Increasing the Duration of Eye Contact in Children with Autism Through the Look and Say Technique

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Received: June 26, 2023
Revised: August 18, 2023
Accepted: September 25, 2023
Published: September 30, 2023

Abstract: The main problem taken to conduct this research is children with autism who experience low ability to make eye contact. This study aims to determine whether extended eye contact can be achieved by autistic individuals using the look technique. The purpose of this study is to learn how to improve the capacity of grade 4 autistic students to make eye contact. This study employs experimental research methods and a Subject Research Strategy (SSR) using an A-B-A design. The collected data will then be subjected to quantitative statistical processing before being displayed as percentages, graphs, and means. According to the study’s findings, kids have a poor capacity to create eye contact before using the Look technique. (1) There was relatively little eye contact with the NA participant prior to using the Look method. (2) The NA participant had eye contact for a longer period of time after receiving the gaze method, reaching the high category. (3) For autistic children who have received treatment utilizing the Look approach, the amount of eye contact is sufficient. (4) While the value attained by NA individuals was higher than before receiving treatment, the capacity of NA subjects to extend contact time in baseline 1 (A1) settings in baseline 2 (A2) after receiving therapy declined from a high category to an adequate category in intervention condition B. This demonstrates how the Gaze method encourages extended eye contact in autistic kids. This is a result of the intervention’s effect.

Keywords: Autistic children; Eye contact; Look technique

Introduction

Autism is difficulty in interacting with people around and delays in learning language. Autism is a behavioral disease in which those who have it are exclusively interested in their own mental pursuits, such as daydreaming. Lack of social engagement, avoiding eye contact, difficulties in language development, and repetitive behavior are some examples of behavior problems (Chawarska, 2010).

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For example, poor eye contact, lack of interest in social relationships, problems with creative play, and failure to share interests and joys with others, are examples of low mutual communication skills in social interactions (Dawson, 2004).

According to the results of observations that were carried out on March 31, 2022 at the Taman Pelangi Sorowako Foundation SLB. When the child was in a room, the researcher observed an autistic child who was being treated. At that time the teacher was giving therapy to the child, but this autistic child just wanted to play with his cellphone (Development, 2002). Then the teacher gave the cellphone for 2 hours and the child was happy to hear songs from the cellphone. After 2 hours, the researchers approached the child with the initials NA. First of all the researcher called the child's name
then the child answered yes but did not look at the researcher (Huijbregts, 2011). Then the researcher took an object and showed it to an autistic child, but the child did not want to see the object, he just submitted. When the researcher conducted the second experiment by calling the child's name and then the child looked at the researcher there was eye contact for one second, this experiment was carried out several times so that eye contact occurred (Kasari., 2009), then the researcher took the puzzle media and called the child's name and the child looked towards the researcher so that there was eye contact for two seconds. This experiment was also carried out several times, after that the researcher used hand puppets to attract the child's attention and the child looked at the researcher (Kasari., 2015). The researcher played hand puppets while telling a story and the child saw the researcher resulting in eye contact between the researcher and the child for three seconds. This was done several times so that the duration (Mash & Wolfe, 2010) of eye contact between the researcher and the child lasted three seconds (Klin, 2002). Then the teacher explained to the researcher what problems the autistic child experienced when the researcher and the teacher were in the classroom (Mash & Wolfe, 2010). The teacher with the initials NI explained to researchers that the child lacked eye contact. Mrs. NI explained “That autistic children with the initials NA are currently experiencing a lot of development while in the school environment and at home. When Mrs. NA trains children to store things in cupboards, these children can do it. But currently, autistic children with the initials NA are still lacking in making eye contact.”

The look-and-say technique is being used by researchers to try and solve existing difficulties or to extend eye contact in autistic children. Researchers are interested in implementing a look and say strategy to try to overcome or help the duration of eye contact in autistic children based on existing problems. According to (Nadel, 1999), the look and say technique is a technique. To teach the seeing method, the teacher shows students the word and says it while pointing to objects. Students must repeat the word. This happens several times with each word. Word recognition only requires a short and fast duration. For example, the teacher calculates how many seconds a child's eye contact lasts, so the teacher can find out the level of child's eye contact duration (Reichow, 2012). There are many word recognition games you can do at this stage. Whereas according to (Roberts, 2022) says that the look and say technique is a method when the child looks at the picture then the duration of the child's eye contact is calculated for how many seconds the child is able to stare at the image. Thus, the look and say method is considered a very effective methods (Rogers, 2010).

Method

Research Approach

This research was conducted using a quantitative research methodology. Statistical techniques, algebraic or other computational models are used to analyze data in quantitative research, which is characterized as a systematic exploration of phenomena. This study aims to investigate and confirm the extension of eye contact in autistic children through the Look and Say I technique at the Taman Pelangi Sorowako Education Foundation SLB (dams, 2018).

The type of approach used in this research is Single Subject Research (SSR) which is an experimental research using one subject. Experimental research with a single subject, (Whalen, 2006) says that concentrating on individual data as a research sample. By using the Look and Say methodology to improve children's ability to make eye contact, this research method intends to collect data by examining the effects and evaluating the efficacy of a treatment at the Taman Pelangi Sorowako Education Foundation SLB before being given baseline 1 (A1) treatment, while being given treatment baseline 2 (A2) and also before and after treatment (Swettenham, 1998).

