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ADJUSTMENT OF HOUSES IN KAMPUNG INGGRIS DURING THE PANDEMIC SITUATION

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ABSTRACT

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1. Introduction

Kampung Inggris, a village in Tulungrejo and Pelem Village, Pare District, Kediri Regency, is famous for its language courses. There are 80 institutions registered in the community education unit (Source: Reference Data from the Ministry of Education and Culture).

The first course in Kampung Inggris was established in 1977, namely Basic English Course. At the beginning of establishing this course institution, it used the terraces of residents' houses that were rented out and grew until now. From here, it forms the identity of housing in Kampung Inggris, which is identic to the residential business of a course institution, which shows the use of a house with two functions as a residence and a course institution.

The activities of this course institution are increasingly changing the arrangement of dwellings. As stated by Habraken (2014), the transformation and physical changes of housing occur over a long period and as a response to the changing needs of residents. Despite the changes to support the activities of course institutions, in 2020, humans were faced with cases of the COVID-19 pandemic. This makes the country implement health protocols with recommendations for washing hands, not crowding, maintaining distance, and limiting activities outside the home, which also impacts the education system in Indonesia, including Kampung Inggris.

Learning that was initially carried out directly must be stopped. However, to support an increasingly shrinking economy, course institutions in Kampung Inggris have begun to switch to online learning. In addition to preparing for direct learning, each course institution is required to make adjustments to support health protocols and new activities that have changed since the virus pandemic, such as online learning and working from home, so that there is an adjustment to the house to meet these needs.

From this, it can be interpreted that the Covid-19 pandemic has changed people's activities. The activity change encourages adjustments to the houses of the course institution under the relationship between the activity system and physical settings. The activity system can be interpreted as a series of behaviors that are intentionally carried out by one or several people (Haryadi, 2010). While the setting is defined as the interaction between humans and their environment, the physical setting is adjusted to human needs in carrying out activities (Sunaryo, 2010) and (Rapoport, 1991). So, the new activity

system formed from the COVID-19 pandemic is assumed to determine the type and container of activity by adjusting to the physical environment. In this context, it is a residential activity with a dual function as a course institution in Kampung Inggris during the COVID-19 pandemic.

As explained in Asharni (2021), adjustment is a person's effort to meet needs in the form of actions in the form of making changes or additions (reorganizing) to his house. Based on this phenomenon, it is interesting to study more deeply the form of adjustment to the houses with dual functions as a course institution in Kampung Inggris to meet their needs in the COVID-19 pandemic so that they can be lessons in taking strategic and sustainable steps, principally responsive home design to the pandemic impact in social, economic and environmental side.

2. Literature Review

The situation changed due to the outbreak of COVID-19 and required an adjustment. This adjustment can be in the form of an adaptation, or adjustment is a change made by humans to accommodate their daily activities. Tognoli (1987) explains that the dwelling becomes a home through an active process in which people transform their surroundings, creating links to the place that have chosen in order to satisfy their needs and wishes, fundamental difference between a home and a house.

According to Bell and Fisher (1978), there are two strategies that residents use in their homes: (1) Housing Adaptation, namely a person's effort in response to the adjustment of physical conditions in his home by changing behavior, and (2) Housing Adjustment, namely a person's efforts to meet the needs with the form of action in the form of making changes and additions (reorganizing) to the house.

Meliala (2013) gives an example of adjustment to the physical environment as a result of activities in which the bathroom requires a physically restricted space with a place to interact with other people because it is a personal selfcleaning activity. It can be said that the activity of changing the state of the house depends on the quality of the space required. In line with Lang (1987), in deciding what boundary conditions are necessary, one must first decide what degree of segregation is necessary between activity and system.

According to Habraken (2014), the physical changes of the building can be in the form of expansion, depreciation by reduction, and division by insulation. Meanwhile, according to Omar (2017) in Asharni (2021), there are six possible changes to housing: expansion and addition of floors, reduction of area, insulation, removal, and transfer of functions.

