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Furniture Design in the Autistic Children's Therapy Room with Ergonomics and Physical Distancing Approaches as an Effort to Prevent the Spread of Covid-19

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ABSTRACT

A furniture is an important tool that is used to support the smooth running of teaching and learning activities in schools. The outbreak of covid-19 has made people have to rearrange their distance in interacting so that the spread of covid-19 can be suppressed. This applied research is used to create new designs so that students and therapists can easily access the furniture and feel comfortable when using the furniture. User activities (students and teachers) and ergonomic measurements are very important to see whether the object is to the needs needed by the user, especially for preventing the spread of covid-19.

The object of applied research is furniture contained in Special Needs School Autism AGCA Surakarta. The method used in descriptive with a qualitative approach supported by quantitative data can also be called a double research strategy, namely the use of various methods in solving a research problem. The quantifiifive here uses numerical data which is the result of measurements in the field, then compared with references referenced, sources, and analyzed based on the researcher's interpretation. The results of this applied research are in the form of a new design that can be used as input to the managers of Special Needs School Autistic AGCA Surakarta and similar Special Needs Schools. The results of this applied research are also expected to provide a sifting of course material. ergonomic and Schools. Furniture in the Interior Design Study Program of ISI Surakarta.

KEYWORDS
Redesign,
Mebel,
Autis,
Ergonomi

1. Introduction.

Autism is a neurodevelopmental disorder in a person that mostly results from heredity factors and sometimes has been detectable since the baby is six months old. Detection and therapy as early as possible will enable the sufferer to adjust to the normal. Sometimes therapy has to be done for life, however, people with Autism who are quite intelligent, after receiving Autism therapy as early as possible, can often attend Public School, become a Bachelor and be able to work to meet the required standards, but understanding from colleagues during school and co-workers is often needed, for example, not listening or not looking at the speaker's eyes, when spoken to. A prominent characteristic of someone who has this disorder is the difficulty in cultivating social relationships, communicating normally, or understanding the emotions and feelings of others. Autism is one of the developmental disorders that is part of autism spectrum disorders (ASD) and is also one of the five types of disorders under the umbrella of Pervasive Development Disorder (PDD). Autism is not a psychiatric disease because it is a disorder that occurs in the brain that causes the brain to not function like a normal brain and this is manifested in the behavior of people with autism. Autism is the heaviest among PDDs.

In the last 10 years, the problem of autism has increased rapidly throughout the world, including in Indonesia, where existing detection and therapy methods are inadequate. In 2005 the American census bureau recorded approximately 475,000 autistic people in Indonesia. However, until now there has been no standard teaching and learning process for autistic children they are still often seen as a burden. The condition of the therapy center in Indonesia has not been comparable to the number of existing patients, and the available space facilities, and equipment are not optimal. The number of autism in the Surakarta

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region itself over time has increased. The therapeutic and educational needs of autistic children are very diverse, good layout and circulation are needed to help smooth the activities implemented in Special Needs School Autistic AGCA Center Surakarta. This is very helpful for teachers, therapists, and autistic people to carry out various activities based on the furniture that has been designed. People with autism are easily affected visually.

Early childhood physique develops very rapidly. School benches and chairs are designed for the wearer, meaning that if the child's physique grows and develops according to age, of course, the size of the bench and chair must adjust. If you are unable to adjust this condition, it will result in the impaired physical growth of the child, and reduce concentration during learning, which is caused by discomfort during sitting.

To increase the effectiveness of learning, it is necessary to change the learning paradigm from a teacher-centered pattern to a student-centered learning direction; Student-centered learning requires an open classroom, mobility, and flexibility, and provides a happy atmosphere. For this reason, ideally, the concept of designing elementary school benches and chairs must meet the principle of portable, and modular. Third, the alternative concept of designing an ideal elementary school bench and chair design must pay attention to the following aspects: the material is strong enough, durable, safe, not too heavy, easy to get in the local environment, and according to the character of children and educational institutions, namely active, creative, innocent, carefree, honest and formal; the form uses the modular and portable principle so that it is easy to adjust as needed and consider the function of the media; construction according to the material, strong, easy to mass produce, and safe for children; size is based on anthropometry and bodily functions of the child; The color is adapted to the psychology of perception, and the character of the child.

A school is a place that aims to facilitate student learning activities. Students spend most of their daily time between 5 and 8 hours per day at school. Students spend about 80% of their time in school in the classroom doing various activities such as reading, writing, drawing, and other activities that make students sit continuously for a long period. One of the factors that support the teaching and learning process is the availability of good educational facilities and infrastructure, including tables and chairs. Good table and chair design need to consider ergonomic and anthropometric factors so that the existence of the table and chair helps children in carrying out learning activities.

The discrepancy between the anthropometric dimensions of students and school furniture/facilities is the cause of many complaints faced by students inside and outside the school. Based on the research conducted, it is known that furniture (chairs and tables) is too high for most students. The results of the study showed that furniture in the classroom used can pose a risk of back problems in the future for students. Ergonomic school tables and chairs will make the child feel safe, comfortable, and healthy. Conversely, if the table and chair are not ergonomic, the wearer will quickly feel tired and experience complaints of *musculoskeletal disorders*.

