

Developing School-Based Social Skills Intervention Guideline for ADHD Children

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Abstract: Social skills are still a serious problem for children with ADHD in dealing with others. Recently, we found some reports showing that school-based interventions were successful in overcoming social skills problems in children with Autistic Spectrum Disorder. In this study, we develop a school-based social skills intervention for children with ADHD in inclusive primary schools. We developed a guideline about it that was validated by experts (media, materials, language, and ADHD expert) and practitioners (homeroom teachers, shadow teachers, and subject teachers). The procedure in this developmental research uses a 4D model (Thiagarajan, Semmel & Semmel, 1974) with the following stages: 1) Define, to determine the components of school-based social skills intervention for ADHD children; 2) Design, to prepare the design of the intervention to be applied and the format of the guideline; 3) Develop, to develop a product in the form of a school-based social skills intervention guideline while testing the feasibility of the product and drawing conclusions; and 4) Disseminate, to disseminate the product by publishing an article. The results showed that the product got an average score of 3.29 by media experts in the good category, an average score of 3.30 by material experts in the good category, a score of 3.46 by the linguists in the very good category, and an average score of 2.94 in the good category. Meanwhile, according to practitioners of 20 people, the product got an average score of 3.14 in the display aspect in the good category, an average score of 3.27 in presenting material aspect in the good category, and an average score of 3.20 in the benefit aspect in the good category. Based on the results of the validity test by experts and practitioners, the product of this school-based social skills intervention guideline for ADHD children in inclusive primary schools is feasible to be further tested in the field with several revisions.

Keywords: School-based intervention, children with ADHD, social skills, inclusive school

1. INTRODUCTION

ADHD or Attention Deficit Hyperactivity Disorder is a condition where a student has the characteristics of lack of concentration, hyperactivity, and impulsivity, so that it can cause obstacles in various aspects of their lives (Baihaqi & Sugiartin, 2006: 2), such as emotional, academic, behavioral, social, even health (Yusuf et al., 2018: 8). Students with ADHD have poor social interaction and friendship skills (Preston et al., 2009), are less able to read other people's emotional expressions (Jusyte, Gulewitsch, & Schonenberg, 2017), difficulties in peer functioning, and peer social skill status (Kok et al., 2016).

At school, ADHD children often experience problems with their peers in the form of peer rejection or peer dislike (Roy et al., 2014), and even bullying (Kok et al., 2016). Peer rejection is rejection by peers who have a tendency to be attracted to deviant groups of children (Lansford et al., 2014), have disruptive and selfish behavior (Putallaz & Wasserman in Desmita, 2010), impulsive and aggressive (Ormord, 2011), shy (Kumiawati, Endang, & Astuti, 2016), and have problems

with academic grades (Papalia, Old, & Feldman, 2008). While bullying means assault by peers with disproportionate strength, so that the perpetrator is coherently involved in ill-treatment or harassment of the victim (Monks & Smith, 2006).

In some cases, ADHD children can be victims or perpetrators of bullying (Unnever & Cornell, 2003; Taylor et al., 2010; Reinhardt & Reinhardt, 2013), which is caused by a lack of social skills and self-control. In addition to friendship problems, ADHD children also experience academic problems in the educational environment. Many ADHD children are identified as experiencing slow cognitive tempo (SCT), especially in the inattentive type (Marshall et al., 2014; Tamm et al., 2016), they tend to have more severe learning disorders than ordinary students (Hoseinifar et al., 2011). These children's academic achievement tends to be less than optimal, their commitment to assignments is poor, and their school performance is poor as well.

The characteristics of students with ADHD make it so that they need interventions to improve social skills that are carried out continuously in their natural environment, namely the school environment. However, based on the results of the

researcher's interviews with homeroom teachers and special education teachers at one of the inclusive schools in Surakarta City, some of the ADHD students in that school are of the inattentive type. These ADHD children have social problems in the form of difficulty building friendly relationships with peers, not being able to follow the rules in games with peers, and getting bullied by peers in the form of shoving, stamping on feet, and not being allowed to join when playing in groups. To overcome the problems experienced by ADHD children, homeroom teachers and special education teachers still use conventional methods, namely by keeping children away from the source of the problem (from peers who reject or bully). In fact, the purpose of these ADHD children attending inclusive schools is so that they can learn to socialize, learn to build friendships with peers, so that later they can adjust to the community environment in general. So it can be concluded that the way of managing ADHD children in inclusive schools is not appropriate and does not accommodate the needs of these children.