According to Lutfiah (2010), this change includes changes in the area, number of rooms, functions, and space patterns. Functions are not only increased by activities but can be in the form of exchanging or transferring functions. This change is inseparable from the elements of the arrangement. Referring to Rapoport (1982), the forming elements are divided into three types. Firstly, fixed elements are architectural elements that are static and rarely changed, such as walls, floors, or roofs. Next, semifixed elements are architectural elements that can easily be shifted or moved, like furniture or a bulkhead. In line with Brand (1994), the adjustment process can be done through furniture arrangement, which can resolves the paradox by offering the hierarchy of pace. It can be fiddle with the stuff and anything user wants while the structure and the site remain solid and reliable (Brand, 1994 in Nasution in Meliala, 2013) and nonfixed elements are related to humans as space users.

3. Research Method

This study used qualitative research methods. The application of qualitative methods is expected to describe the research objectives regarding how each house used as a course institution functions during the pandemic and what forms of physical changes occurred in houses and businesses during the pandemic. Data analysis was carried out by interpreting and describing a comprehensive object of research and discovery.

The research was conducted by conducting field observations and tracing floor plans before and after the COVID-19 pandemic through interviews and sketches by resource persons. Then, the data is processed by grouping the forms of change according to their type, compiling data for analysis of the typology of changes seen in the research object.

The search for sampling data was 27 from 60 active courses in Kampung Inggris during the pandemic. The sample selection used the purposive method (Kumar, 2005) with the criteria of a house with dual function as a residence and course institution during the COVID-19 pandemic between 2019 and 2022. This method was chosen because the research objectives are appropriate so that it can describe the use of the house with dual function during the pandemic.

Here is a sample distribution map in Kampung Inggris (Figure 1).

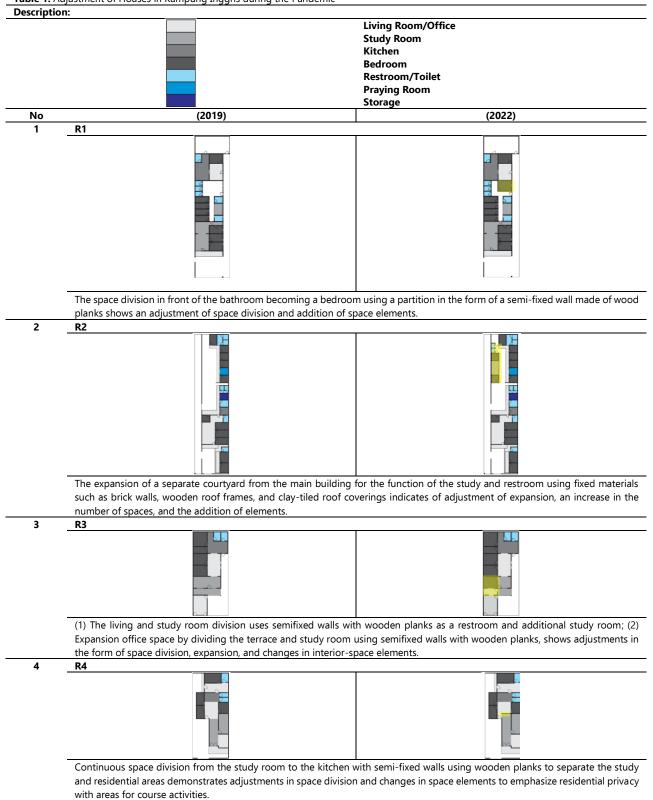


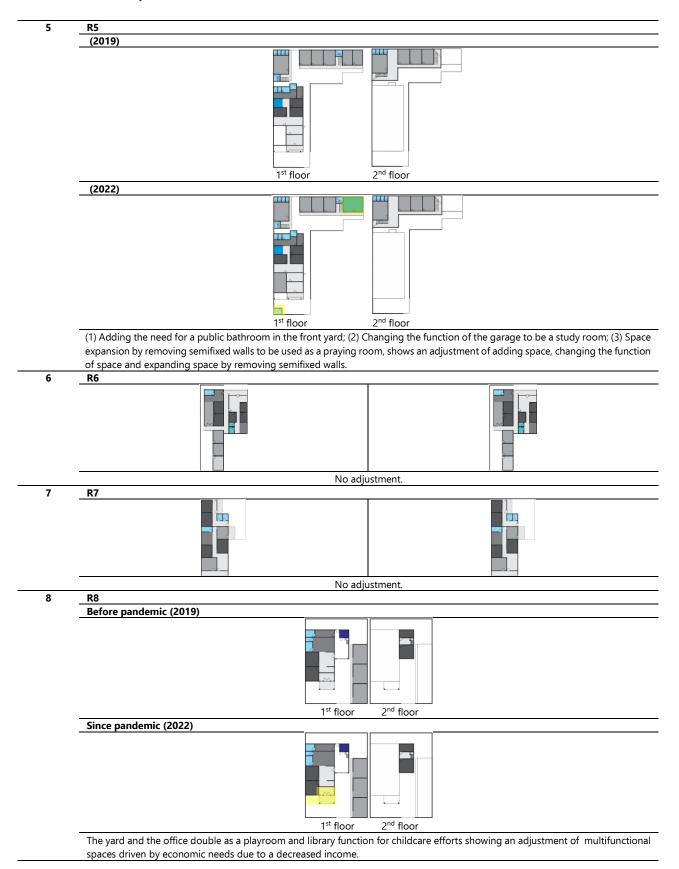
Figure 1. Distribution of Research Samples