The latest Coronavirus transmission rate in Indonesia (COVID-19) has not yet fallen. As of March 31, 2020, the number of confirmed positive cases of COVID-19 has exceeded 1,500 cases. "There are an additional 114 new positive confirmed cases, bringing it to 1,528 cases," said Achmad Yurianto, government spokesperson for handling COVID-19, on the BNPB YouTube channel, Tuesday (31/3/2020). Thursday, March 19, 2020 research conducted by WHO by bringing together all coronavirus experts in the world still has not received an agreement that can be used as a world standard related to specimens of definitive treatment of COVID-19.

The World Health Organization, along with officials around the world have agreed that social distancing is an inappropriate term to use in efforts to deal with COVID-19. Presented by the Coordinating Minister for Political Affairs Mahfud MD, the Indonesian government has also decided to change the term. The term social distancing has now been changed to physical distancing. With the development of corona cases in Indonesia today the Indonesian government continues to make efforts to minimize people who are infected with Corona Covid-19. Initially, the government did not want to provide information to the public regarding the coronavirus that entered Indonesia. This is done to avoid public panic and also avoid issues that are not clear in the truth.

Regarding the development of the coronavirus, the government then made a policy as a first step, namely in the form of social distancing recommendations. This means that the government is fully aware that the transmission from covid-19 is droplets of small mucus splashes from the walls of the respiratory

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tract of a sick person that comes out when coughing and sneezing. Therefore, the government recommends anyone who coughs and who suffers from influenza disease wear a mask, the purpose is to limit the splashing of droplets from the person concerned. In addition to adjusting the distance between people, so that the chances of contracting the disease can be lower. The implication is that gatherings with large numbers and those that allow for a buildup of people should be avoided. Therefore, it is very important to be realized together from all components of society not carry out activities that mobilize many people in one place that is not too wide and causes crowds. This is considered one of the most effective efforts to reduce the spread of the virus. Therefore, social distancing must be implemented, both in daily life, in the work environment, and the household environment. In addition to continuing to prevent it through efforts to live a clean and healthy lifestyle by always washing hands using soap with running water.

According to WHO, the term social distancing has a less effective impact on the deterrence of COVID-19, this is due to a misunderstanding that sometimes occurs in the use of the term. Not many people think that social distancing has the meaning of reducing social interaction between people, which causes a tendency to break or minimize relationships with family and other close people. By changing the term to physical distancing, WHO hopes that more and more people will understand and be more orderly in implementing these security stages. The term can be interpreted as social distancing and the government hereby urges people to reduce contact with others who do not have urgency and always clean themselves with procedures that have been determined by the government. This emphasis on physical distancing is also expected by WHO to improve morale by reminding the public that social connections with others can also be and should be maintained despite the distance.

Based on preliminary observations that have been made before, there are complaints by the manager, the furniture used by the therapist uses children's furniture because it adjusts the furniture (chairs and tables) of children. Complaints have not appeared when the duration of therapy is short, complaints are felt when therapy is carried out for a long time. The furniture layout is not by Covid-19 standards, further are:

There are still many therapeutic pieces of furniture for autistic children who use public furniture. There are not many furniture designs that are specifically intended for autistic children. Some have tried to design, but usually, the therapy furniture that was created did not think about the comfort of the therapist, if the therapy was carried out for a long time it would cause sitting fatigue.

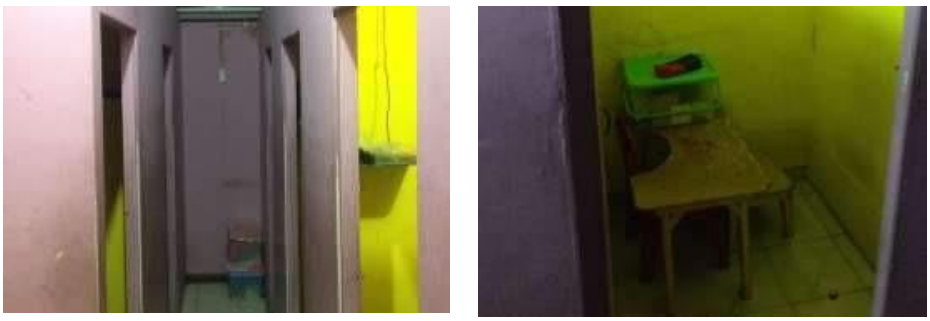

Fig. 1. Hallway to the therapist's room and therapist's room

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Fig. 2. Special Needs School Autistic AGCA Surakarta

Fig. 3. Furniture and activities of Special Needs School Autistic AGCA Surakarta

The definition of this research activity is, Autistic children need special treatment, especially in the methods and infrastructure used. The increasing number of children and schools that provide autistic education needs to be facilitated with more appropriate furniture. Good learning must be supported by long-term safety and comfort to health, both for children as learners and therapists (teachers) involved. The reative spread of COVID-19 needs to be supported by the right setting area and furniture design, especially in the autistic therapy room.

