

Evaluating the Outcome of Structured Teaching Intervention for Children with Autism

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Abstract: This article is an evaluation of the structured teaching outcome, as the core feature of TEACCH, an intervention program specially intended for children with autism. The main components of structured teaching are organization of physical environment, visual schedules, work/activity systems and task organization/visually structured activity which can be applied separately or simultaneously. There are more advantages than disadvantages in implementing structured teaching components for children with autism. However, there are things should be considered in implementing it within the context of Indonesia such as the classroom layout.

Keywords: structured teaching, TEACCH, children with autism

I. INTRODUCTION

TEACCH is an abbreviation for Treatment and Education of Autistic and Related Communication Handicapped Children. It is founded in 1970s by Eric Schopler and part of the University of North Carolina at Chapel Hill. TEACCH does not use specific technique instead it frees teachers to create program that utilize the strength that particular child has [1]. Within the TEACCH model, structured teaching is the central feature of it.

What is structured teaching? According to Mesibov, Shea and Hearsey [2], structured teaching is the framework of teaching children with autism in which vocational, social, and living skills are the basic skills taught. Structured teaching emphasis the visual components of structure in order to minimize the deficit in the auditory processing and others. The aims of structured teaching are to increase and maximize independent functioning as well as reducing the frequent need for teacher correction and reprimands leading to behavior problems.

TEACCH program is mainly intended for people on the spectrum of autism and people with communication problem. Autism Spectrum Disorders is a neurodevelopmental-based disorder affecting people on the area of social communication, interaction and restricted and repetitive behavior. People who have ASD will face the world differently from others who do not have it in the way of communicating, interacting and behaving daily. Some people with ASD might communicate verbally or non-verbally, some even do not talk for their whole life. Their way of communicating might affect the way their interaction with the environment and cause behavior problems or vice versa. Their lacked in predicting ability produce monotonous and repetitive behavior and resistant to change. Based on the fact that exhibited by the people on the spectrum, structured teaching is created in order to help them adapt to their environment.

This article is intended to evaluate the outcomes of structured teaching intervention for children with autism which the core concept of TEACCH program. Within this writing firstly, I will provide the advantages and

disadvantages of implementing TEACCH program. And secondly, I will discuss its limitation and recommendation for improvement within the context of Indonesia.

II. JUSTIFICATION OF THE TEACCH PROGRAM

The core approach within the TEACCH program is structured teaching. Structured teaching is an approach that support individuals with ASD to better understand their ecosystem and live in it more independently through fostering systematic and predictable instruction [3]. Structured teaching has two main purposes; one is to improve each individual's adaptation skills that can be achieved through raising individual skills level that often using their special interests, two is adjust the environment to accommodate the individual deficits caused by autism [4, 5]. In order to better achieve those purposes, formal and informal assessments are needed to compose individualized teaching program that matched with individual skills level.

The main components of structured teaching are: organization of physical environment, visual schedules, work/activity systems and task organization/visually structured activity [4, 5, 6]. Those elements recount directly with the characteristics of autism spectrum disorders where many individuals with ASD are ophthalmic learners.

Additionally, those components rely heavily on visual support [3]. Van Bourgondien & Coonrod [6] state that the goals of structured teaching are to (1) create environment that organized and predictable for individuals with ASD, and teach functional skills in order to promote personal independence. The core components of structured teaching will be described briefly below.

Physical organization or physical structure within the structured teaching refers to the way in displaying equipment, resources and general surrounding to add meaning and context to the environment consequently it will help decreasing visual and auditory stimulation that can be distressing for individuals with ASD [4, 5, 7, 8, 9]. It should also give clear expectation on what will the individuals do while in the place which is physically

organized therefore the individual will not be wandering around meaningless.

Visual schedules refer to schedules or agendas of activities that an individual with ASD will be doing and where the activity will take place for the whole time while learning that can happen in any places including schools, classroom and community [6, 9]. This schedule contains clear cues or set of cues that matched the individual skill level so that can be followed by easily. Schopler, Mesibov & Hearsey [4] indicate that a clearly cued schedule will help individuals to minimize problems impaired memory or attention, foster individuals' independence, increase self-motivation, reduce problems with time and organization and compensate for the problem with receptive language.

Work system or activity system is a kind of information which should be systematic, given to children with ASD while on individual working place. The information is mainly about what to be done, how to do it, when it will finish and what happen next after finishing the work [4, 6, 9]. As visual schedules, work systems should also be individualized that meet the individual skills and developmental level. Schopler, Mesibov & Hearsey [4] suggest that visually accessible information helps to reduce tension and behavior problem.

Visually structured activity refers to activities that will be done by the individuals with ASD. Those activities should be matched with the developmental level, strengths and weakness of each child with ASD and clearly visualized using words, sentences, pictures, objects, symbols, etc. The activities instruction should be given visually, organized and clearly so that the individuals will follow it independently. In conclusion, the core components of structured teaching mostly are the objects of research in examining the effectiveness and efficacy of the TEACCH program. The following paragraph will be discussing the advantages and disadvantages of TEACCH program.

