is located.



Figure 7. Surrounding of Bin Baz Putra Islamic Boarding School
Source: google.co.id

Fulfilling aesthetic values, composition and form aesthetics, taking into account several elements (cohesion, balance, proportion, scale, and rhythm.)

The integration of the building styles at the Bin Baz Putra Islamic Boarding School is actually compatible with the local architectural style, but it is different with the Islamic Center Bin Baz (ICBB Mart) shopping building which has used a modern minimalist building style. This creates a building imbalance that makes all the buildings in the Bin Baz Putra Islamic Boarding School not

integrated, so they cannot give an aesthetic impression and value.



Figure 8. Shopping Building of Bin Baz Islamic Centre (ICBB Mart)

Source: google.co.id

The building at the Bin Baz Putra Islamic Boarding School has a balanced or symmetrical building on the two right and left sides of the building. This is also a form of a rigid frame construction system that unites continuous beams and columns in a linear fashion to form a symmetrical rigid frame unit, and gives an aesthetic impression of the shape of the building.



Figure 9. Proportion of Islamic Boarding Centre toward Symmetrical axis

Source: google.co.id

The Bin Baz Putra Islamic Boarding School building is in proportion to the surrounding residential environment, not too grand and not too small. This can give the impression of an aesthetic composition that fits the Islamic boarding school building to the surrounding environment



Figure 10. Building Proportion of Bin Baz Putra Islamic Boarding School

Source: google.co.id

The element of rhythmic repetition of forms is applied to the Bin Baz Putra Islamic Boarding School building. The repetition of the shape of the stretch between the columns in the corridor of the school building gives an aesthetic impression of the shape of the arch that beautifies the appearance of the school building in this Islamic boarding school.



Figure 11. Repetition form element in Islamic Boarding School

Source: google.co.id

Pay attention to the condition and behavior of the user with several factors such as gender, age group, physical condition, and others.

In the construction of the Bin Baz Putra Islamic Boarding School, the designer has taken into account the conditions and behavior of building users consisting of male students, teenagers, junior high school (SMP) and high school (SMA) students, as well as teaching staff (teachers or ustadz and student mentors) group adult male age. However, what needs to be considered again as a point of weakness is the irregular mass arrangement in the Bin Baz Putra Islamic Boarding School Area which is considered less efficient in user circulation. This also affects the comfort of users who are less comfortable with physical conditions that are less comfortable with the mass structure of the Bin Baz Putra Islamic Boarding School building.



Figure 12. Mapping of Bin Baz Putra Islamic Boarding School

Source: google.co.id



Figure 13. Circulation Map of Building User Bin Baz Putra Islamic Boarding School
Source: google.co.id

IV. Conclusion

The Bin Baz Putra Islamic Boarding School is an Islamic religious education institution that is expected to shape the character of the students through the application of behaviorally-minded architecture. To ensure the correctness of the application of behavioral architectural aspects, it is necessary to conduct research on the study of the application of behaviorally-minded architecture at the Bin Baz Putra Islamic Boarding School, Bantul.

On several principles of behavioral architecture, according to Carol Simon Weisten and Thomas G. David, overall Bin Baz Putra Islamic Boarding School has fulfilled the aspects of implementing behaviorally-minded architecture. However, there are shortcomings in the principle of accommodating the psychological activities of users. It is shown that the provision of green open space (RTH) at the Bin Baz Putra Islamic Boarding School is less than the boarding school design standard set by the Ministry of Religion of the Republic of Indonesia in 2003 which requires providing green open space covering an area of 30% of the building area.

(Marcella, 2004) reveals that "it is necessary to seek a good environment in order to have a positive influence on children/students so that they can learn as well as possible". This means that the environment of the Islamic boarding school (including the provision of green open space) has a significant influence on the way of learning, and it can be interpreted that the higher the environmental management quality of the Bin Baz Putra Islamic Boarding School, the less helpful it will be in improving the way students learn better.

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