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CULTURAL TACTICAL URBANISM FOR KIDS IN TERANG BANGSA SCHOOL AREA, SEMARANG CITY

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ABSTRACT

Children are an age group that is vulnerable to becoming victims of accidents on city roads, especially with the use of roads as play spaces. Apart from that, at Terang Bangsa Elementary School, there are still outdoor spaces that are unkempt and abandoned. Previous research shows a close relationship between Tactical Urbanism and children's behavior in urban spaces. However, there has yet to be any research regarding Tactical Urbanism that formulates a design specifically intended for children. Therefore, this research aims to formulate a Tactical Urbanism design appropriate to the culture of Terang Bangsa Elementary School children. Qualitative methods were used to answer the research objectives: observation, literature review, and descriptive qualitative. Based on this method, the appropriate Tactical Urbanism design is to provide a playground that facilitates accustomed games. Tactical Urbanism suggests dividing areas into three: circulation, active, and semi-active. Each zone is equipped with furniture that can be disassembled and adapted to suit the child, and it functions as a play stimulant, relaxer, and barrier. Practical street art is needed to support children's play atmosphere. Implementing this design can change the school environment, motivate school children's activities, and become the school's identity.

Keywords: cultural; roads; school; tactical urbanism

INTRODUCTION

Roads are an important element in urban space. In Indonesia, roads are the main physical building in people's daily mobility. Roads are classified based on class based on (Menteri Pekerjaan Umum dan Perumahan Rakyat Republik Indonesia, 2018) as guidance and direction in classifying roads based on function, traffic intensity, carrying capacity to accept the heaviest axle loads, and dimensions of motorized vehicles. The use of main roads and roads in the environment has different functions, depending on the type of vehicle, vehicle speed, and so on. The smaller the road class, the more restricted a vehicle should be. Apart from that, the function of roads is no less important as a place for people to express themselves, meet, interact, and socialize (Özbayraktar, Pekdemir and Mırzaliyeva, 2017; Han, Nguyen and Sahito, 2019).

In a school environment, roads are important because they involve children's safety. Based on data from the Directorate General of Land Transportation, the highest average growth in the number of accident victims (38.2%) occurred in the 5-15-year age group (Natasya et al., 2015). These figures can represent a lack of child safety protection on the road, and special treatment is needed to reduce and anticipate accidents in children. However, one fact that cannot be denied is that children are losing access to places to play as urbanization increases in cities, so they are looking for alternative places to play in the form of streets, including those that are prone to accidents (Manurung, 2017). In the school environment itself, there are special regulations regarding traffic safety, which are stipulated in the Regulation of the Director General of Land Transportation Number 3582/AJ.403/DRJD/2018 concerning Technical Guidelines for Providing Priority for Pedestrian Safety and Comfort in School Areas by Providing School Safe Zones (ZoSS).

ZoSS itself is engineering and traffic management that prioritizes the safety and comfort of pedestrians in the school environment (Penetapan Kelas Jalan Berdasarkan Fungsi Dan Intensitas Lalu Lintas Serta Daya Dukung Menerima Muatan Sumbu Terberat Dan Dimensi Kendaraan Bermotor, 2018). The School Safe Zone (ZoSS) is expected to create a school environment that is safe from traffic activities. Implementing the School Safe Zone (ZoSS) should create a feeling of safety, comfort, ease, and economy. In order for this zone to be realized, implementation can be oriented towards the 3B system, namely Beauty, Brain, and Behavior (Suweda, 2009). Beauty talks about the availability of beautiful infrastructure, supporting buildings, and complementary traffic facilities and aims to create an orderly and orderly zone. Next, Brain referred to appropriate and intelligent policies for managing the traffic network so that it becomes an orderly and orderly traffic area. Lastly, behavior is referred to as obedient behavior in traffic. With these three ideas, the school environment should have a safe traffic area for children. However, based on research results, the implementation of ZoSS in the school environment has not been completely effective (Nurhakim et al., 2018; Sugiyanto et al., 2015; TURNIP, 2023). According to Menteri Pekerjaan Umum dan Perumahan Rakyat Republik Indonesia, (2018), the ZoSS approach appears to be top-down in decision-making and needs to accommodate the limited child-friendly space, which is currently a major problem.