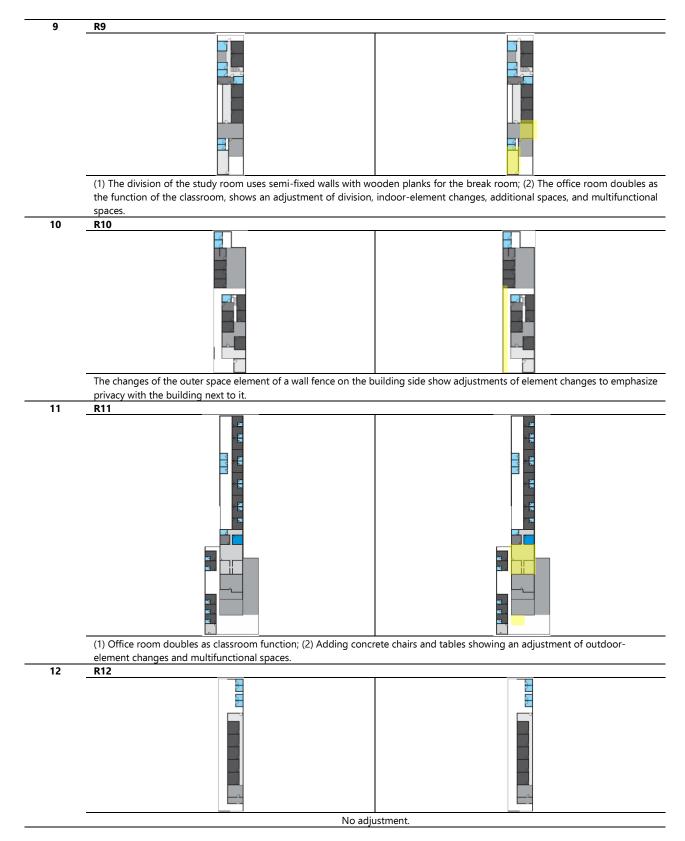
4. Results and Discussions 4.1 Adjustment of Houses in Kampung Inggris during the Pandemic

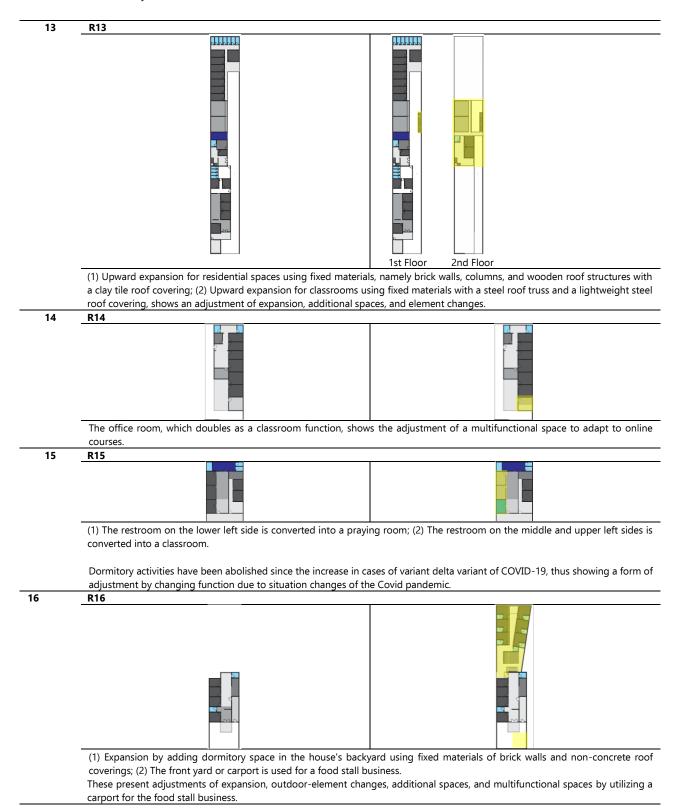
An adjustment that occurs in the house is a long and permanent process. However, the COVID-19 pandemic has resulted in situation changes, encouraging the possibility of adjusting the physical environment in the house to double the function of the course institution in Kampung Inggris. The following table shows how houses have adapted to the COVID-19 pandemic.