2. METHOD

Research Context: This research is a developmental research that aims to produce a new product (Sukmadinata, 2006). The product of this research is a guideline for school-based social skills intervention for ADHD children. To develop the product, the author uses the 4D development model developed by Thiagarajan, Semmel, and Semmel (1974). This development model by Thiagarajan, Semmel, and Semmel (1974) was created to develop alternative teaching for special education teachers. Therefore, this development model is considered appropriate for the development of the social skills intervention guideline for ADHD children.

Measurement: The guideline that has been developed are then tested for feasibility by an expert judgment consisting of two media experts, two linguists, two material experts, and two experts in managing ADHD children. Then the guideline will also be assessed for the aspects of display, presentation of material, and benefits by 20 practitioners consisting of homeroom teachers, shadow teachers, and subject teachers.

Research Procedure: The procedure in developing the intervention guideline begins with Define, namely: 1) initial analysis; 2) student analysis; 3) task analysis; 4) concept analysis; and 5) goal specification. Followed by Design stage, which consists of: 1) compiling a social skills assessment instrument; 2) selecting intervention strategies; 3) choosing the intervention guideline format; and 4) producing a school-based social skills intervention model. The next stage is Develop, which consists of: 1) feasibility test by expert validators on the intervention guideline; 2) assessment by practitioners; and 3) drawing conclusions. The last stage is Disseminate, by publishing an article.

Data analysis techniques: The data from the expert judgment and practitioner assessment of the intervention guideline were then analyzed using the calculation of the average score of all aspects assessed using the following formula (Eko, 2009):

$$\bar{X} = \frac{\sum x}{n}$$

Key:

\bar{X} = Average score of all aspects

$\sum x$ = Total score of all aspects

n = The number of questions

Then the average score of all aspects is converted into qualitative values according to the assessment criteria in the following table:

TABLE 1. INTERVENTION GUIDELINE ASSESSMENT CRITERIA

| No | Formula | Score Interval | Category |
|----|--|----------------------|-----------|
| 1 | $(\bar{X}_i + 1.8 \times SB_i) < X$ | $3.40 < X$ | Very Good |
| 2 | $(\bar{X}_i + 0.6 \times SB_i) < X \leq (\bar{X}_i + 1.8 \times SB_i)$ | $2.80 < X \leq 3.40$ | Good |
| 3 | $(\bar{X}_i - 0.6 \times SB_i) < X \leq (\bar{X}_i + 0.6 \times SB_i)$ | $2.20 < X \leq 2.80$ | Fair |
| 4 | $(\bar{X}_i - 1.8 \times SB_i) < X \leq (\bar{X}_i - 0.6 \times SB_i)$ | $1.60 < X \leq 2.20$ | Poor |
| 5 | $X \leq (\bar{X}_i - 1.8 \times SB_i)$ | $X \leq 1.60$ | Very Poor |

Where

$$\bar{X}_i = \left(\frac{1}{2}\right) (\text{ideal maximum score} + \text{ideal minimum score})$$

$$SB_i = \left(\frac{1}{6}\right) (\text{ideal maximum score} - \text{ideal minimum score})$$

Key:

X = Empirical score

\bar{X}_i = Ideal average

SB_i = Ideal Standard Deviation

Ideal maximum score = 4

Ideal minimum score = 1

3. RESULTS

The development of the intervention guideline in this study used a 4D model by Thiagarajan, Semmel, and Semmel (1974) with 4 stages, namely Define, Design, Develop, and Disseminate.

Define

In the Define stage there are 5 phases, which are: 1) initial analysis: ADHD children have friendship problems in inclusive schools; 2) student analysis: the characteristics of ADHD children (inattentive and hyperactive-impulsive) lead to a lack of social skills; 3) task analysis: 25 basic social skills that must be mastered by ADHD children, according to Gresham and Elliott (1990); 4) concept analysis: the concept of school-based social skills intervention will be integrated with teaching and learning activities in the classroom; and 5) goal specification: developing a school-based social skills intervention guideline for ADHD children.

Design

In the Design stage there are 4 phases, which are: 1) the social skills assessment scale of ADHD children; 2) 3 selected intervention strategies, including behavior modification, group activities, and peer tutoring; 3) the intervention guideline format; and 4) a draft model of a school-based social skills intervention guideline for ADHD children.

Develop

In the Develop stage there are 3 phases, which are: 1) conducting a feasibility test by the linguists, material experts, media experts, and experts in managing ADHD children; 2)

making an assessment on the aspect of display, presentation of the material, and benefits is carried out by practitioners; and 3) drawing conclusions and improving the guideline.