Tactical Urbanism is a short-term, low-cost, creative, measurable, and bottom-up intervention in public space to accommodate community needs in expression in public space (Lydon et al., 2015; Silva, 2016). The tactical urbanism approach uses underused

spaces or claims certain urban spaces as places for experimentation in order to produce public spaces that are relevant to the community (Lydon & Carcia, 2012). In contrast to the implementation of ZoSS, decision-making in Tactical Urbanism is grassroots, thereby creating a bottom-up-based mobility space and facilitating the needs of vulnerable groups (Alisdairi, 2014). The benefits of Tactical Urbanism are quite diverse, such as reducing stress, increasing comfort, and increasing well-being from previous conditions (Roe et al., 2019). Based on this, researchers are of the view that Tactical Urbanism is a complementary alternative to implementing ZoSS.

Tactical Urbanism is closely related to children. Children in urban villages have a tendency to take tactical action by converting unused spaces in the city into spaces for playgrounds (Alyani & Herlily, 2021). This is in line with Manurung's, (2017) research, which found that children actively use various locations as play areas as a result of limited land for playing. Children also feel motivated to play outside after implementing Tactical Urbanism in the form of a Pop Up Piazza (Senger et al., 2021). Based on these facts, the Barcelona Government designed a Tactical Urbanism policy called *Protegemos las escuelas* by creating temporary parks in schools that are comfortable and safe for playing (Fontes, 2021). Even though the program is carried out top down, there are still characteristics of Tactical Urbanism: community participation and temporary use as a test bed. Therefore, Tactical Urbanism is closely related to children and can be a relevant design method to facilitate children's right to play safely and comfortably.

Children in the elementary school age group in Indonesia basically like traditional games that rely on physicality, skill, and intelligence, such as *conklak, bekel*, jump rope, marbles, and ball games (Dewi et al., 2023). Traditional or conventional games are very functional in children's better development, which will influence children's intelligence and provide stimulants in supporting communication skills, cooperation, sportsmanship, building strategies, children's kinesthetic/motor/physical intelligence, mathematical logic intelligence, visual-spatial intelligence, and many more (Saputra and Ekawati, 2017). Therefore, the school environment requires play facilities that suit children's play needs as a place for children to play and the embodiment of the sustainability of traditional game culture (Praja, Sholihah, Nurfaidah and Rahmiati, 2018). The characteristics of the space needed to accommodate children's play are generally characterized by a space that is free, flexible, and accommodates children's needs and active activities (Achlis and Kharismawan, 2022). Therefore, it is necessary to have Tactical Urbanism, which is equipped with the need for large spaces and play infrastructure so that children's traditional play culture can survive, with an orientation toward the security and safety of children when playing.

Previous research examined the identification of children's behavior in carrying out Tactical Urbanism, experiments on the impact of tactical urbanism, and policy case studies (Alyani & Herlily, 2021; Senger et al., 2021; Fontes, 2021). So far, there has yet to be any research on the concept of Tactical Urbanism that formulates designs specifically intended for children. Previous research was mostly carried out in residential areas, so design for schools has not yet been carried out much. Therefore, researchers are interested in conducting Tactical Urbanism design research that is suitable for children based on school children's culture.

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Figure 1. Terang Bangsa Elementary School Existing Condition
(Source: Author's Documentation, 2024).

Each school has its own uniqueness and characteristics. These characteristics provide a distinct picture of the resulting design. This research takes a case study at Terang Bangsa Elementary School. This school was founded in 2007 under the Terang Untuk Sejahtera Bangsa Foundation. The uniqueness and characteristics of Terang Bangsa Elementary School are represented by its status as an international school. Yet, the children play many games inherited from Indonesia's children such as *Domikado Eska* and other. Nowadays, the Terang Bangsa Elementary School area seems unkempt and abandoned. The roads at this school are still not friendly to children or pedestrians, and there are no zebra crossings or sidewalk heights above 15 cm. All of this is presented in Figure 1. Therefore, the research question that researchers ask is what kind of Tactical Urbanism design for Terang Bangsa Elementary School children is appropriate to the culture of children today. To answer this question, this research aims to formulate a Tactical Urbanism design appropriate to the culture of Terang Bangsa Elementary School children.

METHODS

This research is qualitative research, which is not measured based on specific measurements. This research uses observation, literature review, and qualitative descriptive methods. Observations were carried out to see the existing conditions of Terang Bangsa Elementary School and what games the children played during recess. The observation is done for a week from 25-29 March 2024. This date was chosen as there were no tests during this week, as the children finished their mid-term exam, so no test was taken during this period. A literature review was carried out to see best practices and exemplary implementation of tactical urbanism in the context of this research. There are several sources needed for this research; best practice of tactical urbanism and the best practice for child friendly public space. All of the best practices were combined to achieve an optimum result for tactical urbanism for children in Terang Bangsa Elementary School. The results of the literature recommendations were then realized in 2D and 3D designs with qualitative descriptions to explain Tactical Urbanism for Kids at Terang Bangsa Elementary School.