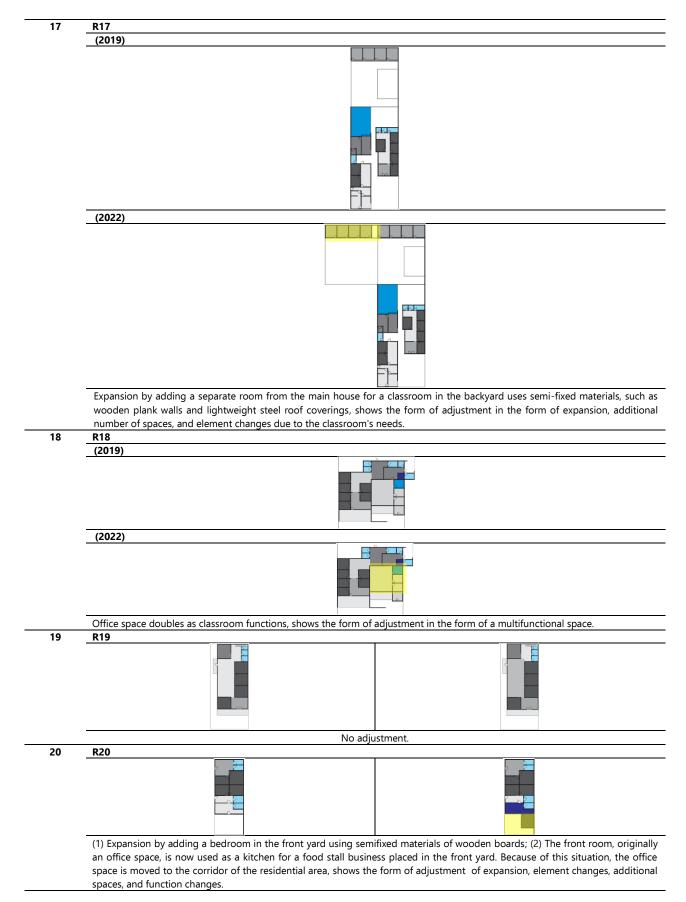
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Table 1. Adjustment of Houses in Kampung Inggris during the Pandemic
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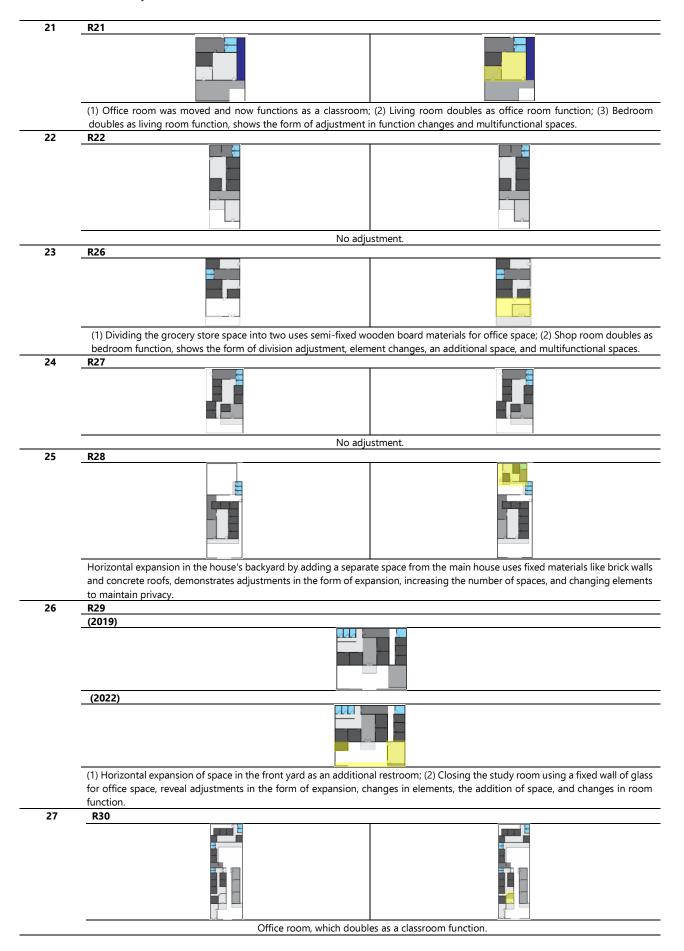












