**Applied Behavior Analysis Approach**  
**In The 2013 Curriculum**

Didin Sahidin\(^1\), Ari Kartini\(^2\), Umi Kulsum\(^3\), Deasy Aditya Damayanti\(^4\)  
{Didinsahidin@institutpendidikan.ac.id\(^1\), arikartini@institutpendidikan.ac.id\(^2\)  
umikulsum@institutpendidikan.ac.id\(^3\), deasyaditya@institutpendidikan.ac.id\(^4\)}

Institut Pendidikan Indonesia, Jl. Terusan Pahlawan No.83, Garut 44151\(^1,2,3,4\)

**Abstract.** The 2013 curriculum emphasises the need to use the scientific approach in the learning process so that experts say that the scientific approach is a distinctive feature of the 2013 curriculum. However, what needs to be considered is that the homogeneity of students needs to be considered in designing the learning process. The Scientific Approach is only able to help students to improve their cognitive, affective, and psychomotor abilities, but students who experience multifactorial disorders cannot be overcome using the scientific approach. The ABA approach (Applied Behavior Analysis) can be regarded as an alternative approach in dealing with students who experience multifactorial disorders. This ABA approach is one of the ways that has been applied in the handling of grade IV elementary school students who experience selective mutism disorders with maximum results. Therefore, the ABA approach is recommended to be applied in the 2013 curriculum learning process specifically to help students who experience multifactorial disorders.

**Keywords:** Applied Behavior Analysis Approach, Scientific Approach, The 2013 Curriculum.

1 **Introduction**

The 2013 curriculum is a curriculum that is currently used as a substitute for the KTSP curriculum. The 2013 curriculum change policy is based on internal and external challenges faced by the Indonesian people in order to prepare a generation that is productive, creative, innovative and effective, perfects the various deficiencies that exist in the previous curriculum, and is prepared by developing and strengthening attitudes, knowledge, and skills balanced [1]. Therefore, the implementation of the 2013 curriculum requires a paradigm shift in learning from conventional learning that is only done in the classroom, into learning that can activate students by utilizing learning resources outside the classroom [2]. This must be done so that the achievement of the educational goals as well as the 2013 semester can be achieved. It should be realized, that the mindset, circumstances, and conditions of students are homogeneous. That is, a good approach is needed in the application of the 2013 curriculum especially related to the personality of students. One of the problems that occur is that students experience selective mutism. Selective mutism is a psychological and behavioural disorder as a childhood disorder that is rarely encountered under normal conditions. Abnormalities that occur are a lack of speech or refusal to speak socially [3]. Mutism children will selectively experience anxiety not organized by a consistent failure to speak on a particular social basis, for example (at home, at school, or in a community environment) resulting in a significant decrease in academic or social achievement [4].
Based on the above case, of course, it must be reviewed again in the application of the 2013 curriculum. The results of previous studies explained that changes in the 2013 curriculum policy relate to the four most basic elements, namely the Graduate Competency Standards (SKL), Content Standards (SI), Process Standards, and Assessment Standards. Meanwhile, in the 2013 curriculum policy change, the learning system has an impact on four things, namely thematic-integrative learning model, scientific approach, active strategy, and authentic assessment of change [1]. The results of other studies explained that the implementation of the 2013 curriculum demanded that the activities of teachers in learning must train and guide students to think critically and creatively in solving problems, organise collaboration in study groups, train students to communicate using graphs, diagrams, schemes, and variables, and expected throughout. The work results are presented in front of the class to find various concepts, the results of problem solving, rules and principles found through the learning process [6].

The Scientific approach is good to use in implementing the 2013 curriculum. However, the scientific approach only emphasises the learning process, even though a teacher must also be able to help the problems that occur in students especially about psychology and personality that influence student achievement. The Applied Behavior Analysis (ABA) approach is an alternative approach that done in carrying out classroom learning in collaboration with a competitive approach, especially for students who experience personal problems in learning. The principles and procedures in Applied Behavior Analysis (ABA) have been used to treat a variety of social problems such as academic delays and addiction [7]. ABA has defined as the application of approaches, methods, procedures, and techniques derived from experimental behavioural analysis (EAB) in various clinical and social institutions. The main assumption explains that the consequence functions of environmental variables can be used to produce behaviour changes [8]. Therefore, the Applied Behavior Analysis (ABA) approach can be said to be suitable for use in implementing the 2013 curriculum.

2 Material and methods

This research was conducted by observing the conditions of students in carrying out the learning process. Also, there are studies and literature studies on the 2013 curriculum.

2.1 Implementation of the Scientific Approach in the 2013 Curriculum

Changes in a curriculum that continue to fade are intended to keep up with the flow of times. Of course, this change in curriculum affects all people, especially in the world of education. Curriculum changes in 2013 in the learning system were one of them regarding the approach used. In the 2013 curriculum, the approach used is a scientific approach. Learning with a scientific approach is learning that is done so students can actively develop concepts, laws, or principles through the stages of observing (identifying or finding problems), formulating problems, submitting or formulating hypotheses, collecting data with various techniques, analyzing data, drawing conclusions and communicating concepts, laws, or principles that are “discovered” [9].