Disseminate

The Disseminate stage is carried out by presenting the journal at national/international seminars, as well as through the publication of scientific journals.

Expert Validator Feasibility Test Results Data

The data from the feasibility test were carried out by the linguists, material experts, media experts, and experts in managing ADHD children. The linguists who assessed this guideline were two lecturers with an expertise in the field of language. The material experts and the experts in managing ADHD children who assessed this guideline were four lecturers in the field of Special Education. The media experts who assessed this guideline were two lecturers in the field of Educational Technology.

The following is the average result of the intervention guideline feasibility test by the linguists in Figure 1.

Based on Figure 1, the intervention guideline got a score of 46 from linguist 1 and a score of 44 from linguist 2. The average scores obtained from expert 1 and expert 2 were 3.54 and 3.38, so the final score is 3.46. Referring to Table 1, it is evident that the intervention guideline is in the very good category.

Furthermore, data analysis of the results of the material expert's feasibility test can be seen in Figure 2 below.

Based on Figure 2, the intervention guideline got a score of 105 from material expert 1 and 93 from material expert 2. The average scores obtained from expert 1 and expert 2 were 3.50 and 3.10, so the final score is 3.30. Referring to Table 1, it is evident that the intervention guideline is in the good category.

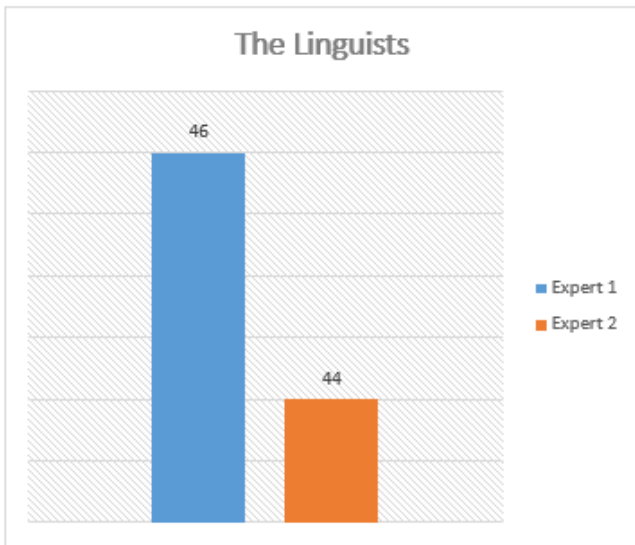


Fig. 1. The results of the feasibility test by the linguists

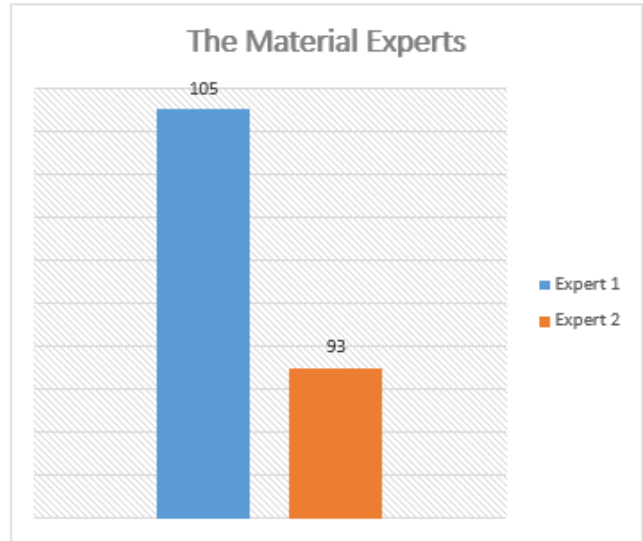


Fig. 2. The results of the feasibility test by material experts In Figure 3, it is evident that media expert 1 gave a score of 107 with an average score of 3.45, and media expert 2 gave a score of 97 with an average score of 3.13. The average score of media expert 1 and 2 was 3.29. So according to the media experts' feasibility test, this intervention guideline is in the good category.

Figure 4 shows the results of the feasibility test conducted by the experts in managing ADHD children. According to Figure 4, ADHD management expert 1 gave a score of 25 with an average score of 2.78, while ADHD management expert 2 gave a score of 28 with an average score of 3.11. The average score of the two ADHD management experts was 2.94 in the good category.