Based on the adjustments seen in the house with the dual function of the course institution in Kampung Inggris during the pandemic and the study of literature regarding the form of physical adjustment of the residents, it was found that there were six types of adjustments in the case study, namely the division of space, expansion, elements change, additional spaces, function changes, and multifunctional space (Habraken, 2014; Omar, 2017; Lutfiah, 2010; Rapoport, 1982; and Brand, 1994).

The space division carried out by 5 of 27 objects shows a tendency to divide space to increase the number of bedrooms.

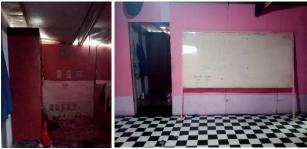


Figure 2. Dividing the Space for the Bedroom

As many as 9 of 27 objects expanded to increase the number of bedrooms for dormitories and classrooms, but two objects expanded to increase residential areas both vertically and horizontally on vacant house land.



Figure 3. Expansion to Increase the Number of Bedrooms and Classrooms

Changes in elements as many as 15 of 27 objects show adjustments for expansion so that they change the elements of the house using fixed and semi-fixed materials such as wooden boards. Both element changes are made to divide the space by insulating for the bedroom and office space needs.

It was found in two study objects that the changes in space elements were in the form of adding tables and chairs for the study room and placing furniture for a food stall business in the house's front yard.



Figure 4. Placing Semi-Fixed Elements in the Form of Tables and Food Displays for a Food Stall Business



Figure 5. An Outdoor Element Changes by Placing Tables and Chairs for an Outdoor Class

As many as 12 of 27 objects showed a tendency to increase the number of restrooms by dividing the space using wooden planks or brick walls. Function 5 of 27 objects changes by performing a function exchange between office rooms and online classrooms result from reduced direct-class activities.



Figure 6. Changes in the Room's Function from a Study Room to an Office Space

The last adjustment made by the house is 9 of 27 multifunction rooms, with a tendency to use one room for two activities, such as using office space to be used as an online classroom and office space for the living room when guests visit.

Based on the previous explanation, it is known that the most common type of adjustment is element change. The need to increase space is the biggest influence that causes changes in elements by providing bulkheads or semi-fixed walls. Then, as many as 22%, 6 of the study objects showed no changes.

The following diagram shows the percentage of adjustments.

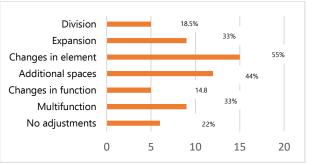


Figure 7. Diagram of House Adjustment Precentage

4.2 Tipology of Housing Adjustment in Kampung Inggris during the Pandemic Situation

Based on the table of house adjustments in Kampung Inggris during the pandemic, it is found that the types of adjustments made by the house meet the needs during the pandemic. There are 12 types of changes: (1) Element Change, (2) Function Change, (3) Multifunctional Space, (4) Function Change + Multifunctional Space, (5) Division + Element Change, (6) Division + Element Change + Additional Spaces, (7) Division + Element Change + Additional Spaces, (7) Division + Element Change + Element Change + Additional Space, (8) Expansion + Element Change + Additional Spaces, (9) Expansion + Element Change + Additional Spaces + Function Change, (10) Expansion + Element Change + Additional Space + Multifunctional Space, (11) Element Change + Multifunctional Space, (12) Element Change + Additional Space + Function Change.