2.2 Procedure for Applied Behavior Analysis
ABA comes from the theory of Operant Conditioning Ivan Pavlov, a Russian psychologist and the theory of E.L. Classical Conditioning. Thorndike: The ABA approach aims to teach certain skills and concepts until students understand. In line with the purpose of the approach, the basic goal of therapy is to slowly move the brain's brain nerves to be able to think critically and react in the same way as other children [10]. ABA refers to a treatment approach that: (a) is implemented systematically following the principles of applied behaviour analysis; (b) applied as early as possible in a child's life. (c) usually done one-to-one before the generalisation procedure used; (d) are individual, comprehensive, and target a large number of skills; (e) combining targeted skills following hierarchies based on distinctive development; and (f) used in conjunction with parental education services [11].

The ABA approach has applied in dealing with selective mutism students through table top activities and parenting refreshing techniques. Implementation of the treatment more clearly can be seen in figure 1. Table top activities were activities that carried out by (1) children sitting in chairs facing the teacher (2) teaching materials placed on the table, (3) media delivering material in the form of visual cards because children have difficulty auditory messages, (4) practice consistently because to achieve success cannot instant, it takes hard work and extra patience so that children show significant progress [12]. Whereas, the ABA approach with the technique of parenting refreshing is a technique to play with the aim that students feel comfortable and happy. Playing is an important activity for the growth and development of physical, social, emotional, intellectual, and spiritual elementary school children. By playing children can get to know the environment, interact, and develop emotions and imagination well [13].

Fig. 1. Treatment flow through the ABA approach

3 Result and Discussion

3.1 ABA Approach Trough Table Top Activities Technique
Results obtained from treatment The Table Top Activities technique for selective mutism students is in three phases. First, he just sat and quite while enjoying his drawing activities. Second, he began to try to take out one or two words even if only in a whisper and full of tension. The third phase starts to sound directly even though only a few words were expressed from the question. All of the phases shown in figure 2 below.

Fig 2. Treatment result in using Table Top Activities Technique

3.2 ABA Approach Trough Refreshing Technique

The second technique used in the ABA approach is a refreshing technique. This treatment is carried out to foster closeness and increase the self-confidence of selective mutism students in the outside environment. The treatment performed is illustrated below.

Fig. 3. The results of the treatment of Refreshing Parenting Technique

The results obtained after carrying out the second treatment with the Applied Behavior Analysis (ABA) approach through the refreshing technique obtained changes from the speaking aspect. These selective mutism students begin to speak up in class loudly and confidently. The problems that occur are not in the language mastery factor but in the factors of trauma and fear, so students of mutism do not feel stiff and have difficulty choosing vocabulary to speak. Confidence began to appear on his face when interacting in front of the audience.

3.3 Learning-Based ABA Approach and Scientific Approach

The learning process to achieve the 2013 curriculum goals is not only concerned with the state of the students who are psychologically and mentally normal. In school, there must be
students who experience other multifactorial disorders even though they are physically and mentally good.

In the 2013 curriculum, the scientific approach only emphasises the learning process of cognitive, affective, and psychomotor aspects. Meanwhile, to deal with students who have multifactorial problems, another approach that is more suitable for use is needed. Therefore, a collaboration between the scientific approach and the ABA approach will help resolve problems for students who experience multifactorial problems. Below is step in the learning process in the form of collaboration between the ABA approach and Scientific approach.

**Table 1. Learning Process by using Collaboration between ABA and Scientific Approaches**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>ABA Approach</th>
<th>Scientific Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Students are placed in front of the teacher as comfortably as possible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>Providing learning media that makes students comfortable (colouring, drawing, or stick pictures)</td>
<td>ABA Approach</td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td>The teacher slowly motivates while speaking</td>
<td>ABA Approach</td>
<td></td>
</tr>
<tr>
<td>Step 4</td>
<td>Inviting students outside to make the environment a learning medium</td>
<td>ABA Approach</td>
<td></td>
</tr>
<tr>
<td>Step 5</td>
<td>Students are invited to observe and write down what they see, hear, and feel.</td>
<td>ABA Approach</td>
<td></td>
</tr>
<tr>
<td>Step 6</td>
<td>The teacher invites students to communicate and motivate slowly.</td>
<td>ABA Approach</td>
<td></td>
</tr>
<tr>
<td>Step 7</td>
<td>Students are accompanied to make creative work slowly</td>
<td>ABA Approach</td>
<td></td>
</tr>
<tr>
<td>Step 8</td>
<td>Students are invited to speak or write their work.</td>
<td>ABA Approach</td>
<td></td>
</tr>
<tr>
<td>Step 9</td>
<td>The teacher gives praise for the work of students</td>
<td>ABA Approach</td>
<td></td>
</tr>
<tr>
<td>Step 10</td>
<td>The teacher continues to approach personally repeatedly</td>
<td>ABA Approach</td>
<td></td>
</tr>
</tbody>
</table>

4 Conclusion

The collaboration of Scientific approach and Applied Behavior Analysis (ABA) approach will provide opportunities for achieving goals in the 2013 curriculum learning. The form of collaboration between the two approaches is done to help students who experience multifactorial disorders in following the learning process and academic achievement. The recommendations of the results of this study are expected to add the Applied Behavior Analysis (ABA) approach in the 2013 curriculum. The ABA approach must be made in particular learning to help students who experience multifactorial disorders.

4.1 Acknowledgment

Thank you to Garut Indonesian Education Institute for facilitating authors to publish this article.

References