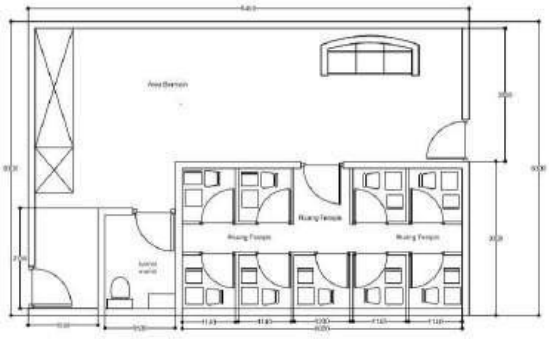

Fig. 4. AGCA therapy room start layout

2. Method

This study is descriptive with qualitative and quantitative approaches, which in Burgess's terms (1999) is called a double research strategy, namely the use of various methods in solving a research problem. The pattern of combining the two approaches in this study is the use of qualitative results to explain research findings in the form of quantitative data. The main data sources are furniture (benches, chairs, lockers, and shelves) is the main data source, oral sources come from informants (managers, students, and teachers), and other data sources come from written documentation/literature and photos. Data were collected by observation, interview, and questionnaire methods. To ensure the trustworthiness of the data used data triangulation and triangulation methods. The collected data is then analyzed descriptively and qualitatively using interactive analysis, which includes steps: data reduction, data presentation, and conclusion. This research using qualitative methods leads to interpretive analysis. This is because the method requires a small scope of research scale but lies in a broad conceptual framework.

This research sample was carried out by purposive sampling, where researchers selected information based on certain positions or accesses that were considered to have information related to the problem in depth and could be trusted to be a source of data that was well considered. The data sources used include objects, references, and informants, which include resource persons who are considered to understand Autistic Children, Therapists, Ergonomics, and Covid-19. To obtain the validity of the data, three ways are carried out, namely: triangulation of data sources, recheck and peer debriefing. Data triangulation is performed by comparing information data against different data sources on the same issue. Recheck is carried out by re-examining the data source to obtain improvements or correctness of the information data from the results of previous information. Peer debriefing is discussing the results of research in a personal manner that is proportional to the intention of obtaining sharp criticism or questions that oppose the level of trust in the correctness of the research. Thus, researchers as research instruments always make

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continuous corrections regarding the results of the research collected. With this technique, it is hoped that the validity of the data can be achieved, and the findings in the field reveal the truth which is an empirical reality.

Observations/observations made in the form of observations do not play a role, whatever is done by the researcher as an observer will not affect everything that happens to the target being observed. Observations are made of objects, references, and informants. This is done to gain an understanding of the processes and actions of the object under study. Data collection techniques are in the form of in-depth interviewing of sources/ informants. The interview process is conducted open-ended, placing the situation of the place and process as open in an informal and unstructured manner but still leading to the focus of the research problem. Even though researchers maintain the quality of the data, natural interviews will guarantee the information as it is.

The analytical technique used in this study is interactive analysis. The analysis is carried out continuously and gradually, using interactive techniques (interactive of analysis) which include components such as data reduction and data presentation as well as verification or conclusion. The components in the analysis are carried out in the form of reciprocal interactions with the data collection process as a sulcus. In the interactive analysis model, researchers continue to move between the three components of the analysis and the data collection process during the data collection activity. Then after the data collection ends, the researcher moves between the three components of his analysis using the time left for the researcher.

The first step in this process is to retrieve the size data from the anthropometry of the child and therapist, each data is recorded and collected, then the average result2 of the required size is taken (unless there is a special need). Secondly, observing the bank, the size and material of each mebel are seen as a sub-analysis i.e. the equipment used by the student/child. Then each of these sub-units is combined into an integrated unit of analysis in this case on the application of ergonomic and anthropometric aspects to mebel products in autistic children as a case. The third is continued with further analysis and discussion to formulate a conclusion.

The next step in this process is design, by the results of the previous research to be the basis for design considerations. The process of making a design is to sketch the design, then several design alternatives are selected, and after that, the drawing is designed with Google Sketchup media. The last stage is to make a mock-up/prototype design. The stages of the design process are in a structured sequence that can be shown in the schema below.