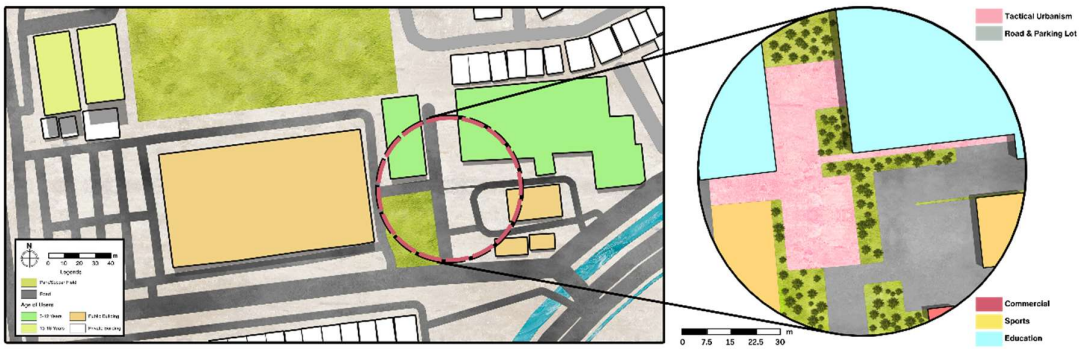

Figure 2. Tactical Urbanism Location
(Source: Author's Documentation, 2024).

Determination of tactical urbanism is based on mixed land use, the availability of public buildings, schools, and campuses, and around open spaces/recreational areas, including road intersections, busy pedestrians in conflict with motorized vehicles, as well as public transportation points (Mohankumar et al., 2020). Wasted space, such as an underused public or vacant private lot reduced pedestrian mobility (Utomo & Armanto, 2021) and had more opportunities for tactical urbanism and revitalizing those areas (Silva, 2016). A location commonly used for Parking lots was chosen to implement tactical urbanism. In the past, this place was used as a parking lot for buses; however, since there was a new parking lot for the bus, it was not used for anything significant and didn't affect the traffic circulation. The location of tactical urbanism can be seen in Figure 2.

RESULT AND DISCUSSION

In designing Tactical Urbanism for kids, we have to think through the eyes of the children. Internet and technology have changed over the past few years; it is now quite common for a kid to bring a smartphone to school, increasing inactivity during recess as a lot of kids choose to play with their gadgets instead of playing in a more active manner (Sahlberg & Doyle, 2019). The pandemic and online school in 2020 worsened this effect, and even in learning, many kids are more prone to being sleepy during class and placing their heads on the table. This puts some perspective into what the design of Tactical Urbanism is trying to achieve in the end. Not only does it try to give an identity and placemaking to a place, but it is also important for encouraging users, in this case children, to be more active during recess.

In achieving this goal of creating more activity for children during recess, tactical urbanism must provide a "playground" for them. This playground is not in the form of the traditional playground with swings or slides, but rather a place to play their accustomed games. The main benefit of this accustomed games is to increase activity in children's "playground" since accustomed games tend to be familiar than foreign games (Kabir et al., 2020). Each country has different types of games that are played by the children in school. This would mean that one cannot simply copy the idea of tactical urbanism for kids without looking into the customs of the children themselves. There are a lot of these classical games that are becoming a custom or a culture by Terang Bangsa Elementary School students, such as *Petak Umpat* (Hide and Sneak), *Ular Naga* (London Bridge), *Polisi Maling*,

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Figure 3. Tactical Urbanism Zoning
(Source: Author's Documentation, 2024).

Domikado Eska, and *Kejar-Kejaran* (Tag), to name a few. Each of these games can be played without any playground equipment and just needs the imagination of the child.

Tactical Urbanism in the Terang Bangsa Elementary School Area is generally divided into three zones: circulation zone, active zone, and semi-active zone. These three zones are based on the idea of a a play street or a street designed for children to play on (De Nicola et al., 2019). Each one of the zones is not separated by tangible boundaries but uses street art in order not to limit children's activity. The circulation zone is mainly placed in a tight area not big enough to play a game or to sit. A semi-active zone is placed in the area near doors, which means there will be an active circulation of getting in and getting out of the building. This zone acts as a buffer between the active zone and the building. The active zone is the main place for students to play around during recess. The zoning of the Tactical Urbanism can be seen in Figure 3.