Research design

Withdrawal and reversal through the constellation A-B-A is the research design used in this single subject study. This research method contains stages with the aim of measuring the severity of a person's reaction to therapy by comparing their baseline before and after the intervention (Striano, 2005). The A-B-A study design has three phases, namely baseline 1 (A1), intervention (B), and baseline 2 (A2). Some of the research steps taken in this study are as follows:

a. A-1 (Baseline 1), is an accurate (complete) description of the subject's capacity before treatment or before the researcher has a strategy to intervene. Within this baseline, the researcher is not allowed to provide care while collecting data. "Baseline is a condition where the goal behavior is measured in its natural environment before any intervention is given," according to (Sasayama, 205)

b. B (intervention), specifically the circumstances in which the person is. The goal of therapy is to give it repeatedly to observe any progress. The Look and Say approach was used as an intervention in this study of individuals. Over several sessions, this intervention was repeated. To determine the effect of the intervention on the subject's initial eye contact ability, fourth grade autistic students at the Taman Pelangi Sorowako Education Foundation SLB collected data on the subject's long eye contact capacity (Striano, 2005).
c. A-2 (Baseline 2), namely the repetition of basic conditions is used to measure how much impact the intervention has on the subject. The researcher aimed to measure how much the subject's ability to maintain eye contact after receiving the intervention had improved at baseline 2 (Rosenthal & Rosnow, 2009).

Research Instruments

This study used an instrument in the form of a test related to the look and say technique.

Data analysis

In single-subject research, individual data is the main focus of data analysis. To determine whether the independent variable or intervention has an impact on the dependent variable or target behavior, data analysis is performed. These single-subject, statistical-based research design techniques also have an impact (Whalen, 2006).

Result and Discussion

An experiment with one person/single subject (SSR) was used for this study. The research design used is A-B-A. Graphs are used to describe the descriptive statistical analysis of the data obtained. In this study, data on extended eye contact in autistic children, class IV at SLB Taman Pelangi Sorowako Education Foundation on baseline 1 (A1), at the moment intervention (B), and on baseline 2 (A2).

In class IV autistic children at the Taman Pelangi Sorowako Education Foundation SLB, this study aims to prolong eye contact. The research subject was an autistic teenager in grade IV of SD SLB YPTP Sorowako with the initials NA. The stages for analyzing the results of the research to then draw conclusions are: (1) Count score for each condition; (2) Make a table in which there are measurement results for each condition; (3) Data analysis both in and in all conditions to determine the impact of the intervention on the ability to maintain eye contact in class IV autistic children at the Taman Pelangi Sorowako Education Foundation SLB as the target (target behavior) that will be achieved.

When the results of data analysis are in condition baseline 1(A1), intervention (B), and baseline 2 (A2) the eye contact duration ability of class IV autistic children at the Taman Pelangi Sorowako Education Foundation SLB is put together into a summary, the results can be seen as Figure 1.

![Figure 1. Trends in the direction of the ability of the duration of eye contact in autistic children grade IV elementary school on baseline 1 (A1), intervention (B) and baseline 2 (A2) conditions.](image)

Table 1. Summary of visual analysis research findings in the condition of initial writing ability in baseline 1 (A1), intervention (B), and baseline 2 (A2) conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>A1</th>
<th>B</th>
<th>A2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Condition</td>
<td>3</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Estimation of directional tendencies</td>
<td>(=)</td>
<td>(+)</td>
<td>(+)</td>
</tr>
<tr>
<td>Stability tendencies</td>
<td>100%</td>
<td>20%</td>
<td>100%</td>
</tr>
<tr>
<td>Data trail</td>
<td>(=)</td>
<td>(+)</td>
<td>(+)</td>
</tr>
<tr>
<td>Stability Level and Range</td>
<td>Stable</td>
<td>Variale</td>
<td>Stable</td>
</tr>
<tr>
<td>(33,33-33,33)</td>
<td>(38,46-87,18)</td>
<td>(74,36-82,05)</td>
<td></td>
</tr>
<tr>
<td>Level Change</td>
<td>(33,33-33,33)</td>
<td>(38,46-87,18)</td>
<td>(74,36-82,05)</td>
</tr>
<tr>
<td></td>
<td>(0)</td>
<td>(+48,72)</td>
<td>(+7,69)</td>
</tr>
</tbody>
</table>
The explanation of the table above is as follows:
a. The number of sessions in the baseline condition or the duration of the Condition condition baseline 1 (A1) completed in 3 sessions, intervention (B) in 15 sessions, and conditions baseline 2 (A2) in 3 sessions.
b. In the table, it was found that at baseline 1 (A1) there was a flat trend, meaning that the ability to hold eye contact from session 1 to session 3 had the same value. Meanwhile, the intervention line increased, meaning that the subject's eye contact ability from the 4th to the 18th session increased. After that, baseline 2 (A2) also experienced an increase. Which means the ability to make eye contact with the subject increases in the 20th - 22nd session.
c. The data obtained are stable, as determined by calculating the trend of stability at baseline condition 1 (A1), which results in a return of 100%. The data obtained is variable as indicated by the trend of stability in the intervention condition (B) with a value of 20%. The trend of stability at baseline condition 2 (A2) was calculated in the same way as before and yielded 100%, indicating that this data is also stable.
d. The description of the data trail matches the direction of the trend (point b) above. Baseline 1 (A1), baseline 2 (A2), and intervention conditions all improved.