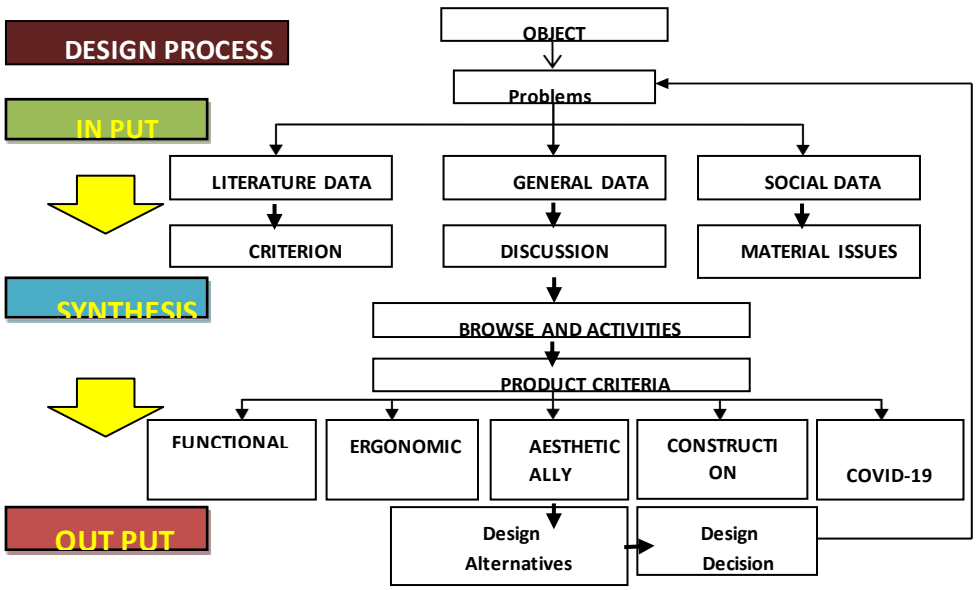

Fig. 5. Research framework

3.1. Bibliography Review

Special Needs School Autistic AGCA Center is an institution engaged in elementary, middle, and high school education specifically for autistic people and children with special needs based in Jakarta. It has several branches in major cities in Indonesia including Jakarta, Surabaya, Semarang, Surakarta, Manado, Bekasi, Tangerang, Depok. The following are the details of the Special Needs School Autistic AGCA Center data: Main Facilities: classroom, library, science lab, computer lab, language lab; Additional Facilities: cafeteria, medical clinic, gym, playground, parking, rest room; Other facilities: internet, wifi, classroom. The types of services of Special Needs School Autistic AGCA Center include Behavioral Therapy, Speech Therapy, Occupational Therapy, and Physiotherapy: Private Music, Computers, Electrical, and Painting; Child Consultation; ABA Method Training; Sale of Props; Sales of Supplements, Foodstuffs, and Beverages for autistic children; Radio/TV Seminars and Talkshows; Neurofeedback and Neurodevelopmental Therapy and IQ Tests (cooperation).

Special Needs School Autistic AGCA Center Surakarta was established in 1999, located on Jl. Kapten Mulyadi no.48 Sudiroprajan, Jebres, Surakarta with a land area of 290 m2. It has 2 classes, namely Regular Class and Therapy Class. The vision of realizing an individual with autism who can socialize. Independent and able to develop his talents and interests. Mission, Providing optimal educational services for individuals with autism; Guiding them to be able to be independent; Exploring children's interest talents; Integrating the child into regular schooling. Objectives Preparing learners to be independent, self-beneficial, and able to integrate into society; Developing the potential of learners according to their talents and interests.

The length of a student's study in kindergarten usually depends on their level of intelligence which is assessed from the report card per semester. In general, to graduate from the program level in kindergarten for 2 (two) years, namely: pre-primary school 0 (zero) Small (small kindergarten) for 1 (one) year, and pre-primary school 0 (zero) Big, for 1 (one) year. The minimum average age for children to graduate from kindergarten ranges from 6-7 years. After graduating from kindergarten, or a school education and another equivalent out-of-school education, students then proceed to a higher level of education above it, namely elementary school or equivalent.

Ergonomics is a science that discusses the relationship between humans and the work they do through a certain rule of work (Ergos; work and Nomos; laws of nature) (Bridger, 1995). Humans in their activities often need a tool that is specially designed or designed to help people's work become easier. With the right design, the work will feel lighter, more comfortable, and faster. Design in ergonomic doses is a method that is applied in designing products by paying attention to human abilities and physical boundaries (Marizar, 2005). This is done so that the product is designed to suit human needs (fit the job to the man). Ergonomics in a process of designing work/study/play facilities is an important factor in supporting the improvement of service services, especially in terms of designing spaces and facilities, in this case, school furniture. The need to pay attention to ergonomic factors in a process of designing school facilities in this case furniture is something that must be considered in a furniture design, in addition to other factors, namely aesthetics, structure/construction, color psychology, safety, economy, and other factors.

In an ergonomic study on furniture design, of course, it will not be separated from the discussion of the size of body anthropometry and the application of anthropometric data. Anthropometry according to Stevenson (1989) and Nurmianto (1996), is a collection of numerical data related to the physical characteristics of the human body, the shape and strength, and the application of these data used for handling design problems. The difference in anthropometric data of a population with other populations is strongly influenced by several factors, including randomness, gender, ethnicity, age, type of work, clothing, pregnancy factors, and physical disability. Anthropometry is a requirement for a feasible design to be achieved and related to the dimensions of the human body which includes: the circumstances, frequency, and difficulty of work tasks related to the operation of the equipment; attitude of the body during the course of the tasks; the conditions for ease of movement elicited by such tasks; additions in critical dimensions of the design arising from the need to overcome obstacles, safety, and others.