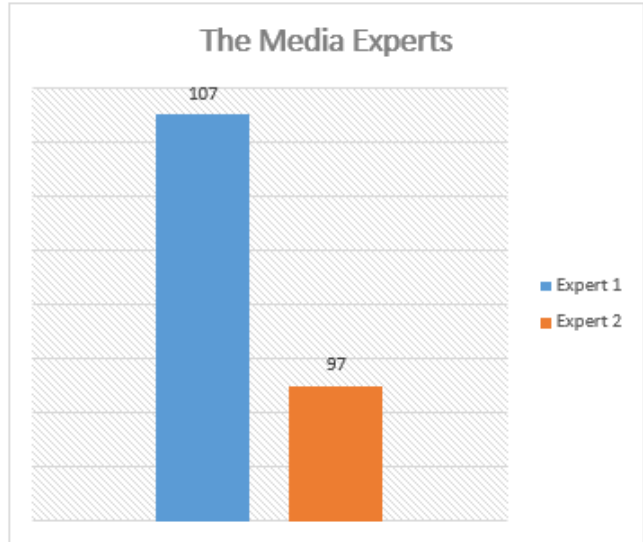


Fig. 3. The results of the feasibility test by the media experts

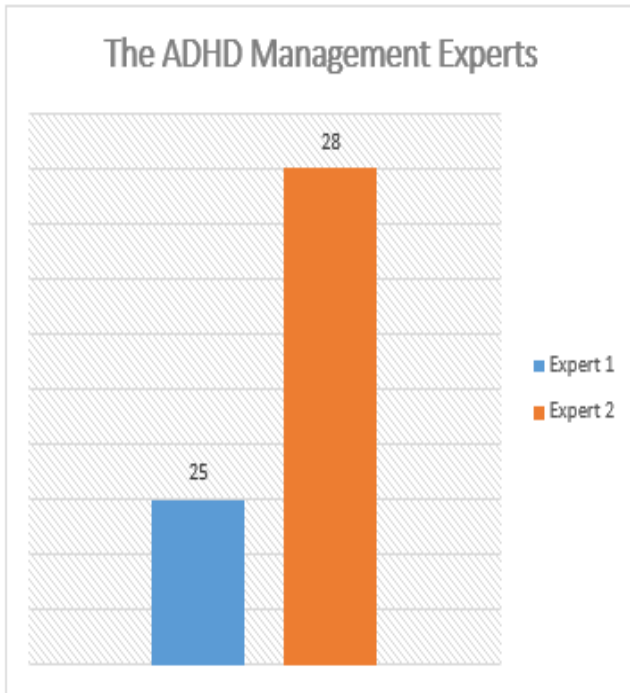


Fig. 4. The results of the feasibility test by the ADHD management experts

Practitioner Assessment Results Data

Assessment data by practitioners were obtained from 20 people consisting of homeroom teachers, shadow teachers, and subject teachers. Each teacher assessed the intervention guideline from the aspect of display, material presentation, and benefits. Practitioners who were asked to rate this intervention guideline came from Al Firdaus Primary School, Surakarta. The following are the results of the practitioner's assessment presented in Figure 5.