The baseline condition level 1 (A1) and the data range show flat findings with a data range of 33.33 - 33.33. The data showed a tendency to increase in the intervention condition (B), with a range of 38.46 - 87.18. Similar to baseline condition 1, data for baseline condition 2 (A2) tends to increase (+) stably with a range of 74.36 - 82.05.

The researcher found that autistic students in Grade IV at the Taman Pelangi Sorowako Education Foundation SLB had difficulty making eye contact based on the findings of observations and evaluations conducted on NA children regarding eye contact skills. The child has not been able to make eye contact or interact when the researcher asks to speak but the student is unable to look at the researcher in the eye. It is also seen that children have difficulty interacting with friends at school. Observational findings point to this situation, and because autistic children's problems with eye contact are still severe, it is imperative that they receive prompt treatment. Consequently, it is important to provide instruction that prepares children for success. This is also the context in which the researcher approaches this problem. In this study, the Look approach was used to help autistic children develop their eye contact skills.

Application of techniques Look can have a good impact in increasing the eye contact capacity of autistic children, according to the findings of Design A-B-A for the target behavior referenced in the data analysis, which is displayed visually. Thus, empirical evidence shows that using the View approach with autistic children in the Taman Pelangi Sorowako Education Foundation SLB can help them maintain eye contact.

A total of 21 meetings, divided into 3 sessions, were held during the one-month study period starting on 12 September. Baseline condition 2 (A2), intervention condition (B), and baseline condition 1, each received three sessions (A2). According to previous research findings, providing care can improve eye contact capacity. A marked increase in the ability to make eye contact before and after therapy serves as an indicator of this. Collection of baseline data 1 (A1) which was carried out in 3 sessions. Namely in the first session the children were invited to communicate in name recognition, singing with a duration of 3-5 seconds where the child was able to make contact with the researcher without any treatment. Therefore, the third session of the test was stopped because the data collected was stable. The values are modest and consistent from the 1st to the 3rd session. This was because the NA subject was still measuring how long the child maintained eye contact, which resulted in a low score.

On condition intervention (B) carried out for fifteen sessions, the ability to make eye contact with NA subjects on the condition intervention (B) from the fourth to the eighteenth session there was an increase. In this study the researchers targeted the duration of eye contact for children to be 15 seconds with fifteen sessions with a period of 10 minutes for children to be given the application of techniques Look then when the child can reach the duration in each session the child will be given a reward in the form of media that is held by the researcher because the media is very liked by children with various shapes and colors with a period of 10 minutes after that the child will be given another application of the technique Look. To achieve the desired result, this was repeated several times until the NA individuals were able to make more eye contact than they did at the start of 1. (A1). Due to the influence of the learning media treatment, the value of the NA subject has increased.

Therapy is given for three sessions in baseline 2 (A2) because the results stabilize after the first number of sessions. Because the child initiates eye contact on baseline 2 (A2) without receiving any treatment or assistance, the total score the child gets appears to be lower than the intervention condition (B). Condition baseline 2 (A2), much better than condition baseline 1 (A1). So it shows that the use of the Look approach to fourth grade elementary school students with autism at the Taman Pelangi Sorowako Education Foundation SLB can extend eye contact.
Conclusion

To answer the research questions posed and based on the research findings as stated in the previous section, it can be said that: (1) According to the research findings at baseline 1 (A1), the eye contact ability of autistic students in grade IV SD at the Taman Pelangi Sorowako Education Foundation SLB was previously given very poor treatment/training in dead contact; (2) According to the findings of the analysis on the intervention condition (B), autistic students in class IV SD at the Taman Pelangi Sorowako Education Foundation SLB experienced an increase in the ability to make eye contact when receiving therapy to a high category; (3) The ability to make eye contact in grade IV elementary school autistic children at Taman Pelangi Sorowako Education Foundation SLB increased after receiving treatment in the sufficient category (seen at baseline 2/A2).

Improving eye contact ability Improving the ability of autistic students in grade IV SD SLB Taman Pelangi Sorowako Educational Foundation to make eye contact based on the results between conditions, specifically in the baseline conditions where the treatment was given, the ability to make eye contact ranged from very low to high categories, in the intervention conditions where it was given treatment, and in treatment conditions where the ability to make eye contact after being given t (baseline 1)

Acknowledgments
The author would like to thank my supervisor who has guided me, helped, and provided suggestions for improvement.

Author Contributions
The author is involved in the overall making of this article

Funding
This research received no external funding.

Conflicts of Interest
The authors declare no conflict of interest.

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