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Ergonomics is a science that finds and collects information about human behavior, capabilities, limitations, and characteristics for the design of productive, safe, comfortable, and effective machines, equipment, work systems, and environments for humans. Ergonomics is a systematic branch of science to utilize information about human nature, human abilities, and their limitations to design a good work system so that goals can be achieved effectively, safely, and comfortably. The main focus of ergonomic considerations is to consider the human element in the design of objects, work procedures,s and the working environment. While the method of approach is to study human relationships, work, and supporting facilities, in the hope that it can as early as possible prevent the fatigue that occurs due to wrong work attitudes or positions

Ergonomics is a science that studies the human condition both physically and everything related to the five human senses. The physical condition of human beings includes physical labor, work efficiency, energy expended on an object, calorie consumption, fatigue, and organization of the work system. Meanwhile, those related to the five human senses include vision, hearing, heat/cold, smell, and beauty/comfort. Thus, in ergonomics, anthropometry will be contained which discusses a design product size (for example table, chair, room) determined by the human dimension as a potential user by considering comfort, practicality, and efficiency to save energy expended.

The science that specifically studies the measurement of the human body to formulate differences in size in each individual or group and so on is called Anthropometry. Human body size varies by age, gender, ethnicity, and even occupational group. The interaction between space and humans dimensionally can have an anthropometric impact, namely the conformity of the dimensions of space to the dimensions of the human body. It will be widely used as an ergonomic consideration in the process of planning (designing) products and work systems that require human interaction.

On average most of the child's time in (public) school is spent sitting in a school chair. So, if the average school time of children is 3 hours, for example, then about 2 hours they will spend sitting in a school chair - every day. The length of time sitting in this chair can become longer if at home the child must also sit down to do tasks. This shows, that in carrying out their daily activities, children are just like us adults, they also need good and comfortable chairs and tables. The question between the lines then is, how do schools provide that.?The comfort of the seat for children is mainly formed by (1) the seating area, (2) the height of the seat holder, and (3) the height of the seat back. These three factors need to be in the right average dimensions to support the child's body size. After these three factors, other factors

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that can be considered are the contours and tenderness of the mount and backrest, as well as the weight and mobility of the seat.

Fig. 6. Furniture of autistic children. Source: Anggi dwi Astuti, 2019

Fig. 7. Furniture of autistic children. Source: Anggi dwi Astuti, 2019

Fig. 8. Furniture of autistic children. Source: Kharista Astrini Sakya, 2016

Fig. 9. Children's furniture auto s. Source: Kharista Astrini Sakya, 2016

3. Result.

The size of tables and chairs for children and adults (therapies) should be different. In general, educational institutions for children with special needs only focus on the need for furniture for children, while therapies it is somewhat neglected. This has an impact on the discomfort of therapists who are forced to sit in child chairs and use tables that are lower in size. Therapies will feel pain in the back and calves due to sitting too short, this if left continuously for a long time results in health problems, especially in the anatomy of the spine. In terms of size, it should be separated, the size of the shelf for children and the shelf for adults, because the accessibility of each height is different. If the shelf is used for child and adult shelves, there is another alternative, which is to add a support footing under the shelf.

Play therapy is a healing effort to achieve optimal physical, intellectual, emotional, and social development of children. The purpose of play therapy is to distract children from boredom while in the therapy room but in addition to playing children also experience the learning process. The playroom is a multifunctional space because in this room other therapies can be done for autistic children who need space to move. In general, the teaching system used in the therapy room is a one-on-one method.

In the play area, children can run several kinds of therapy, in the form of sensory integrity therapy, occupational therapy, and motor therapy. This spatial arrangement pattern is by the handling of the development of autistic children who have the aim that children can play actively. Irregular laying of furniture will be able to cause an autistic child to feel uncomfortable, so it will interfere with their activities. The characteristics of the child at the time of running play therapy are: Autistic children adapt to the environment (they need an intimate atmosphere); Autistic children feel comfortable playing (need an active atmosphere); Autistic children engage in physical activity (require sufficient wiggle room); Hypersensory autistic child (absence of pointed corners on furniture

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This approach is needed so that the furniture products produced have a good use function, namely as a place of learning for autistic children. The function of the student seat is to sit. The functions of the desk are for, writing, reading, counting, drawing, and playing. The therapist's chair is used as a seat for the therapist to perform therapy activities.

An ergonomic approach is necessary so that users can feel safe and comfortable. In this approach, the right size of the furniture is used, and the size (length, height, width, and angle of inclination) is taken into account so that the user can use the furniture in a time that is by the therapist's process. Chair sizes for therapists use standard sizes for adult humans, while table sizes and chairs for autistic students use children's sizes. The use of color in furniture is a consideration for ergonomics, colors are chosen so that they can psychologically help the therapy process, not make children unable to concentrate and feel bored quickly.