Street art can also be used to create identity and placemaking in Terang Bangsa Elementary School. This type of art can be applied directly on the street or on the walls, hence becoming a mural or wall art. It gave vibrancy and helped revitalize a district (Berglund, 2020). Each of the three zones for tactical urbanism had its own theme of street art. The circulation zone had only one purpose, which was to provide a lane for people to move from one place to another, like a corridor. The street art for this area is arranged into two lanes with two opposite arrow directions. Five colors are used for the arrows: yellow, red, green, blue, and purple. These colors were picked because of their association with the school uniform. The semi-active and active zones used the idea of a beach setting. Since Terang Bangsa Elementary School is located near Marina Beach, the semi-active uses the idea of sea waves, while the active zone uses the idea of sandy beaches. When a person goes to a beach, a person must be cautious with the water, while they do not need to be as cautious as that on the sandy beach. The sea wave reminds the users to be more cautious because it is near an opening of a building, while the sandy beach theme shows a place where the users can express themselves during the time of recess. The illustration for each theme of the zone can be seen in Figure 4

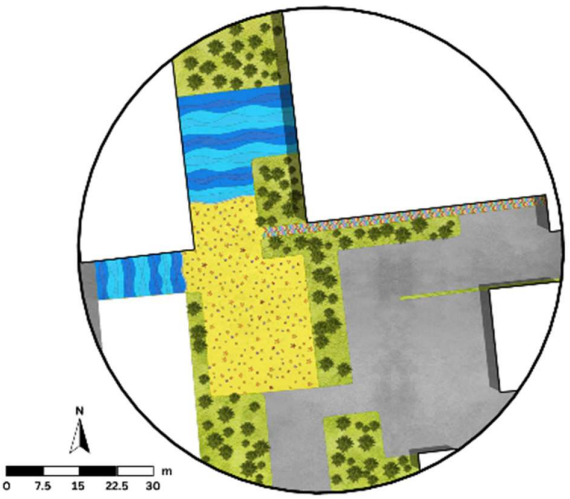

Figure 4. Tactical Urbanism Theme
(Source: Author's Documentation, 2024).

In Terang Bangsa Elementary School, the implementation of wall art also reflected the idea of a child's innocence and optimism. Wall art provides a variation to the mundanity of school life and the vibrant time of recess. The variation of color also gives children a chance to hide themselves much more quickly when playing hide and seek. The wall will be implemented using a plywood board that has been painted with vibrant colors. This is for the sake of practicality. Using plywood board, which had been attached to the wall, makes it easy to replace or take off the art. This cycle of replacing wall art will give a sense of change in the area, provoking a sense of novelty for children. Figure 5 is an example of various option walls that can be switched between one and another.

Each zone of tactical urbanism had different furniture. Nonetheless, bollards were placed at all boundaries of tactical urbanism to provide users with a sense of space and protect them from vehicles (Arsita & Jordan, 2022). Since the circulation zone only provides a space for movement, it will only have a garbage can and pergola for the user's comfort. The semi-active zone will provide seats with tables, a sink, carts selling food, and an information board in addition to the garbage can, pergola, and potted plants. This furniture will provide the chance for users to relax while simultaneously moving more freely compared to the inside of a building. Seats with tables are also provided for the users to eat some meals during the time of recess. The active zones will provide a small stage podium and seats in addition to garbage cans, pergolas, and potted plants. This small stage podium is made out of wood and can be removed easily if not needed. The stage podium can be used as a starting point for *Petak Umpat*, *Polisi Maling*, and *Kejar-Kejaran* or games that usually need more activity than usual. The stage podium can also be used for mini concerts or other events during bazaar or graduation. The seating area can be used for more relaxed games such as *Domikado Eska* or *ABC 5 Dasar*. Potted plants can also be used as a barrier between tactical urbanism and road or parking lot, creating a semi-barrier for the safety of the users. It also prevents motorcycles from entering the newly formed pedestrian

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area through tactical urbanism. All of the furniture that is being used in each zone can be seen in Figure 6.

The arrangement of furniture is also being considered for each zone. The semi-active zone has an arrangement that is more rigid and more formal to remind the students to be more cautious when running around. In contrast, the active zone has an arrangement that is more sporadic and spontaneous to illustrate the expressive mind of children during the time of recess. For example, the seats in the semi-active zone are more similar to seats in the class or cafeteria. In contrast, the seats in the active zone are arranged into a circle to increase engagement and activity between one student and another. An arrangement like this, act as a stimulant for children to play more active games such as *Kejar-Kejaran* (tag) or *Petak Umpet* (hide and seek) in the active zone. These differences can be seen in Figure 7.