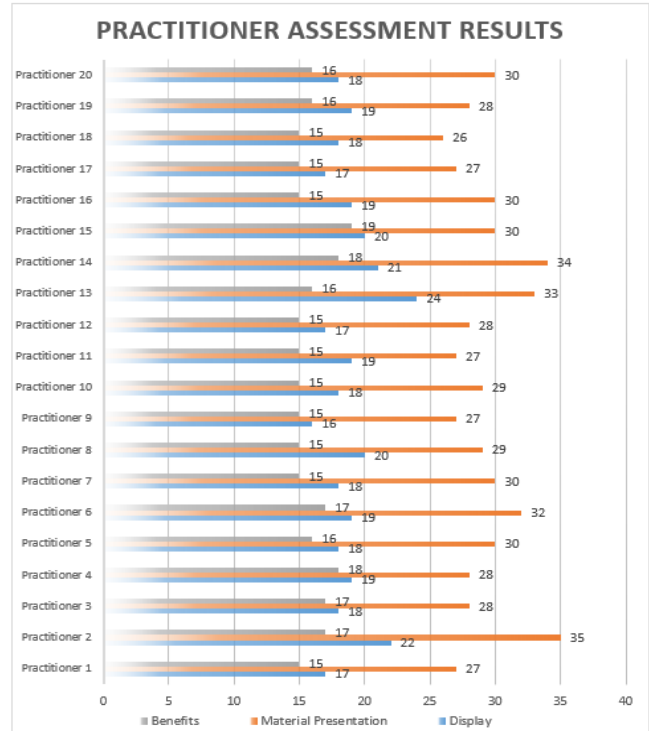


Fig. 5. Practitioner Assessment Results

In Figure 5, it is evident that the display aspect of the intervention guideline got the lowest score of 16 and the highest score of 24 out of a maximum score of 24. The aspect of presenting the intervention guideline material got the lowest score of 26 and the highest score of 35 out of a maximum score of 36. Whereas on the benefit aspect, the intervention guideline got the lowest score of 15 and the highest score of 19 out of a maximum score of 19. The average score obtained in the display aspect was 3.14 in the good category, the material presentation aspect was 3.27 in the good category, and the benefit aspect was 3.40 in the good category.

4. DISCUSSION

This intervention guideline has met the eligibility requirements from the aspects of language feasibility, material feasibility, media feasibility, and the feasibility of managing ADHD children. The results of the feasibility test show that this guideline for the social skills intervention of ADHD children is suitable to be used on account of being in the good category.

Moreover, the intervention guideline has also met the assessment by practitioners in aspects of display, presentation of material, and benefits. The results of the assessment show that the three aspects in this intervention guideline are in the good category.

This school-based social skills intervention guideline for ADHD children applies intervention sessions that are integrated with learning activities. Therefore, the process involves all components in the school, such as teachers, peers, learning materials, break times, and so on. This is in accordance with the principle of school-based social skills

intervention which consists of 1) intervention planning must be balanced; 2) involvement of supporting components; 3) the intervention plan must be based on the initial assessment; 4) evaluation and modification must be based on data (DuPaul & Weyandt, 2006).

Basically, social skills intervention can be taught directly to ADHD children in therapy sessions conducted by psychologists. However, social skills intervention will be more significant for ADHD children if it is carried out at school, because school is the most natural social environment for ADHD children to interact with their peers, and there are professionals who can direct the intervention process such as teachers, therapists, and psychologists (Bellini et al., 2007). In addition, the social skills intervention carried out in schools has the aim of increasing the academic ability of ADHD children, considering that children's academic abilities are closely related to their social skills (Welsh et al., 2001).

In this intervention guideline, there are several strategies in implementing the intervention. The strategy used in this school-based social skills intervention guideline is in

accordance with the characteristics of ADHD children, namely through behavior modification, group activities, and peer tutoring. Behavior modification can improve the social skills of children with ADHD, because social skills are behaviors that can be learned (Cartledge & Milburn, 1995). Some behavior modification techniques that can improve social skills include behavioral contracts, modeling, punishment, reinforcement, relaxation, shaping, time-out, and tokens (Mutiah, 2016).

Group activities are also used in this guideline to school-based social skills intervention for ADHD children. Armstrong (1999) suggests class meetings and engineering positive opportunities for ADHD children to develop social skills by involving their classmates. Additionally, the strategy used in this intervention guideline is peer tutoring. This is because peers can be someone who is able to give behavioral cues that are appropriate to show or not in certain social situations (Rapoport, 2009).

In the school-based social skills intervention guideline, there are illustrations that are appropriate and explain the subject matter. In addition, there are also examples of intervention steps that can be applied and adapted by teachers according to school situations and conditions. These intervention steps have been adapted to the Core Competencies and Basic Competencies used in primary schools at the present time.

5. CONCLUSION

The development of a school-based social skills intervention guideline for ADHD students was carried out using a 4D model developed by Thiagarajan, Semmel, and Semmel (1974) with the Define, Design, Develop, and Disseminate stages.

The intervention guideline that has been developed was tested for feasibility by expert judgment, consisting of the linguists, material experts, media experts, and experts in managing ADHD children. Moreover, this intervention guideline was also assessed for the aspects of display, presentation of material, and benefits by 20 practitioners consisting of homeroom teachers, shadow teachers, and subject teachers. The results of the validation by two media experts was in the good category with an average score of 3.29. The results of the feasibility test by two material experts obtained an average score of 3.30 in the good category. The results of the feasibility test by two linguists got an average score of 3.46 in the very good category. The results of the feasibility test by the ADHD management experts got a score of 2.94 in the good category. Meanwhile, according to the assessment of prospective users, from the aspect of display, presentation, and benefits, the average score was 3.21 in the good category.

However, this study still has a weakness, namely the absence of a direct test of the effectiveness of the intervention guideline in schools. This is because this research was conducted during the Covid-19 pandemic.

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