This approach includes the proper shape, structure, construction of joints, and use of materials (main materials and supporting materials). Technical troubleshooting can be carried out analysis at this stage. The use of child-friendly and durable finishing materials is also a technical consideration, the materials used in addition to guaranteeing the durability of the material are also safe to use, especially for children. The materials used to use materials around the applied research site. The material has a main frame of iron, wood, sponge, and other supporting materials. The finishing material uses a material that is formaldehyde-free, non-toxic, and does not have a pungent odor. The texture is made smooth but tries not to be too slippery. The shape should be made simple not too complicated and with minimal decoration, the corners on the furniture plane are made blunt so as not to harm the user. The construction is made as solid as possible by the connection system on the iron using electric welding, and bolts. Wooden constructions use pegs and purus. Joints on additional materials using glue and sewing.

This aesthetic approach is also one of the materials for analysis because, in addition to the functional furniture used, it should make the atmosphere of the space beautiful and comfortable according to the needs of users, namely autistic students and therapists. This aesthetic approach can also be adjusted to the theme of the existing space. There is not much need for excessive ornamentation but if you look at it, it still dances.

This regulatory approach is related to the health protocols applied during this PPKM period to avoid contracting the Covid-19 virus or other viruses. The use of baffles is used in each individual and the space is implemented to minimize the spread of droplets.

4. Design Results

Design Alternatives

Fig. 10. Design alternatives one, two, and three.

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Fig. 11. Selected design and simulation usage

Fig. 12. Stainless steel frame on furniture

Child Seat Dimensions/Size Image

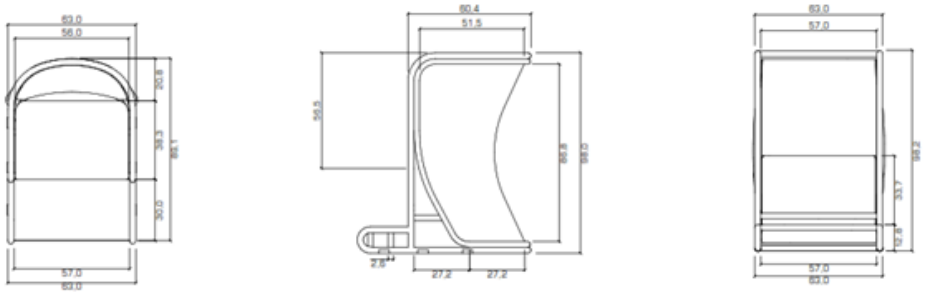

Fig. 16. The size of the chair is a top view, side view, and front view.

Child Seat Material Images

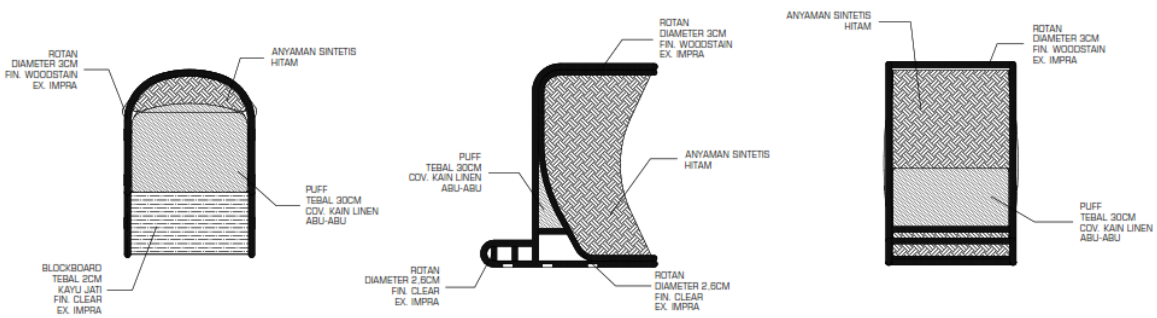

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Fig. 13. Child seat material

Child Seat Construction Drawings

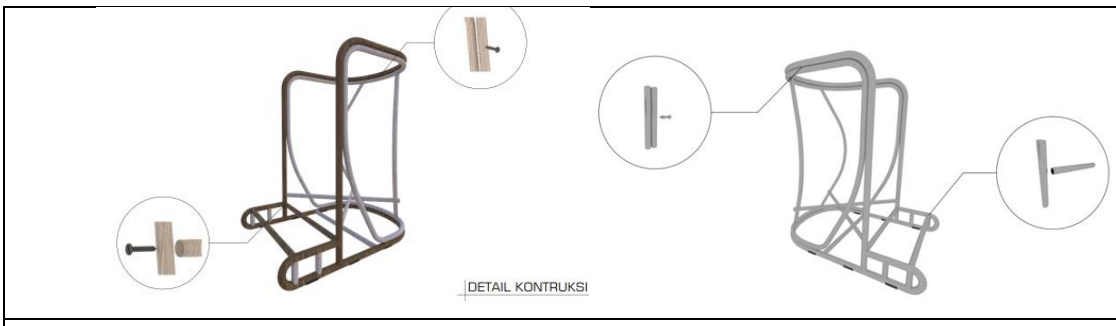

Fig. 14. Construction of child seats, joints using 5cm screws, M4x40 bolt nuts, and welds