The furniture must have children in mind, and the students' height must be considered for their comfort. Elementary students in Indonesia have an average height ranging between 120.96 and 146.81 cm (Rahmayani et al., 2023). Since there is around a 25 cm range of the average heights between 1st grade and 6th grade, this research will use the mean height for them all, which is 134 cm, as a standard user height for the furniture height. There are five pieces of furniture that must have this in mind: table, seat, information board, garbage can, and sink. These height standards of the furniture can be seen in Figure 8.

Figure 5. Various Example of Wall Art on Plywood
(Source: Author's Documentation, 2024).

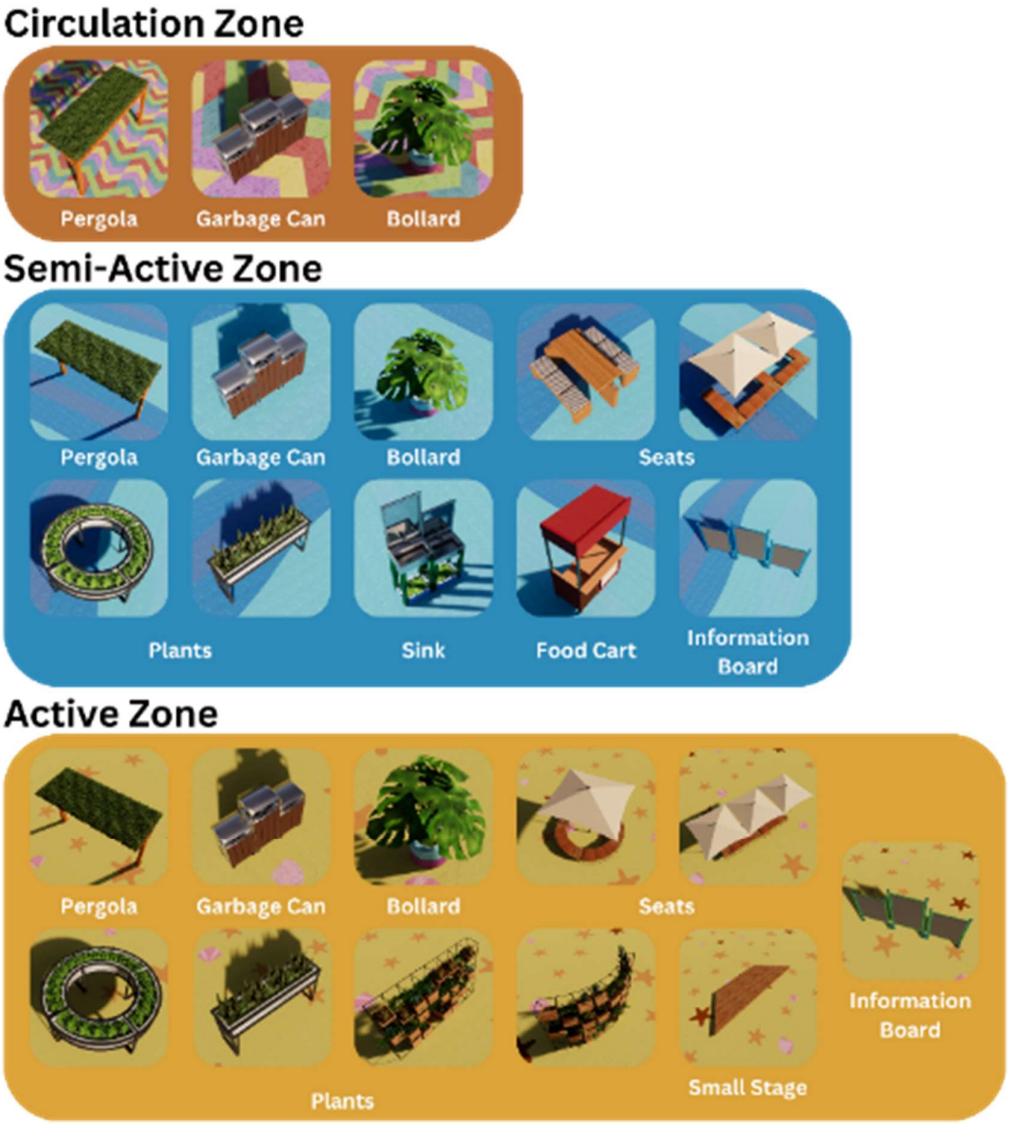

Figure 6. Tactical Urbanism Furniture
(Source: Author's Documentation, 2024).