 Table 2. Types of Housing Adjustment in Kampung Inggris

 during the Pandemic Situation

Description:	
Туре	Code of House
(1) Element Changes	R10
(2) Function Changes	R15
(3) Multifunctional Spaces	R8, R14, R18, 30
(4) Function Changes + Multifunctional Spaces	R21
(5) Division + Element Changes	R4
(6) Division + Element Changes + Additional Spaces	R1, R3
(7) Division + Element Changes + Additional Spaces + Multifunctional Spaces	R9, R26
(8) Expansion + Element Changes + Additional Spaces	R2, R13, R17, R28
(9) Expansion + Element Changes + Additional Spaces + Function Changes	R20, R29
(10) Expansion + Element Changes + Additional Spaces + Multifunctional Spaces	R16
(11) Element Changes + Multifunctional Spaces	R11
(12) Element Changes + Additional Spaces + Function Changes	R5

The following percentage is formed from the typology of housing adjustment in Kampung Inggris during the pandemic situation:

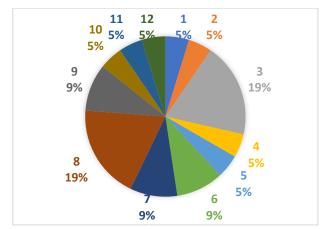


Figure 8. Diagram of Change Type Percentage



Figure 9. Type Distribution Map (1), (2), (3)

In the type of change that makes one type of adjustment, type (1) element changes are carried out by the R10 house by adding a fence of a brick wall less than 1.5 m high to limit the house to the surrounding environment.

Type (2) function changes are carried out by R15 by changing the room's function according to the activity needs. The room that has changed its function is the bedroom, which is now used as a praying room and an online classroom, and type (3) multifunctional space is a type of adjustment that most found among the 27 samples where there are four houses. The multifunctional room is carried out to maximize the use of space functions so that one room can be used for various activities.

In type (3), there is a tendency to use office space as a classroom because there has been a change in the situation since the pandemic. Many offline classes are shifted to online classes, such as those carried out by R30, R18, and R14. The next multifunctional space adjustment is placing space for childcare business activities, such as a small library with office space found in sample R8. The shift in learning activities to online classes is the biggest influence on type (3) adjustment.

In type (3), there is a tendency for course institutions to be more active in online classes and still receive fewer registrants for direct classes, so the form of adjustment is in the form of multifunctional spaces.



Figure 10. Sample Distribution Map that Performs 4 Types of Adjustments; Types (4), (5), (11)

Type (4) Function change + Multifunctional spaces to the houses make two types of adjustment to their physical environment. The purpose of R21 to make adjustments to function changes and multifunctional spaces is to maximize the effectiveness of the available space for online class activities and create social media content so that the office space is moved to the living room and is now used as a space for online classes and social media content creation. The living room is now multifunctional, concurrently office space for administrative, receiving guests, and household activities. The room function exchange occurred in sample R21 to obtain an online classroom and separate content creation from the office space to optimize content production activities.

Type (5), Division + Element change is performed by the R4 unit. R4 sample places a room divider as a wooden plank wall between the study room and the residential area to emphasize the territorial boundaries between the area for course institution activities and the area for households.

The house that made the following two types of adjustments was type (11) Element changes + Multifunctional space carried out by R11. Once again, changes in the online learning situation affected the physical adjustment of R11's house. To meet the needs of online classrooms, the office space is now changing to double the function of the classroom. On the other hand, in R11, tables and chairs are placed in front of the yard for members as an open space for discussion. In addition to releasing stress, it is also the influence of the pandemic to gather outside the room.

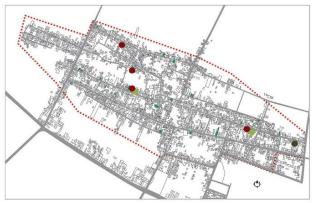


Figure 11. Sample Distribution that Performs 3 Types of Adjustments; Type (6), (8), (12)

There is type (6) Division + Change of elements + The additional spacess to the houses that make three types of adjustments carried out by units R1 and R3. R1 sample adjusts the need for a bedroom because the division of members in rooms has decreased by a maximum of 2 people due to the pandemic. So, to overcome the lack of bedrooms, the space division in front of the bathroom, which was originally a storage room and clothesline, was carried out by placing a wooden board as a space divider for the bedroom. The type (6) of adjustment tends to divide the space using a wooden partition for additional bedrooms.