Child Seat Perspective Image

Fig. 15. Child seat perspective

Child Seat Perspective Image

Fig. 20. Alternative perspectives on child seats

Therapeutic Chair Dimensions Image

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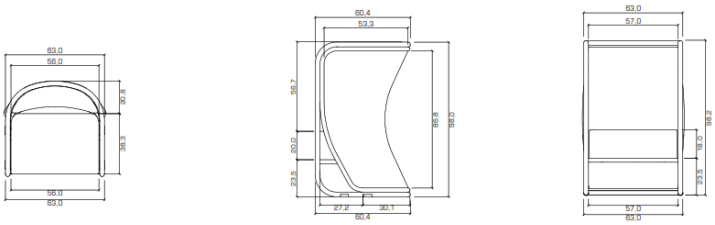

Fig. 21. Dimensions of the therapist chair

Material Image of Therapist Chair

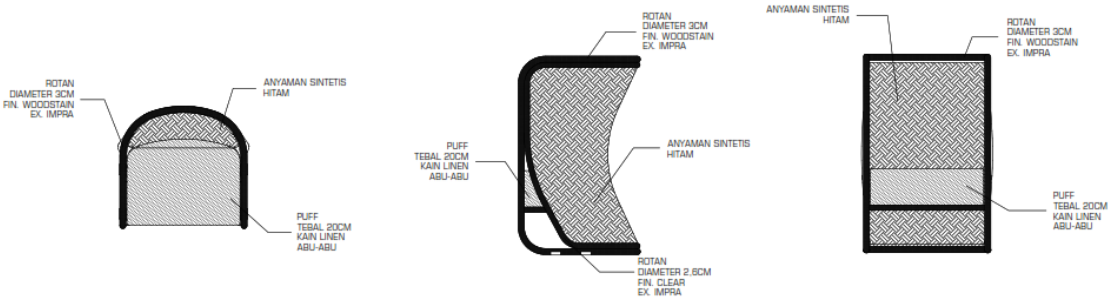

Fig. 22. Therapist chair material

Therapist Chair Construction Drawings

Fig. 23. Construction of the therapist chair, joints using screws 5 cm

Material Image of Therapist Chair

Fig. 24. The perspective of the therapist's chair

Alternative Material Images of Therapist Chairs

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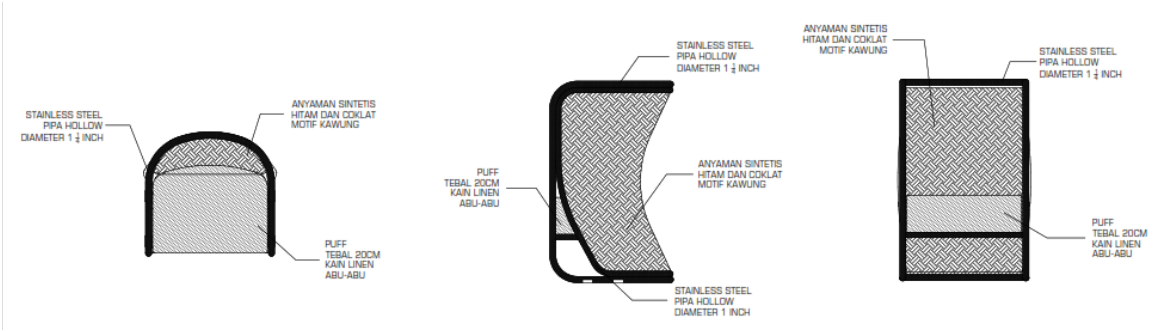

Fig. 25. Alternate material of the therapist chair top view, side view, and front view.

Therapist Chair Construction Drawings

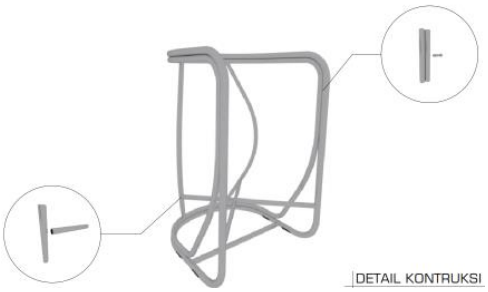

Fig. 26. The construction of the therapist chair, and the joints using M4x40 nuts and welds.

Material Alternative Images on Therapist Chairs

Fig. 27. Material alternatives to the therapist's chair.

Therapist's Table Dimensions Image

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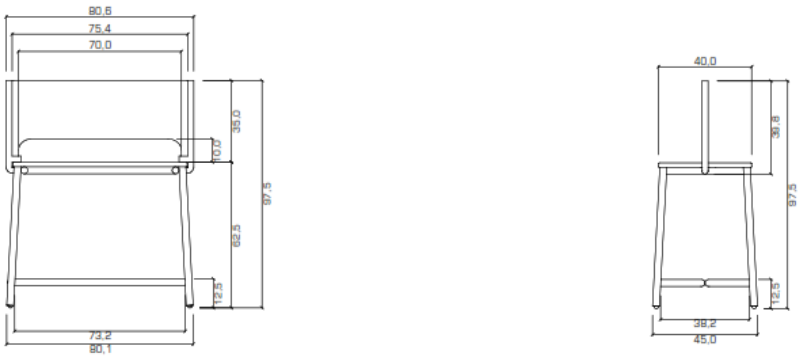