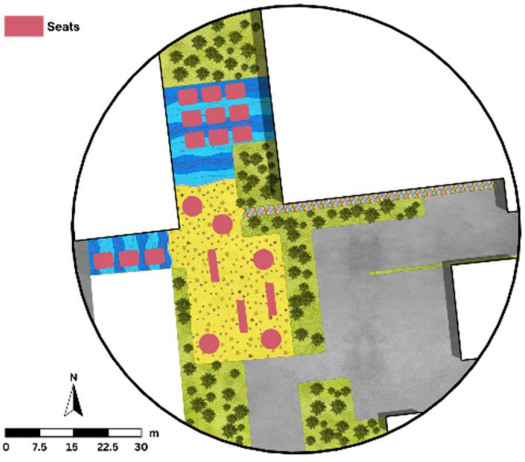

Figure 7. Seats Arrangement in Tactical Urbanism
(Source: Author's Documentation, 2024).

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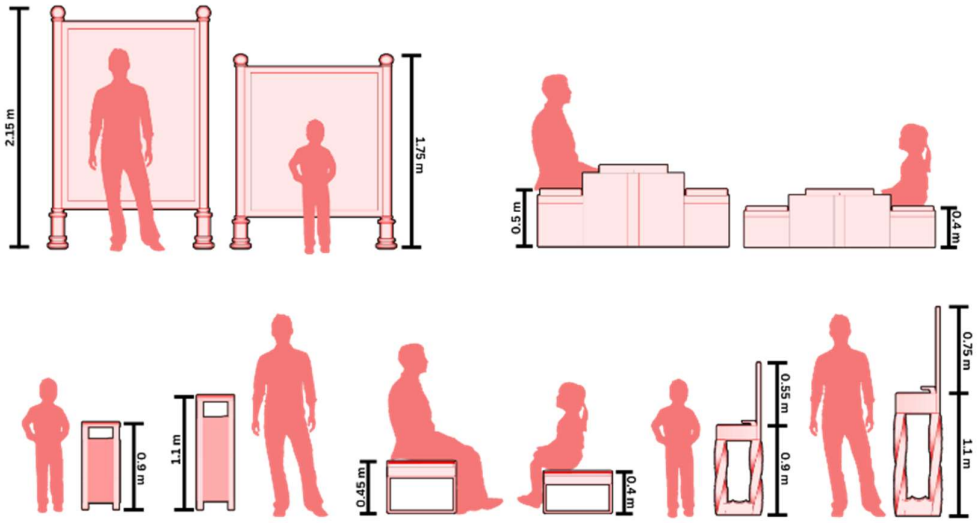

Figure 8. Heights Standard for Furniture
(Source: Author's Documentation, 2024).

Through all of these measures from Tactical Urbanism, the mundanity of school can be transformed into a more unexpected environment for students to explore. This transformation will encourage students to be more active during the time they are in school and give an identity to Terang Bangsa Elementary School. This transformation can be seen in Figure 9, on the left side of the picture is before tactical urbanism and on the right side of the picture after tactical urbanism.

Figure 9. Before and After Tactical Urbanism's Approach
(Source: Author's Documentation, 2024).

CONCLUSIONS

Tactical Urbanism for kids aims to promote physical activity during recess by creating a playground that caters to their familiar games. With the prevalence of smartphones and online learning, children have become more sedentary, and Tactical Urbanism seeks to combat this. The design of the Terang Bangsa Elementary School area is divided into three zones: circulation, semi-active, and active zones, with each zone utilizing street art to delineate boundaries without restricting movement. The circulation zone provides a pathway for movement, while the semi-active and active zones incorporate themes of sea waves and sandy beaches, respectively, to evoke caution and self-expression. Wall art, implemented using plywood boards, adds vibrancy to the school environment and offers a hide-and-seek element. Different furniture is provided in each zone, such as garbage cans, pergolas, seating areas, and a small stage podium for various activities. The arrangement of furniture in the semi-active zone is more formal, highlighting the need for caution, while the active zone embraces a more spontaneous and engaging layout. The furniture is designed with the average height of elementary students in mind. By implementing these strategies, Tactical Urbanism transforms the school environment, encouraging student activity and providing a unique identity for Terang Bangsa Elementary School.

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