The type that performs the next three types of adjustments is type (8) Expansion + Element changes + Additional number spaces identified on units R2, R13, R17, and R28. R2 expanded towards the back but was separated from the main building to add a bedroom, study room, and bathroom. A bedroom was added due to the increasing need for a sleeping room since the pandemic, with a maximum provision of 2 members in one room and an

isolation room for new members who have joined lately.

R13 made adjustments in the form of expansion towards the vertical by adding a study room and residential area. The study room is a semi-open space that was added above the existing study room due to the increasing number of offline members during the pandemic. The expansion resulted in element changes in the house because of the increasing space on the 2^{nd} floor.

Like R13, R17 made adjustments in the form of an expansion to meet the growing need for study space, then a horizontal expansion was carried out towards the back of the house because they still have empty land in the back of the house, additional space is added. as many as 4 study rooms due to the increasing number of offline members during the pandemic. It is known that R13 and R17 are one of the course institutions that continue to open direct learning activities during the pandemic, so an increase in the number of offline members has been identified compared to the period before the pandemic.

Meanwhile, R28 adjusted the form of an expansion towards the back of the house because it still had vacant land to emphasize privacy by separating the residential area from the course area so that a bedroom, living room, kitchen, and bathroom were built separately from the main house, this expansion was also encouraged because there were two families in one house. Hence, this backward expansion is a residential area for one of the families of the homeowner's child.

From this, we tend to adjust to type (8) to expand to meet space needs due to the activities of course institutions such as study rooms and bedrooms for dormitories during the pandemic.

Type (12) is a house that performs three types of adjustments in the form of element changes + an additional spaces + function changes carried out by R5. To prevent virus transmission, R5 added a public bathroom located in the house's front yard for guests or family members who visit. In addition to increasing the number of study rooms, because the division of the number of classes, modifications were made to the garage so that it can be used for study rooms by placing physical elements that support learning activities in the form of blackboards, tables, and tiled floors reparation.

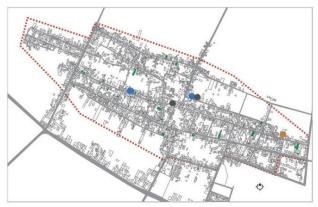


Figure 12. Sample Distribution that Performs 4 Types of Adjustments; Type (7), (9), (10)

While the type (7) Division + Element changes + Additional spaces + Multifunctional spaces and type (9) Expansion + Element changes + Multifunctional spaces + Function changes and (10) Expansion + Element changes + Additional spaces + Multifunctional spaces, is a type of house that performs four types of adjustments in its physical environment. Type adjustment (7) is carried out by R9 and R26. R9 made adjustments to increase the number of bedrooms by dividing the space using wooden boards in the study room due to the increasing need for bedrooms. In addition to the changing situation during the pandemic related to online classes, R9 adjusted the multifunctional space by using the office room as a study room for online classes. In R26, adjustments were identified by dividing the grocery store space into office using wooden board. Previously, R26 was a house used as a dormitory or boarding house. However, since 2022 it has begun to collaborate with one of the course institutions in Kampung Inggris so that it can make some adjustments to the needs of administrative activities by dividing the grocery store space. Besides, because the residential area for households is located at the back, adjustments are made in the grocery store by placing a physical element for rest, such as a sleeping bed. Hence, the grocery store is now also used as a restroom for homeowners.

While houses with four types of adjustments, type (9) was carried out by three samples, namely R20 and R29, in the form of Expansion + Element changes + an Additional spaces + Function change, R20 expands towards the front of the house because it still has a space in front as a bedroom. Moreover, because of member requests and to increase the income of the course institution, physical elements that support food business activities are placed in front of the house, such as food booths, tables, and carpets for sitting in the front yard. Due to this change, the office space is now used as a warehouse and moved to the hallway of the residential area.

Meanwhile, R29 made adjustments by expanding towards the front of the bedroom because it still has a space at the front of the house using a wooden plank wall. Furthermore, the semi-open study room is closed with a glass wall and is now used as an office space. This adjustment occurred due to changes in cooperation before and since the pandemic, which collaborated with one of the different course institutions in Kampung Inggris before, so the use of space also changed.

Next, type (10) is a house that makes four types of adjustments to its physical environment: Expansion + Elements Change + Additional number of changes + Multifunctional spaces carried out by R16. It is known that R16 is a course institution that cooperates with schools to provide language classes during the holidays. Thus, to prepare members from the school, expansion is carried out towards the back of the house as a dormitory area for bedrooms, kitchens, and bathrooms. Besides, since the pandemic, collaboration with schools has decreased. To meet the economic needs, R16 started a food business by placing physical elements for a food stall in front of the yard, which is usually used as a carport and outdoor class space.