A. Advantages

There are more advantageous things for pupils than teachers in the implementation of TEACCH program within inclusive school setting. These are some possible advantages that can be drawn from such as:

1. Students' independency Students' independency is one of the TEACCH goals in helping children with ASD

To achieve the independency, it can be done, firstly, through structuring the environment by arranging the available furniture in the classroom to form private study space. This classroom arrangement is meant to provide guidance for the students in knowing their working space easily and grabbing their working task so they can work on it effectively. Secondly, through the provision of sign or clue of works related materials within classroom and school. Moreover, it has been proven that the structured classroom and school could help pupils with ASD to function independently [9, 10]. Signs or symbols which put within classroom will be understood clearly by pupils with ASD such as sign for working or sign for storing the finish work. When the sign is put on the pupils' table, it communicates that within that signed table the pupils will be working whether supported or

independently. Furthermore, by creating task organization [11], work systems [12, 13] or daily schedule, students' independency in working could be achieved.

2. Smooth transition

Transition is a normal thing in school. For Indonesia's schooling system, transition mainly happen when pupils have to change subjects. Changing subjects is a big problem for pupils with ASD as well as for the teachers who teach them. Changing from one subject to another is an interruption towards pupils with ASD's state of being focus and enjoyment of previous work. While for teachers themselves, getting students to move on to another subjects as expected is something difficult especially when there is pupil with ASD in their classroom. To solve these particular problem, structured teaching approach offers a solution such as activity schedules [14, 15].

3. Limiting verbal explanation

It is believed by the supporters of structured teaching that children with ASD are visual learners. They enjoy learning more through visualized materials. Structured teaching approach was created based on this belief. Structured teaching approach suggested that every single instruction for pupils' learning is supposed to be structured which supported with symbol, icon, writing, pictures, or objects based on the developmental level of each child. Due to the pupils with ASD nature in processing verbal language, limiting verbal explanation is a must in order to avoid their confusion. It means that the verbal explanation itself should be matched with the child ability and communicated the point directly.

4. Increasing academic ability

Academic ability is above other things in Indonesia, including for pupils with ASD. It is used to judge whether a child is successful in learning or not. Even they have to sit on examination to prove it exactly in the same way as the others. Based on the works by Pierce, Spriggs & Luscre [16] and Liu & Breslin [17], structured teaching is of help in increasing academic ability of pupils with ASD for them such as in the area of physical education. It is clear that based on those research, academic subjects of children with ASD will also be helped with the implementation of structured work system.

5. Home-school relationships

The involvement of parents of children with ASD throughout their learning process is encouraged within the TEACCH program. Parents' presence their children learning process will support their children. Moreover, it is proven that their involvement in their children learning will affect positively for both parents and their children [18].

B. Disadvantages

1. Beginning amount of workload

It is no doubt that at the starting point of a new program, the amount of workload will be mounting. Before implementing structured teaching approach, every single person involved will need to learn more about it in

order to decide on implementing it or not. Hard work is required after the decision of choosing to apply it. The implementer is also needing more creativity in constructing the teaching material based on each pupil with ASD assessment result.

2. Useless used materials

The materials that had been made and used before can't be used for other children with ASD since the characteristic of each child might not match. It seems that all hard work been put on each used material seems to be useless. However, each used material can be used as learning materials for teachers who planning to implement the same program.

III. LIMITATION AND RECOMMENDATION

A. Limitation

Regarding the school and classroom layout within Indonesian schooling system, there are some limitations in implementing TEACCH program.

1. Most of primary schools building in Indonesia were built without considering the pupils at all. The available classroom seems to be too small to accommodate 30 – 40 pupils with some giant cupboards to keep teaching materials. The pupils' desks and chairs are arranged into column and arrows make it difficult to find space for personal carrels of pupils with ASD.
2. The teachers seem to be overloaded with administration matters such as filling in school form online that seem to be endless. Based on one teacher story, a new different form appears to come every month. This administrative work will occupy almost teachers' time during break time thus teachers will not have chance to create supporting material or creating program for pupils with ASD.
3. Some inclusive schools are not provided with personnel who understand about children with special educational needs thus general teachers work on their own. These personnel, who understand special educational needs children well, can provide training for general education teachers within their school in order to upgrade their knowledge in serving children with special educational needs.
4. During break time, pupils are left without adult supervision. The pupils are free to play inside and outside school environment. As mentioned on point one that most schools were built without considering the pupils at all, some schools buildings are more than two stores and fenced up to 1 meter only. This is a risky situation that has not been thought properly because there is no evidence yet that student might fall off from second or third store.

B. Recommendation

Based on those limitations, it is recommended that:

1. Teacher aides or teacher assistants are needed to help main teachers with big number of pupils within their classroom. These teacher aides should be working together alongside the main teachers in serving all the pupils in the classroom.
2. It will be better if there is a special teacher aide to work specially with pupils with special educational needs under teachers' guidance.
3. Schools should hire other personnel to help teachers on administrative works therefore teachers will have more time to think about their pupils with special educational needs. Schools should also give teachers a day in a week to prepare for their next week teaching materials that should be done in the school.
4. Schools should hire personnel who trained in special educational needs so that these personnel can be the coordinator for special educational needs within their school. Despite his or her work with special educational needs pupils, these personnel should create training for the teachers within the school in order to be able to teach pupils with special educational needs in their classroom.
5. Coordinator of special educational needs should create program targeting pupils with special educational needs during break time that will benefit all schools' personnel. Break time structured play for pupils with special educational needs can be benefit in handling the lack of supervision during break time. Consequently, there will be no accident or bullying during break time.

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