Fig. 28. Therapist's table dimensions, front view, and side view

Therapist Table Material Drawing

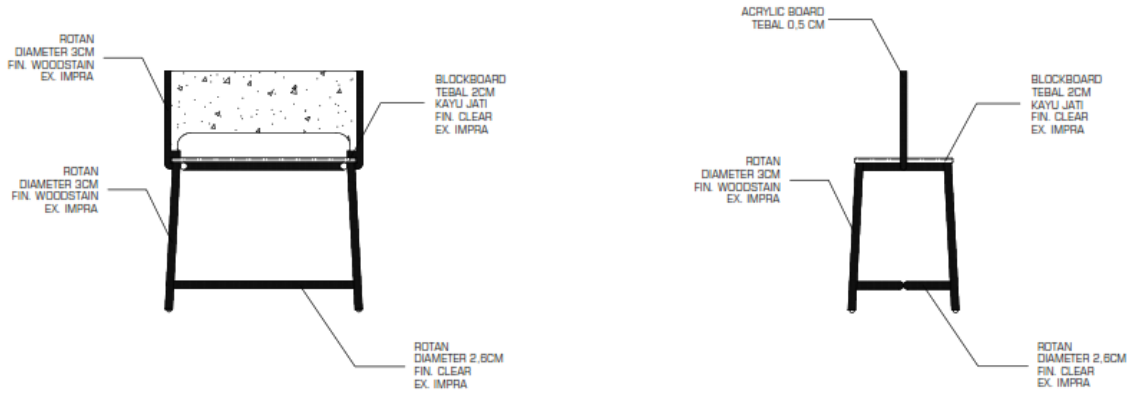

Fig. 29. Front view and side view therapist table material

Therapist Table Construction Drawings

Fig. 30. Therapist table construction

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Alternative Images of Therapist Table Material

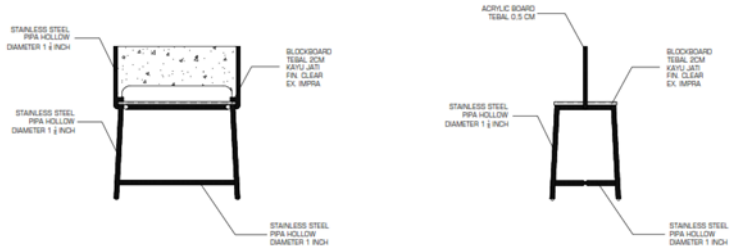

Fig. 32. Alternative material of the therapist's desk front view and side view.

Selected design and Detailed Drawings of Therapist Table Construction

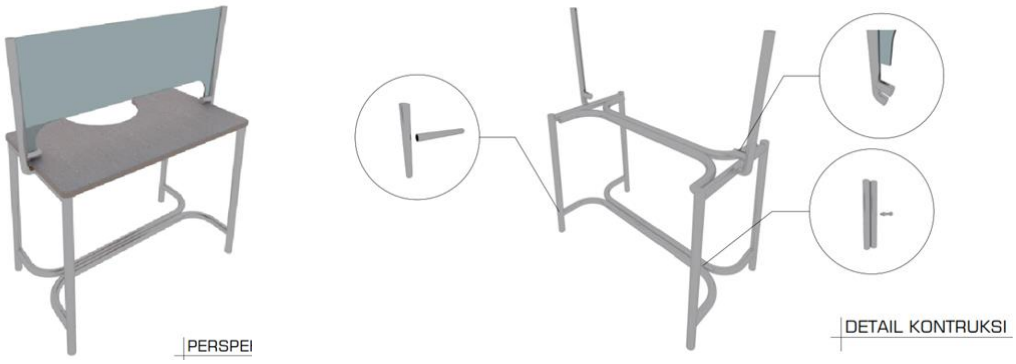

Fig. 33. Selected design and detail of therapist table construction

Selected Design Drawings

Fig. 34. Selected designs

5. Conclusion

Autistic children with special needs are a group that needs more attention from society. Furniture and class money are important elements in schools, if furniture and classrooms feel comfortable then activities in the space can run well. Autistic behavior can be positively influenced by altering the sensory environment resulting from the physical architectural environment (color, texture, ventilation, sense of closure, orientation, acoustics), behavior can be improved, or at least a more conducive environment created, to more efficient skill development. The ergonomic factor in this case anthropometry is the main factor in children's furniture designers, in addition to the condition of children's furniture, the condition of the furniture from the therapist is also considered, so far furniture design still focuses on children's furniture, without paying attention to the furniture used by the therapist in an integrated manner. Interior design in this case furniture can have a positive or negative effect on the psychology of autistic children, and a good design can make the user's activities better and can help caregivers and autistic children. For

the need to minimize the prevention of transmission of the Covid-19 virus through droplets, the use of acrylic/mica baffles can be added.

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