From the explanation above, it is known that privacy, the increasing need for space for new activities, and activity

changes during the pandemic affect the adjustments made by houses in Kampung Inggris. Settings are directly related to human activities. According to Sunaryo (2010), physical settings are adjusted to human needs in fulfilling activities. At the same time, the pandemic forms a new pattern of activity to suppress the spread of the virus. It can be interpreted that activity changes due to this pandemic affect our physical environment. In the case of the house in Kampung Inggris, it means regulations to suppress the spread of disease by reducing crowding so that a limitation on the number of members in one room demands an increase in bedrooms and classrooms and the increase in new activities such as online classes that form the need for online classrooms. From here, adjustments were made to the house in Kampung Inggris to respond to the changes that occurred.

Activity is always associated with four main things: the actor, the type, the place, and the time of the activity (Rapoport, 1986), which means that the actor is influential in forming a physical environment in the case study in Kampung Inggris. It means the occupants of the house are the perpetrators of the activity, namely course members, staff and managers of the course institutions, and family members who play a role in the formation of the setting system. In R29's case, the change in the management of the course institution caused a change in the use of space so that there was an adjustment to meet the needs. The next four main things that need to be considered are the types of activities, the increase in new activities such as online classes, and efforts to increase income during the pandemic, which also affect the physical adjustments made in their homes, according to Puspita (2018), the type of business to capture income opportunities affects the adjustment to their homes.

While the adjustment strategy due to changes in activity or the need for a new space is the easiest, namely, a function change shows a tendency to shift functions between two or more spaces, in this case, it means a change in function due to increased activities. However, it does not allow for additional space to cause displacement and exchange of functions (Omar (2017).

The next adjustment is a multifunctional space. In the case study of a house in Kampung Inggris, it means a space whose arrangement is used to accommodate two activity functions. This adjustment strategy follows Silas (1993) in Puspita (2018) regarding the strategy in building spatial for home-based enterprises, in this case, the house with the business function of the course institution, namely (1) sharing of space, by using one space for two functions through element arrangement; (2) extending of space, which adds physical space by expansion; and (3) shifting of space, the adjustment strategy of accommodating two or more activities with time separation. Multifunctional space or utilizing space optimally to become double-functional indicates a strategy of sharing space, namely using one room for two activity functions by placing physical elements supporting activities in the case of study in Kampung Inggris. The multifunctional space is a dualfunction room to accommodate online learning activities as a form of new activities during the pandemic. To overcome online learning activities during pandemic, adjustments were made in the form of a multifunctional

spaces by placing supporting elements, namely furniture for online learning activities such as tables, chairs, and laptops or computers. Then, in this case, the office room is the ideal and easiest room to be used as a multifunctional space because of its similar physical elements. The next adjustment is driven by the privacy factor or assertion of territory between the household area and the course institution and between the house and the surrounding environment using a dividing wall as in R4 and R10. This is based on Gifford (1997), who states that privacy can be managed by spatial separation using physical elements.

5. Conclusion

The results showed that, from the 27 case samples related to the form of adjustment made by the house with the dual function as a Kampung Inggris course institution during the pandemic, it was shown that the addition of elements was the most common form of adjustment. From the explanation of the forms of adjustments that occurred during the pandemic, 12 combinations of adjustment types were obtained. The most common types of adjustment are Expansion + Elements Changes + an Additional Spaces and the type of adjustment in the form of a multifunctional space. In addition, six samples did not show any changes. Then the changes made to the house are a response to various aspects during the pandemic, new spaces are needed for rest and isolation and the increasing need for study rooms due to the division of students, which requires reducing the number of students in a class by 50%. Although in some cases, the need for learning space is increasing because more students are taking classes directly, this is because course institutions remain active in opening direct classes during the lockdown. Activities during the pandemic that switch to online increase interest in online classes, so they need their study rooms or make adjustments by combining two functions of space in one container, namely a multifunctional space, also efforts to increase income due to social restrictions. In some cases, strategies are carried out to maintain the economy by adding businesses such as food stalls daycare children, and online selling by making adjustments to their homes.

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